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Influences of the Use of Management Systems on the Moral Attitudes and Behaviours of Small and Medium Sized Enterprises – Measuring the Dynamic Interplay of Morality, Environment and Management Systems

Doctor of Philosophy

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Design, Development, Environment & Materials

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Abstract

The author designs a comprehensive model to characterise and optimise sustainable performance of small and medium sized enterprises SMEs – in the overall context of physical environment, society, economy and business. This model embraces issues of morality, management system, and environment and uses a corresponding measurement tool to discuss the interplay of these issues with the intention of leading SMEs to continuous improvement. For the design, issues of system thinking have been applied to cope with the complexity of the interplay of the elements.

The model and the measurement tool are tested by a longitudinal survey of 27 SMEs in Switzerland and Germany. An outstanding issue of this survey is the interviewing of people from different hierarchical levels and departments of the companies (total: 212 individuals); it provides a comprehensive view of companies' attitudes and behaviours. The survey illustrates that a standardised management system is not decisive for the implementation of an increasingly dynamic and circular system with intensive integration of people. The implementation merely depends on the (moral) attitudes and behaviours of owners or top managers and employees. But SMEs with standardised (especially environmental) management systems generally demonstrate more outcomes towards embedded morality, circularity and integration as well as effectiveness and sustainable performance.

Through the design and development of a comprehensive SME model and measuring tool, the author broadens the gap of narrowing SME research concerning optimised performance on individual issues and positions of individual companies to an overall context of society, economy, business and physical environment.

Keywords – Small and medium sized enterprises SMEs, sustainable performance, morality, management systems, (physical) environment, comprehensive view, system approach

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The discussions during a number of conferences with researchers from different countries brought additional issues lightening my research questions.

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May 2012 Jörg Bürgi

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Glossary[1]

Basel II	Second of the Basel Accords (international recommendations on banking laws and regulations)
Communitarianism	Philosophy emphasising the connection between the individual and the community
Conventionalism	Philosophy grounding fundamental principles on (explicit or implicit) agreements
Contractarianism	Moral theory concerning the content of moral norms
Constructionism	Philosophy seeing things and the world with human eyes
Corporate culture	Organisation's unique body of knowledge, nurtured over a long period of time resulting in commonly held assumptions, values, norms, paradigms and world views
Cosmopolitanism	Philosophy saying that all belong to a single community based on a shared morality
Critical rationalism	Assumption that there is no absolutely assured fundament of knowledge
Critical theory	Examination and critique of society aiming emancipatory effects
CSR	Corporate Social Responsibility – focus on impacts of corporations on stakeholders
Determinism	View saying that all events, including human action, are ultimately determined by causes regarded as external to the will. Radical determinism: human beings have no free will and cannot be held morally responsible for their actions.
Economism	Economics as the main factor in society, ignoring or reducing to simplistic economic terms other factors such as culture, nationality
Environment	Common use: the physical surroundings, including air, water, land, plants and wildlife

[1] The definitions are mainly adapted versions of specifications of literature, ISO standards, Oxford English Dictionary, Wikipedia, Stanford Encyclopaedia of Philosophy, Encyclopaedia Britannica.

	This research: ‘physical environment’ as a subsystem of ‘environment’ (everything surrounding the ‘system’)
Epistemology	Branch of philosophy concerned with the nature and scope (limitations) of knowledge
Ethnography	Research methodology often used in social sciences, originally part of historical science studying people, ethnic groups and other ethnic formations
Ethics	Philosophical reflection of morality and application of reason to elucidate specific rules and principles
Idealism	Belief in pursuance of ideals
Ideogram	Graphic symbol that represents an idea or concept
Idiographic approach	Research method relating to more singular cases (e.g. case studies)
ISO	(International Organization for Standardization – Geneva – www.iso.org): Global network identifying what International Standards are required by business, government and society, developing and delivering them to be implemented worldwide.
Libertarianism	Philosophy emphasising freedom, liberty, and voluntary association
Management	Responsibility for and control of the resources of a company, department, or other organization
Management system	Informally or formally grown elements of a company to guarantee and optimise activities over the long term
Metaphor	Figure of speech constructing an analogy between two terms
Mission	The description of why the organization exists
Model	Generic term that emphasising the abstraction from reality involved rather than the specific purpose for which the abstraction is made
Modernity	Historical period following the Middle Ages (loosely identified with the Progressive Era)

Morality	Concerned with norms, values, and beliefs embedded in social processes which define right and wrong for an individual or a community
Nominalism	Philosophy rejecting universals or abstract objects – only particular things exist.
Nomology	Branch of science and philosophy concerned with the laws or principles governing the operation of the mind
Nomothetic measures	Measures that are observed on a relatively large sample and have a more general outlook
OECD	Organisation for Economic Co-operation and Development OECD, joining governments of countries committed to democracy and the market economy
Philanthropy	Private initiatives for public good
Pre-modernity	Period in Western civilization that came after Ancient history and before Modernity
Positivism	Philosophical system recognising only that which can be scientifically verified or which is capable of logical or mathematical proof
Post-modernity	Economic and/or cultural state or condition of society which is said to exist after Modernity (end of 20th century – loosely identified with post-industrial, Information Age)
Quality	Derived from the Latin ‘qualitas’, translated by ‘fine, beautiful, noble, admirable, excellent’ (Sower 2005). Degree to which a set of inherent characteristics fulfils requirements (ISO 9000:2005) Market context: number of meanings such as a fulfilment of expectations, product/service excellence, position and fitness for purpose and management excellence (Petrick 2002).

	Activities correlating with the purpose of providing good value to customers (Stimson 2005a) and interested parties or stakeholders.
Reformism	Belief that gradual democratic changes can ultimately change a society's fundamental economic relations and political structures
SME	Small and Medium sized Enterprises/Companies – according to the European definition companies having less than 250 employees
Standard	Document, established by consensus and approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results
Standardised management system	
	Standardised and recognised requirements or guidelines aiming to optimise companies' attitudes, behaviours and outputs
Survey	Systematic collection and analysis of data relating to the attitudes, living conditions, opinions, etc., of a population, etc. taken from a representative sample of the latter
Syllogism	Kind of logical argument in which the conclusion is inferred from premises
System	Group, set, or aggregate of things, natural or artificial, forming a connected or complex whole
	Concepts and other constructs helping to describe and understand the complex realities of real-world situations
System thinking	Process of understanding how things influence one another within a whole (four most common research approaches to management: functionalist, interpretive, emancipatory, and postmodern system thinking)
TQM	Total Quality Management – sustainable truly integrated management system satisfying customer focus, process improvement and total involvement of all stakeholders

Universalism	Religious, theological, and philosophical concepts with universal application or applicability
Utopia	State of perfection which can never be totally achieved (e.g. Kingdom of God, communism)
Value	Something being important for an individual or group, often without defining whether it is morally or ethically ‘good’ or ‘bad’.
Venn diagram	(or set diagram): Diagram that shows all possible logical relations between a finite collection of sets
Vision	Description of desired state, i.e. what the organization wants to be and how it wants to be seen by its interested parties
Voluntarism	View saying that the human will is a fundamental or dominant factor in the individual or the universe

Abbreviations

BE	Business Ethics
BSC	Balanced Scorecard
CSH	Critical System Heuristics
CSR	Corporate Social Responsibility
EFQM	European Foundation of Quality Management
EFQM Model	European TQM model
e.g.	For example
EMS	Environmental Management Systems
etc.	Ed cetera
GEF	Global Ethics Forum, Geneva
i.e.	id est
ISO	International Organization for Standardization
ISO 9001	Quality management system – edited by ISO
ISO 14001	Environmental management system – edited by ISO
LSE	Large Scale Enterprises
MBQNA	Malcolm Baldrige Quality National Award – US TQM model
OECD	Organisation for Economic Co-operation and Development OECD
OHS	Occupational Health and Safety
Q I, Q II, Q III	Different levels of the Quality Program of Swiss Tourism Association
QMS	Quality Management System
R&D	Research and Development
SME	Small and Medium Sized Enterprises / Companies
SMOs	Small and Medium Sized Organisations

SSM	Soft System Methodology
SR	Social Responsibility
TNC	The TNC Group was established in 1973 to support and assist all organisations and businesses that extend credit.
TQM	Total Quality Management

1. Introduction

Small and medium sized enterprises/companies (hereafter referred to as SMEs) are essential players in world-wide society and economy. For years I have been often confronted with problems of SMEs – as beneficiary of their products and services, consultant, researcher, auditor of management systems, and lecturer; in 2008 I founded an own limited micro SME concentrating on sustainable provision of SMEs[2].

In this thesis, I design a model to characterise SMEs and provide for their sustainable performance – in the overall context of physical environment, society, economy and business. I design the model using system thinking to cope with the complexity of the interplay of these elements. Thereby I fill a gap my research has found in the literature characterising and describing SMEs by concentrating on what I have found to be the guiding elements of and within these companies, especially on the influence of their morality[3] and (standardised) management systems. The discussion of these guiding elements demonstrates the need for a model showing the dynamic of and within an SME providing performance and a corresponding measurement tool. The model and the tool allow detecting ways to increase the integration of people and stakeholders as well as continuous improvement.

The model and measurement tool were tested by a longitudinal survey of 27 SMEs in Germany and Switzerland. Due to the quite long period of the research and the survey, the methodology has been continually developed and adapted.

This Introductory chapter gives an outline of the research and formulates the research questions.

[2] KMU nachhaltig GmbH = SME sustainable Ltd.
[3] The definition of 'morality' applied in this thesis see1.2.3 Morality and ethics – morality and SMEs, p 29, and especially 2.4 Morality of and within SMEs, p 68.

1.1 Background to the research

Most economies are characterised by a huge number of SMEs (Fueglistaller 2-2002). In Europe they represent over 98 percent of companies, employ about two thirds of workforce, and generate a large share of new jobs (OECD 2005, 2004, 2000). SMEs are important economic and social organisms. However, their market share is relatively small compared with large companies, and their options are limited because of restricted resources. These features may explain why the economic and social importance of SMEs has not been explored to the same extent as large companies.

Like every organisation within the economy, SMEs share various objectives (Brändle 2009). These include making money, fulfilling the aims of individuals (financially, motivation, networking), providing employment, and discharging responsibility towards society and physical environment. Their size and manageable relations, in comparison to larger organisations, may give SMEs more transparent ways of decision making which allow them to behave more flexibly in changing market demands.

Questions to be answered include how SMEs manage to achieve the objectives mentioned above, and how they are steered within a changing environment. They will be examined in terms of elements such as leadership; culture, traditions; economical, social, physical environment; size; industry; use of (standardised) management systems; moral attitudes and behaviours of companies and people. Because many SMEs are owner-managed companies, their style of leadership may have specific characteristics. As the literature rarely distinguishes between steering of SMEs and entrepreneurial behaviour, this issue must also be examined.

I tried to answer this palette of questions on the background of my considerable experience with SMEs since the late eighties of the past century through consulting, research, auditing of management systems, and especially through benefiting from their products and services. Through my permanent discourse with ethics and morality – starting with the education in theology in the seventies – I developed additionally an increasing interest in Corporate Social Responsibility CSR and business ethics BE. For

several years, I have been an active member of three standard committees of the Swiss Standard association – NK 140 for quality management, NK 174 for environmental management, and NK 197 for social responsibility.

The interaction of my education and experiences challenges me to design research questions which combine three elements, ‘SMEs’, ‘morality’ ‘management systems’ and to discuss them within their common environment of a particular SME. This allows filling a gap in the literature by developing a model enabling SMEs to improve their sustainability.

The model explaining the relation and dynamic interplay of management systems and morality within the environment of an SME presents a method answering the research questions. Elements of system thinking sustain this development. The effectiveness of the model is examined by a corresponding measurement tool highlighting the performance of applying it to SMEs.

1.2 Main subjects reflected in the thesis

In this Introduction I identify a number of issues which help progress through the thesis and formulation of research questions. I define SMEs and their position in society and economy, reflect the distinction between ‘systems’, ‘models’ and ‘management systems and their use and the influence of ‘moral’ and ‘morality’.

1.2.1 Defining SMEs – position of SMEs in society and economy

Defining SMEs and the distinction between SME and entrepreneurship are needed before describing the position of SMEs in society and economy.

The size of a company can be defined in many ways, such as by the value of its annual sales or shipments, its annual gross or net revenue, the size of its assets or the number of its employees, by the ownership, or by the regional expansion etc.

Organisation for Economic Co-operation and Development (OECD 2000) defines SMEs

"as non-subsidiary, independent firms which employ fewer than a given number of employees" (2).

My thesis follows the European Commission's definition by only concentrating on the headcount (European Commission 2003/361). A micro company has less than ten employees, a small company less than fifty and a medium company less than two hundred and fifty (with headcount, annual turnover or balance sheet total – see Table 1.1)[4].

I do not use additional criteria of the Commission, turnover or balance sheet, because they differ between industries, and private companies are often restrictive in publishing their financial data.

In contrast to the definitions of OECD and the European Commission, my research also discusses subsidiaries as SMEs. I have included subsidiaries as, in my experience, I am familiar with a number of companies which are subsidiaries or part of a holding but act in an autonomous way in strategy, market orientation, decisions and finance.

Enterprise category	Headcount	Turnover	or	Balance sheet total
medium-sized	< 250	≤ € 50 million		≤ € 43 million
Small	< 50	≤ € 10 million		≤ € 10 million
Micro	< 10	≤ € 2 million		≤ € 2 million

Table 1.1: Definition of SMEs according to the European Commission (European Commission in 2003/361/EU)

Literature and research rarely distinguish between SMEs, entrepreneurship and owner-managed companies. SMEs are defined by their number of employees and / or by the extent of their turnover without specifying activities. European Communities (2003b) describe 'entrepreneurship' as

[4] In the former European Commission's definition of 1996 'Turnover' and 'Balance sheet total' were smaller; their size has been enlarged because of inflation and increased productivity.

> "... the mindset and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management, within a new or an existing organization" (6)

and use this definition to include large companies.

Entrepreneurship is considered as key to economic performance, in particular with respect to innovative change, playing an important structural and dynamic role in all economies (OECD 2005, 2004). Encouraging entrepreneurship is increasingly recognised by governments as an effective means of creating jobs, increasing productivity and competitiveness; and alleviating poverty and while achieving societal goals by assisting specific population groups.

Unlike in Europe, U.S. research often distinguishes small business and entrepreneurship: For the Americans Baucus and Cochran (2010) many SME owners are not entrepreneurs. They want to keep their company size, because expansion would require more supervision of employees. Their organisation would become more complex, forcing systems and procedures to effectively manage the operations – possibly accompanied by reduced flexibility and autonomy. This distinction are comparable to Duchrow's (2006) (Marxian) definitions of 'properties for use' (Gebrauchseigentum), aiming self-supply (including the needed investment goods), and 'properties for exchange / business' (Tauscheigentum), assisting markets and growth. SMEs would rather correlate with 'Gebrauchseigentum' and entrepreneurs with 'Tauscheigentum'.

SMEs are generally seen as the main motor of economic development regarding activities all over the world (European Communities 2003a). They are a fundamental pillar of world-wide welfare with indirect impact through taxation of their profits and wages, et cetera. In most countries they include more than 90% of all companies and employ more than half of the employees (statistics see: Fueglistaller 2011, 2007, OECD 2005).

The majority of SMEs are located in a specific neighbourhood and cannot move their activities as easily as large internationally operating companies. This often favours a firm's moral responsibility towards stakeholders such as employees, their families, the

neighbourhood and the local community as well as the physical environment (see Sneep 2007, Laeis 2005). Because of their size and manageable relations SMEs may have in comparison to larger organisations more transparent ways of decision making which allow them to behave more flexibly (Brändle 2009, OECD 2005).

Most SME jobs are in the service sector; this sector accounts for two thirds of economic activity and employment in OECD countries (OECD 2005, 2000). They also account for a high percentage of manufacturing firms in many OECD countries and provide at least half of OECD manufacturing employment.

1.2.2 Systems, models and management systems

As a basic methodology I employ system thinking approaches and differentiate between 'systems', 'models' and 'management systems'. Systems thinking distinguishes between 'thinking about systems' and 'systems thinking' as well as 'systems as representing real world entities' and 'systems as learning devices to inquire into real world entities' (details see 2.2, p 40 ff). A 'model' on the other hand is a generic term that emphasizes the abstraction from reality involved.

Because I got to know SMEs which have no formal policy, written objectives or specified procedures, I define 'management systems' as informally or formally grown elements of a company with the aim to guarantee and optimise long-term activities.

Management systems are (often internationally) standardised and recognised requirements or guidelines aiming to optimise companies' attitudes, behaviours and outputs[5]. Through literature review, research and especially in the course of personal experience, I identified gaps between contents, requirements and use of standardised management systems as ISO 9001 (ISO 2008) for quality and ISO 14001 (ISO 2004a) for 'physical' environment issues. It has to be investigated why users often only concentrate on shop floor processes and activities as well as on reliability. Standardised management

[5] Comprehensive standardised Total Quality Management (TQM) systems are often called 'models' as the European EFQM (European Foundation of Quality Management) or the U.S. MBNQA (Malcolm Baldrige National Quality Award).

systems contain, at least implicitly, moral aspects which often are not known or at least not implemented. There is also little knowledge about use and implementation of standardised management systems and especially of their effects on morality in SMEs. I have identified and attempted to highlight and discuss these gaps with this research.

1.2.3 Morality and ethics – morality and SMEs

Morality and ethics take an important place as guiding elements of and within companies. An increasing number of organisations worldwide are intensifying their social and environmental awareness and advocacy efforts, but up to now there is no unifying definition of ethics and business (Sanders 2008). And in daily use and also in research, morality and ethics often are not differentiated.

In my research I focus on ‘moral’ or ‘morality’ in connection with companies. Companies are communities which define ongoing rights, duties and behavioural norms, values and beliefs in their social processes. These issues are rarely defined and philosophically reflected in SMEs, so the broad use of ‘ethics’ may not be appropriate.

Corporate Social Responsibility CSR has become the mainstream expression for moral activities of companies. That is why supporting guidelines have been developed which have been brought together in a world-wide accepted ISO Standard ISO 26000 ‘Guidance on Social Responsibility’, published end 2010. In my opinion the definition in ISO 26000 (details see 2.4.3, p 78) is comprehensive and integrates human and physical environments as well as all stakeholders and internal elements of organisations. It thereby corresponds with the requirements of the SME model of my research which demonstrates the influence of morality, (standardised) management systems and environment on the sustainable performance of SMEs.

1.3 Justification of the research

In this thesis I aim to enlarge knowledge concerning a palette of effects on attitudes and behaviours of SMEs, their owners, culture and tradition, management and staff. I will do so by specially observing moral attitudes and behaviours, (standardised) management systems, differences between companies (size, industry, ownership, and country) as well as interrelated effects on and affects of the environment – and their influences on the sustainable performance of SMEs.

Few surveys, if any, simultaneously integrate staff from different departments and hierarchical levels of companies and measure chronological changes by longitudinal surveys, especially surveys of SMEs.

The review of academic journals and of conferences programs showed that there is substantial public knowledge concerning the three individual sciences yet relatively small public knowledge concerning interactions of the individual issues ('SMEs', 'business ethics' and 'management systems').

The 4th ISBEE (International Society of Business, Economy, and Ethics) Conference of July 2008 in Cape Town, South Africa, offered a specific plenary session concerning 'Global reporting on ethics in small and medium enterprises'. Representatives from all continents presented an outline of CSR research showing that there are few activities world-wide; even in the North this kind of research is marginal compared with that concerning large companies (details see Spence and Painter-Morland 2010).

Volery and Gundlof (2008) analysed SME research in three German Management Journals between 1997 and 2006[6]. Within the 112 articles, they examined, there was no explicit article concerning ethics or morality and management systems.

The annual report of the Institute for SMEs of the University St. Gallen (Fueglistaller 2007) mentions 41 PhD theses and MA dissertations (accepted or in process) concerning SMEs.

[6] Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung – ZfbF; Zeitschrift für Betriebswirtschaft – ZfB; et Zeitschrift für Klein- und Mittelunternehmen – ZfKE

No upper grade student of the SME Institute has been or is working on ‘SMEs, ethics/morality and standardised management systems’.

Within the ‘Recontres de St. Gall’ weeks (Alexandria 2005), exclusively invited researchers from all continents meet every two years, and have done so since 1947 to discuss issues concerning SMEs. ‘Rencontres de St. Gall’ is the oldest conference world-wide for SME research. The conferences of 2002, 2004 and 2006 reflected mainly ‘SMEs in specific regions/countries’ (23) and ‘SMEs and public regulations’ (13); only four (of the 101 presented papers) discussed ‘SMEs and social and environmental responsibility’ while none focussed on ‘SMEs and management systems’.

Hisrich and Drnovsek (2002) analysed 641 articles on entrepreneurship and small business in European countries published in 18 journals and three conference proceedings in the period from 1990 to 2000. The paper illustrates that entrepreneur and small business research in Europe is very broad, with a concentration on activities in the United Kingdom. Additionally they offer an overview on the history and actual situation of entrepreneurial education and research. The content analysis of titles shows that ‘ethics/morality’ are mentioned only twice (once as ‘trust’), ‘physical environment’ twice, ‘quality management’ once, and ‘quality’ four times (quality management, service quality, academic quality, labour factor quality). The reason for the small number of titles concerning ‘SMEs, ethics morality and standardised management systems’ may be related to the choice of journals/conferences (no journals/conferences concentrating on ethics or management systems were analysed) and to the main methodological selection criteria ‘business orientation’.

I also accessed www.scholar.google.com through the selection tool ‘advanced scholar search’ to examine the public knowledge of research, surveys and conferences concerning the interactions of the three individual sciences (‘SMEs’, ‘business ethics’ and ‘management systems’). The data demonstrated that ‘business ethics’ is often used interchangeably with ‘corporate social responsibility CSR’. The results often did not enclose all the selected issues, sometimes only one or two of them could be found (e.g.:

the data examine ‘systems thinking’ by ‘systems’; ‘complexity theory’ was reduced on ‘complexity’). Table 1.2 contains the final small selection ‘SMEs, ethics and ... [= ISO 9001 or ISO 14001 or standardised management system or EFQM or MBNQA or system thinking or cybernetics or complexity theory]’.

Subject	**Research**	**Survey**	**Conference**
SMEs, ethics - ISO 9001	87	73	65
SMEs, ethics - ISO 14001	219	173	160
SMEs, ethics - Standardised mgmt system	446	369	329
SMEs, ethics - Standardized mgmt system	401	319	279
SMEs, ethics - EFQM – European TQM-Model	51	37	38
SMEs, ethics - MBNQA – US TQM-Model	6	6	5
SMEs, ethics - System thinking	2,470	1,740	1,760
SMEs, ethics – Cybernetics	158	105	125
SMEs, ethics - Chaos theory	368	253	286
SMEs, ethics - Complexity theory	1,680	1,230	1,220

Table 1.2: www.scholar.google.com – combinations of “SMEs, ethics and …”
– accessed *8 May 2007*

36 documents concerning ‘SMEs, ethics and ISO 9001 / ISO 14001’ were selected from the sample www.scholar.google.ch . Of these 36 documents, only two examined all three elements ‘SMEs, ethics and ISO 9001 / ISO 14001’, two discussed ‘SMEs’ and ‘ethics’ comprehensively, eight speak about ‘SMEs’ and ‘environment’, two concern ‘SMEs’ and ‘ISO 9001 / ISO 14001’, and eight reflect on only one of the issues. The majority of them referenced literature reviews, while three based on surveys, and three on case studies.

The number of documents concerning ‘SMEs, ethics and system thinking / cybernetics / chaos theory / complexity theory’ is quite high; possibly this great number may be linked to the splitting of the expression into individual issues. A feedback of a researcher in ‘complexity theory’ (McMillan 2007) attests that there is little or no actual research concerning ‘complexity and SMEs’.

The results of the analysed research activities show that there are few research projects concerning SMEs and especially SMEs and ethics / morality and / or management systems and their interplay within the common environment as well as the influence of morality, management systems and environment on the sustainable performance of

SMEs. The analysis justifies my research with its design and testing of the SME model and measurement tool.

1.4 Definition of research questions

I tipped in this introduction into the design of my thesis the background of the research and the main subjects – the definition of SMEs and their position in society and economy; systems, models and management systems; and morality and SMEs. I also justified my research by examining world-wide research concerning SMEs, morality and (standardised) management systems as well as their interplay.

These introductive reflexions – and especially the large literature review (see Chapter 2) – allow the formulation of a number of research problems and questions to be answered. As a result of the literature review and the design of the SME model and its measurement tool corresponding hypotheses are deduced (see 4.2.3 / 4.3, p 174ff). The research questions enclose issues which are suggested in this prologue and are discussed later – SMEs, morality, (standardised) management systems and their relation to and dynamic interplay within their common environment as well as influences on SMEs' performance. Specifically:

1. What is typical for SMEs? What are the differences between SMEs and large companies?
2. What are the specific issues of morality for and within SMEs?
3. How are the guiding elements of and within SMEs characterised? Do they establish a company's management system – at least informally?
4. What are the attributes of standardised management systems? What are the differences between the standards? Which of these systems are applied in SMEs, and with what success?
5. What are the moral elements of standardised management systems? Which are used in SMEs, and to what success?

6. What encourages the prosperous implementation of standardised management systems? What hinders it? Which are used in SMEs, with what success?
7. How far do SMEs combine implementation and continuous improvement of standardised management systems with morality? What encourages and what hinders it?
8. What are the relations of SMEs to their environment? How do SMEs, morality and (standardised) management systems act in their common environment?
9. Can a model describe the relations and the dynamic interplay of SMEs, morality, (standardised) management systems and is able to explain comprehensively the complex attitudes and behaviours of SMEs? Which issue influences another issue and why? How can these influences be measured?

1.5 An outline of the thesis

After introducing the main elements and the justification of the thesis, research questions are defined (chapter 1). The reflection of the literature review provides a basis for the research and allows a first answering of research questions and enables gaps in the literature to be defined (chapter 2).

There is a wide public knowledge concerning the three individual topics (‘SMEs’ ‘CSR / business ethics’ and ‘standardised management systems’). However, there is relatively little knowledge concerning the interactions of the three individual components and their interplay within the common environment; reflexions concerning system theory allow managing this complexity of and within SMEs. The combining of these inputs of literature allows a first answering of the research questions and defining gaps.

Chapter 3 develops a research methodology to investigate the interplay of the influences of morality, management systems and environment on SMEs’ performance and to design a model and corresponding measurement tool demonstrating for the use of consultants and others in increasing sustainability.

The chapter looks for methods to answer the gaps and is the basis for designing the SME model and the method to plan, implement and analyse a longitudinal survey consisting of two interview rounds with 27 companies in two European countries (Germany and Switzerland). The long research period allows the use of abduction and action research as well as a parallel use of qualitative and quantitative methods.

In chapter 4, I discuss in Stage 1 the experiences and results of interview round 1; these allow designing the SME model using Soft System Methodology of Checkland and Howell (1998) and the measurement tool as well as defining hypotheses. The model focuses explicit on the influences of morality, management systems and environment on SMEs' sustainable performance. The hypotheses examine the intensity of the interplay between SMEs and the issues of their environment and the impacts of the use of management systems. Stage 2 analyses the results of interview round 2, compares them with round 1 and tests the SME model and measurement tool. Stage 3 finally confronts the results of the survey with other research and summaries the findings.

Chapter 5 explores the conclusions drawn by reflecting on and summarising the main results, responding to the research questions and hypotheses, illustrating impacts of the use of the SME model and the corresponding tool, defining gaps and further possibilities for research. This examination allows conclusions to be drawn, research questions and hypotheses to be answered, gaps to be identified and possible future research proposed.

Figure 1.1 shows an overview of the content of my research and the interplay of its chapters.

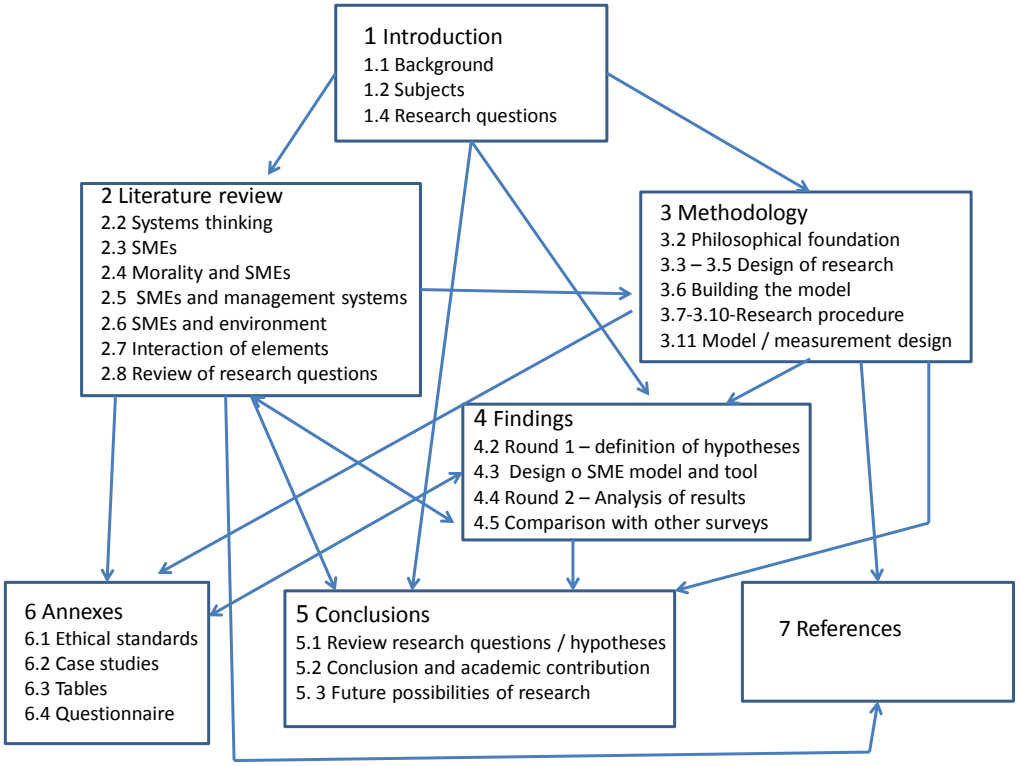


Figure 1.1: Content of research and interplay of chapters

1.6 Conclusion

Since my youth SMEs had an impact on my attitudes and behaviour. I grew up in a rural landscape in Central Switzerland. There was only one large company producing and repairing aircraft. People bought food, cloth and artisan products as well as the services they needed in the neighbourhood from local enterprises. The first large supermarket to open its doors in this area was not before the eighties of the past century. Since then in my work I have been concerned with SMEs through my consulting, research, auditing of management systems and reflecting on ethical problems of economy. On this background I founded my own company aiming to develop the sustainable performance of SMEs.

Especially I am concerned with questions as to how SMEs can survive in a globalised world typified by growing market pressures, and how they are managed within this changing environment. This was the motivation for my research.

This experience raised many questions. I try to answer these questions in my thesis by analysing elements such as leadership; culture, and traditions; economic, social, and physical environment; size; industry; use of (standardised) management systems; moral attitudes and behaviours of companies and people.

The investigation enabled the formulation of specific research questions. The answering of these research questions allows filling a gap in the literature by developing a model enabling SMEs to improve their sustainability. This model explains the relation and dynamic interplay of management systems and morality within the environment of an SME. Elements of system thinking and an appropriate methodology sustain this development. The effectiveness of the model is examined by a corresponding measurement tool highlighting the performance of applying it to SMEs.

With my SME model and the corresponding measurement tool I aim to optimise the internal situation of SMEs and their position with respect to the ongoing challenges of economy, society and physical environment.

2. Literature review

2.1 Introduction – purpose and flow of the chapter

In reviewing literature my aim is:

- To build a model relating a) management systems used in SME's, b) their moral attitudes and behaviours, and c) the environment, in order to understand the interplay of these factors.
- To supplement the model by a measurement tool.
- To ascertain the gaps in the literature.

Keeping in mind these aims, the chapter will review SMEs, their use of management systems, their moral attitudes and behaviours, environmental influences, as well as their interplay of these factors in a common environment.

Previous research concerning SMEs discusses these individual topics mono-disciplinary and unconnectedly. There is relatively little public knowledge concerning the interactions of the components. My research fills this gap of separate examinations by positioning SMEs in an overall context and using a transdisciplinary approach and designing a SME model. A model cannot be designed and/or comprehended without a minimal understanding of system thinking and system modelling, because system thinking opens the view to complex interrelations.

That is why this chapter starts with an introduction to systems thinking. This knowledge is also used within the presentation and analysis of literature concerning the individual subjects SMEs, morality and SMEs as well as (standardised) management systems and SMEs, and management systems and morality; the review terminates with the interaction of SMEs with their environment of economy, society and physical environment and an examination of the research questions.

2.2 System thinking – a basic insight

An introduction to system thinking is required for the understanding of the dynamic relations of different interrelated issues.

'System' is a term with different levels of use. Cabrera, Colosi and Lobdell (2008) make a distinction between 'thinking about systems' (e.g. accounting systems, personnel systems, ecosystems, health systems, legal systems, IT-systems, planetary systems, management systems, etc.) and 'systems thinking'. More formally, Reynolds and Holwell (2010) express the distinction in terms of the relative emphases of ontological traditions (systems as representing real world entities) and epistemological traditions (systems as learning devices to inquire into real world entities).

The definitions of 'systems' are as diverse as their use.

Familiar characterizations are offered by the basic standard of Quality Management ISO 9000:2005 defining system as a

> "set of interrelated or interacting elements" (8),

or by the American Society for Quality ASQ in their Quality Glossary (2007)

> "a group of interdependent processes and people that together perform a common mission" (57).

These familiar definitions have a very different content. The ISO version speaks of elements, usually interpreted as a thing, or object described by a noun and the definition; it has no reference to purpose and is therefore underlying positivist[7]. The ASQ version is in terms of process described by a verb and depends on mission; this dependency on mission or purpose defines a perspective or view.

For the domain of systems thinking, Ulrich, W. and Reynolds (2010) observe among contemporary systems practitioners a wide acknowledgement

> "that 'systems' are essentially conceptual constructs rather than real-world entities. Systems concepts and other constructs help us describe and understand

[7] Definition of positivism sees Glossary

> the complex realities of real-world situations, including natural, technical, social, psychological or any other aspects that might potentially or actually be relevant at any one time" (251).

Jackson (2000) enlists four core systems notions: First, all systems approaches are committed to holism and act as antidotes to the prevailing emphasis upon reductionism in many disciplines. Second, human beings inevitably organise their knowledge in 'cognitive systems'; cognitive systems are structured frameworks linking various elements of our knowledge into cohesive holes and expressing certain intellectual norms (as simplicity, regularity, conformity, comprehensiveness, unity, harmony, conformity, economy) that people have found useful in thinking about and acting in the world. Then, the systematising of predicting and controlling the real world suggests that the real world itself is orderly, and therefore a growing conformity between system-based theories and the real-world are needed. Finally, the diversity, range, effectiveness and efficiency of system approaches have to be in relation to real-world management.

2.2.1 History of system thinking

Systems approaches shape human history. Systems thinking in terms of promoting holistic views can be discovered in the ancient spiritual Eastern traditions, ancient Greek philosophy, as well as being prevalent through the oral traditions of many indigenous tribal spiritual traditions (Jackson 2000). The term 'systems' as recognised in contemporary usage was explicitly used first in eighteenth century European Enlightenment philosophy rooted in the works of Kant. Apart from Kant with his eagerness to push rational thought to the limit in order to free human beings from prejudice an illusion, other Western philosophers are characterised by systems thinking: Spinoza with his believe that the universe as whole consisted of a single substance, Hegel with his idea that separate things are only aspects of the whole 'The Absolute' whose appreciation can be approached through the 'dialectic' method, and Marx with his dialectic view of history.

A challenge for the dominant mechanistic Descartian-Newtonian world-view was the evolution theory in Darwin's 'The Origin of Species' with the world as an evolving, ever-changing place. New mathematical models to solve equations

> "relied on linear components or linear approximations if difficult non-linear equitations arose"

and

> "Einstein's work on relativity and his progress on quantum theory brought together and advanced the structure of physics" (McMillan 2004: 40).

Cybernetics in the 1940s and 1950s recognized the importance of both negative and positive feedback loops and the existence of both kinds of feedback everywhere at all levels of living systems is acknowledged (e.g. von Bertalanffy 1949, Wiener 1948). The emergence of new fields of microbiology and biochemistry and the first understandings of hereditary mechanisms and electrodynamics have been of decisive importance; especially the research of the two Chilean biologists Varela and Maturana (2004, 1997, and 1988) with their concept of 'autopoiesis' of living systems had an immense influence the further development of system thinking. According to Jackson (2000, p. 302-303) Capra's ecological sustainability is characterised by interdependence of all elements in a network of relationships; ecological processes have cyclical nature, the waste of one species is food for the other; and within the ecosystem co-operation and partnership are essential as each element contributes to the sustenance of the community. With sociologists system thinking entered into organisational theory; outstanding were Parsons's equilibrium functions theory (e.g. Parsons and Smelser 1956) and Luhmann's theories concerning organisation and society (e.g. 1998, 1990). Luhmann's reflections are influenced by reflections of Maturana ('autopoiesis' – see Maturana 2004), and are still determinant in organisational system thinking in German speaking countries[8].

[8] Under others, I experienced this example: in 2010 and 2011, master students from the facility management discipline at the University of Applied Studies Zurich work with a reader concerning system thinking only referencing Luhmann.

2.2.2 Development within the last decades

Since the nineties of the past century system thinking and the related research has intensively developed, especially for its employ in organisation and management. Jackson (2000) after reflecting on the social sciences defined four most common research approaches to management – functionalist, interpretive, emancipatory, and postmodern system thinking. Jackson, thereby, uses Burrell and Morgan's four paradigms for the analysis of social theory (1979). The four paradigms are constructed around different assumptions social scientists make about the nature of social science and about the nature of society. Objective assumptions characterise social reality as hard and external to the individual, and human behaviour is determined; according to subjective assumptions contrary social reality is more subjective and a product of individual or shared consciousness, as humans have a free will. The nature of society is either marked by regulation and therewith by means of basically consensual behaviours or by radical change and for that reason signed through contradictions and structural conflicts.

Burrell and Morgan presented the combination of the four paradigms of social theory in a matrix (Figure 2.1) which was used by Jackson as the basis for his types of system ideas. The functionalist social theory with objective and regulative items corresponds to the functionalist, the interpretive theory with subjective and consensual issues to the interpretive, the radical structuralism with objective and terms of radical change to the emancipatory, and the radical humanism with subjective and contradictory elements to the postmodern system approach.

SOCIOLOGY OF RADICAL CHANGE

SUBJECTIVE

Radical Humanism	Radical structuralism
Interpretive	Functionalist

OBJECTIVE

SOCIOLOGY OF REGULATION

Figure 2.1: Burrell and Morgan's four paradigms for the analysis of social theory

Jackson (2000) intensively discusses the four systems approaches by examining the different models of system ideas and their theoretical backgrounds; besides that he summarises the approaches according to a scheme allowing comparisons. I used Jackson's resumes to enlarge his basic table (Jackson 2000, p. 42). The expanded table (Table 2.1) is applied as one of the tools for the evaluation of different issues within my research (e.g. literature review in this chapter, design of SME model, analysis of findings).

Feature	Functionalist	Interpretive	Emancipatory	Postmodern
Basic goal	Demonstrate law-like relations among objects	Display unified culture	Unmask domination	Reclaim conflict
Method	Nomothetic science, positivist	Hermeneutics, ethnography	Cultural and ideological critique	Deconstruction genealogy
Hope	Efficiency, effectiveness, survival and adaptation	Recovery of integrative values	Reformation of social order	Claim a space for lost voices
Organization metaphor	Machine, organism, brain, flux and adaptation	Culture, political system	Psychic prison, instruments of domination	Carnival
Problems addressed	Inefficiency, disorder	Meaninglessness, illegitimacy	Domination consent	Marginalization, conflict suppression
Narrative style	Scientific/technical, strategic	Romantic embracing	Therapeutic, directive	Ironic, ambivalent
Time identity	Modern	Premodern	Late modern	Postmodern
Organizational benefits	Control, experience	Commitment, quality of life	Participation, expanded knowledge	Diversity, creativity
Mood	Optimistic	Friendly	Suspicious	Playful
Social fear	Disorder	Depersonalization	Authority	Totalization, normalization
Assumption	Real-world is systemic	Real-world is not systemic	Real-world may be systemic (alienating to oppressed)	Real-world with marginalized groups / individuals
Analysis	In system terms	Creative and not in system terms	Revealing disadvantage	Revealing marginalization
Models – aims	Gaining knowledge of the real-world	Representation of some possible "human activity systems"	Revealing sources of alienation and oppression, proposing alternatives	Diverse forms of pluralism to hear marginalized voices
Models – use	Best improvement of the real-world and for purposes of design	Interrogation of perceptions of the real world, structuring about feasible and desirable changes	Enlightening about alienated situation and developing ways to design alternatives	Diverse forms of pluralism integrate stakeholders with their diversity – possibly granting "consent to act"
Methods	Quantitative analysis – systems obey mathematical laws	Quantitative analysis only to clarify the implications of world views	Quantitative analysis to capture particular biases	Quantitative analysis only to clarify the process of deconstruction
Process of intervention – method	Systematic – to discover the best way to achieve goal	Systemic, never-ending – alleviating unease	Systemic – to improve the problem situation	Local strategizing and subversion, new knowledge
Process of intervention – approach	Basis of expert knowledge	Basis of stakeholder intervention	Alienated taking responsibility	Reclaiming conflict, encouraging diversity and creativity
Terms of testing solutions	Efficiency and efficacy	Effectiveness, elegance, ethics	Emancipation, ethics	Exception, emotion, ethics
Strength	Serving the technical interest in prediction and control of natural and social systems	People's perception, power of decision makers, values explicitly included	Identifying contradictions in systems	Prioritizing of the local, engaging in "local struggles"
Weaknesses	Difficult to use in social (subjective) and corresponding complex systems	Difficult to use in conflictive systems, possible superiority of knowledge	Partly theoretical, danger of historical and cultural determination	Lack of clear methodical guidance

Table 2.1: Features of four research approaches (adapted from Jackson 2000)

In a second table (Table 2.2), I allocate the main models of system thinking, described by Jackson, to the four system approaches; I use these tables for the design of my system model and tool, the evaluation of issues within my research and learning approaches within their application.

Feature	Functionalist	Interpretive	Emancipatory	Postmodern
Methodologies, schools, tools (main authors)	Classical cybernetics (Wiener) General systems theory (von Bertalanffy) Organizations-as-systems • Contingency theory • Socio-technical systems theory Hard systems thinking • Operational research OR (Churchman) • System analysis • Systems engineering (Hall) System dynamics Organizational cybernetics • Viable system model (Beer) Living systems theory Autopoiesis (Maturana, Varela, Luhmann) Complexity theory	Interactive management Social systems design SSM (Churchman) Strategic assumption surfacing and testing SAST (Mason, Mitroff) Social systems Science (Ackoff) Soft systems methodology SSM (Checkland) Soft systems thinking (Senge) Soft OR Soft System dynamics Soft cybernetics	Emancipation as liberation (basis: Kant, Hegel, Marx) • Critical OR • Critical system approach (Habermas) • Interpretive systemology • Critical pedagogy (Freire) • Moral Community (MacIntyre) • Ecological sustainability (Capra) Emancipation through discursive rationality (basis: Habermas) • Team syntegrity (Beer) • Critical system heuristics CSH (Ulrich) Emancipation through the oblique use of system methods	Philosophy (basis: Nietzsche, Heidegger) PANDA (Taket, White) Postmodern system methods

Table 2.2: Models, tools within the four research approaches (basing on Jackson 2000)

Jackson (2000) does not stall at the description of the four system approaches; he merely widens the view by reflecting contemporary system thinking and praxis. Contemporary system thinking is seen as a meta-methodology understanding, respecting and using the uniqueness of functionalist, interpretive, emancipatory and postmodern theoretical rationales, and drawing upon them to improve real-world situations. This meta-methodology makes use of a variety of creativity enhancing methods and techniques to

examine the problem situation. Within this research the contemporary approach supports coping “to the complexity and heterogeneity of the problem situation addressed” (p. 393).

As a tool to analyse the complexity of systems and the affected stakeholders, I combined Jackson’s ‘Grid of problem context’ (2000, p. 359) with the reflexions of Reynolds and Holwell (2010, p 11) for a deeper evaluation of different issues within my research (Table 2.3). In a matrix, it classifies systems methods on two dimensions: one, the level of complexity of the problem situation (simple or complex), and the other, the degree of shared purpose amongst participant stakeholders (unitary, pluralist, or coercive relationships). Within the participants’ dimension it uses metaphors and methodologies of Tables 2.1 and 2.2.

		Participant stakeholders		
		Unitary ‘hard’ systems based on machine metaphor	Pluralist ‘soft’ systems based on organismic metaphor	Coercive ‘critical’, emancipatory systems based on prison metaphor
‘Systems’ i.e. problem situation	Simple	Simple unitary: e.g. systems engineering	Simple pluralist: e.g. strategic assumption surfacing and testing	Simple coercive: e.g., critical systems heuristics
	Complex	Complex unitary: organisations-as-systems e.g., systems dynamics, viable systems model	Complex pluralist: e.g. soft systems methodology	Complex coercive: e.g. contemporary approach with revised total system intervention

Table 2.3: System of system methodology (adapted from Jackson 2000: p. 359 and Reynolds and Holwell 2010, p.11)

2.2.3 System thinking – the appropriate paradigm for this research

Because I aim disrobing the dynamic and complex interplay of SMEs, morality and management systems with their common environment, system thinking is the appropriate paradigm for this research.

The systems reflections of merely functionalist scientists such as the Chilean biologist Humberto Maturana (2004, 1997, and 1988) and others (e.g.: von Foerster 1991, von Bertalanffy 1968 and 1949, Wiener 1948) have influenced my system approach. The mentioned above examination of the other approaches and their representatives as well as with contemporary system thinking and its transdisciplinary orientation enlarged my view. Simply said, for me a system is characterised by the totality of the internal reciprocal

relations of its elements and by its environment. A subsystem is a set of elements, which form a system itself, and is part of the whole system. Any object which has no relation with any other element of the system is not part of that system but rather of the system environment. Some elements may be at the same time part of several systems (part of the system and systems of its environment); they have a systems-spanning character. Organised complexity applies if singular phenomena are not linked in a linear logical way (cause-effect feedback), but reciprocally related, circularly enclosed (effect-effect feedback). Systems are embedded in time, so their elements, their internal relations and their environment and the relevant relations may be in flux. For their functioning, feedback processes need minimal aptitudes for communication to handle at least basic information between the individual elements and systems; Maturana (2004) calls this skill 'languaging'. This sort of thinking applies directly to SMEs in today's environment.

All the subsystems of a model are interrelated. Relations between them are specified by iterative feedback. Changes in one (sub- or upper-) system may influence others – at least over long term. Each of these sub- and upper-systems has its own specific method of steering – in the terminology of systems theory: every system is an autopoietic (Maturana) or self organising system. On the other hand the ensemble of all the systems develops its own form of self organisation.

Maturana's concept of 'structural coupling' explains how one system may influence another. The concept demands communication between different systems allowing a mutual triggering. If one system or element tries coerce another there is a severe risk that not only the 'structure' of the coerced system or element may be changed step by step, but also its 'organisation' can be destroyed and with that its existence.

From a human point of view, systems arise with or without influence of human beings and with or without human intention. Examples for systems without human influence and intentions are the systems of the physical environment before the appearance of human beings. Examples of systems with human influence but without human intention are most of the complex social systems as society and the economic system in which SMEs

operate. Finally, examples of systems with essentially human influence and intention are technical systems and simpler social systems as found in specific companies.

The levels of human influence and intention in systems cause different degrees of guiding possibilities and with those possible spaces of freedom by human individual actors.

The introduction into systems thinking – considering the functionalist, interpretive, emancipatory and postmodern as well as contemporary approaches – allows a more adequate explanation of the individual subjects SME, morality, (standardised) management systems and their relations as well as of SMES and their environment; it also basis the design of the SME model and the measuring tool.

Framing these ideas as a functionalist systems model with inputs to the model (the management system, the moral attitudes and behaviours and the environmental situation of the SME [including society, economy and physical environment]) produces an initial model as illustrated in Figure 4.4 below. These inputs allow the system (SME with its people and their knowledge, leadership and culture products and services) to find an optimal interplay to improve SME's sustainable performance (output).

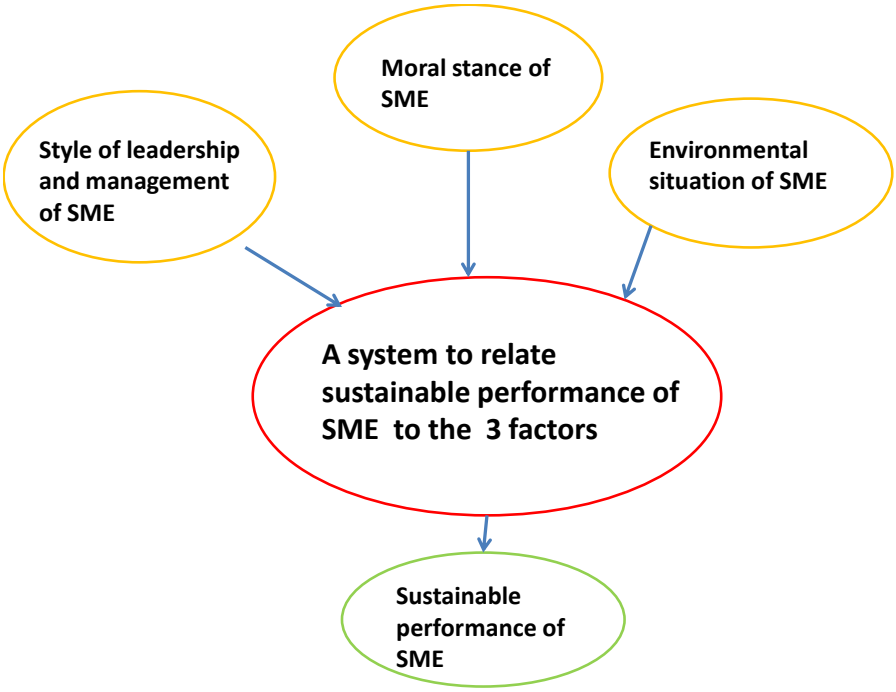


Figure 4.4: Conceptual SME model 2 of this research (details see 4.3.1, p 183ff)

2.2.4 Measurement tool building – insight in a number of tools

As input to design the measuring tool of this research, I examine a number of methodologies and multifaceted tools helping to monitor and measure the status of a company:

ISO standards (details see 2.5.3, p 86ff) are based on circular thinking and concentrate on specific issues (e.g. ISO 9001: on quality – ISO 14001: on environment); these standards are quite often used by SMEs to assess their management by internal audits; this assessment is mostly approved by an external certification. The Total Quality Management TQM or excellence 'models' as EFQM (Europe) or MBQNA (US) evaluate business excellence comprehensively; the institutions offer particular tools for SMEs, but in comparison with the ISO standards these are rarely used by SMEs. CSR or business ethics standards measure moral performance; however, they are rarely used by SMEs.

Relatively easy applicable methods include the 'Hierarchy model' of Tsiakals (2002), the 'SME matrix' of Fueglistaller and Fust (2006), the 'SE typology' of Frey (2009), the 'CSR matrix' of Basu and Palazzo (2005), the 'analysis of performance configurations' of Boiral and Amara (2009), and the 'ESR territory' of Blundel, Spence and Zerbinati (2010).

Tsiakals (2002) uses Maslow's hierarchy of human needs (1954)[9] to develop a hierarchy of the development of a (quality) management system[10]:

a) Bottom level: The effective system helps to prevent defects.
b) Middle level: The efficient system minimises the use of resources.
c) Top level: The system allows competitive advantage and generates delighted customers and interested parties.

[9] Maslow designed a hierarchy of human needs with four steps (bottom up): Survival – Safety and security – Acceptance and love – Self-actualisation and self-esteem. The first two are merely compliance, the second two merely value orientated.

[10] ISO 9000 (ISO 2005) defines effectiveness as "extent to which planned activities are realized and planned results achieved" and efficiency as "relationship between the result achieved and the resources used" (9).

Fueglistaller and Fust (2006) designed a matrix with two parameters ‘Innovation’ and ‘Tradition’ (Figure 2.2):

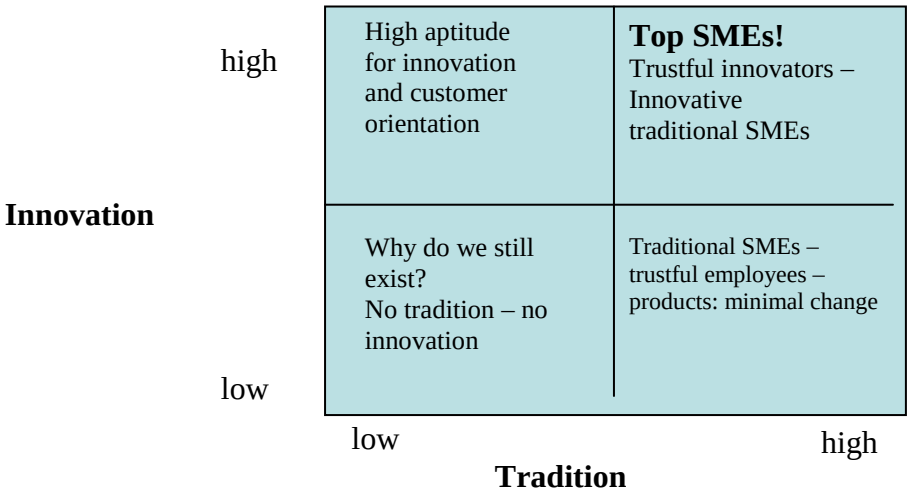


Figure 2.2: Matrix Innovation/Tradition – Fueglistaller and Fust (2006)

The application of the matrix draws on four lists measuring ‘agility’, ‘knowledge’, ‘company culture’ and ‘external view of values and traditions’. The first two define the rate on the ‘Innovation’ parameter, and the second two the rate on the ‘Tradition’ parameter. The application of the matrix aims to support SMEs on their way to develop into top companies; the approach is accompanied by practical guidance.

Frey (2009) uses a matrix with two parameters ‘Potential for innovation and growth’ and ‘Added value for (national) economy’ to typify the position of small companies in market (Figure 2.3):

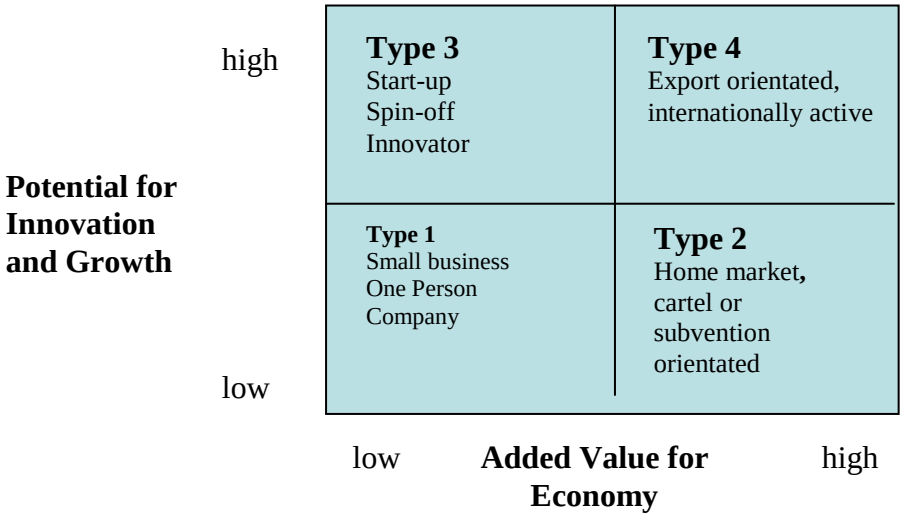


Figure 2.3: Matrix Potential for Innovation and Growth/Added Value for (national) Economy – Frey (2009)

The four sectors of the matrix are embedded in the dynamic company life cycle with its steps: 'foundation', 'growth', 'maturation' and 'revitalisation or downturn'. Nearly all companies start in Type 1 as a 'small business', but several mutate quickly into Type 3 'start-up'. Not every company achieves or wants to reach Type 4 'export orientated'; many concentrate on Type 2 'home market', and a significant number experience downturn by mischance.

Basu and Palazzo (2005) also proposed a matrix with two parameters 'Fit with Values' and 'Fit with Strategy'. With these parameters the companies' CSR maturity can be characterised (Figure 2.4).

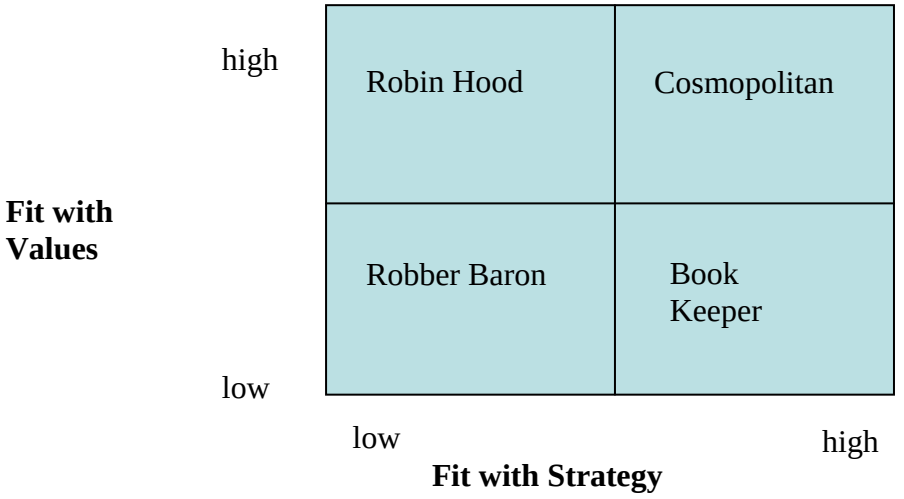


Figure 2.4: Matrix Fit with Values/Fit with Strategy – Basu and Palazzo (2005)

The Robber Baron may be seen as epitomizing the *libertarian* ideology, driven purely to maximize profit. The Robin Hood is likely to be driven by a *communitarian* ideology of giving back to the communities through voluntary acts of philanthropy. The *contractarian* ideology of the Book keeper might lead it to view CSR through the lens of stakeholder management. Finally, the *universal* ideology of the Cosmopolitan might lead it to collaborate in an economically unconditioned way with other social actors in addressing urgent social and environmental challenges.

The authors optimised their reflection by a figure explaining the sense making process of CSR (Basu and Palazzo 2008). They use cognitive (What firms think), linguistic (What firms say) and conative (How firms tend to behave) issues consisting of seven sub-elements which allow characterising CSR (Figure 2.5).

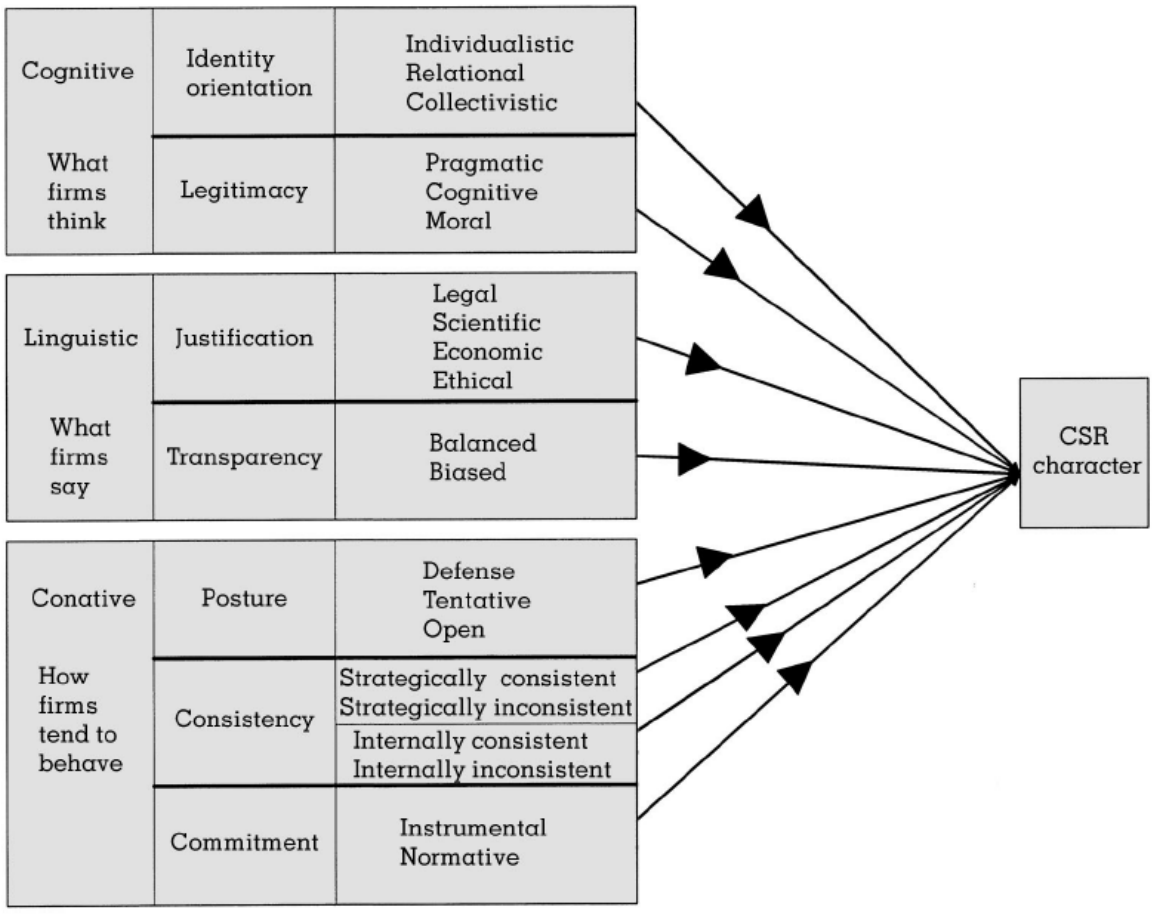


Figure 2.5: CSR: Dimensions of the Sensemaking Process – Basu and Palazzo (2008)

Boiral and Amara (2009) analysed performance configurations resulting from the implementation of an ISO 9000 system in 872 certified organisations in the province of Quebec, Canada. The configurations are based on the crossing of traditional performance criteria related to the implementation of ISO 9000 and organizational problems stemming from the implementation of the standard. This leads to the definition of four effectiveness profiles that reflect the paradoxes and degrees of success of ISO 9000 implementation (see Figure 2.6).

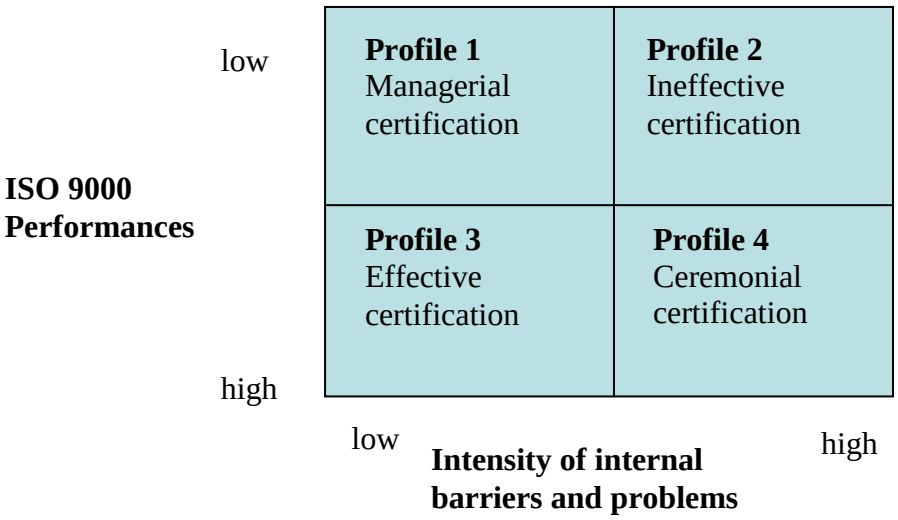


Figure 2.6: Configurations of ISO 9000 effectiveness – Boiral and Amara (2009)

Definition of the four profiles:

Profile 1: This certification is managerial because it raises few internal problems in terms of cumbersome paperwork, lack of resources, and internal mobilisation. The standard, therefore, is fairly well integrated into management practices. Nevertheless, this integration does not necessarily lead to performance improvements.

Profile 2, ineffective certification, is characterized by fairly weak performances and significant problems ensuing from the ISO 9000 implementation. The results are unsatisfactory and the standard faces considerable internal resistance.

Profile 3, effective certification, is characterized by good performances in traditional criteria of ISO 9000 effectiveness (quality improvements, commercial aspects, and so on) and no significant internal implementation problems. ISO 9000 not only obtains good commercial and operational results, but it also leads to greater commitment within the

organization. Accordingly, organizations in this category bask in a win-win situation: the standard provides satisfying outcomes without encountering much internal resistance.

Profile 4, ceremonial certification: The implementation of the standard improves commercial and quality performances, but also generates resistance and significant implementation problems. These problems are expressed mainly by procedural bureaucracy and lack of individual commitment.

Blundel, Spence, and Zerbinati, S. (2010) designed a model of 'Entrepreneurial Social Responsibility ('ESR') (Figure 2.7) and define it as

> "as the dynamic consideration of, and response to, issues beyond the narrow economic, technical and legal requirements of the firm to accomplish social and environmental benefits along with traditional economic gains" (125).

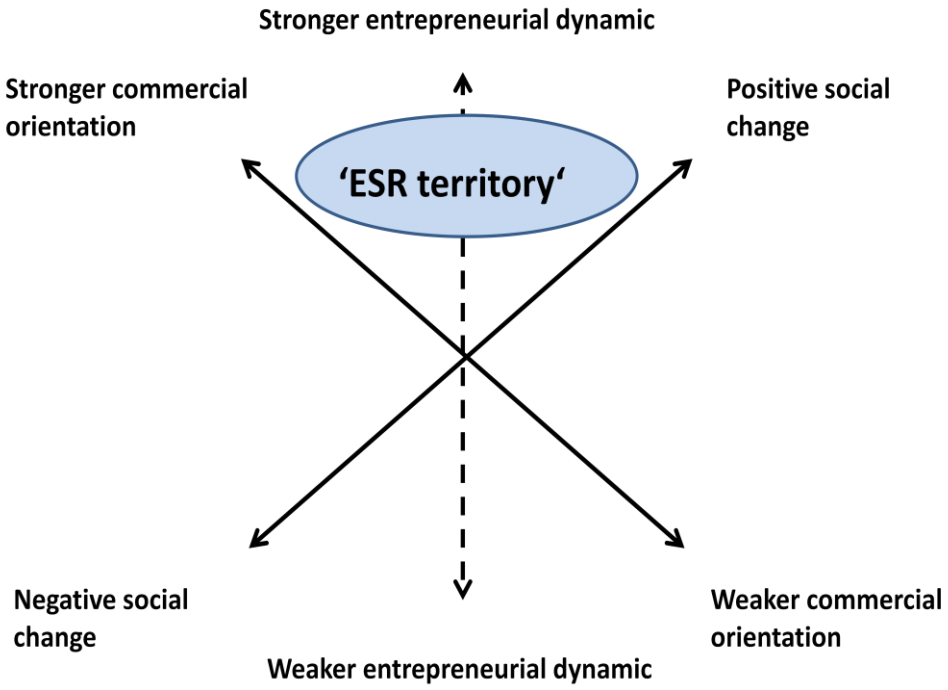


Figure 2.7: 'ESR territory': connecting the entrepreneurial dynamic to positive social change – Blundel, Spence, and Zerbinati (2010)

The model connects the entrepreneurial dynamic to positive social change. It positions the territory of ESR between 'stronger commercial orientation' and 'positive social change' – promoted by 'stronger entrepreneurial dynamic'. ESR supports an understanding of entrepreneurial decisions over time and in the context of social, legal, environmental,

economic and institutional environments by widening the relevance of all phases in the entrepreneurial process, and going beyond start-up. It includes: recognising and creating opportunity; mobilising and enhancing resources; securing and extracting value; and exiting and redeploying value. The model presents an alternative to the strict commercial orientation by integrating dynamism into the complex bi-polarity of commercial and social issues of entrepreneurship.

2.3 Characteristics of SMEs – defining system boundaries

With the view into system thinking, I built a background for the understanding the interplay of elements of this research. Before discussing this interplay, I examine literature concerning the individual elements. I start with the primary element by discussing specific issues of SMEs – as owners, top-managers, employees, culture, relations, processes, technology, and knowledge.

In this section I establish the context of the research by drawing the system boundary (specifying SMEs basing on literature review); this boundary will provide the selection of organisations which become the subject of the research later in Chapter 3 Methodology.

SMEs differ immensely because of their specific owners, tradition / culture, leadership, staffs, market, size, neighbourhood, local community and so on. That is why interpretive or postmodern system thinking approaches would be most suited to evaluate and improve SMEs. However, as the results of this research show, functional methods are in front (e.g. systems engineering SE, operational research OR), and SMEs are in danger of following fads. Of course, defined procedures (e.g. an operation sequence) have functional characteristics.

An assortment of common elements of SMEs is deduced based on a large literature review and on my research and experiences observing internal and external issues. It is concentrated in 2.3.3 (p 66) after discussing a selection of internal and external issues.

2.3.1 Internal issues – specifications

To detail internal issues of SMEs, I examine organisation, ownership, familyness, culture, flexibility / innovation, financing and as a specific element the starting up of a company.

a. Organisation

Because I found no specific data concerning the internal organisation of SME[11], the following issues are based mainly on my personal consulting and auditing experiences with SMEs.

One could suppose that complexity within SMEs is reduced because of their size and the smaller number of people involved. That may suit SMEs with a small palette of mainly simple services or products, and a clearly-defined, hardly-changing market. A great number of tasks produces complexity and concentrates the focus of a small number of people within a SME. Therefore these tasks are intensively related to specific persons and their internal and external attitudes and behaviours triggering one another and the system 'SME'. The handling of complexity depends more on individuals and less on defined missions, strategies and functional descriptions, which are concentrated in structured management systems characterising larger companies with clearer distribution of tasks. If a SME is a largely independent subsidiary of a holding company, the influence of formal descriptions is certainly greater.

According to my observations and the findings of this research, SMEs risk under pressure reducing their complexity and concentrating on ostensible, would-be decisive aspects. On the other hand this concentration enables a greater flexibility because of a reduced need for formalisation of responsibilities and procedures. This flexibility can be an opportunity, if it is paired with corresponding resources (e.g. knowledge, material, energy, finance).

Leadership and decision-making in SMEs often comes from intuition and qualitative data. Communication and coordination within SMEs base more on personal, often amicable

[11] The reviewed research concentrates mainly on environmental issues as finance, market development or on familyness (e.g. Schweiz. Institut für Klein- und Mittelunternehmen – Swiss Institute for SMEs, University St. Gallen, with director Prof. U. Fueglistaller, being often quoted in this research).

relations than formal procedures. Company traditions and common values foster an integrated and self-organising system.

Fueglistaller (2004d) observes interacting elements causing employee loyalty as a basis of long-term success of companies: the entrepreneur, employees as colleagues and employees themselves (self-reference, personality), customers, the enterprise as a whole, and the market. The influence of the superior is mainly found in micro-companies and processes, in the organisation and structure of the company, as well as in teams in small companies. More abstract values such as corporate image, strategies and culture come into their own, in contrast to an experienced bilateral relationship in medium sized companies (Capelossi 2007).

b. Ownership, familyness, owner-manager

I did not find significant data concerning the ownership of SMEs. In Switzerland, I observe two main forms of ownership of SMEs – family or partner owned and public as well as half public (e.g. foundations, co-operatives) companies. Micro and small companies are quite often privately owned. However the majority of micro, small and medium sized companies are limited companies[12]; being organised as limited company offers advantages in handling financial risks and taxes. According to the definition of my research (see 1.2.1, p 25), autonomous subsidiaries are also regarded as SMEs, even if they belong to holdings.

Literature discusses family companies quite intensively: Family companies need the interplay of the strategies of the company and the family for a long-term success (Hauser and Wolter 2007, Laeis 2005, Fueglistaller 2004c, Mühlebach 2004, IfM 2002). If boards are dominated by the family, the separation of powers and control is often complicated. To maintain independence, to secure long-term survival, or to maintain or cumulate family assets is more important than increasing the market value (Bühler 2004). On average Swiss family companies are smaller than non-family companies (Frey et al. 2004). At the stock exchange Swiss family companies have a better performance in comparison to the total market and to other non-family companies (Bühler 2004).

[12]The Swiss and German legislations distinguish between two forms of limited companies – Aktiengesellschaft and GmbH (Gesellschaft mit beschränkter Haftung).

A specific research called ‘familyness’ examines influences of the owner family on company performance (e.g. Mühlebach 2004). The complex grouping of external influences, family tradition, organisational structure and company philosophy may have positive or negative effects on success of the company (e.g. Mahmood 2008). The family members’ common responsibility allows optimal combination of the elements promising sustainable performance.

In my opinion, the literature tends to stress the argument of concentration on owner-manager. The SME survey of CERFE (2001) contains nearly 3000 companies owned by local public administrations (total sample of about 8000 companies); private companies with employed managers are not specially mentioned. A survey by the KMU-HSG Institute, University of St. Gallen, shows national differences in the number of family companies (Switzerland: 88,1%; Spain:71%; Germany: 68%). There is also a trend towards a division between board (members of owner-family) and management (employed) – mainly caused by the absence of an adequate successor within the family (Gerber 2005).

In many OECD countries, the number of women entrepreneurs is rising (OECD 2005, 2000). Enterprises owned by women now make up one-quarter to one third of the total business population worldwide. In several countries, notably the United States and Canada, the growth in the number of women-owned businesses is far outpacing the overall growth of new (small) businesses (Baucus and Cochran 2010, Volery et al. 2005, Statistics Canada 2001, Korten 2000).

I observed in my consultancy and research that particular effects (positive or negative) arise in SMEs because of succession or other changes at the top management level. The founder (or former top manager) has influenced the mission, strategies and culture of the company for a long time; the implementation of succession challenges the company as whole and especially the follower (member of the family or other new top manager). The question of succession is related to ageing, transfer responsibilities, and assessment of qualifications of possible successors. A succession plan mainly concerns the continuation

of life's work, family relations and assets, as well as employees and their families, customers, suppliers, et cetera. It becomes increasingly difficult to find a successor, especially within the family, leading to an additional delay of the problem. In this context owners consider whether the company will give up its activities (sale or liquidation). In Great Britain, Germany, and Switzerland an increasing number of companies have to solve such problems in the near future (Liebermann 2003, Mohn 2003, Quarterly Survey of Small Business in Britain 2-1995).

c. SME and culture

'Culture' is a forming and significant element of companies, getting increasing attention in management theory (e.g. Kelly 2011). Perhaps the most widely-cited definition of culture is that of Schein (1985:9):

> "… a pattern of basic assumptions – invented, discovered or developed by a given group to cope with its problems of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems".

Schein distinguishes three levels of cultural occurrence: 1) artefacts / creations (mainly visible) – 2) espoused (collective, defined) values – 3) basic assumptions and beliefs (mainly not defined).

Some authors understand culture as a characteristic of the day-to-day milieu as experienced and practised by those who work within an organisation (Choueke and Armstrong 2000, Wallace et al. 1999). Culture consists of a mix of informal as well as more formal, defined issues (Capelossi 2007, Wallace et al, 1999); these are influenced by the external environment – directly by legislation and regulations, market, and indirectly by expectations and values of society (Capelossi 2007, Sadri and Lees 2001, Beer 1980).

Culture has outstanding importance within SMEs, because they are more characterised by tradition and informal issues than by defined structures, and their internal and external relations are decisive. However, apart from my research minimal data confirm this

(Capelossi 2007, Sneep 2007, Ritchie and Brindley 2005, Enderle 2004). I suppose with Sneep (2007), that individuals with their socialisations are vitally important for forming the culture of an SME – especially owners / top managers, long standing employees and people in key positions.

According to my knowledge, there is also no research concerning processes, technology, and knowledge management of and within SMEs.

d. Flexibility – innovation

SMEs have an advantage of more flexibility, short communication lines, networking, job creation, motivated management and labour, no bureaucracy and little filtering of proposals, innovation, and productivity because of their size and models of leadership (Georgellis et al. 2000). Enderle (2004) fosters these elements by the example of two SMEs (from Switzerland and Bangladesh) successfully acting as global players. Baucus and Cochran (2010) notice that the interplay of innovation and entrepreneurial activity is the best solution for dealing with climate change, poverty, and other world problems, as well as for growing and transforming the U.S. economy.

Based on survey data, some 30%-60% of SMEs in the OECD area are characterised as innovative (OECD 2005, 2000). They are less likely to conduct research and development (R&D) than larger firms, but favour other forms of innovation – creating or re-engineering products or services to meet new market demands, introducing new organisational approaches to enhance productivity, or developing new techniques to expand sales.

According to Georgellis et al. (2000), business performance of innovation depends on the will to take risk combined with capacities to innovate and plan ahead and is driven by the desire to grow. However, their analyses of 300 small firms in London showed that only a third of companies have a planning perspective of more than one year. Nearly 60% consider themselves as innovative in terms or new products in production and services, and nearly 40% in terms of product and service delivery processes. Exactly half are willing to take risks and exactly one third are growing in terms of sales revenue.

Volery's (2008) examination of the process of strategic management of innovation within eight Swiss SMEs from different industries illustrates that small firms do not necessarily prefer returns with small volumes. Considering the relationship between return and innovation management process, it can generally be assumed that sound innovation management process is associated with a favourable return.

e. Financing

Funding gaps for smaller firms are a major barrier to growth (OECD 2005, 2000). Wide variance in profitability, survival and growth of SMEs provokes particular financing problems compared to larger firms. Owners and managers of smaller firms often lack commercial experience and/or a track record as entrepreneurs. Early stages of SMEs' activities are marked by uncertainty both in production and marketing.

It can be supposed that less than half of the SMEs ask for bank loans (Fueglistaller 2003b), but most get the bank loans they need (Schillig 2003, European Communities 2002). Large companies often support their small or medium suppliers. Nevertheless high-tech enterprises, start-up SMEs and SMEs working in risk industries have difficulties finding finance. Quite a lot of companies have problems with their financial rating (e.g. forced by Basel II); therefore financing of start-ups is often guaranteed by seed or love money – mostly from family members.

f. Starting up a company

SMEs gain weight, as larger firms downsize, concentrate on their key business and therefore increasingly outsource duties (OECD 2005, 2000). In addition, productivity growth, and consequently economic growth, is strongly influenced by the competition inherent in the birth and death, entry and exit of smaller firms. This process involves high job turnover rates, and churning in labour markets, which is an important part of the competitive process and structural change. Less than half of small start-ups survive for more than five years, and only a fraction develop into the core group of high performance firms which drive industrial innovation and performance.

In Switzerland about 6% of the adult population try actively to start up a new company or are owner of company being less than 4 years old (Volery et al. 2005). This puts Switzerland in the upper middle field of European countries. About 10% of Swiss companies are owned by the same person for four years or more: this is the highest rating in Europe and world-wide and a sign of the high stability of Swiss companies. 84% start up a new business because they expect good business possibilities, 14% because they have no alternative in finding a job. The aspiration for starting up is quite high – four out of ten respondents (EOS Gallup Europe 2002); Statistics Canada (2006) mentions the lack of financial resources, administrative complexity, as well as the number of working hours as main barriers.

2.3.2 External issues – specifications

To get an insight into external issues, I analyse the importance and power of market of SMEs by literature review.

a. Importance of SMEs

Generally, large scale enterprises (LSE) evolve in the centre of economy on a supra-regional, national, continental or even global level, but are based in a specific country as public limited companies; exceptions are large local or regional public institutions such as hospitals, universities, administrations, and so forth. LSE manage their complexity by developing differentiated systems – for example, concept of leadership with differentiation of strategic and operational responsibilities, instrumental bureaucracy with permanent controlling, defined business culture, symbolic structure, and recognisable rituals (Fueglistaller 2004b).

On the other hand SMEs are consigned to be peripheral to the economy. However, according to OECD (2005), UN (2004) and European Communities (2002), SMEs are considered to be one of the principal driving forces of economic development.

They are flexible and can adapt quickly to ever-changing market demand, they generate employment, help diversify economic activity and make a significant contribution to trade. A competitive SME sector is a precondition for sustainable development and responds to the demands of the globalisation. SMEs are drivers of competitiveness using networks which are indispensable elements for innovation. SMEs generate employment. Through job creation and self-employment opportunities, SMEs can successfully contribute to alleviation of poverty and exclusion of the unemployed population, especially in economically disadvantaged and/or rural and crisis affected areas.

b. Power of market

Empirical evidence strongly suggests that economic growth is positively associated with an increased role of SMEs (OECD 2005, European Communities 2003a). The role of this engine can be best understood bearing in mind external impacts that SMEs have on the economy as a whole. SMEs serve as a vehicle for knowledge spillovers, which may become accessible and commercialised by large enterprises through technology transfer or acquisition. SMEs increase the amount of competition in the input market, particularly in terms of the competition for new ideas and human capital embodied in knowledge workers. SMEs increase diversity in the market, which can spill over to generate productivity increases in existing enterprises.

In comparison to large companies, I observed that SMEs are intensively confronted by market fluctuations, especially if they act in regional markets and have only restricted possibilities for expansion (e.g. building industry, holiday resorts). These fluctuations influence the climate within companies.

As new technologies and globalisation reduce the importance of economies of scale in many activities, the potential contribution of smaller firms is enhanced (OECD 2005, 2000). However, many of the traditional problems facing SMEs become more acute in a globalizing, technology-driven environment: for example, limited resources regarding capital, workforce, knowledge, negotiation power, lack of financing, difficulties in exploiting technology, constrained managerial capabilities, low productivity, and regulatory burdens.

About one-fifth of manufacturing SMEs draw between 10 to 40% of their turnover from cross-border activities (OECD 2005, 2000). At present, SMEs contribute between 25 to 35% of world exports of manufacturing and account for a small share of foreign direct investment. Relative to larger firms, SMEs can respond better to changing market conditions, evolving consumer preferences and shorter product life cycles by customising and differentiating products.

Globalisation facilitates and forces internationalisation of SMEs, because it decreases trade barriers and brings disadvantages in competition to companies only operating nationally (Lehmann 2003). SMEs need to find ways to tackle these challenges, because the challenges are likely to persist and even to increase in the future (European Communities 2003a). SMEs also profit from the increasing recognition of 'entrepreneurship' regarding the increasing scepticism against 'managerial behaviours' (Fueglistaller 2003a).

Medium-term developments show that, despite fluctuations over time, in SMEs – and in particular in micro and small enterprises – employment increased, whereas in LSE employment decreased (European Communities 2003a). This is remarkable as real turnover and value added growth have been smaller in SMEs than in LSEs. To a large extent this difference can be explained by the fact that SMEs are over-represented in sectors with low productivity growth, like retail trade.

SME co-operation is widespread and common in all sectors. Co-operation is associated more with culture, the personal orientation of the entrepreneur and the ability to overcome the fear of losing autonomy, rather than with country, sector or company size (European Communities 2003a, Fueglistaller 2004c). Most co-operation between SMEs is market driven; SMEs have long-lasting partnerships with a limited number of regular partners and co-operation is linked to better performance. Start-up companies, however, have problems in finding confidential partners (Schillig 2003). By taking part in cross-border co-operation, SMEs contribute to the development of the border areas and facilitate to understand cross-cultural differences in the neighbouring countries.

2.3.3 Review of SME issues

Combining the large literature review concerning SMEs mentioned and the issues discussed above, I deduced the following specifications of SMEs describing them and their internal and external issues:

SMEs are companies with less than 250 employees – mainly with less than 10 employees. SMEs cover in most countries more than 90% of all companies and occupy more than half of the employees.

a. Internal issues of SMEs

SMEs are centred on the personality of the owner-manager / entrepreneur. The trend of individuals towards independence stimulates private ownership and entrepreneurial skills. Securing long-term survival or maintenance or cumulating of family assets is more important than increasing market value. SMEs are characterised by multi-tasking, often combined with strength of innovation and great flexibility which can be used for adapting to opportunities which arise. The concentration of tasks produces complexity, which has to be managed by a small number of people. Procedures are often marked by informality, are less visible, less formal / articulated and bureaucratic in their core. Leadership and decisions often depend on qualitative and impulse driven attitudes and behaviours. Personal relationships are salient; communication and coordination depend merely on personal, often amicable relations. Culture is an outstanding element which generates specific forms of moral attitudes and behaviours. There is often a lack of personnel, financial and time resources – increasingly powered by a globalising, technology-driven environment. Progressively more SMEs' owners have difficulties finding a follower in top-management. SMEs regularly have problems with financial rating; the financing of start-ups is often guaranteed by seed or love money.

b. External elements

SMEs are the backbone of the market economy and one of the principal driving forces of economic development; they generate employment and contribute to alleviation of poverty. Increased employment is not equivalent to increased productivity, because SMEs are over-represented in sectors with low productivity growth, like retail trade. Small businesses are flexible and able to adapt quickly to changing market demand and supply situations. Globalisation decreases trade barriers and brings disadvantages in competition to only nationally acting SMEs; by diversifying their economic activity, they can make a significant contribution to exports and trade. SMEs are investing in networks of external relations; these networks become indispensable elements for innovation. Long-lasting and co-operative partnerships based on a limited number of regular partners provoke better performance. SMEs are vehicles for knowledge spillovers, particularly in terms of competition for new ideas and human capital embodied in knowledge workers; they contribute significantly to the regional and local development.

Applying the 'System of system methodology' (see Table 2.3, p 47), the internal problem situation of an SME may be simple, but by including external and environmental issues, the situation may become quite complex. The degree of shared purpose amongst participant stakeholders is pluralist, and can be – depending on the environment – coercive.

In relation to SMEs, I detected a number of gaps in research. Regarding internal issues, I found minimal data concerning the organisation and ownership of SMEs, SMEs and culture, as well as the use of processes, technology and knowledge management within SMEs; to be discussed are the influence of owner-managers and the differences between owner-managers and employed managers, as well as the effects of the replacement of managers. Examining external issues, I find research concerning SMEs and market fluctuation is absent.

2.4 Morality of and within SMEs

In this section I discuss the definitions of ethics, morality and CSR as well as the employment of system approaches within the context of morality, SMEs and morality and the use of moral standards by SMEs.

Morality and ethics take an important place as guiding elements of and within companies. Generally, the first interest of any company is its economic survival, simply because the economic sustainability of an enterprise is the first precondition for pursuing any moral activities (European Communities 2003a). Traditional business views believe that apart from providing employment and creating wealth, companies will always look to shift to others the costs of damage they cause and will always fail to accept a share of the costs of social problems. As an alternative to these traditional sights, a new theoretical and political debate develops a positive relationship between social responsibility and the economic performance of companies. Companies involved in moral activities may obtain a number of business benefits from these activities. Additionally, research concerning influences of values on attitudes and behaviours demonstrates that values orientation has a positive impact on outcomes (e.g. Luria 2008, Weawer and Treviño 1999, Treviño et al.1998, McGregor 1960, Herzberg 1959, Maslow 1954).

An increasing number of organisations worldwide are intensifying their social and environmental awareness and advocacy efforts, but up to now there is no unifying definition of ethics and business (Sanders 2008). And in daily use and also in research, morality and ethics often are not differentiated.

For my research I reflect definitions of three internationally recognised researchers (Ulrich, P. 2008:31, Crane and Matten 2004:11): ‘Morality’ is concerned with norms, values, and beliefs embedded in social processes which define right and wrong for an individual or a community; ‘morality’ is part of the nature of human beings which builds up socially valid moral rights, duties and behavioural norms. ‘Ethics’ is concerned with the philosophical reflection of morality and the application of reason to elucidate specific rules and

principles that determine right and wrong for any given situation; 'ethics' aims a universalistic and rational moral point of view. A 'value' is something that is important for an individual or group – often without defining whether it is morally or ethically 'good' or 'bad'.

I focus on 'moral' or 'morality' in connection with companies. Companies are communities which define ongoing rights, duties and behavioural norms, values and beliefs in their social processes. These issues are rarely defined and philosophically reflected in SMEs, so the broad use of 'ethics' may not be appropriate.

In past research concerning morality of companies concentrated on large firms; during the recent years, however, the analyses of SMEs and their morality increased especially in the United States and in Europe (Spence and Painter-Morland 2010). The examination of the world-wide SMEs' research shows that there is a parallel employ of the main issues, Corporate Social Responsibility CSR and Business Ethics BE. CSR researches typically focus on impacts of corporations on stakeholders, and BE on ethical behaviours of companies and individuals. There is link between ethics and moral philosophy; CSR is more embedded in societal expectations of corporations (Blundel, Spence, and Zerbinati 2010). There is also a trend towards the integration of CSR and BE into an approach of sustainability and triple-bottom-line thinking[13] (e.g. European Communities 2002). Crane and Matten (2004: 8) define business ethics

> "as the study of business situations, activities and decisions where issues of ethically right and wrong are addressed".

The term is not only used for commercial business, but for all organisations being involved in economy. For Crane and Matten (2007: 53) CSR

> "describes the activities of companies to live up to society's expectations, business ethics can be seen as the analytical tool … to understand, conceptualise and legitimise the moral status of corporate policies, strategies and programmes".

[13] 'Triple-bottom-line' is a concept developed by Elkington (1999). It aims to balance a company's economic, environmental and social performance and refers to the integrative measurement of three elements.

CSR has become the mainstream expression for moral activities of companies. That is why supporting guidelines have been developed which have been brought together in a world-wide accepted ISO Standard ISO 26000 'Guidance on Social Responsibility', published end 2010 (details see 2.4.3, p 78); as a member of the Swiss Mirror Committee, I had the chance to influence the design of ISO 26000. According to the tradition of The International Standard Organisation aims to provide every form of organisations, not only corporate; that is why the Standard only speaks of Social Responsibility[14].

ISO 26000 defines SR as

> "responsibility of an **organization** for the **impacts** of its decisions and activities on society and the **environment**, through transparent and **ethical behaviour** that
>
> — contributes to **sustainable development**, including health and the welfare of society;
>
> — takes into account the expectations of **stakeholders**;
>
> — is in compliance with applicable law and consistent with **international norms of behaviour**; and
>
> — is integrated throughout the **organization** and practiced in its relationships" (ISO 26000, 2010, p. 3).

In my opinion the definition in ISO 26000 is comprehensive and integrates human and physical environments as well as all stakeholders and internal elements of organisations. It thereby corresponds with the requirements of the SME model of my research. Therefore I use the internationally accepted ISO version as a basis of further reflections concerning 'SMEs and morality'.

The relationship between morality or social responsibility and economic performance is often part of the (company) culture and not formalised. This is quite often a characteristic of family SMEs living traditional values and refusing any form of codification; and the practical morality of SMEs is often more sustainable than the intensive reflection about CSR in large companies. "... bigger organisations can learn something from their smaller

[14] According to e-mails of the institution which coordinated the design of the Standard (SIS, Swedish Standards Institute – 2011-02-02) and member of the German Mirror Committee (Kleinfeld, A. – 2011-01-31)

counterparts regarding the relationships between various ethical dimensions of organisational life" (Spence and Painter-Morland 2010, p. 336).

2.4.1 Morality and system approaches

By consequently applying functional systemic thinking, the vision of an ongoing interaction and communication of elements in self-organising systems suggests a paradigm of total determination (Maturana 2004). This theory is often combined with the idea of the stringent 'survival of the fittest' and the refusal of the possibility of spaces of freedom or influence capabilities and with that of morality. In company with other researchers (e.g. von Foerster 1991) Maturana developed a middle way:

> "Human beings are capable of describing a certain action as responsible… The experience of choice and decision, which we human beings make, does not at all contradict our structure-determinedness. Human … may, however, by virtue of a perspective opening up in a meta-domain, make the experience that they have a choice" (Maturana 2004: 76).

If we employ interpretive, emancipatory and postmodern system approaches, the problem of moral determination can be disregarded, because they integrate subjective and by that also moral issues. The interpretive approach provides for culture, integrative values and people's perception, the emancipatory approach for participation and common responsibility, and the postmodern approach for local issues and integration of marginalized groups and individuals.

2.4.2 Morality of and within SMEs

Research and models concerning the influences of values have been deduced from experiences with large companies, although moral attitudes and behaviours of SMEs differ significantly from those of large companies' practices. I have analysed a large

number of articles and surveys concerning the interplay of SMEs and morality to identify specific characteristics of morality of and within SMEs (see below next pages).

According to some of these authors (especially Spence 2007), moral responsibility is for many SMEs just a new way to describe something they do already – investing in broader moral values whose benefits go beyond profit. In this context, moral responsibility is about building on existing good practice, maximising its impact and raising awareness among important internal and external audiences in a way that will help companies to become more competitive.

In this research, I apply a more pragmatic way to categorise the interplay of morality and SMEs. In addition to the general elements, I list a number of specific issues summarising the literature review concerning the moral attitudes and behaviours of SMEs: specifications as to size, region, and patents; motivating backgrounds such as personal interests, profit, and management systems; obstacles / barriers; and elements of internal and external activities; and attitudes towards the physical environment.

a. General characteristics – concentration on ownership

The vast majority of SMEs believe that they should pay significant attention to their social and environmental responsibilities (Painter-Morland and Dobie 2010, Bader et al. 2007, DTI 2002). Many companies are engaged with at least part of the CSR umbrella, often not knowing this is what they are doing (Coutinho de Arruda et al. 2010, DTI 2002). CSR is not a strategic orientation of SMEs (Bader et al. 2007, Sneep 2007). In countries under development, the main underlying constraint to their growth is lack of corporate governance structure (Mahmood 2008).

Because ownership, management and control are usually concentrated in the same hands, the entrepreneur plays a central and key role (European Communities 2002). That is why the personal preference of top management and owners is the most influential factor. From the point of view of the small business owner it is not `un-business-like' to acknowledge social issues, but in fact is quite a normal perspective for small firm owner-managers (Srinivasan 2010, Endo 2008, Bader et al. 2007, Perunicic and Alexandrova

2007, Sneep 2007, CERFE 2001, Spence rand Rutherfoord 2001). Baucus et al. (2010) discuss three surveys showing that entrepreneurs exhibit higher moral attitudes than managers.

b. Specifications

Size: According to European Communities (2002) SMEs social activities are positively related to enterprise size; very small companies have fewer activities than larger. Geographical region – urban / nonurban: Latin American SMEs are seriously concerned with the North-South inequalities, and regional social problems become more accentuated (Coutinho de Arruda et al. 2010). European Communities (2002) observes a North- South European partition; involvement ranges from 33 % of SMEs in France to 83 % in Finland. According to Baucus et al. (2010) small business owners in nonurban areas appear to have higher moral values than those in urban areas.

Mission and strategy: Enderle's (2004) balanced concept of the firm with the triple bottom line model asks for an approach basing on mission and strategy; his examples of world-wide acting companies emphasise this approach.

Company culture and internal activities: For CERFE (2001) CR is not only concentrated on the leader; implementing corporate citizenship has to do with the culture of the firm, with its 'social core'. All the people that work inside a firm or, in any case, on behalf of it are involved in pursuing its social objectives. The two case studies of Enderle (2004) highlight this importance of a common company culture.

Supply chain management: The SMEs within the analysis of Ciliberti et al. (2008) use a combined approach towards suppliers; they mix compliance with requirements and capacity building approaches.

Industries: No substantial differences between production and service have been ascertained (Spence and Rutherfoord 2001).

Economic changes: Because of their specific economic vulnerability the possibilities of SMEs for moral fluctuate through times of recession and boom (European Communities 2002).

Use of intellectual capital and patents: Enterprises practicing CR demonstrate a greater tendency to a more intensive use of their intellectual capital (CERFE 2001).

c. Motivating backgrounds

Drivers of initial and continuing SME engagement include personal interest and fulfilment, a desire to implement 'just good business practice', improved morale and motivation, giving something back to the local community and enhancing business reputation (Endo 2008, Bader et al. 2007, DTI 2002, and Sneep 2007).

Spence (2003a) records that small business owner-managers are engaged in a wide range of social activities and their norms; morality, 'ways of living' cannot be divorced from attempts by others to affect their behaviour. She (Spence 2003b) enumerates three aspects which provide structures of social capital for the SME owner-manager: stabilising mutual expectations and enabling collective action (trust), forming a kind of insurance, and giving access to relevant information.

Laeis (2005) detects that owner-manager often blend entrepreneurial and private, or entrepreneurial and social involvement and are motivated by the responsibility for their family. Voluntary work is often given by the (female) partner (Laeis 2005, Spence 2003a).

CERFE (2001) observed that all the relationships, economic and non-economic, of a firm are essential for the practice of social responsibility. Enterprises practicing corporate citizenship tend to have closer relations with foreign countries. Furthermore, enterprises practising corporate citizenship tend to have slightly more foreign suppliers. Both case studies of Enderle (2004) take advantage of relations to partners and suppliers.

Companies with profit-maximisation or subsistence priority can be triggered by legislation to act more morally against anti-social activities or encouraging recognition (Spence and Rutherfoord 2001). They recognise that moral behaviour can be profitable, and they may

shift to enlightened self-interest; this observation is supported by American and German surveys (Bacus et al. 2010, Bader et al. 2007).

Enterprises' orientation towards quality systems could be considered as an indicator of the level of the growing complexity of their social core (CERFE 2001). The fact that an enterprise devotes its resources to monitoring aspects of its activity that determine the quality of its product or service, means a greater awareness of the mechanisms and dynamics that regulate its internal and external conduct. The case study of Enderle's (2004) producing Swiss firm also uses the advantages of an (environmental) management system with its integrated controlling elements to support the moral balance of the firm.

Werner (2006) detects an active Christian context providing Christian SME owner-managers with distinct conceptual and linguistic resources; these resources lead them to frame their practices in a highly distinctive way which can have far-reaching implications for their carrying out of business activities. However, Bader et al. (2007) observe that religion is minimal motivation for CSR of SMEs.

d. Barriers, obstacles

For Smekey (2003) barriers for external moral behaviours are lack of time and motivation, insufficient resources or capabilities, no knowledge for engagement in social responsibility or inability to see suitable opportunities, not being in touch with local needs and a perception that community involvement is not related to business. European Communities (2002) supports this view; the main reason suggested by SMEs for not getting involved is simply because they have never considered the possibility of engaging in such activities (24 % of responses), and 17 % of the total respondents argue that external social activities are 'not related to the enterprise's activities'. Bader et al. (2007) mention the lack of personal and financial resources as barriers.

Another obstacle could be the way of building a consensus in discourse which may be in opposition to the charisma of the entrepreneur (CERFE 2001).

Studer et al. (2005) detected that in Hong Kong a lack of stakeholder demand was the main barrier that prevented SME respondents from undertaking voluntary environmental

initiatives. Lai (2006) enumerates a lot of barriers for CSR in China leading to ignore workers' rights and labour standards and only acquire short-term economic benefits: Fierce competition, TNCs' race-to-the-bottom pricing strategy, the desire to make as much profit as possible without respecting the social and environmental aspects of society, to lose control and insufficient law enforcement, not enough advocacy and monitoring activities of NGOs, and a low awareness of CSR.

e. Elements of activities

SMEs tend to be focused on internal issues; many of their responsible business practices therefore concentrate on staffing issues, increasing employee skills and team building as well as on morale and motivation within the organization; much of their social, community and environmental initiatives are therefore driven by or, focused or designed to impact on employees, optimal interplay between occupation and family and guaranteeing workplace (Baucus et al. 2010, Coutinho de Arruda et al. 2010, Painter-Morland and Dobie 2010, Spence and Perrini 2010, Collins 2008, Bader et al. 2007, Perunicic and Alexandrova 2007, sneep 2007, Laeis 2005, DTI 2002). Baucus et al. (2010) mention a survey showing that SME owners were less likely to abuse power, and were more likely to emphasize caring and independence dimensions of moral climate than other people.

SMEs rely on the stability and prosperity of the local communities in which they operate, since most of their clients and the majority of their employees come from the surrounding area (European Communities 2002). The enhanced possibilities of personal contacts can build trustful and open business partnerships, improve customer loyalty and optimise relations with the general community and public authorities (Coutinho de Arruda et al. 2010, Painter-Morland and Dobie 2010, Spence and Perrini 2010, Collins 2008, Bader et al. 2007, Spence 2003a, European Communities 2002).

Local community, sporting and cultural activities profit of donations, sponsorships and honorary of SMEs (Coutinho de Arruda et al. 2010, Collins 2008, Bader et al. 2007, Sneep 2007, Laeis 2005, Spence 2003b, Smekey 2003, European Communities 2002, and CERFE 2001).

Spence (2003b) mentions networking within sectors which were wide ranging, including exchange of information, borrowing of equipment, recommendation and subcontracting, and networking across sectors, especially of neighbouring firms (e.g. common leisure).

Painter-Morland and Dobie (2010) identified in their survey concerning African SMES specific terms ‘honesty’, ‘straight dealing’, ‘not cheating’, ‘proper accounting’ and ‘honest taxpaying’; Baucus et al. 2010 mention similar attitudes in the U.S. Hug et al. (2006) investigated a specific element of these issues – the role of ‘trust’ in Switzerland: All interviewed companies notice that ‘trust’ is essential in relations to suppliers; ‘trust’ as a part of communication becomes substantial within employees’ behaviours and mouth-to-mouth marketing.

Some companies identify business benefits from moral activities. Three quarters of the companies are able to identify business benefits derived from their involvement in external socially responsible activities (European Communities 2002). In opposite Perunicic and Alexandrova (2007) observe that companies in general do not seem to find economic benefits behind the engagement in CSR.

CSR activities are not considered as part of marketing (Sneep 2007). Owner-managers generally do not want that their activities are known in the public (with the exceptions of banks and PR companies) (Bader et al. 2007, Laeis 2005).

Moral responsibility of SMEs towards the physical environment is characterised by a dichotomy: The firms seek for sustainability (Spence and Perrini 2010, Perunicic and Alexandrova 2007, CERFE 2001), but often focus only on fulfilment of legal requirements because of restricted resources (workforce finance, time, education) (Coutinho de Arruda et al. 2010, Spence and Perrini 2010, Williamson 2006, European Communities 2002, Friedman et al. 2000).

Other important reasons for SMEs to engage in environmentally responsible activities include market demands (basically through subcontracting relationships) or the strategic choice to obtain certain competitive advantages in comparison to competitors (Bader et al. 2007, European Communities 2002), the increasing prices for energy and raw materials

(Bader et al. 2008) and the satisfaction of the requirements of Non-Governmental Organisations NGOs (European Communities 2003a).

2.4.3 Ethical standards and SMEs

After listing the findings concerning SMEs and morality, I reflect the relation between SMEs and ethical standards. With Spence and Painter-Morland (2010), I notice a minimal use of ethical standards by SMEs. That is why my research concentrates on two standards having an approach for SMEs – ISO 26000 'Guidance on Social Responsibility' and on SA 8000 'Social Accountability'.

The development of ISO 26000 is an important stage of realising a common view of a great number of (often national) ethical standards which have been developed in recent decades (comparisons and details found in Castka and Balzarova 2007, Goel 2005, Tecanti et al. 2004, Sacconi et al. 2003, ZfW 2001).

In 2004, ISO launched a new standard (Casta and Balzarova 2007, ISO Central Secretariat 2004) to be developed by experts from more than 90 countries and 40 liaison organisations (ISO 2010). ISO 26000 is to be a guide, and is not certifiable. Therefore it is very large and comprehensive and is "intended to assist organizations in contributing to sustainable development "(1).

Hanks (2009) positions different standards[15] in a matrix with affected issues (Social and Ethical; Environmental; Financial / Economic), and matching forms of company activities (Policy; Accounting; Assurance; Reporting) (Figure 2.8). Some standards only affect one issue, others more issues; as well as some standards only concern one activity, others more. The positions of ISO 9001 for quality and ISO 14001 for environmental management systems will be discussed in 2.5.3, p 86. ISO 26000 aims to cover all issues of the matrix being implemented in all forms of activities.

[15] The mentioned standards are shortly presented in 6. Annexes, p 279f.

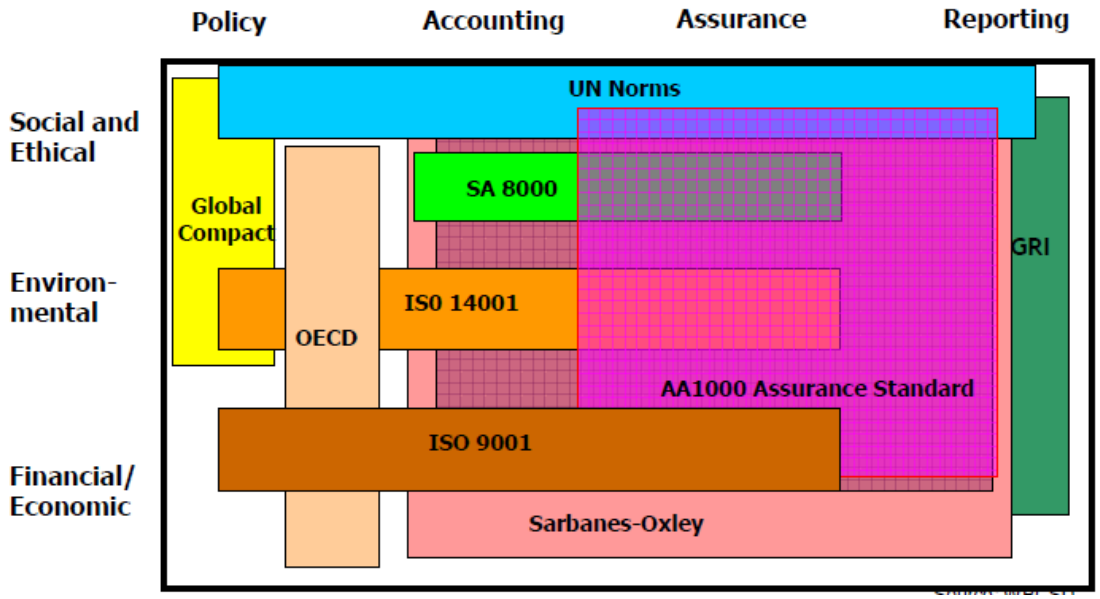


Figure 2.8: Matrix of issues and forms of company activities – integrating different standards (Hanks, 2009)

Figure 2.9 presents the contents of ISO 26000 and reflects the complex interrelationships between organisations and SR (ISO 2010).

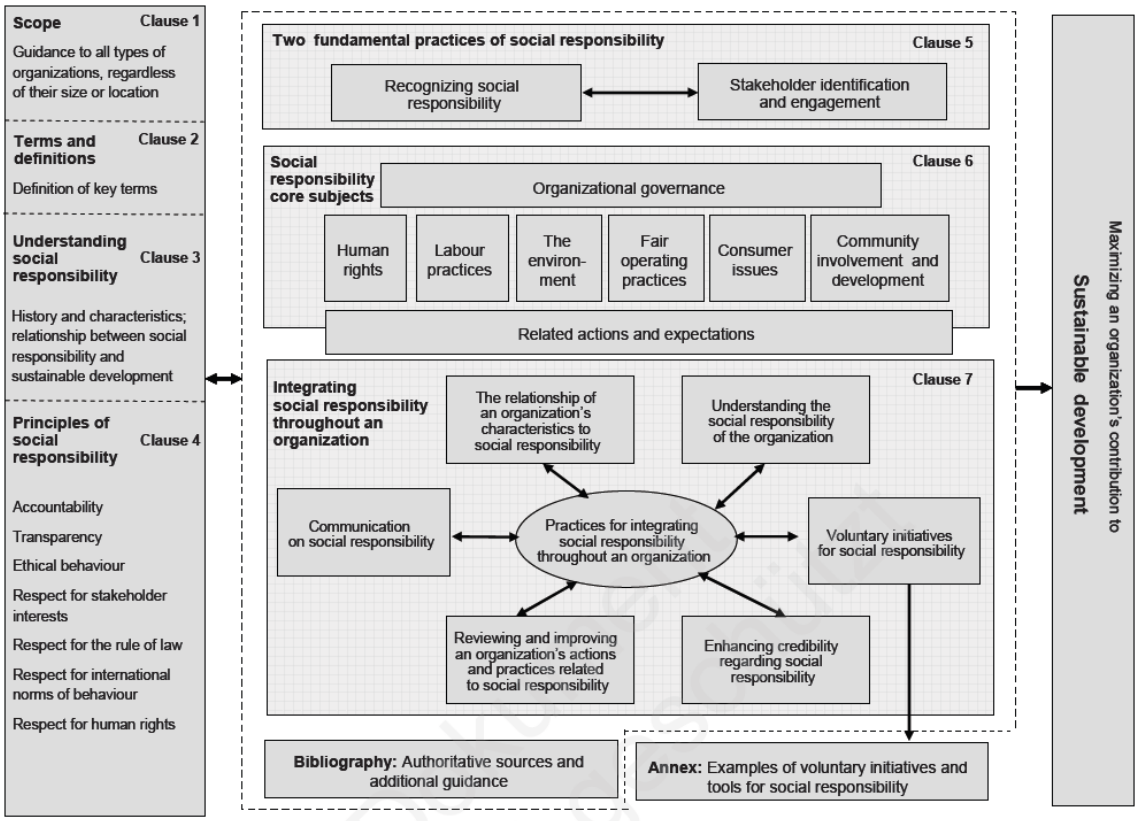


Figure 2.9: Schematic overview of ISO 26000 (ISO 2010, ix)

In Box 3, ISO 26000 gives special advices for the employ in small and medium-sized organizations (SMOs). Some of them propose practical issues to implement SR. SMOs take advantage of flexibility and informality, if they provide appropriate levels of transparency. A regular review of the core subjects of the Standard (see Figure 2.8 within Clause 6) allows identification of the relevant issues of the organisation, especially those with greatest significance to sustainable development. The realisation of these issues needs planning and possibly assistance from appropriate government agencies and collective organisations. Where appropriate, collective actions with peer and sector organisations will save resources and enhance capacity for action.

ISO and national bodies are on the way to propagate the standard; e.g. the Swiss Mirror Committee offered in 2011 a number of seminars especially for SMEs.

ISO 26000 wants explicitly to be guidance, and as such it is not certifiable. Meanwhile there is a growing desire for a certification according the standard. Austrian Standards published in 2011 with ONR 192500 a certifiable version (Austrian Standards 2011).

The SA 8000 standard is a voluntary global code on labour standards; it can be audited and employed for all sectors. It was developed in 1996 and sets standards for child labour, forced labour, health and safety, freedom of association and the right to collective bargaining, discrimination, disciplinary practices, working hours and compensation (newest version: SA 8000:2008 – SAI 2008a). By 2007, 1.373 facilities had been certified; 889 or 70% of them had fewer than 250 employees (SAAS 2007). Most certified companies were situated in Italy (628), followed by India (217), China (159), Brazil (91) and Pakistan (51) (SAI 2008b). As with the research of Ciliberti et al. (2008), I got to know from contacts with different companies, that SMEs that are part of a supply chain are mainly following SA 8000 to declare their employ of fundamental CSR requirements; websites of the leading Swiss chains of general stores (www.coop.ch/nachhaltig , www.migros.ch) inform that they co-operate with SA certified companies in developing countries.

2.4.4 Review of morality issues

By summarising the literature review I typify a number of moral attitudes and behaviours of SMEs: Social responsibility is for many SMEs a matter of course; moral activities concentrate on employees and their families, local communities, business partners, and physical environments. Motivating backgrounds include personal interests, responsibility towards the family, giving something back to the community and business reputation. Because ownership, management and control are usually concentrated in the same hands, the personal preference of top management and owners is the most influential factor. Moral attitudes and behaviours can also be influenced by size, geographical region, economic situation, use of strategies, and company culture. The use of management systems may also be an influencing factor. Main barriers for moral behaviour are lack of time and motivation, insufficient resources or capabilities, missing knowledge for engagement in social responsibility or inability to see suitable opportunities, not being in touch with local needs and a perception that community involvement is not related to business.

2.5 SMEs and (standardised) management systems

After the reviews concerning SMEs, and morality and SMEs, I examine the literature related to the third element, (standardised) management systems.

Reflecting on the distinction of Cabrera, Colosi and Lobdell (2008) between ‘thinking about systems’ and ‘systems thinking’, management systems relate to ‘thinking about systems’. However, in my research, I try to examine management systems with methods of ‘system thinking’.

ISO 9000:2005, the leading International Standard for quality management, defines management as

> “coordinated activities to direct and control an organization“(8),

and management system as

> “system to establish policy and objectives and to achieve those objectives” (8).

Because I know a lot of SMEs which have no formal policy[16], written objectives or specified procedures, I define 'management systems' as informally or formally grown elements of a company with the aim to guarantee and optimise on long-term its activities.

Applying this definition, management systems contain mainly steering issues. Also moralities have a steering – or better: a guiding – character; in SMEs, however, moralities often act informally. Steering is intensively related to the functionalist approach of system thinking because of their effectiveness and efficiency orientation as well as of the use of systemic methods. Though, bases on my reflections (see 2.3.3, p 66), SMEs can also be evaluated and characterised by interpretive and postmodern approaches.

To get a comprehensive illustration of management systems, I start this section with a short insight into management theories, followed by reflections relating to visions and strategies, an overview of issues concerning (standardised) management systems, and finally by an examination of the relations between management systems and morality.

2.5.1 Insight into management theories

The design of management theories are grounded in different backgrounds from physics, sociology, philosophy and psychology. They allow an explanation of possible elements of managerial behaviours.

Dahlgaard and Dahlgaard (2006) observed within their literature review various approaches of management theorists. Most authors agree that the main functions of management processes involve planning, setting standards of performance, coordinating, communication, evaluating, influencing people, and processing information. Differences between theories relate to the time the definitions were developed; older definitions mainly focus on organisational goals (rather functionalist), while newer focus on the concept of strategies and the role of managers (trend to interpretive).

[16] This view is underlined by a survey of PostFinance of November 2011 with 500 SMEs in Switzerland (see Frey 2011): In 47% of micro, in 38% of small and in 23% of medium companies strategies were registered in managers' brains; only 19% of micros had a business plan and 14% a strategy paper.

Merchant and Simons (1986) identified six different management approaches:

1. The *bureaucratic and mechanistic view* uses primarily formal mechanisms to standardise and influence behaviours, assess performance, and monitor undesirable deviations from the standard.
2. From a *cybernetic view*, every process is seen from an information processing view and considered as information-based activity. The core idea of the cybernetic view is a system's self-regulating ability based on feedback loops.
3. With the *agency view* an organization is regarded as a unity where agency relationships between a principal and agent are central elements.
4. The *human resource view* is inspired by literature related to the human resource field.
5. A central premise of the *contingency view* is that there is no universal 'single best' approach which is applicable to all organisations, or can applied in all circumstances.
6. The *cultural view* accents that all ideas about organizations and related issues are socially constructed.

In his 'Four Levers of Control Model', Simons (1995) identifies four different types of balancing control mechanisms in an organisation in order to deliver the business strategy. Two of the four levers increase individual freedom (beliefs systems inspiring new opportunities and interactive control systems stimulating organisational innovative learning), and two restrict individual freedom (boundary systems defining limits of possible actions and diagnostic control systems specifying controllable goals). The right mix of control systems depends partly on environmental factors like the predictability and complexity of the market in which the organisation is operating.

Management theories support the analysis of companies' attitudes and behaviours; according to my information, however, there is minimal research about their use in SMEs. I experience two main reactions of managers of SMEs attending seminars of management gurus; one group speaks about useless theories; the other, smaller group, is impressed and tries to implement ideas, often using immense resources with minimal success.

2.5.2 Mission, strategies, culture / traditions and SMEs

Management theories are goal-orientated; the employment of ‘vision’, ‘mission’ and ‘strategies’ become daily usage. Management literature, however, uses the terms extensively, but rarely characterises them. DeFeo (1998) speaks of confusion between vision and mission. The revised guidance for quality management ‘Managing for the sustained success of an organization – A quality management approach (ISO 9004:2009)’ explains ‘mission’ as

> “the description of why the organization exists” (3),

while ‘vision’ is

> “a description of its desired state, i.e. what the organization wants to be and how it wants to be seen by its interested parties” (3).

Key strategies represent the fundamental choices to reach the vision. They should cover the main areas of business: customer relations, costs, internal processes (including suppliers and competitors), and culture (including values and / or traditions concerning society and sustainability). Modern approaches to strategy use systems models to consider more effectively the complexities of the world and strategies (Borawski 2007).

A mission statement clarifies the purpose for existence of a company. ‘Mission statements’ are uncharacteristic to SMEs (Frey 2011); however, companies using management standards such as ISO 9001 or ISO 14001 are forced to formulate their ‘quality or environmental policy’ which often contains elements of a mission or at least of strategies. Changed market demands and increasing market pressure force SMEs to formalise their procedures initially and subsequently to integrate these into a system of reflected vision or mission and strategies.

Kaplan and Norton (1996) use their ‘Balanced Scorecard’ BSC tool to cover the circular interplay of vision or mission, strategies, objectives, action plans and control. A BSC is a multidimensional framework integrating financial data with other key performance

indicators. It helps companies to translate their mission and strategies into measurable objectives that go beyond a narrow focus on financial figures. BSCs include measures with regard to financial performance, customers, internal business processes as well as learning and growth. They help enterprises to adopt a long-term perspective, to secure future competitiveness and to guide individuals, departments and the whole company towards continuous improvement and innovation. BSCs are used in all types of companies. I have a large experience in successfully implementing BSCs in a large number of SMEs (e.g. Bürgi et al. 2001); as a consultant I propose BSC as a basic tool to implement management systems combined with the advice to integrate issues of values and culture; and as a member of the revision committee of the guidelines for quality management of Swiss Tourism Association I could bring in BSC as a recommended tool for the implementation of ISO 9001[17]. However, the effects of the use of BSC in SMEs are not examined by research.

Using the reflections of Schein and others (see 2.3.1, p 60) Pohl (2007: 102) typifies corporate culture as

> "an organisation's unique body of knowledge that is nurtured over a long period of time resulting in commonly held assumptions, values, norms, paradigms and world views".

Management and staff identify increasingly with mission, strategies and values if corporate culture is combined with CSR and branding. The culture of successful SMEs is characterised by strategies connecting traditional values with innovative strengths (Capelossi 2007, Fueglistaller and Fust 2006).

According to my experience, small and micro companies have rarely formulated missions and strategies. They are characterised by informal elements grown from the companies' culture and traditions. Changed market demands and increasing market pressure forces SMEs to formalise their procedures and later to integrate them into a system of reflected

[17] To be published in June 2012 by Swiss Tourism Association

vision or mission and strategies, often using tools like ISO 9001. However, there is insufficient documentation and research to ratify this observation.

2.5.3 (Standardised) management systems and SMEs

After a short discussion of management theories and missions, visions and strategies, I focus my examination on (standardised) management systems.

As already mentioned, I define a management system as a more or less formal interplay of the internal and external elements of a company and their steering elements to set purposes and achieve them. Management systems follow functional approaches because of their history and their axiomatic purpose as well as effectiveness and efficiency orientation. Every company has its own specific management system. In a smaller company it may not be formalised, being the result of evolved leadership and culture. Larger companies may have sophisticated computer based systems using frameworks of standardised elements.

A management system, examined with methods of 'system thinking', normally consists of different subsystems, each addressing issues such as company planning, quality management, financial management, human resources, safety and security, or environmental management. The overlapping of most of these systems encourages companies to integrate them.

Most organisations define at least informal procedures to clarify commonly applied practices and responsibilities. A certain formalisation is forced by external requirements of investors (e.g. business plans), customers (e.g. contracts), suppliers (product/service requirements) and public administration (e.g. taxes, health and safety). With larger companies, differentiated formalisation can be expected. Shop floor procedures for standardising daily activities are optimised by a 'roof' containing their relations to companies' mission and strategies; their interplay allows achieving planned objectives.

a. Company designed management systems

As already mentioned, companies generally have their own grown management systems. Mostly they may have started with fragments of shop floor procedures and structure of responsibilities. These fragments are optimised and grow, quite often, into comprehensive systems.

There is minimal research on such developments. My research surveyed a number of SMEs with company designed managements systems; this allows me to speculate and hypothesise as to the most effective method of development. At the very least, the relatively small number of companies using standardised and certified management systems world-wide suggests that the great majority have at least initial states to their own systems.

b. Implementation of standardised management systems

Before discussing the application of standardised management systems by companies, 'standard' has to be defined. According to ISO/TC176 (2004), a standard is

> "a document, established by consensus and approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results…" (363).

Management system standards, such as ISO 9001 (Quality management systems – Requirements) or ISO 14001 (Environmental management systems — Requirements with guidance for use), are familiar (West 2007b). While many standards are product related, management system standards are quite different. They provide requirements (ISO 9001 and ISO 14001) or guidance (ISO 9004 and ISO 14004) for the management system an organisation uses to attain particular types of results. The realisation of the requirements is checked by internal audits and an external certification body (see below, p 85).

Since the middle of the 1980s standardised management systems have diffused world-wide. In December 2009 over 1.050.000 companies in 178 economies had been certified

according to the quality standard ISO 9001 (an increase of 8% over the previous year and 133% over 2000) and more than 220 thousand in 159 economies according to the environmental standard ISO 14001 (ISO 2010b). The highest rate for ISO 9001 certificates is held by the Far East (50.3%), followed by Europe (40.0%); China holds more than 250 thousand certificates, followed by Italy (130 thousand), Japan (nearly 70 thousand) and Spain (nearly 60 thousand). China has most certifications for ISO 14001 (more than 55 thousand), followed by Japan (nearly 40 thousand), and three European countries (Spain with more than 16 thousand, UK more than 14 thousand, and Italy more than 10 thousand).

Besides the two main management system standards (ISO 9001 and ISO 14001), ISO and other organisations released a number of other standards as for health and safety (OHSAS 18001), food (ISO 22000), risk management (ISO 31000), automotive sector (ISO/TS 16949), medical devices (ISO 13485), and information security (ISO/IEC 27001).

There is minimal research concerning the reasons for the specific development of the number of certificates in regions and countries. Certificates are taken as evidence for quality and environmental correctness; this may explain the increasing number of certifications in developing economies. At the end of last century, certifications in the U.S. were increasing to get easier access to the European market accompanied by critics concerning the abuse of ISO 9001 as non-tariff trade barrier (Bürgi 1999). In Europe, certification was employed as a marketing tool, until quality of product and services became basic requirement for supplying. In Switzerland, public administrations required ISO certification to get contracts, therefore construction companies tended to implement only sophisticated management systems (see also Findings 4.4.5, p 221).

Because a company and its internal and external relations are highly complex, its management system cannot follow linear procedures because it comprises a network of interrelated cyclic or linear processes and sub processes. This factor was reflected within the standards' revisions (ISO 9001:2000; ISO 14001:2004) giving an understanding of the

business through an interrelated process approach[18]. Both standards are characterised by effectiveness and efficiency aimed at survival (ISO 9001: company – ISO 14001: company and physical environment) and accompanied by integrated ongoing adaptation by using the Deming circle (plan – do – study / check – action). These issues characterise the standards as functional. The standards, however, give the companies quite a lot of free space for their implementation (ISO 9001:2008 – 0.1; ISO 14001:2004 – 4.1 / 4.2); that is why also interpretative and postmodern methods may be employed.

The systemic process approach of the ISO 9000 family is visualised by a model of two cybernetic circles which are finally governed by the top management (ISO 9000 – Figure 2.10).

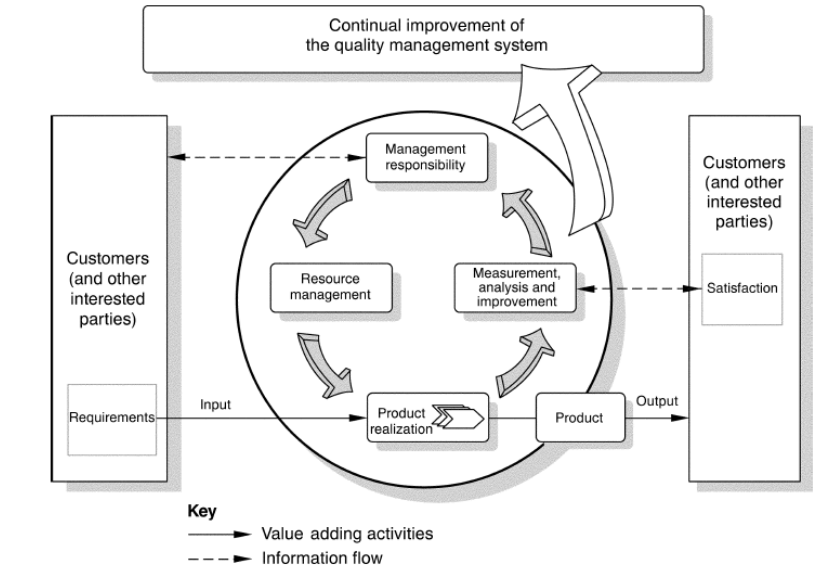


Figure 2.10: ISO 9000: Model of process-based quality management system (ISO 9000:2005)

The two circles are:

External / internal circle: The communication of Management with Customers (according to ISO 9001) or Interested parties[19] (according to ISO 9004) and the commitment to legal obligations defines inputs for Product realisation. The Product (or service) becomes the

[18] ISO 9001:2008 – 0.2: "An advantage of the process approach is the ongoing control that it provides over the linkage between the individual processes within the system of processes, as well as over their combination and interaction".

[19] The term 'interested parties' used by ISO 9004 is equivalent to 'stakeholders' in business thinking.

output to achieve Customers' or Interested parties' satisfaction. The exchange of information between Costumers and 'Measurement, analysis and improvement' produces inputs for the controlling within Management. The Management again exchanges the adapted information with Customers' or Interested parties' to optimise the definition of requirements …

Internal circle: The Management defines policy and objectives providing Resource management. The resources allow Product (and service) realisation. The results become input for 'Measurement, analysis and improvement' which becomes the input for 'Management responsibility' …

ISO 14001 follows a spiral indicating continual sustainable improvement. The process starts with commitment to implement an environmental management system followed by the definition of the Environmental policy, Planning, Implementation and operation, Checking and corrective action, and Management review as shown in Figure 2.11.

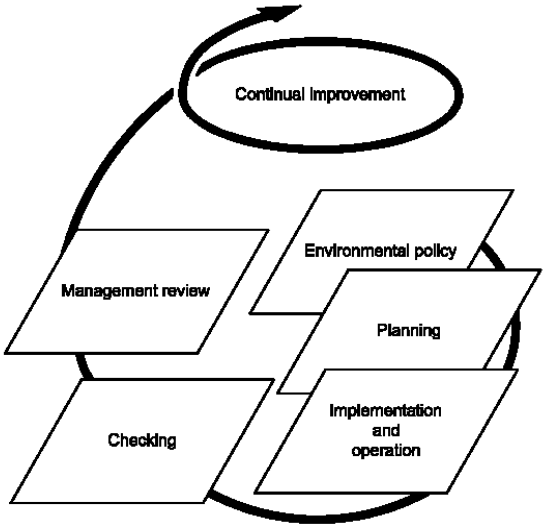


Figure 2.11: Basic model of ISO 14001 series (ISO 14001:2004)

As noted earlier, while separate quality, environmental and health and safety management systems concentrate on specific parts, their conjoint implementation can interrelate and give reasonable comprehensiveness and allow to integration of a company's management system (e.g. Duffy 2007, Liebesman 2007, Shipley 2003, Petrick 2002). ISO 9001 covers everything in the organisation relating to quality, including

products and services, processes, operations and by these provide customer satisfaction. ISO 14001 concentrates on the handling of products, wastes and emissions, and the effects of those outcomes on the physical environment; it achieves the confidence in the organisation's capability to satisfy the environment-related needs, expectations and requirements of the relevant interested parties. The health and safety models like OHASAS 18001 aim to prevent psychological and physical harm of management and staff caused by activities of companies.

Logically the subsystems may not be separated. Management for satisfactory environmental quality of products is part of quality management as well as of the management of the social and physical environmental. Likewise for occupational health and safety management, safety characteristics of products must be indicated as quality characteristics. The uses of the standards provoke moral attitudes and behaviour which is strengthened by their interplay.

In the United States ISO 9000 is increasingly used as a tool to achieve the requirements of The Sarbanes-Oxley (SOX), Act of 2002 – the U.S. government's response to the financial scandals at Enron, WorldCom, Tyco and other large companies under the purview of the Securities and Exchange Commission (SEC) (Liebesman 2008, Liebesman 2007, Hofmann 2005, Stimson 2005b, Arter and Russel 2003, H.R. 3763 2002). Using ISO 9001 as a tool for implementation of SOX, financial elements are integrated in a standardised quality management system.

According to Duffy (2007) a truly integrated management system has to satisfy three principles: customer focus, process improvement and total involvement – issues often summarised as characteristics of TQM. Zairi and Baidoun (2003) reflect on the basis of a large literature review fundamentals of a comprehensive TQM:

1. 'Soft' quality factors such as leadership, employee involvement and quality policy development are long-term issues of a company. Their implementation must be supported by 'hard' quality factors to achieve the company goals. These 'hard' quality factors include: benchmarking, managing by processes, self-assessment, quality

control tools, cost of quality process, documented quality management system, supplier management, and customer management.

2. The integration of marketing, design, purchasing, operations, and quality assurance is necessary for success in TQM. The concept of internal and external customers or suppliers forms the core of total quality.

3. A key part of any total quality strategy is the management of processes. The fundamental factors that are absolutely essential to a successful TQM implementation are: top management commitment, clear mission statement and focus on the customer needs. These are aligned with a sound company culture.

4. TQM is a strategy for change in an environment where the accepted paradigms are subject to constant challenge.

Both definitions concentrate on customers and suppliers as well as on internal issues to optimise company's activities. A really integrative and comprehensive TQM definition, in my opinion, has to explicitly integrate all sorts of stakeholders (as employees, customers, public, neighbours, finance, and physical environment) beneath the different internal issues.

TQM models like European EFQM Excellence and the US American MBQNA (EFQM 2009, Baldrige National Quality Program 2006, EFQM 2003) as well as models for comprehensive risk management based on the Triple Bottom Line Model try to balance economic, social and ecological elements (e.g. Schiegg 2005) and aim to be all-embracing. Likewise the ISO 9000 quality management standards series Guidelines (ISO 9004) broadened requirements of interested parties and finance and so target greater inclusivity (Russel 2004, Russel 2003, Seaver 2002); with the revision of 2009 this purpose was intensified and explicitly integrated moral elements as well as sustainability (ISO 2009, ISO 2007b, ISO 2005a). And an ISO census of October 2010 with nearly 12.000 companies from 122 using ISO 9001 and ISO 9004 showed an increasing integration of other management systems, especially ISO 14001 and OHS (ISO/TC 176/SC 2 2011).

The long-term value of any standardised management system is guaranteed by its rigorous implementation and continuous improvement. Explicitly QMS, EMS and OHS standards ask for such control because their use strictly aims to prevent harm of the physical environment and human lives. Independent assessment by a certification or registration body is a source of assurance that an organisation has a sound management system effectively addressing compliance, provided that the audit is performed by a knowledgeable and qualified person (Briggs 2005). Certification or registration of management systems may give confidence in the management system, but does not guarantee that products meet applicable product related standards (West 2007b). Society expects auditors to be free of conflicting interests. If an auditor's integrity is questionable, the auditing organisation will lose creditability in the eyes of its customers, its competitors and society (Arter and Russel 2003).

In the nineties, because the majority of the certification bodies or registrars were using clearly defined audit checklists interpreting the standards, many companies built their systems according to the requirements of the bodies or registrars, often by over-documenting their procedures and systems and leading to sub-optimal performance (Seaver 2002, Calibot 2001, Seddon 2000). Using ISO 9000 only as a checklist for certification has corrupted the whole core idea of the standards (Gordon 2002). Dearing (2007)[20], Martinez and Martinez (2007), van der Wiele et al. (2005), Martinez and Martinez (2004), Micklewright (2004), Arthur and Russel (2003), Stratton (2002), Wade (2002), Tricker (2001), Wagenbach (2001), Bürgi (1999) and Brown et al. (1998) confirm this distressing development often mentioning additional issues such as reduced interest and knowledge of auditors and certification's fees. For years, the problems concerning the quality of third party auditing have been regularly discussed within the meetings of NK 140 for quality management of the Swiss Standard Association; however, there is no actual corresponding research.

[20] Dearing presented his experiences in Quality Progress, February 2007 (Journal for all Members of ASQ American Society of Quality). He got six feedbacks mainly mentioning negative experiences with third party auditing (*Quality Progress*. April 2007: 8-12).

The IAF International Accreditation Forum regulates and controls activities of the national accreditation boards (Bürgi 1999). To optimise third party auditing, ISO published in 2006 a particular standard for certification bodies or registrars ISO 17021, Conformity assessment — Requirements for bodies providing audit and certification of management systems (ISO 2006b). Already in 2002, a specific standard for the improvement of companies' internal audits was edited: ISO 19001 – Guidelines for quality and/or environmental management systems auditing (ISO 2002a); a first revised edition of the standard was edited in 2011 (ISO 2011).

After these general reflections concerning management systems[21], the use of these systems within SMEs is discussed.

c. SMEs and standardised management systems

Because quite a lot of SMEs are suppliers of end-producers or public administrations, many of them have been forced by their customers (since the early nineties) to introduce standardised quality management systems according to ISO 9001. If SMEs have impacts on the physical environment, they often also implement standardised environmental management systems according to ISO 14001.

Because the ISO surveys to not distinguish between companies' sizes, there is no comprehensible data available concerning SMEs using the Standards. EFQM and MBQNA also introduced specific models and awards for SMEs, but the numbers of applicants do not allow illustrating a valid number of users. However, there is quite a lot of literature concerning the effects of the use of managements systems like ISO 9000 and ISO 14001. Most of it concentrates on external and financial effects; in discussing ISO

[21] Continuative literature concerning the development and use of different standards and TQM models see: EFQM (2009, 2009a, 2003), ISO (2009a, 2005b, 2004a, 2004b, 2002b), Campbell (2008), Jaecklin (2008), Liebesman (2008), OHSAS (2008), Briggs (2007), EKAS (2007), Seghezzi et al. (2007), Watkins (2007), Werner (2007), West (2007, 2002), Surak (2007), Baldrige (2006), Gupta (2006), Medhurst and Richards (2006), Russel (2006, 2005, 2004a, 2004b),Pivka and Zmulej (2004), Cianfrani (2002), Fleming (2002), Seaver (2002); Smith (2002), Wade (2002), Antilla and Vakkuri (2001), Callibot (2001), Monich (2001), Tricker (2001), Kolka (1998), Sayle (1997), Hunt (1997)

9000 it often refers to the use of ISO 9001:1994. Besides the research of the author (Bürgi 1995 and the results this research) relatively few surveys control internal effects[22].

The literature review shows, that the effectiveness of implementation and use of standardised management systems is related to the motivation of managers and staff and the specific development of companies in relation to their environment. The standards ask for a defined policy and related objectives which should be regularly reviewed and lead to continuous improvement. The implementation of the standards is often used as occasion for organisational systemisation and improvement – mainly provoking improved productivity.

I present results of surveys concerning users of ISO 9001:1994, of ISO 9001:2000 and of ISO 14001.

ISO 9001:1994 – quality standard without process approach

The implementation of a system is often externally forced by customers, head offices and governments (Van der Wiele et al. 2005) – especially manufacturing companies (Dick et al. 2001). On the other hand service companies have a marked quality differential and gain competitive advantage (Dick et al. 2001). The specification and implementation of a management system is mainly related to tradition and existing culture of the company (Bürgi 1995).

The organisation has to define the reasons of its existence and its philosophical goals which everyone should understand (Monich 2001). However, in most of the ISO 9000 implementations objectives are, typically, completely absent (Wade 2002); and ISO 9000

[22] Examples of older literature not discussed within this research:
Mroz, J.G. (2003). Test ISO 9000:2000 Understanding. *Quality Progress.* September 2003: 82-83.
Daniels, S. (1998). Are ISO/QS-9000 Certifications Worth the Time and Money? *Quality Progress*. October: 19-20.
Punter, L. (1998). *Client / Non-client survey: results*. London: BVQI (Holding) S.A.
SGS. (1996). *ISO 9000 - Does it work? A report by Manchester Business School 1995*. East Grinstead: SGS Yarsely International.
SGS. (1996). *Beyond ISO 9000 - Evaluation and Improvement for the Public Sector: Research study conducted by Institut Supérieur de Commerce International à Dunkerque (ISCID)*. East Grinstead: SGS Certification Services.

is no more than a particularly inefficient application of traditional management thinking (Seddon 2000).

The integration of TQM elements supports employees' participation, motivation, and leadership (Martinez and Martinez 2004); certification could be a good first step toward TQM.

External benefits of the use of the standard are higher confidence of the customers, increased customer satisfaction (Casadesus and Karapetrovic 2005, Bürgi 1995), brand / image and market share (Van der Wiele et al. 2005), higher returns and lower variability of returns than in non-ISO 9000 firms (Pinar and Ozgur 2007), and reliability (Bürgi 1995).

As internal benefits are observed improvements in quality awareness and management control (Brown et al. 1998), occasion for structuring, systematisation and formalising and development of a system of a bureaucratic control (Wagenbach 2001), improved productivity because of optimised procedures and work instructions (Van der Wiele et al. 2005, Martinez and Martinez 2004, Pivka and Zmulej 2004. Brown et al. 1998, Bürgi 1995), optimised interdepartmental relations (Wagenbach 2001), and decentralisation and self-regulation of work (Bürgi 1995).

These issues are mentioned as disadvantages: Registration to ISO 9000 leads to sub-optimal performance (Seddon 2000). Bureaucracy increases at different levels (Bürgi 1995). The employee satisfaction worsened because of bureaucracy of the system (Martinez and Martinez 2004).

ISO 9001:2000 – quality standard with process approach

The new version of the ISO 9000 standard seems to be a system nearer to TQM and a good opportunity for companies to attain better results (Martinez and Martinez 2007).

Some organisations are especially satisfied with the two most significant changes: the stronger focus on customer orientation and on the improvement approach (Martinez and Martinez 2007, Van der Wiele et al. 2005). Respondents of larger organisations perceive larger effects on issues related to 'quality philosophy' and 'operational effects' (Van der

Wiele et al. 2005). Only few companies perceive a negative impact of this standard on their business (Casadesus and Karapetrovic 2005).

Legislation and public requirements are drivers for quality (Longchamp 2008). Customers and top management determine the development of the management system by concentrating on process orientation and risk management. A successful quality management bases on skills and motivation of employees. The dimension of empowerment and contingent reward mainly support implementation, followed by charisma and intellectual stimulation (Jabnoun et al. 2005).

Reasons for not having converted to the 2000 version included missing management time, immense cost of maintenance, decreasing customers' requirements, and lack of perceived benefits (Van der Wiele et al. 2005).

Pinar and Ozgur (2007) mention as external benefits of ISO firms generally higher returns and lower variability of returns than in non-ISO 9000 firms, and Martinez and Martinez (2007) intensified customer orientation.

Van der Wiele et al. (2005) observed as internal benefits a more realistic understanding and valuing the quality management systems, a change towards a management control instrument in relation to the overall business strategy, and a much more active involvement and leadership from management. Martinez and Martinez (2007) saw a decrease in unnecessary bureaucracy and a requirement for measurement of customer satisfaction.

Disadvantages resulted from sophisticated implementations of systems as 'theoretical' changes without integration of workers and training of employees (Martinez and Martinez 2007, Singh et al. 2006).

ISO 14001 – environmental management systems

Improving the working conditions within the firm is the most important reason for investing in environmental issues, followed by the reasons of satisfying legislation, serving moral duty and serving order and cleanliness (Masurel 2007). Legislation and the regulators are

more important drivers for general environmental improvements than customers (Briggs 2007, Gutowski et al. 2005, Hillary 1999). Market incentives from either the public or private sector are insufficient to attract SMEs (Briggs 2007).

Three quarters of the companies did not even have a strategic policy or concept (Obršálová et al. 2005); however, the strategy orientation leads the use from regulatory compliance to management systems (Briggs 2007). A successful implementation has to handle ISO 14001 and organisational culture as parts of an integrated management system (Balzarova et al. 2006).

The range of financial savings and payback periods for investments generated in SMEs adopting EMSs are as diverse as the sector itself (Hillary 1999). Half the environmental objectives and targets would have been achieved even without EMS (Zackrisson et al. 2005, Briggs 2007).

As external benefits have been observed attraction of new business and customers and satisfaction of customer requirements (Hillary 1999), positive outcomes in terms of improved environmental performance, assured legal compliance and energy and material efficiencies (Briggs 2006, Obršálová et al. 2005, Hillary 1999), improvement of supplier-customer relations and achievement of competitive advantage on the market (Obršálová et al. 2005), and enhanced image as well as improved dialogue and relationships with stakeholders (Obršálová et al. 2005, Hillary 1999).

Internally companies benefited from numerous organisational improvements and efficiencies (Briggs 2006, Hillary 1999). They improved the ability to identify weaknesses (Balzarova et al. 2006, Zackrisson et al. 2005) and the awareness of environmental issues and ethics, increased responsibility and accountability basing on staff training employee morality (Briggs 2007, 2006). Communication channels, skills, knowledge and attitude are improved (Hillary 1999), and costs of material, fuel and energy as well as operational costs decreased (Briggs 2006, Obršálová et al. 2005). Business intelligence was optimised in order to promote further continuous updating on environmental issues (Zackrisson et al. 2005).

On the other hand, more resources were required than expected, in terms of costs, time and/or skills (Hillary 1999). Some firms have been misadvised by consultants and developed bureaucratic and ineffective systems (Hillary 1999). There was also dissatisfaction with the fact that benefits had not been materialised as expected (Briggs 2007, Hillary 1999).

Darnall (2006) observed differences in the implementation of EMS depending on ownership: Publicly traded facilities incurred the lowest EMS adoption costs, had the strongest internal competencies, and were influenced less frequently by external resources; government facilities had the weakest internal competencies, relied on external resources more frequently, and had the most costly EMS adoption process; and privately owned had moderate internal capabilities, external resource use, and EMS adoption cost.

There are also geographical differences: Europe based companies concentrate more on overall environmental strategies; while Japanese and Americans regard an EMS as a hurdle to achieve market entry (Gutowski et al. 2005).

Internal barriers to EMS adoption are more important than external (Hillary 1999). Internal barriers are the lack of human resources becoming increasingly important as the size of the company decreases (Hillary 1999), the misinformation about EMSs concerning their working and possible benefits can be gained from their implementation (Hillary 1999), the fear of additional paperwork and cost without improving productivity (Briggs 2007), and the evaluation of environment not as a core business issue (Hillary 1999).

As external barriers are mentioned the high cost associated with certification (Briggs 2007, Hillary 1999,). Customer indifference to SMEs environmental performance is a key reason why these enterprises consider environmental issues unimportant to business (Hillary 1999).

OHS implementation

Sørensen (2007) examined the behaviours of SMEs in context with health and safety. His findings are based on a large literature review and a survey with a representative sample of Danish workplaces: private-owned small enterprises have fewer resources for OHS

work and with that a higher risk of severe and fatal accidents. On the other hand SMEs tend to have better psychosocial working conditions for all types of ownership.

d. SME and management systems – review

Above I defined a management system as a more or less formal interplay of the internal and external elements of a company and their steering elements to set up purposes and to achieve them. The analysis of literature review shows that standardised management systems provide functional approaches because of their history and their axiomatic purpose and effectiveness / efficiency orientation.

The application of management systems is influenced by internal and external issues. The attitudes of management as well as the motivation of employees are decisive for a successful implementation. A certain formalisation is forced by external requirements of investors, customers, suppliers and public administration. The application of standards has been intensively influenced by certification bodies or registrars – often leading to sophisticated and bureaucratic systems. However, the increasing awareness of the company to become self-responsible provides the implementation of tailored systems integrating culture and other specifications; this allows for additional application of interpretive and postmodern system approaches.

Because a comprehensive TQM provides process improvement by integrating internal issues such as leadership, employee involvement as well as all sorts of external stakeholders (as customers, public, neighbours, finance, and physical environment), and quality policy, a TQM exceeds a functional system approach and applies other forms.

Applying the ‘System of system methodology’ (see Table 2.3, p 47), the problem situation of SMEs and their use of management systems may be quite simple as well as quite complex; it depends on the range of the use of the system (e.g. simple shop floor procedures, sophisticated system, integration of different subsystems, TQM). The degree of shared purpose amongst participant stakeholders is pluralist, and can be – depending from the environment – coercive; internal participants are owners, top-managers, and

employees, while external factors include customers, suppliers, financing, public administrations, certification bodies, neighbours, and the physical environment.

However, there are number of gaps in research concerning company designed management systems, number of certified SMEs, reasons for the implementation of standardised management systems in specific regions, problems with third party auditing, and internal effects of standardised management systems.

2.5.4 Management systems and morality

So far in this chapter – beneath an introduction in system thinking – characteristics of SMEs have been discussed as well as SMEs and morality, followed by a consideration of the development and use of standardised management systems. The relations of standardised management systems and morality are reflected in a final step, starting with reflexions concerning TQM and CSR, and followed by moral issues of and within standardised management systems.

Literature offers a palette of quality meanings which outline the market context such as: fulfilment of expectations, product and service excellence, grade (category or rank given to requirements), and fitness for purpose and management excellence (Sower and Fair 2005, Stimson 2005a, Petrick 2002). Management gurus like Crosby, Deming, Ishikawa, Taguchi, and Juran describe quality as important for the survival of the company and the satisfaction of customers, but also as something to benefit people, communities, society and the physical environment – terms which are nowadays mentioned as elements of CSR. These management philosophies influenced management systems as ISO 9000 and ISO 14001, as well as the excellence models (Borawski 2008, Leonard and McAdam 2003).

Because standardised management systems include implicitly and explicitly defined moral issues, it can be supposed that their use influences attitudes and behaviours of individuals and with that the company as a whole. The systems aim to support business and market activities, to give people (and their relatives) work, to safeguard people and to protect

livelihoods and the physical environment – and thereby to guarantee the sustainability of life (Oppenheim and Przasnyski 1999).

In my opinion, these management systems exceed functionality by integrating moral issues. It can to be supposed that in a first phase of implementation, standards and their moral issues only act as external elements. The influence of moral issues will be successful in the long term, if they are more and more integrated and become part of management, leadership and culture. The purposeful use of audits and regular management reviews will support the process of integration towards a comprehensive management system combining issues of TQM and CSR.

Ghobadian et al. (2007) analyse the similarities and differences between TQM and CSR. For them, the two concepts share similar philosophical roots; with a substantial overlap between the elements of the two concepts. Both TQM and CSR ultimately result in the organisation of doing the right thing. Despite these similarities, however, implementation of TQM will not necessarily result in CSR. TQM is driven by a set of interrelated concepts that simultaneously feature management practice and moral values. By this, TQM encompasses concepts and practices that strive to work for the benefit of all stakeholders. But it is necessary to adjust the elements of TQM so that they consciously address facets of CSR.

Hazlett et al. (2007) plead that building a CSR system needs a strong foundation. Quality management and business excellence frameworks may support the embedding of CSR values and behaviours. CSR can be advanced more rapidly if it can be incorporated into existing standards and methodologies (particularly in relation to policy and strategy), rather than being viewed separately.

Within their reflections concerning ISO 26000, Castka and Balzarova (2007) compare different standards (ISO 9000, ISO 14001, SA 8000, AA 1000, and ISO 26000) by defining their general descriptions, key elements, and principles; they detect parallels between explicit CSR standards and commonly used management standards. Leonard

(2008) gets similar results in his analysis from examining the effects of the standards on the application of the US SOX Act.

Contemporary system thinking (Jackson 2000) is seen as a meta-methodology understanding, respecting and using the uniqueness of functionalist, interpretive, emancipatory and postmodern theoretical rationales, and drawing upon them to improve real-world situations. That is why contemporary system thinking seems to me best-suited to reflect this interplay of CSR and TQM, because this interplay asks for an optimal mix of foundation, openness, and responsibility. The position of a company as having the capability to successfully manage this complexity can be described with the term 'edge of chaos' applied in chaos and complexity theory[23] (McMillan 2004).

Applying the 'System of system methodology' (see Table 2.3, p 47), the problem situation of management systems and morality may be quite simple as well as quite complex; it depends on point of view the situation is regarded (e.g. simple analysis of moral issues within a specific standard, multivariate issues of interplay between TQM and CSR). The degree of shared purpose amongst participant stakeholders is unitary or pluralist, and can be – depending on the environment – coercive; management systems with only one or two participants are unitary (e.g. ISO 9001 with customer orientation, ISO 14001 optimising physical environment, OHSAS 18001 reducing harm of employees), pluralist are all management systems with several stakeholders, and coercive all management systems where shortcomings of stakeholders can be expected (e.g. ISO 14001 system with contradictory aims of stakeholders – workplace vs. environmental protection; maintaining workplace vs. outsourcing).

a. Morality and ISO 9000

The quality management principles of ISO 9000 contain a number of moral elements which are explicitly mentioned in a specific document of ISO giving the standardised descriptions of the principles as they appear in ISO 9000 and ISO 9004 (ISO 2004c):

[23] 'Edge of chaos' is a position allowing optimal reaction on changing environment. A metaphor for the position is fluid water – being not volatile gas and steep ice.

Principle 1 ‘Customer focus’ aims to ensure a balance between satisfying customers and other interested parties (such as owners, employees, suppliers, financiers, local communities and society as a whole).

Principle 2 ‘Leadership’ considers the needs of all interested parties (including customers, owners, employees, suppliers, financiers, local communities and society as a whole), while aiming: create and sustain shared values, fairness and ethical role models at all levels of the organisation; establish trust and eliminating fear; provide people with the required resources, training and freedom to act with responsibility and accountability; and inspire, encourage and recognise people's contributions.

Principle 3 ‘Involvement of people’ tries to lead people to: understand the importance of their contribution and role in the organisation; identify constraints to their performance, accept ownership of problems and their responsibility for solving them; evaluate their performance against their personal goals and objectives; actively seek opportunities to enhance their competence, knowledge and experience; freely share knowledge and experience; and openly discuss problems and issues.

Principle 4 ‘Process approach’ wants to establish clear responsibility and accountability for managing key activities, identify the interfaces of key activities within and between the functions of the organisation, and evaluate risks, consequences and impacts of activities on customers, suppliers and other interested parties.

Principle 5 ‘System approach to management’ supports building confidence with interested parties as to the consistency, effectiveness and efficiency of the organisation and developing a better understanding of the roles and responsibilities necessary for achieving common objectives and thereby reducing cross-functional barriers.

Principle 6 ‘Continual improvement’ provides people with training in the methods and tools of continual improvement, and recognises and acknowledges improvements.

Principle 7 ‘Factual approach to decision making’ supports making decisions and taking action based on factual analysis, balanced with experience and intuition.

Principle 8 ‘Mutually beneficial supplier relationships’ helps to establish relationships that balance short-term gains with long-term considerations (supported by clear and open communication), pooling of expertise and resources with partners, and sharing information and future plans.

This moral approach in ISO 9000 was assessed by Castka and Balzarova (2004) in a UK SME case study; business system frameworks, such as ISO 9001:2000, can serve as a vehicle for CSR integration into day-to-day operation of the business.

The Italian CSR standard Q-RES uses the same cybernetic circles as ISO 9001 to build a bridge between ISO 9001 and morality (Sacconi et al 2003).

The revised version of ISO 9004:2009 demonstrates already within its introduction a comprehensive morality-orientated aim by defining the sustained success of an organization. It

> "is achieved by its ability to meet the needs and expectations of its customers and other interested parties, over the long term and in a balanced way” (v).

Possible needs and expectations of interested parties are summarised (see Table 2.4). All needs and expectations are related to morality; ‘society’ mentions ‘ethical behaviour’ explicitly. The standard provides a variation of possible behaviours for handling the different interested parties, and the ‘Quality management principles’ discussed above have been enlarged.

Interested party	**Needs and expectations**
Customers	Quality, price and delivery performance of products
Owners / Shareholders	Sustained profitability Transparency
People in the organization	Good work environment Job security Recognition and reward
Suppliers and partners	Mutual benefits and continuity
Society	Environmental protection Ethical behaviour Compliancy with statutory and regulatory requirements

Table 2.4: ISO 9004:2009, Table 1 – Examples of interested parties and their needs and expectations

b. Morality and ISO 14001

Much of the literature concerning environmental ethics discusses the extensive care for the physical environment, responsible attitudes and behaviours towards the natural environment and all sorts of stakeholders, as well as world-wide empowerment toward a common sustainable future.

Environmental management systems according to ISO 14001 have explicitly specified their moral issues (physical environment, and the health and safety of people). They aim to reduce or, if technically and economically possible, to avoid pollution and any harm to interested parties or stakeholders in- and outside of the company – in both the short and long terms.

c. Morality and occupational health and safety

All OHS standards demand explicitly that users reduce or, if technically and economically possible, avoid any harm to employees. By that they contain moral issues.

d. Morality and excellence models

Established models of business excellence such as the MBNQA Criteria for

Performance Excellence, the EFQM Excellence Model, the Australian Business Excellence Framework, and the Canadian Framework for Business Excellence incorporate social responsibility elements and advocate management practices compatible with the ideals of CSR (Ghobadian et al. 2007).

Both main models, MBNQA and EFQM, explicitly mention in their concepts the importance of CSR. In MBNQA CSR becomes especially visible in focus on the future, leadership, knowledge management, and human resources focus and in EFQM by the general orientation towards sustainability which is integrated in all issues.

f. Morality and auditing

According to ISO 19011 (revised edition 2011), Guidelines for quality and/or environmental management systems auditing, auditing depends on moral conduct (the

foundation of professionalism which includes trust, integrity, confidentiality and discretion), fair presentation (obligation to report truthfully and accurately), due professional care (application of diligence and judgement in auditing), independence (basis for the impartiality and objectivity of the conclusions), and evidence-based approach (rational method for reaching reliable and reproducible audit conclusions in a systematic audit process).

Additionally, the knowledge and skills as well the corresponding education, especially personal attributes are demanded from auditors, with emphasis on specific moral attributes including: to be fair, truthful, sincere, honest, discreet, and open-minded.

This list of audit principles as well as that of personal attributes of auditors aims explicitly to guarantee morality in auditing activities. The other issues underline this objective at least implicitly. Arter and Russell (2003) go so far as to say that the consequent use of ISO 19011 probably could have prevented the auditing disaster of Enron; the use of the ISO standards 9001 and ISO 190011 as tools to fulfil the requirements of the US SOX act supports this statement (Hofmann 2005).

However, I did not meet any research concerning attitudes and behaviours of auditors besides mine (Bürgi 1999).

g. Standardised management systems and ethical theories

The SME model of this research provides a method to evaluate the moral issues by integrating the philosophy of the standards into the measurement tool (see 4.3.4, p 189ff): ISO 9000 concentrates on staff, company, customers, suppliers and market; ISO 9004 applies to society; ISO 14001 focuses on physical environment, staff and society; the OHS standards on staff; the comprehensive excellence models touch on all aspects; and TQM models focus on being comprehensive.

It is quite difficult to benchmark the systems according to generally known ethical theories (see inter alia: Rachels 2005, Crane and Matten 2004) as egoism, utilitarianism, ethics of duty, ethics of right, theories of justice, virtue ethics, feminist ethics, and discourse ethics, because these theories are closely related to people using them. I suppose with Jaccard

(2010) that many owners and top-managers of SMEs are affected by virtues such as integrity, trust, compliance and honesty because of their high personal responsibility towards people and the survival of their business; on the background of these virtues, they may influence the management system of their company. I examine these issues within the analysis of the data of this research.

h. Standardised management systems and morality in SMEs

The discussion of the relations between standardised management systems and morality in SMEs is limited by narrow literature findings: Longchamp (2008) noted that only 27% of the interviewed Swiss quality managers state that CSR is part of the quality definition in companies. Enterprises' orientation towards quality systems could be considered as an indicator of the level of the growing complexity of their social core (CERFE 2001). Enderle's (2004) producing Swiss firm uses the advantages of an (environmental) management system with its integrated controlling elements to support the moral balance of the firm.

Because the environmental standard ISO 14001 explicitly encloses moral elements some effects are observable. Improved environmental performance, assured legal compliance and energy and material efficiencies are positive outcomes (Briggs 2006, Obršálová and Kožená 2005, Hillary 1999). Enhanced image, as well as improved dialogue and relationships with stakeholders are also observable positive effects (Obršálová and Kožená 2005, Hillary 1999).

i. Management systems and morality – review

In their concepts all management systems contain at least implicitly moral issues which enlarge the functionalist character of the systems. However, there is no research concerning the influence of management systems on moral attitudes and behaviours of SMEs, as well as on moral behaviours of auditors. On the other hand the influence of virtues of individuals on the implementation of management systems is not examined.

Characters and moralities of managers and staff are the basis of the performance of the SME, and carefully implemented and maintained management systems contribute to its

sustainable realisation. The analysis of the interplay of management systems and morality basing on a systemic viewpoint contributes to understand the performance of an SME and leads to the design of the SME model of this research.

2.6 SMEs embedded in an environment

Section 2.2 discussed issues of system thinking, and 2.3 to 2.5 examined the main elements of this research: SMEs, morality, and (standardised) management system. The reflection is completed by analysing the position of the elements within their common environment; this section reflects the effects of environment on the performance of SMEs and underlines the need for applying system views to examine SMEs.

As presented in 1 Introduction, companies of all sizes and industries are decisive parts of the economic system in which they are intensively related with each other and to other elements (e.g. market system, customers or end-users, finance, insurances, suppliers and partners, competitors).

The environment of SMEs, morality and (standardised) management systems is specified by the characteristics of the elements as complexity, relations, geographical extent, historical and cultural background. Therefore the postmodern or contemporary approach would be suited to describe their interplay. A functional method would assume that logic flows can be defined within the environment.

Economy is not isolated; it is a subsystem of the human society; which again is embedded in the physical environment of the planet (e.g. Ulrich, P. 2008, Crane and Matten 2004, Korten 2000, Des Jardin 1997, Boff 1995). Figure 2.12 represents the mentioned systems as well as the specific system of the nation state which is discussed in 2.6.1.

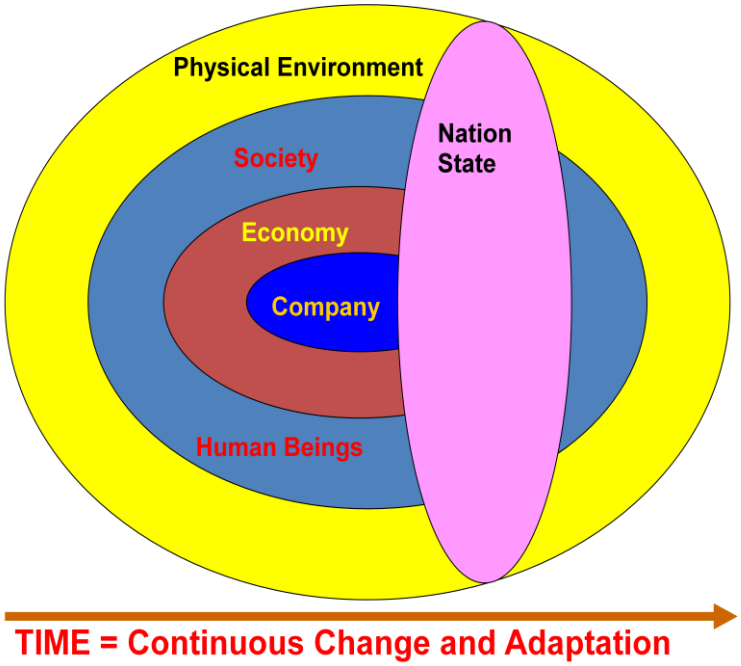


Figure 2.12: Jörg Bürgi: Embedding of companies in systems

2.6.1 SMEs as parts of the society

Owners, managers, and employees are within the 'company' and – having system spanning character – at the same time are elements of its environment. The effects of this condition are especially vital for SMEs: it is quite possible that workforce and often its suppliers live in the same geographical region (Sneep 2007, Werner 2006, Laeis 2005, Spence et al. 2003b, and DTI 2002). Relations with local media and administrations are rather intensive. Managers and employees are members of associations, are involved in decisions concerning regional infrastructure as well as other issues. These elements at least partly explain the often obvious social responsibility of SME owners and top-managers influenced by local and regional moral traditions.

As well as people, morality and (standardised) management systems have system spanning character. As discussed above (2.4.2, p 71), the morality of an SME is deeply influenced by the owners and managers; they all have specific backgrounds (e.g. family, religion, experience, media, politics) which form the moralities they bring in the company. Management systems are formed within the company (2.5.3, p 86); this forming is influenced by external ideas and experiences, especially if a SME applies the requirements of an international standard.

a. SMEs and nation states

The Nineteenth century development of human society involved the constitution of nation states, which aim to guarantee a basis for common survival by defining a number of principles (e.g. liberty, solidarity, subsidiarity, security and safety, property). Because a nation state only covers a specific geographical territory, its direct influence is limited to this territory[24]. Companies are embedded in nation states. Their legal protection, boundaries and opportunities are traditionally defined by national legislation, which normally distinguishes between public or administrative and private companies.

SMEs are a fundamental pillar of the state, and have a direct impact through job creation, education, and by reducing poverty. They also indirectly impact in many ways including through taxation of their profits and wages (Baucus and Cochran 2010, Coutinho de Arruda 2010, Painter-Morland and Dobie 2010, Spence and Perrini 2010, Endo 2008, European Communities 2003a). Thus, they have an intensive share in social welfare.

However, the influences of government and authorities are increasing, and the control of economic areas through legislation is escalating and quite often changing, which is in opposition to the world-wide demand to promote SMEs (Sneep 2007, OECD 2005, and Fueglistaller 2003a). This development threatens SMEs which have limited or no possibilities to switch to states with lower requirements (Eisenhut et al. 2004, NatWest 2004, European Commission 2003, Schillig 2003, European Commission 2002, and Welter and Havnes 2000). Micro-companies, in particular, suffer because of government regulations and paperwork; surveys identify ‘red tape’ as number one problem of small businesses (e.g. NatWest 2004).

2.6.2 SMEs within economy

SMEs traditionally live in areas containing current and potential customers, suppliers, and competitors, and often obtain financing through local banks (Baucus and Cochran 2010, Coutinho de Arruda 2010, Painter-Morland and Dobie 2010, Spence and Perrini 2010, Endo 2008, Sneep 2007, Fueglistaller 2003b,).

[24] These quantities are enlarged by bi- or multilateral contracting.

The developing market challenges SMEs to enlarge their activities regionally, nationally and even globally; this development is related to the industries the SMEs are belonging to (e.g. Mahmood 2008, Sneep 2007, Enderle 2004, Fueglistaller 2004b, OECD 2005, OECD 2004, and Lehmann 2003). As my contacts show, even traditional locally or regionally operating industries (e.g. construction) have to enlarge their geographical spread because of market pressure by competitors accompanied by additional cost for logistics.

Expanding geographical radius demands additional methodologies guaranteeing product and service quality as an alternative to personal relations to customers and suppliers. Since the seventies of the past century national and a few subsequent international regulations concerning product and services requirements, as well as their production management and processes, have filled this gap (e.g. ISO 9000 for quality and ISO 14001 for environment management – details see 2.5.3, p 86ff).

2.6.3 SMEs and physical environment

The impacts of human beings on the physical environment (resource use and pollution) are increasing dramatically (e.g. Mrasek 2007: Comments to the UN Climate Change Report). In 1987, the Bruntland Commission (World commission on environment and development) proposed as an input to 'The Earth Summit in Rio de Janeiro of 1992' the concept of sustainability. The concept looks for approaches to sustain the provision of goods and services that society derives from natural systems in ways that

> ''meet the needs of the present without compromising the ability of future generations to meet their own needs'' (Bruntland 1987:8).

Sustainable development is characterized by economic growth based on social justice and sustainability in the use of natural resources. Elkington (1999) enlarged Bruntland's definition in his 'Triple Bottom Line' concept, which aims to balance a company's economic, environmental and social performance and refers to the integrative measurement of three performance elements.

Companies have varying quotas in the process of harming and destroying the physical environment, depending on their specific activities. Not only mining, chemical, heavy or large industries have their harmful effects, but also service industries like tour operators and forwarders because of their oil consumption, carbon dioxide output, consumption of other resources and generation of wastes; my experience as auditor for ISO 14001 shows that even touristic companies such as skiing regions have a remarkable impact on the physical environment because of snow groomers and artificial snowing.

The impact of SMEs on the physical environment can only be estimated, but if we take into account their great number, it may be enormous, and they may be responsible for a significant share of the total environmental burden. Although no generally accepted figures on the actual environmental burden are currently available (Bernardini 2007), SMEs may contribute up to 70% of all industrial pollution. While little is known about the actual total impact of SMEs, even less is known about the burdens of individual SMEs. The environmental impact of SMEs is also not known at national or regional levels; the impact is often quoted by industry, but not by size. An evaluation of ISO 14001 auditing could procure an impression.

The behaviours of SMEs are examined within various research (e.g. Hillary 1999). To sum it up: if a SME is forced to change by legislation or is confronted with severe environmental aspects, it implements corresponding activities (use of materials, energy, recycling, waste management etc.). Environment friendly efforts of companies are supported by international institutions (i.e. environmental management systems according to ISO 14001 or EMAS) and national legislation. The effects of environmental management systems on SMEs are examined in 2.5.3, p 86ff.

2.7 Interaction of SMEs with morality and (standardised) management systems within their environment – possible 'spaces of freedom' or influence capabilities and their influence on SMEs' performance

As discussed above, the dynamic relations between SMEs, morality and (standardised) management systems within their environment cannot be described by a functionalist system approach because of the high complexity which cannot be planed, nevertheless at

most be imagined. Therefore postmodern or contemporary approaches suit more; especially they are comprehensive and include moralities, traditions and local specifications. That is why this section takes the chance to reflect influence capabilities of SMEs and their effects on performance.

I follow Enderle (2004:52-55)[25] to define possible 'spaces of freedom'. Enderle assumes that an organisation has

> "a 'space of freedom' which involves more than one possible course of action, can be bigger or smaller, can change over time, and is limited by constraints".

Corresponding to the space of freedom he postulates an equal amount of ethical responsibility,

> "according to the fundamental principle of ethics that 'ought implies can'".

For Enderle

> "global competition is not a fate, but man-made and caused by human decisions… constraints are set up to a large extent, by human actors and therefore can be changed, which inevitably involves an ethical dimension… Culture and ethics, too, play indispensable roles, not only in shaping those economic and legal constraints and forming new constraints (such as global codes of conducts), but also in using the existing spaces of freedom of business organisations. Such spaces do exist and are becoming even bigger, as liberalization, privatisation and deregulation gain momentum in a globalizing world. Hence using those spaces in an ethically responsible manner is becoming more important".

Enderle does not concentrate his 'spaces of freedom' on economy; he uses them for companies' activities in a globalizing world with all its subsystems: economy, society, physical environment.

Reflecting on the three elements SMEs, morality and (standardised) management systems within their environment, I observe a large scale of spaces of freedom or influence capabilities providing performance.

[25] Georges Enderle is former president of the International Society of Business, Economics and Ethics (ISBEE; 2001-2004). Before joining the University of Notre Dame, Indiana U.S., in 1992, he was doing research and teaching in the field of business ethics in Europe over ten years and was co-founder of the European Business Ethics Network (EBEN).

SMEs: SMEs, their culture, traditions and morality are often referred to the personality of the owner-manager or entrepreneur. Ownership, visions, management, and control are concentrated in the same hands. Their size dictates a reduced need for formalisation of procedures, and enables SMEs greater flexibility, especially if it is paired with corresponding resources. Personal relations build common values and employee loyalty; they support the development of a self organising company system, with regard to long-term success. However, spaces of freedom or influence capabilities are often restricted by lack of resources (i.e. personnel, knowledge, material, energy, finance, and time) and growing competition; the implementation of a tailored management system may reduce these shortage and allow additional freedom.

Society: The integration of SMEs in the local and regional community allows the use of local and regional resources. This integration influences (moral) attitudes and behaviours based on corresponding social responsibilities.

Nation state: The influence of government and authorities is increasing, and the control of economic areas by legislation is escalating; this is a growing problem as it restricts the spaces of freedom or influence capabilities of SMEs.

Economy: SMEs are the primary engine of economic development and drivers of competitiveness. Their size and styles of leadership provide advantages of more flexibility, innovation, networking, employment, job creation and productivity. Globalisation forces and facilitates internationalisation of SMEs – especially if they support their activities by networks and the employ of (standardised) management systems. The return on values and moralities may be benefiting within an increasingly challenging market, and as competition grows due to world-wide economic crisis.

Physical environment: Proceeding deletion and rising requirements of public (customers, media, politics, et cetera) restrict increasingly companies' spaces of freedom. A SME, however, has the chance to optimise its position by the consequent use of its resources, flexibility and innovative knowledge as well as an adequate environmental management system; the consequent reflection of values improves its authenticity.

This check of the spaces of freedom' or influence capabilities of SMEs, morality and (standardised) management systems within their common environment can be enlarged by their optimal interplay and by that provide sustainable performance.

Some authors specify the view of a dynamic and sustainable interplay of SMEs within their environment supporting optimal performance of SMEs.

Korten (2000) designs a utopia of future economies by describing six vital characteristics of economies sustaining life. His considerations show characteristics of system approaches (interpretive, emancipatory and especially postmodern) and can be used to reflect on SMEs.

1. Life is based on reciprocal relations. That is why the performance of freedom has to honour the demands of others. Economies therefore have to take on self organising systems respecting the demands of individuals, families, local communities and nations.
2. Effectiveness and comprehensiveness base on the idea not to use and hoard more than what is really needed. Economies therefore have to satisfy material, social and spiritual demands by economic use, fair division and ongoing recycling of existing energy and resources.
3. Because life depends on local and all-inclusive communities living together, it is able to survive. Economies therefore have to build on local communities carefully handling the direct environment and being principally self-reliant.
4. Because life depends on cooperation, it is able to balance the demands of all components. Economies therefore have to reward cooperation supporting the productive capacities of the community.
5. Beings need permeable borders because individuals live in and by relations. Economies therefore should be able to communicate and collaborate with one another for the benefit of all. In this process smaller economies should have the well-founded chance for sustainable survival.

6. Life exchanges information and knowledge; this allows innovative improvement of living conditions. Therefore economies should be able to strengthen cultural, social and economic creativity and diversity by the free exchange of information.

Enderle (2004) proposes seven recommendations for successful SMEs on the background of his detailed analyses of two SMEs. They again are typified by system approaches:

1. Concentration on exceptional and sustainable products
2. Trust in people (employees and customers)
3. Consideration of the local context in order to become competitive at the global level
4. Ongoing process of learning and implementation with openness and perseverance
5. Using the space of freedom in the fullest possible extent and expanding it by networking with like-minded partners
6. Respecting the 'triple bottom line' of economic, social, and environmental responsibilities and balancing these responsibilities in order to maximize the sustainability
7. Assessing the business in order to control the space of real freedoms that people enjoy.

Bernardini (2007) observed three SMEs during the common implementation process of their environmental management systems. An open culture improved the results of a cooperative approach. The companies optimised their organisational learning through an exchange of experiences; this benchmarking sustained the organisations during the planning phase and the entire system life. For Watkins (2007) the sustainability of an enterprise is achieved in results – in the shape of values and satisfaction provided to customers, return offered to investors, and enhancement of prosperity, welfare and well-being of employees and society.

The reflections concerning Korten's utopia, Enderle's recommendations and Bernardini's and Watkins's observations allow drawing the conclusion the optimal performance and

survival of SMEs is guaranteed by the optimal integration of morality and management system as well as their dynamic interplay within their common environment.

2.8 Review of research questions

After an introduction into system thinking, I performed a literature review concerning the main issues of the research – SMEs, morality and (standardised) management systems. The review shows that the individual issues are measured mainly by surveys or case studies, and a number of gaps could be identified concerning these individual issues. Furthermore, there is minimal research examining the complexity and interplay of different influences within their common environment.

My assessment of the research questions (see 1 Introduction 1.4, p 33) indicates how the literature review already allows for sufficient answers, and reflects on whether the questions need to be adapted. The answering of the research questions allows detecting gaps which have to be filled by my research; these gaps ground the used methodology (see Chapter 3).

1. What is typical for SMEs? Which are differences between SMEs and large companies?

SMEs are centred on the personality of the owner-manager or entrepreneur. Securing long-term survival or maintenance or cumulating of family assets is more important than increasing market value. SMEs are characterised by multi-tasking, often combined with strength of innovation and a greater flexibility which can be used for opportunity. Procedures are often marked by informality, are less visible, less formal or articulated. Personal relationships are salient; communication and coordination depend merely on personal, often amicable relations. There is often a lack of personnel, financial and time resources.

SMEs are the backbone of the market economy and one of the principal driving forces of economic development; they generate employment and contribute to the alleviation of poverty. SMEs are vehicles for knowledge spillovers, particularly in terms of competition

for new ideas and human capital embodied in knowledgeable workers, and they contribute significantly to regional and local development.

In relation to SMEs, I detected a number of gaps in research. Regarding internal issues, I found minimal data concerning the organisation and ownership of SMEs, SMEs and culture, and employ of processes, technical equipment and knowledge management within SMEs; yet to be discussed are the influence of owner-managers and the differences between owner-managers and employed managers, as well as the effects of the replacement of managers. As I was focussed on external issues, I did not notice or examine any research concerning SMEs and market fluctuations.

2. Which are specific issues of morality for and within SMEs?

Moral activities concentrate on employees and their families, local communities, business partners, and physical environment. Because ownership, management and control are usually concentrated in the same hands, the personal preference of top management and owners is the most influential factor.

The literature review, however, shows that surveys merely concentrate on owner-managers – recording a gap concerning other managers and especially staff. Another gap is the minimal knowledge about the employ of ethical standards.

3. How are the guiding elements of and within SMEs characterised? Do they establish a company's management system – at least informally?

The guiding of SMEs depends primarily on the morality, motivation, experiences, knowledge, and resources of its owner (family), top-manager, or both. Documentation mainly concentrates on procedures and records. Visions and derived strategies are often not formalised and sometimes vague. SMEs having a standardised management system are forced to develop a policy and corresponding activities which may lead to formulated visions and strategies.

4. Which are attributes of standardised management systems? Which are differences between the standards? Which of these systems are applied in SMEs, and with what success?

Standardised management systems demand analysis of concerned issues, a policy for their management and corresponding planning, resources, activities and measuring, a documentation of requirements, procedures and records, and a regular review aimed at continuous improvement.

The standards mainly concentrate on specific issues such as increasing moral attitudes and behaviours, optimising quality and customer relations, avoiding or at least reducing harm on beings and physical environment.

SMEs often use the implementation of standards as opportunity for organisational systemisation and improvement – mainly provoking improved productivity. But the implementation is often fragmentary.

There are number of gaps in research concerning company designed management systems, number of certified SMEs, reasons for the implementation of standardised management systems in specific regions, problems with third party auditing, and internal effects of standardised management systems.

5. Which are the moral elements of standardised management systems? Which are used in SMEs, and to what success?

Standardised management systems are important for the survival of a company and the satisfaction of customers, but also to benefit people, communities, society and the physical environment – terms which nowadays are mentioned as elements of CSR.

There are parallels between the explicit CSR standards and more commonly used management standards like ISO 9000 and ISO 14001. All the occupational health and safety standards demand explicitly the reduction or, if technically and economically possible, avoidance of harm against employees. Established models of business excellence incorporate a social responsibility element and advocate management practices compatible with the ideals of CSR.

The implementation of (standardised) management systems is often fragmentary; there is no effective continuity between analysis, policy, planning, activities and measuring. Regarding poor implementation it can be assumed that the influence of moral issues of the standards is not rigorous.

However, according to my knowledge, there is no research concerning the influence of management systems on morality of SMEs, behaviours of auditors, or influence of virtues on management systems.

6. What encourages the prosperous implementation of standardised management systems? What hinders it? Which are used in SMEs, with what success?

Companies often have been forced by customers, industry or authorities to implement standardised management systems; the aim of these users was merely to follow requirements rather than utilise the standards as comprehensive tools.

SMEs are often sceptical about the benefits, cost savings and customer rewards associated with standardised management systems. However, many SMEs – especially from service industry – apply the standards successfully optimising internal issues as well as their external relations to customers and other stakeholders.

7. How far do SMEs combine implementation and continuous improvement of standardised management systems with morality? What encourages and what hinders it?

Environmental and OHS management standards explicitly include moral issues by principle to avoid or minimise harm; and quality management standards at least implicitly support moral attitudes and behaviours. But there are minimal findings concerning the interplay of standardised management systems and morality within the large amount of literature reviewed.

8. What are the relations of SMEs to their environment? How do SMEs, morality and (standardised) management systems act in their common environment?

Owners, managers and employees are within the ‘company’ and – having system spanning character – at the same time are elements of its environment. The effects of this condition are especially vital for SMEs and at least partly explain the often obvious social responsibility of SME owners and top-managers influenced by local and regional moral traditions.

As well as people, morality and (standardised) management systems have system spanning character. The morality of a SME is deeply influenced by the owners and managers; they all have as specific backgrounds which form their moralities and they bring into the company. Management systems are formed within the company; this forming is influenced by external ideas and experiences, especially if a SME applies the requirements of an international standard.

SMEs are a fundamental pillar of the states by direct impact through job creation, education and reducing poverty as well as an indirect impact through taxation of their profits and wages, et cetera. Thus, they have an intensive stake in social welfare. However, the influences of government and authorities are increasing and the control of economic areas by legislation is escalating and quite often changing which is in opposition to the world-wide demand to promote SMEs.

The developing market challenges SMEs to enlarge their activities regionally, nationally and even globally; this development is related to the industries the SMEs belong to.

Expanding geographical radius demands additional methodologies guaranteeing product and service quality as an alternative to personal relations to customers and suppliers. International regulations concerning product and services requirements as well as their production management and processes are increasingly used to fill this gap.

While little is known about the actual total impact of SMEs on the physical environment, even less is known about the burdens of individual SMEs. However, if a SME is forced to change due to legislation, or is confronted with severe environmental aspects, it implements corresponding activities. Environment friendly efforts of companies are supported by international institutions and national legislation.

9. Which model describes the relations and the dynamic interplay of SMEs, morality, (standardised) management systems and is able to explain comprehensively the complex attitudes and behaviours of SMEs? Which issue influences another issue and why? How can these influences be measured?

Literature analyses the influence of individual elements, but presents minimal comprehensive description. Existing tools measuring management performance concentrate mainly on one element. A central aim of my research is to fill this gap.

The review of the research questions shows that literature review answers the great majority of them (at least partly). I try to deepen the answers with the results of my thesis aiming a more comprehensive view by analysing the interplay of the elements towards an optimised performance of SM£Es, and knowing that substantial gaps remain, which I discuss in the final Chapter (5 Conclusions, p 249ff).

2.9 Conclusions

In this Chapter 2 'Literature review', I provided the theoretical background of this research by reflecting on approaches of system thinking, and analysing public knowledge concerning SMEs, morality, and (standardised) management models within the environments of economy, society and physical environment.

Reviewing literature concerning system thinking in Section 2.2, I show that this approach is the appropriate underpinning paradigm guaranteeing the successfully realisation of this research. The different approaches of system thinking offer an understanding of the functioning of SMEs, morality and (standardised) management system, as well as an understanding of these issues in their common environment. System methodology provides the design of the SME model and the tool measuring the performance of SMEs (see 3.6, p 144, and 4.3, p. 176ff).

Section 2.3 describes the general characteristics of SMEs and detects gaps in research. These provide the comprehensive formulation of the questionnaire and allow choosing suitable companies for the longitudinal survey.

Section 2.4 examines CSR standards and morality issues of SMEs and illustrates how they affect performance.

Section 2.5 explains management systems used within SMEs and describes how they influence performance of the companies. It also discusses the moral issues of management systems and the interplay between management systems and morality.

Section 2.6 reflects the environment of SMEs and effects of the different environmental issues on the performance of SMEs and the impacts of SMEs on their environment.

In Section 2.7 I summarise the interplay of the elements SMEs, morality and management systems within their common environment by reflecting the influence capabilities of SMEs and the effects of the elements on performance. This examination allows drawing the conclusion that the optimal performance and survival of SMEs is guaranteed by the optimal integration of morality and management system as well as their dynamic interplay within their common environment and by that presenting a first construction of the SME model.

The confrontation with the research questions finally shows in Section 2.8 a number of gaps in literature which I will try to fill by this thesis basing on a defined methodology. As main gaps I identified: minimal data concerning organisation, ownership and functioning of and within SMEs, minimal data about company designed management systems, internal effects of standardised management systems and third party auditing, missing research concerning the influence of management systems on morality of SMEs and of virtues on management systems, little knowledge about the actual total impact of SMEs on the physical environment as well as burdens of individual SMEs, and finally minimal comprehensive description concerning the dynamic interplay of SMEs, morality and (standardised) management systems within their common environment.

That is why Chapter 2 illustrates the importance of designing a comprehensive SME model showing this interplay, which has been linked to a corresponding measurement tool (Chapter 4). These provide the results of the survey (Chapter 4), and the drawing of final conclusions through answering of the research questions, examining the hypotheses, and

defining needs for additional research (Chapter 5). All these activities are supported by ‘Methodology’ (Chapter 3).

3. Methodology

3.1 Introduction

Purpose of the chapter methodology is to determine what methodology and methods I need to answer the research questions.

I introduced the research questions in Chapter 1 (see 1.4, p 33). In Chapter 2 I investigated the extant literature to review previously published work relevant to these questions. The literature review answers much of the research questions at least to some extent; however, a large number of gaps remained:

Examining internal issues of SMEs, I found minimal data concerning organisation and ownership, SMEs and culture, and implementation of processes, technology and knowledge management; yet to be discussed are the weighting of the influences of owner-managers and the differences between that of owner-managers and employed managers, as well as the effects of the replacement of managers. Focussed on external issues, I did not notice or examine any research concerning market fluctuations on SMEs.

Another gap is the minimal knowledge about the conscious use of ethical standards within SMEs. Additional knowledge is needed concerning the influence of (standardised) management systems on the definition of policy and corresponding activities.

There are number of gaps in research concerning company designed management systems, number of certified SMEs, reasons for the implementation of standardised management systems in specific regions, problems with third party auditing, and internal effects of standardised management systems.

In my extensive research I have not been able to find any research concerning the influence of management systems on morality of SMEs, behaviours of auditors, or the influence of virtues on management systems. And additional research may deepen the knowledge concerning the implementation of standardised management systems. There are also minimal findings concerning the interplay of SMEs, standardised management systems and morality within their common environment. And finally, the literature does

analyse the influence of individual elements, but presents no comprehensive description or model of their interplay and there is no measurement tool concerned with this.

Broad additional knowledge is needed to fill the gaps concerning the interplay of SMEs, morality per se and morality within their environment and to answer the research questions as compressively as possible. This chapter concentrates on possible methods to be used to research these areas and their justification.

3.2 The Philosophical foundation

In this section I describe the main issues of philosophy of methodology in order to define an appropriate methodology to answer the research questions which is based on the methodological literature. A philosophy of methodology is a defining principle of how to gather, analyse and use data. Hereby I mainly revert to Stainton (2006), supplemented by issues of Kumar (2005).

Philosophy of methodology distinguishes between ontology and epistemology, between positivism and a subjective stance (as constructionism or nominalism), between determinism and voluntarism (definitions: see Glossary, p 15f). I concentrate on ontology and epistemology in relation to positivism and constructionism. As main methodologies I describe induction, deduction and abduction; and finally I present different forms of practical use of methodologies.

3.2.1 Ontology and epistemology in relation to positivism and constructionism

Ontology covers the kinds of things and their being-in-the-world. It asks about their consistence and their interrelations. From a positivist point of view, ontology regards the things and their world as objective and out of human meaning-making. The physical or social world is seen as an ordered system; that is why it can be examined systematically, independent of human role. On the other side, constructionist ontology regards the things and the world as constructed with human eyes, signs and symbols.

Epistemology is interested in the nature of knowledge. It discusses the validity of the acquisition of knowledge. From a positivist view, knowledge is achieved through gathering facts about the world in a systematic and objective manner to build and refine universal 'laws of nature' (usually through experimental method and testing of hypotheses). Because human perception and understanding are fallible, today few scientists claim a strict positivist epistemology (except representatives of natural science). According to constructionism there are relations between knowledge and the selections / interpretations of scientists as well as between knowledge and power; and individual's understandings are constructed and evolve from experience of the natural world and interactions with others, and there is no way to get direct knowledge about the real world.

A specific approach of constructionism is presented by some system theory orientated authors (e.g., Maturana 2004, 1988, Luhmann 1990); they see researchers as observers; researchers are mainly external to the observed topic and therefore having a blind spot because of their own background. In the Radical Constructivism of Ernst Von Glasersfeld there is no separation between observer and observed topic; the observer creates the perception (e.g. 2007, 1995). Every research and its outcomes are, at the very least, constructed from the background of the individual researcher and the background and culture of the specific science/s. As a result, research activities need a clear systematic design which allows for examination by other researchers. This allows elimination or at least understanding of the background of the blind spot, and a satisfying degree of impartiality in observation and theory development can be achieved.

Table 3.1 gives an overview on specifications of positivism and constructionism in relation to epistemology.

Positivism	**Constructionism**
Regards the world as *objectively* 'out there', real and completely separate from human-mean-making.	Claims that the *only* world we can study is a world of meanings, represented in the signs and symbols that people use to think and communicate.
Asserts there is only one true, objective knowledge that transcends time and cultural location.	Accepts that there are multiple knowledges, and that knowledge is highly contingent on time and cultural location.
Views knowledge as based on facts that are 'out-there-in-the- world' waiting to be discovered.	Views knowledge as constructed through people's meaning-making.
Asks of knowledge 'is it true?'	Asks of knowledge 'what does it do?', 'how can it be used – by whom, and to what ends?', 'whose interest does it serve?', 'what does it make possible?'

Table 3.1: Comparison between epistemology of positivism and constructionism (according to Stainton 2005, p.81)

3.2.2 Determinism vs. voluntarism

As soon as morality is in discussion (as in this research), it has to be reflected whether humans as well as their attitudes and behaviours are determined (regarded as external to the human will) or voluntaristic (human will as fundamental or dominant factor). Obviously human beings are determined to behaviour patterns but within that there many opportunities for voluntaristic action.

The deterministic hypothesis is provided by contemporary brain research and the voluntaristic by philosophers in the tradition of enlightenment (e.g. Smith 2011, Nichols 2008, Bommer 2007, and Geyer 2004). In company with other researchers (e.g. von Foerster 1991) Maturana developed a middle way:

> "Human beings are capable of describing a certain action as responsible… The experience of choice and decision, which we human beings make, does not at all contradict our structure-determinedness. Human … may, however, by virtue of a perspective opening up in a meta-domain, make the experience that they have a choice" (Maturana 2004: 76).

Assessing positivism and constructionism I tend to link positivism with determinism and constructionism with voluntarism, because positivism is characterised by objectivity and constructionism by human meanings and their social background. The social background, however, is characterised by issues indicating practical determinism; economical and political constraints ("Sachzwänge") minimise autonomy of decision. The Marxian critical theory may help to transcend the dilemma by emancipating human beings of these constraints (Hinkelammert 2011).

3.2.3 Induction, deduction and abduction

Induction is a method with the aim drawing conclusions from observations in order to establish regularities from multiple observations and find generalisations (general laws of cause and effect). It follows four main stages: observation, analysis, inference (from analysis of regularity, infer generalizations – 'laws of nature'), confirmation (test through other observations). The theory is derived from observations made. Induction is the typical method of natural science; the historical parent of induction is Francis Bacon (Stainton 2006).

Deduction is theory-driven. It is explicitly based on preconceptions or hypotheses drawn from theories (historical parents: Euclid and Aristotle – contemporary representative: Popper [1959]). It also follows four main steps: theory (preconceptions), hypotheses deduced from the theory, observation, confirmation or falsification.

Both, deduction and induction are used to explain the world. By that they deal with complexity by reductionism. Positivist research gets knowledge by explanation. Explanation seeks for an abstract and pure statement of cause and effect to get a simple, general law. As such positivism smoothes out complexity and is highly reductionist. Constructionist research aims to get knowledge by a process of interpretation; its goal is not explanation but explication.

Explication deals with complexity through abduction. Abduction is the "process of forming an explanatory hypothesis" (Peirce 1955, p 67)**.** Abduction constructs new theory by a

process of identifying naturally occurring surprises or deliberately creating theories. Its method is syllogism. Strictly speaking syllogism is a deductive argument: if A then B; A is true; therefore B is true. This argument becomes an abductive argument in the case if A is not necessarily true[26].

An observer uses abduction to formulate a model, deduction to derive hypotheses from that model which are used to test the model (looking for refutation of the model in a Popperian way) and then if the model stands up over time for many observers and many tests it is justified by induction.

Stainton (2005) presents the issues discussed above in a summary (Table 3.2). However, all three methods could be used as a positivist or as a constructivist. The difference between the two positions are the different meanings an observer, attaches to the model (theory); either it is the way the world is, or it is the way the observer has constructed the world.

[26] Example of such a syllogism: The lawn is wet. But if it rained last night, then it would be unsurprising that the lawn is wet. Therefore, by abductive reasoning, the possibility that it rained last night is reasonable.

Logic of enquiry	Paradigm	Ontology	Epistemology	Research aim	Data gathering	Method
Inductive	Positivism	The world exists 'out there', separate of human meaning-making. It consists of discrete and observable social events and phenomena that are lawfully related.	Knowledge is objective and can be tested against a benchmark of truth.	To explain the world in terms of 'laws of nature'.	... to develop theories	Observe the world, identify systematic regularities, induce universal laws and increase confidence in term by further observation
Deductive	Positivism	The world exists 'out there', separate of human meaning-making. It consists of discrete and observable social events and phenomena that are lawfully related.	Knowledge is objective and can be tested against a benchmark of truth.	To explain the world in terms of 'laws of nature'.	... to test theories	Develop theories, derive and test hypotheses in ways to allow them to be falsified
Abductive	Constructivism	The world as we 'know' is constructed through human meaning-making. It is world of representations, signs and symbols.	Knowledge is constructed, multiple and a means to exercise and/or resist power.	To explicate the social world – to get insight and understanding how it operates.	... to develop hypotheses	Observe or create anomalies or surprises – examine the 'residue of the unexplained'

Table 3.2: Overview on definitions and applications of philosophies of methodology (according to Stainton 2005, p.89)

3.2.4 Practical application of methodology

Checkland and Holwell (1998) specify the relationships between the concepts of methodology, theory and practice by using these elements: a 'framework of ideas' (F) in which knowledge about the situation being researched is expressed (e.g. current theory of a particular discipline); a methodology (M) in which the framework is embodied (marshalling various methods, tools and techniques appropriate to the framework; using them to investigate the situation of interest); a situation of interest or 'area of concern' (A) (e.g. particular problem in a discipline or real-world problem situation).

Analysing the relationship between F, M, and A, Jackson (2000) derives four types of research:

‘Scholarship’ is essentially self-contained within a discipline. F is a current appreciation of the nature of the discipline and the knowledge contained, M presents the good practice in the discipline, and A details a particular area of concern in the discipline.

Mode 1: ‘positivist hypothesis testing’, hypotheses that attempt to describe the behaviour of a part of the real-world are derived from the F of the relevant science. M describes particular experiments and observations that need to be made and how they should be carried out in order that the hypotheses can be tested in the real-world; experiments are carried out and observations made in the A to test the hypotheses.

‘Mode 2’ complements ‘Mode 1’. Knowledge is produced to satisfy the demands of particular users. Research is organised around a particular A and is generated in negotiation with those who find the outcomes useful. Because the research revolves around a real-world A, it is unlikely that any single discipline will be able to provide a suitable F. A ‘transdisciplinary’ M is needed allowing more flexibility and transferable problem solving capability.

Kurt Lewin tested in late forties of the past century complex social and psychological processes in action, during their process of implementation; hereby he constituted the basis of ‘Action research’ (Lewin 1946). Action research involves the process of actively participating in an organization change situation whilst conducting research. The action researcher constructs an F from an A (Mode 2); hypotheses can be deduced from this F which then can be further tested by the researcher or other researchers (Mode1). Furthermore, process and results depend on the emphasis of the action researcher and are therefore either more F (= positivist) or A (= interpretative, involved in process) orientated.

Contemporary system thinking predominantly aims at an intervention in some real-world ‘area of concern’ (A). The emphasis is therefore on the relationship between A and M, and on a methodology serving practice. However a firmer theoretical anchoring and by that a

more powerful F are needed for a full understanding and an improved systems methodology.

3.2.5 Assessment of the research philosophy

My research discusses the dynamic interplay of SMEs, morality and (standardised) management systems within their common environment and their effect on sustainable performance of SMEs. This general aim was formulated in research questions which have been answered at least partly by literature; however a quite large number of gaps are open which have to be processed with an appropriate research methodology.

An unpretentious assessment of the gaps shows two trends: Quite a lot of the gaps ask for nomothetic measures gained by a relatively large sample of SMEs or additional literature review enlarging the general outlook, and a similar number for a more idiographic approach with relatively detailed case studies. To come up with these unequal requirements a frame work of qualitative and quantitative research is needed. This first assessment has to be controlled by further reflections of methodology (see 3.3) and practical use.

Because I did not find in literature a theory or model to explain the dynamic interplay of SMEs, morality and (standardised) management systems within their common environment as well as their effects on performance, the methodology of abduction is appropriate, because it allows developing theory and adequate hypotheses to be tested and it corresponds to a middle way between determinism and voluntarism. Abduction also matches with ‘action research’ and contemporary system thinking, both methodologies regarding research as an ongoing process. For the building of a suited model ‘soft systems methodology SSM’ of Checkland and Holwell (1998) will be applied (justification see 3.6, p 144ff).

3.3 Design of the research

In the previous section I defined abduction and a mix of nomothetic measures and idiographic approaches as suited to answer the research questions and to build a model.

I had several reasons for deciding to work with ‘adaption’ as research methodology and a mix of quantitative and qualitative methods.

Research is characterised by two main streams of methods (Atteslander 2003, Seipel and Riecker 2003, Mayring 1996): quantitative and qualitative research methodologies. Nomothetic measures comply with quantitative research and idiographic approaches with qualitative. Both streams are based on theoretical reflections which have to be examined by empirical procedures, and both use theories to explain general correspondences.

Quantitative research refers to the systematic empirical investigation of phenomena via statistical techniques. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships. Qualitative research is the examination, analysis and interpretation of observations for the purpose of discovering underlying meanings and patterns of relationships, including classifications of types of phenomena and entities.

Decisive elements of any research are its quality criteria, which are used to guarantee its trustworthiness. Table 3.3 illustrates possible quality criteria for both streams.

Quantitative research	Qualitative research
Objectivity: Would another researcher detect the same results?	Documentation of procedure: Is another researcher able to reproduce the procedure?
Validity: Does the measurement tool quantify what it ought to?	Assurance of interpretations: Are the arguments justified? Are alternative interpretations reflected?
Reliability: Are the results repeatable?	Use of rules: How far the research follows systematic procedures?
	Nearness to subject: How far the daily life of person is reflected?
	Validation by communication: Are the collected data discussed with people?
	Triangulation: How the knowledge about the subject is enlarged by other methods?

Table 3.3: Quality criteria of quantitative and qualitative research (qualitative issues according to Mayring 1990)

In research praxis both streams are often combined. The data is collected and can be analysed separately or after being combined. The qualitative way is frequently used to define a basis for a larger quantitative research. Table 3.4 shows a model used to compare the sequences of quantitative and qualitative research.

Common sequence	Quantitative research	Qualitative research
Explication and specification of problem	Justification of research, hypotheses	Justification of research or open research question
Explication of theoretical background	Actual state of research, theoretical background	Inherent understanding
Empirical basis	Description of sample, material	Description of individual case
Methodological procedure	Description of data collection, edition and analysis Justification of procedure	Description of data collection, edition and analysis Justification of procedure
Results	Presentation, summary, analysis, reference to hypotheses	Presentation, summary, analysis, reference to (open) research questions
Conclusions	Quality criteria, relevance of results	Quality criteria, possible generalisation of results

Table 3.4: Common model of comparability in sequences (according to Mayring 2000)

Both methodical streams have their specific research approaches. I examine every of the shortly presented methods, whether it can be used for answering my research questions.

3.3.1 Quantitative research

According to Gay (1996) the following methods are appropriate to quantitative research:

Survey research: Classical social science concentrates on surveys. The Oxford English Dictionary (2007 – electronic version) defines survey as

> "A systematic collection and analysis of data relating to the attitudes, living conditions, opinions, etc., of a population, usu. taken from a representative sample of the latter".

A survey basing on a questionnaire is an appropriate method to get comprehensive information to answer the majority of research questions[27].

Descriptive research involves collecting data in order to test hypotheses or answer questions concerning the current status of the subjects of the study. It determines and reports the way things are.

Survey data allows the use of methods of descriptive research.

Correlational research attempts to determine whether and to what degree a relationship exists between two or more quantifiable variables. However, it can never establish a cause-effect relationship. The relationship is expressed by a negative or positive correlation coefficient, which is a number between -1.00 and 1.00.

Because a questionnaire includes different elements and can be used for different SMEs, there are quantifiable variables that can be correlated and this method is appropriate for my research[28].

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[27] e.g. organisation and ownership, differences between owner-managers and employed managers, replacement of managers, employ of ethical standards, employ of processes, technology and knowledge management, market fluctuations, influence of (standardised) management systems on the definition of policy and corresponding activities, company designed management systems, problems with third party auditing, internal effects of standardised management systems, influence of management systems on morality of SMEs, behaviours of auditors, or influence of virtues on management systems, implementation of standardised management systems, interplay of SMEs, standardised management systems and morality within their common environment

[28] e.g. organisation and ownership, employ of ethical standards, employ of processes, technology and knowledge management, market fluctuations, influence of (standardised) management systems on the definition of policy and corresponding activities, company designed management systems, internal effects of standardised management systems, influence of management systems

Causal-comparative research establishes a cause-effect relationship between two variables, and establishes a relationship, but the independent cause variable cannot be manipulated, an example of such a variable might be 'gender'.

In an SME there are independent variables which cannot be manipulated (e.g. industry, size, country, year of foundation, gender and age of interviewees). Therefore methods of causal-comparative research are appropriate to be used in my research.

Experimental research establishes the cause-effect relationship and does the comparison, but the independent cause variable is manipulated. The cause, the independent variable makes the difference. The effect, the dependent variable is dependent on the independent variable.

Because I want to observe companies during a longer period, methods of field experiments are applicable in my research (Andersen et al. 2004, Carpenter et al. 2004). The major difference between a field experiment and laboratory experiment is that in field experiments there is a limited scope to control the variables, while laboratory experiments have adequate scope to rigorously control the variables. The randomisation and manipulation of independent variable is difficult in field experiments.

3.3.2 Qualitative research

According to CMU (2011) the following methods are appropriate to qualitative research:

A biography is a detailed description or account of someone's life. It is more than a list of basic facts (education, work, relationships, and death). Biography also portrays the subject's experience of those events.

The method of a biography can be applied in my research to the history of individual companies.

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on morality of SMEs, interplay of SMEs, standardised management systems and morality within their common environment

A case study is an intensive analysis of an individual unit (e.g. a person, group, or event) stressing developmental factors in relation to context. Case studies may be descriptive or explanatory. Case studies try to generalise from a case to theory (Meredith 1998). Relating to the number of cases, the lower number will allow the researcher to obtain more information (Voss et al. 2002); however, a multiple case study increases reliability and external validity (Yin 1994).

Case studies allow the recording of the history and the specific attitudes and behaviours of a company and to answer a great number of research questions[29].

Ethnography is a method aimed at learning and understanding cultural phenomena which reflect the knowledge and system of meanings guiding the life of a cultural group.

Ethnographical issues are helpful to answer specific questions in my research[30].

Grounded theory is a systematic methodology involving the generation of theory from data (Strauss and Corbin 1994). Rather than beginning with a hypothesis, the first step is data collection, through a variety of methods. From the data collected, the key points are marked with a series of codes, which are extracted from the text. Content analysis bears resemblance to grounded theory; however it concentrates on specific texts (Krippendorff 2004, Moystin 1985).

The analyses of data help to answer research questions and to formulate hypotheses. Because detailed individual opinions of interviewees (from transcripts) are not of primary interest in my research, content analysis is of less interest.

Phenomenology is used to describe a body of knowledge that relates empirical observations of phenomena to each other.

[29] e.g. SMEs and culture, employ of ethical standards, differences between owner-managers and employed managers, replacement of managers, knowledge management, market fluctuations, influence of (standardised) management systems on the definition of policy and corresponding activities, company designed management systems, problems with third party auditing, influence of management systems on morality of SMEs, behaviours of auditors, or influence of virtues on management systems, implementation of standardised management systems, interplay of SMEs, standardised management systems and morality within their common environment

[30] e.g. SMEs and culture, differences between owner-managers and employed managers, influence of (standardised) management systems on the definition of policy and corresponding activities

Methods of phenomenology help understand specific elements within or external to SMEs[31].

Symbolic interaction, also known as interactionism, is a sociological theory that places emphasis on micro-scale social interaction to provide subjective meaning in human behaviour, the social process and pragmatism.

Several of my research questions concern subjective meanings; therefore methods of symbolic interaction are helpful to understand interactions within and external to companies[32].

Hermeneutics is the study of the theory and practice of interpretation (of written texts, especially texts in the areas of literature, religion and law).

Within my literature review different texts have been interpreted (e.g. standards, statements of authors, company documents), that is why hermeneutics are important to answer some research questions.

Participatory action research is a recognized form of experimental research that focuses on the effects of the researcher's direct actions of practice within a participatory community with the goal of improving the performance quality of the community or an area of concern.

A significant answering of questions needs a longer period of observation. SMEs wait feedbacks during this period; these will probably influence their attitudes and behaviours. The research may, therefore, contain issues of participatory research.

In this section I illustrated that a number of nomothetic (quantitative) measures and idiographic (qualitative) approaches are suited to answer the research questions. These methods are used in the next sections to build specifications of the methodology.

[31] e.g. employ of ethical standards, differences between owner-managers and employed managers, replacement of managers, knowledge management, influence of management systems on morality of SMEs

[32] e.g. interplay of SMEs, standardised management systems and morality within their common environment

3.4 Quantitative research approach

In the previous section I presented a number of quantitative methods which help to answer the research questions: survey and field experiment, as well as descriptive, correlational and causal-comparative research methods.

Because a survey based on a questionnaire produces selected data, it is the most suitable tool for answering the research questions. These data can be used for different sorts of analysis (e.g. description, correlation, causal comparison).

Since the beginning of my research activities in the eighties of the past century, I have used quantitative methods in the execution of quantitative analyses of job advertisements and in the carrying out of different surveys based on structured oral interviews with large numbers of interviewees (between 100 and 1000). Therefore, for this research concerning SMEs, I also aimed at collecting quantitative data based on a survey.

Since I want to observe companies over a longer period, methods of field experiments are applicable in my research. The longer period consists of at least two phases of survey; this allows observing changes in attitudes and behaviours of companies. However, the longer period suffers from the problem of the companies being ready for the second phase.

The design of a questionnaire depends on the purpose of the survey and the planned size of the sample. The purpose of the survey is to answer as many research questions as possible. Therefore the questionnaire should be quite differentiated and consist of a great number of questions basing on the literature review and my personal experiences with companies; the required sample size of the questionnaire means that it could be difficult to find an adequate number of SMEs ready to participate. However, sufficient sample size is needed to get a representative sample which guarantees a satisfactory validity. To suit purpose and size a possible compromise is a mix of a quite large questionnaire and a

smaller number of companies and interviewed persons – with the risk that validity is reduced.

The reliability of a questionnaire is optimal, if each question is phrased so that all respondents interpret it the same way and if the answers are clearly defined (Surveyspro 2012). The later can be realised by a set of pre-formulated answers (e.g. dichotomies or multiple choice answers) but introducing the problem that not all possible issues are taken into account or that the interviewees choose an answer only because it is offered. This dilemma can be solved with open questions with no pre-formulated answers obtained by oral interviews. However this gives rise to another problem: the answers have to be coded for a quantitative analysis. The validity and reliability of these codes is improved if they are controlled by somebody external to the research team.

For an optimal answering of my multiple research questions I choose a mix of a large questionnaire with minimal pre-formulated questions and a quite representative sample of SMEs of different industries, size, countries and management systems; and in order to obtain a comprehensive view of each SME the sample should contain different interviewees from different hierarchical levels, departments and genders.

3.5 Qualitative research approach

After reflecting on quantitative methods I discuss possible qualitative approaches to answer the research questions.

According to my literature review and my personal experiences, case studies are optimally suited to research where companies are the subject of the research. All other qualitative methods mentioned above can be applied for the analysis by using the cases. Biography and participatory action research help to understand the history and development; hermeneutics are used for interpretation of company texts (e.g. brochures, websites); ethnography, phenomenology and symbolic interaction sustain the interpretation of internal and external attitudes and behaviours (e.g. tradition, culture, communication); and grounded theory supports the design of hypotheses.

The majority of qualitative data are gained by using the questionnaire mentioned in the previous section. Cultural, communicational and behavioural issues have to be seriously integrated by formulating the questions. The answers have to be seriously recorded to sustain the individuality of the interviewee.

Other qualitative information are taken from company documents (as brochures, websites, prospectus, advertisements), observations during the company visit (e.g. overall picture, installations, behaviours of people) and as far as possible from external feedbacks (e.g. customers, neighbours, media).

The analysis of data has to be as multifaceted as possible (by applying as much of the methods examined above as possible). A systematic pattern of presentation makes the different cases comparable.

3.6 Building of the model

After assessing quantitative and qualitative methods to collect and analyse data for answering the research questions a methodology is required to construct a model from the data quantitative and qualitative data collected.

Because I did not find in literature a suitable theory or model to explain the dynamic interplay of the four elements and their effects on performance of SMEs, the methodology of abduction is appropriate, because it allows developing theory and adequate hypotheses to be tested and it corresponds to a middle way between determinism and voluntarism. Abduction also matches with ‘action research’ and contemporary system thinking, both methodologies regarding research as an ongoing process. For the building of desired model I apply ‘soft systems methodology SSM’ of Checkland and Holwell (1998).

For Checkland “systems thinking is simply the body of ideas which takes that thought seriously and tries to develop nonreductionist, more holistic ways of thinking about complexity” (Checkland 1998, p. 193).

He designed a model of strategy for system research at the University of Lancaster. The system is technical and characterised by a closed loop in which elements create the system itself (see Figure 3.1).

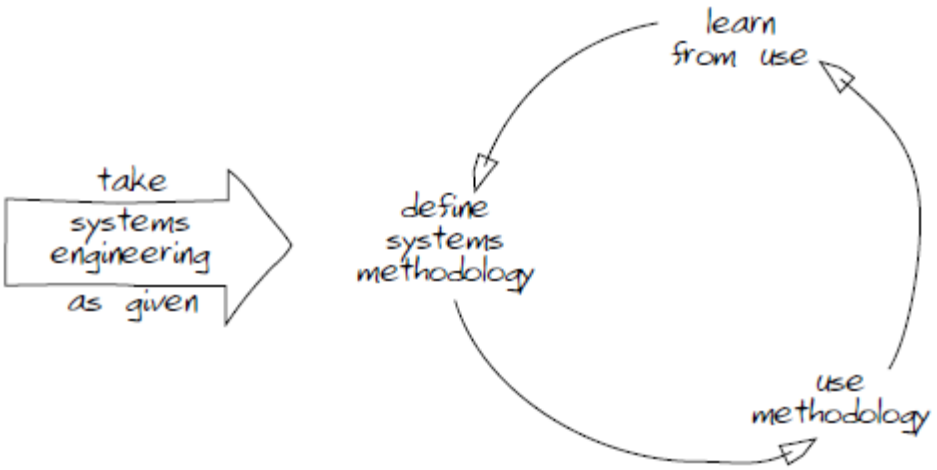


Figure 3.1: Strategy for system research at Lancaster (original drawing of Checkland)

That is why Checkland redefined the model to something new, which he called ‘soft system methodology’. The practical use of the new system showed its advantages with working information systems (Figure 3.2).

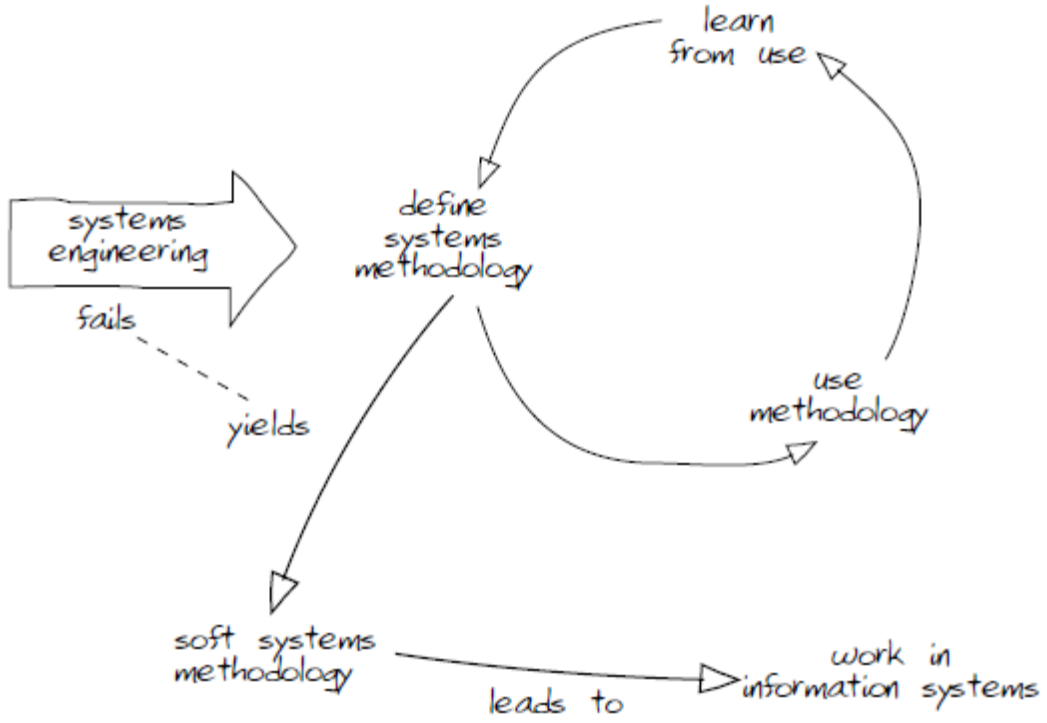


Figure 3.2: The outcome of system research at Lancaster (original drawing of Checkland)

In technical systems the formulation of objectives is part of the game. In human situations, however, it is quite difficult, because objectives are multi overlapping. This insight provoked some fundamental rethinking; systems have to be adaptive wholes “which can adapt and survive within a changing environment which is delivering shocks to it” (Checkland 1998, p. 199). That is why hard systems engineering cannot work in management situations; systems for real world companies have to be built similar to systems of physical environment as ongoing learning systems. SSM is a broad methodology to manage real world situations; it explores many different perceptions of the world by using a structured debate (Figure 3.3).

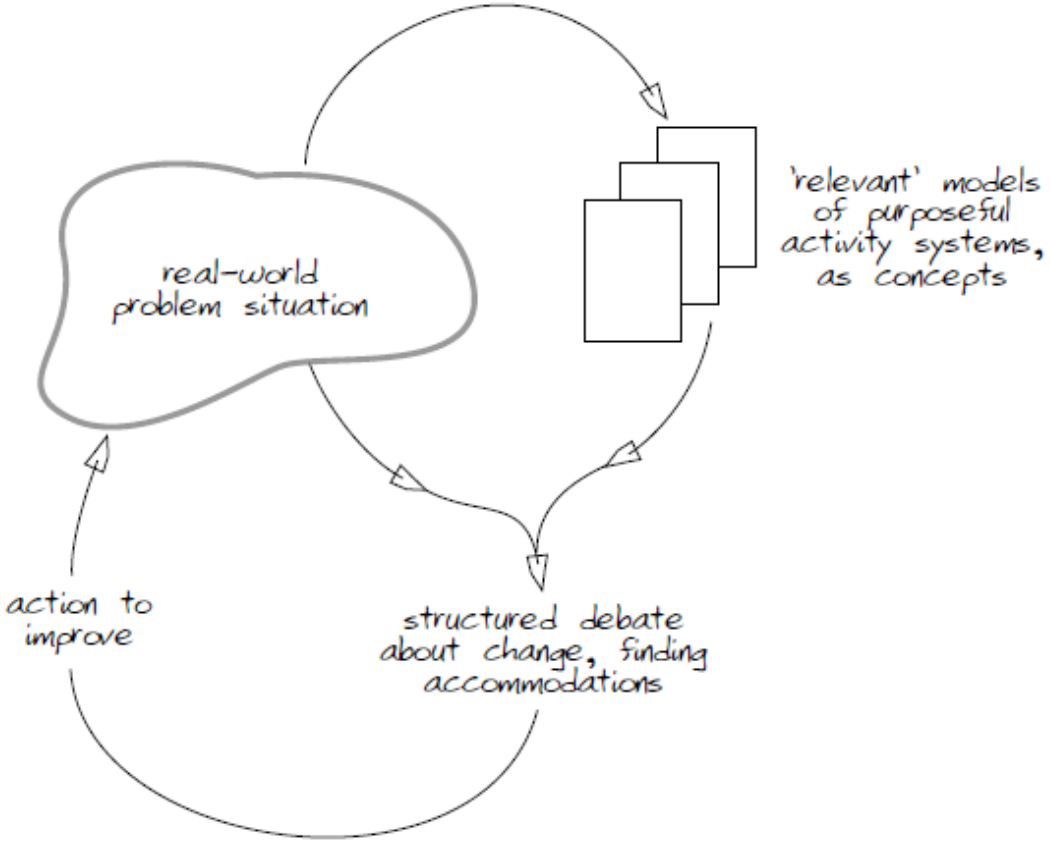


Figure 3.3: Soft system methodology as a learning system (original drawing of Checkland)

The classic SSM inquiry has seven steps – starting in the real world, reflecting in system thinking about the real world, and returning back to the real world.

The first step starts in the real world and reflects situations considered problematical. In step two the problem situation has to be expressed in all its richness (structures,

processes, climate, people, issues expressed by people, and conflicts); if possible this richness has to be visualised in a picture form.

The third step moves from the real world into the world of systems; it is most challenging part of the methodology, because it looks for root definitions of relevant purposeful activity perspectives expressed in step two. For every perspective the structured model process has to be applied.

The model process follows the mnemonic CATWOE. For the perspectives following questions have to be answered – keeping in mind that diverse answers are possible depending on the point of view of the elements of the systems (hierarchical level, department):

- Customers: who (or what) benefits?
- Actors: who facilitates the activity for customers?
- Transformation: what is transformed from 'start' (input) to 'finish' (output)?
- Weltanschauung (world view): what gives the activity some meaning?
- Owner: to whom the system is answerable and/or could cause it not to exist?
- Environment: what influences but does not control the system?

Reflecting developments in system thinking, Williams (2005) proposes to change the mnemonic to BATWOVE by replacing C by B and V. B stands for Beneficiaries and V for Victims; both can include ideas as well as people.

In step four the conceptual model is designed by using the root definition. Hereby these system properties have to be considered: an ongoing purpose; a means of assessing performance; a decision taking process; components that are also systems (i.e. sub-systems); components that interact; an environment (with which the system may or may not interact); a boundary between the system and the environment (that may be closed or open); resources; and continuity.

The SSM model building is an ongoing process about cycles of learning rather than finding a maximal solution first time. The optimising of the model uses different owners, perspectives, Weltanschauungen to detect additional issues or contradictions.

The fifth step leads by into the real world by comparing the model with the real world by assessing questions as: Does the model represent the real world and help to understand it? Can its performance be identified and measured?

Step six asks for changes by applying the model. A review by using the issues of CATWOE / BATWOVE allows systematically designing of desirable and culturally feasible alternatives; this process is accompanied by analyses of social and political issues.

With step seven, finally, the methodology finds its feedback loop by implementing action to improve the problem situation in the real world and eventually starting a new cycle.

The methodology of abduction allows developing a theory and adequate hypotheses to be tested. The description of the development of the 'soft systems methodology SSM' of Checkland and Holwell (1998) suits to abduction and its implementation with the seven steps shows that SSM is appropriate for designing a model explaining the dynamic interplay of SMEs, morality and (standardised) management systems within their common environment as well as their effects on performance of SMEs. The steps help to systematically design the model bearing in mind that the model has to be optimised during the process of development and practical use in real world.

To get a broader validation, the SME model designed according to SSM could be scrutinised by applying the issues of 'Critical System Heuristics' (CSH) of Ulrich, W. and Reynolds (2010) building on 12 boundary questions divided into involved and affected participants. CSH is a philosophical framework to support reflective practice. The boundary questions aim lightening a situation by paraphrasing what we understand, and thereby the questions help to get a more holistic view. The analysis incorporates sources of motivation, control, knowledge, and legitimacy. The better understanding of the situation supports ways for improving by integrating people with different perspectives; by that CSH aspires an emancipatory focus.

3.7 Research procedure

After assessing quantitative and qualitative methods to collect and analyse data for answering the research questions and describing the SSM methodology of Checkland to construct a suitable model, I define the research procedure by answering the question how to synthesise the project requirements with the methodological approaches.

The analysis of the interplay of the elements SMEs, morality, management systems and the environment providing effects on SMEs as well as of changes of attitudes and behaviours asks for an extended period of research involving an ongoing adaption of the procedure and design of hypotheses.

To support the development of the research procedure, in parallel I consequently revised the research status by ongoing literature review, membership in (research) associations, and participation in international conferences. The large number of examined literature is extensive, and significantly larger than that being quoted and listed in the references. The membership in the American Association for Quality ASQ (senior member), the Deutsches Netzwerk für Wirtschaftsethik dnwe (German Branch of EBEN European Business Ethics Network), International Society for Business, Economy and Ethics ISBEE, and the Schweizerische Normenvereinigung SNV (Swiss Standards Association – expert member for quality, environmental and social management standards), allowed me to examine recently developed knowledge. In conferences I discussed my research development by presenting papers.

In the last sections I reflected the framework given by action research and SSM. For getting corresponding information data gathering instruments are required; that is why I plan these steps of research procedure using the issues of action research (foreseen as list of contents of Chapter 4):

4.2 Stage 1 – A: Pre-test and round 1 of interviews, definition of hypothesis

4.2.1 Data collection, results and analysis

4.2.2 Feedback to companies

4.2.3 Definition of hypotheses

4.3 Stage 1 – B: Design of the SME model and measuring tool

4.3.1 Application of Soft System Methodology SSM

4.3.2 Review by Critical System Heuristics CSH

4.3.3 SME-model – interplay of the elements

4.3.4 Measuring tool

4.3.5 Review of research hypotheses

4.4 Stage 2: Round 2 of interviews and analysis of results

4.4.1 Round 2 of interviews

4.4.2 Analysis of aggregated data – Rounds 1 and 2

4.4.3 SME – results

4.4.4 Morality - results

4.4.5 Management system – results

4.4.6 Environment – results

4.4.7 Exploring interrelationships according to the SME model

4.4.8 Key findings of the longitudinal survey

4.4.9 SME model and measurement tool

4.4.10 Critical review of results

4.5. Stage 3: Comparison with other surveys

4.5.1 Comparison with results of other surveys

4.5.2 Comprehensive view

4.5.3 Review of the findings

The effective measuring of changes within companies demands a longitudinal observation based on at least two survey rounds with a time interval of at least two years for interviews applying a comprehensive questionnaire, and a longer period for other forms of information (e.g. public brochures, company websites, and internal documents like mission statements and procedures); however, the longer period of being integrated in a research project bears the problem that companies hesitate to collaborate (e.g. uncertainties of possible changes in ownership, activities or management; disposition of interviewees).

I prepare two forms to present the data after the visits to the companies: Case studies and tables with quantitative data.

The case studies are presented as tabled summaries containing the feedbacks of interviewees. The tables enclose all the questions of the questionnaire. All given answers are listed with keywords; if different persons give the same or nearly the same answer, the number of these answers is mentioned (e.g. environmental duties: systematic separation of wastes (3)). After listing the answers I review the lists by giving comments to most of the answers; these comments are the background for the discussion with the companies.

This systematic presentation of feedbacks is possible, because the psychological situation of the interviewed persons is an element of lower interest, and therefore the answers are not registered in their full length.

Using the experiences of round 1 of interviews and the company model I design a specific table as a basis for a comprehensive evaluation of individual companies – combining the questions of the questionnaire with the specifications of the SME measurement tool (see Table 3.5). It allows characterising a company according to the general matrix of the tool (see 4.3.3, p 187ff) and differences or developments between the two rounds can be mentioned and analysed.

	Round 1	Round 2	Changes	Comments
SME - general data				
Ownership				
Leadership, decisions making				
People				
Patterns of organisation				
Culture/traditions				
Values: ideal boss, employee				
Communication				
Finance: Turnover, cash flow, profit				
Resources: people, finance, time				
Environment				
Society: Public – sponsoring				
Society: Legislation				
Society: Associations				
Economy: Innovation, agility, PR				
Economy: Market position, geographical range				
Economy: Customers, competitors				
Economy: Suppliers, partners				
Economy: Financing				
Physical Environment: Sustainability				
Morality				
Morality: Motivation				
Morality: Specifications				
Morality: Sustainability, codification				
Management system				
Mgmt-System: Mission/strategies, statement				
Mgmt-System: Range, formality				
Mgmt-System: Q: definition, -methods, -praxis				
Mgmt-System: Controlling, risk mgmt				
Mgmt-System: Knowledge mgmt				
Mgmt-System: Comprehensiveness				

Table 3.5: Table as a basis for the evaluation of the individual company – following the specifications of the SME measurement tool

3.8 Design of the questionnaire

Because a survey based on a questionnaire produces selected data, it is the most suited quantitative tool answering the research questions. The resulting data can be used for different sorts of analysis.

The design of a questionnaire depends on the purpose of the survey and the planned size of the sample. For an optimal answering of my multiple research questions I choose a mix of a large questionnaire with minimal pre-formulated questions and a sample of SMEs of different industries, size, countries and management systems; and to get a comprehensive view the sample should contain different interviewees from different hierarchical levels, departments and genders.

The majority of qualitative data are gained by using the questionnaire. Cultural, communicational and behavioural issues have to be seriously integrated by formulating the questions. The analysis of data has to be as manifold as possible (using the methods mentioned above). A systematic pattern of presentation makes the different cases comparable.

The basis for the design of the questionnaire are my experiences from consulting and certification, the general literature review, the gaps in literature review, the analysis of research concerning SMEs, morality and (standardised) management systems, and an investigation regarding possible issues concerning the elements.

The questionnaire has to integrate elements concerning SMEs, morality, (standardised) management systems and their environment (questionnaire see Annexes 7.4, p 383ff); by that it copes with the requirement of the methodology (optimal mix of quantitative and qualitative issues).

The questionnaire contains open and half-open questions allowing individually framed answers concerning visions, strategies and objectives, experiences, changes in attitudes and behaviours, company culture, morality, and (standardised) management systems. One closed question was taken from a survey of the Institute of Business Ethics,

University St. Gallen, so as to permit a comparison of the sample with the attitudes of large companies (Ulrich, P. et al. 1998).

Additional issues are questions concerning personal data as position within company, age, gender, education and religion serving as independent variables. These questions have to be completed with company data as industry, size, market position, ownership, financial situation and year of foundation (by a specific questionnaire for owners or top-managers).

Because I aimed to examine the development of the participating SMEs during several years, the design of the questionnaire started in a very early stage in which I not yet integrated the application of system theory and especially SSM. That is why the questionnaire contains issues which not are perfectly linked to the SME model and the measuring tool (e.g. questions concerning ideal boss and employee, private problems). However, I did not modify the questionnaire for round 2, because I wanted to get the possibility to identify and compare detailed changes concerning organisation, visions and strategies, morality and management systems over the two rounds of interviews.

3.9 Interview procedure and design

The interviewees may represent a mix of management and staff (all hierarchical levels and departments).

All survey partners get oral and written information (see Annexes 6.5, p 390f) about the procedure and the handling of data. Before the meetings within the companies I have a look at websites. I start the meetings with a tour through offices and workshops and ask for details of activities.

The interviews take place face-to-face in a solitary room allowing interviewees to bring in their arguments frankly. They are informed before the interview about the handling of their data (e.g. personal remarks were made anonymous before their integration into a company's report).

Before leaving the company I discuss with the owner / top-manager vague situation and ask for additional information (e.g. brochures, monitoring cards, media reports).

The handling of individual interview data demands reasonable care. During the survey the interview answers of the companies and individuals are recorded on a laptop and for security on an external data medium. All the names of companies and individuals are coded; the codes stored in a separate file. Paper documents are stored securely. Interviewed people are informed in this regard. After the analysis of the entire interview, data and paper documents are deleted. Only the result files are stored. Within the final presentation no company names are mentioned.

All the answers are registered into an Excel-file, not in full sentences but in keywords. If an answer is not clear enough or too general (e.g. question: “How would you describe the style of leadership within the company?” – answer: “Good”.), a more defined description is asked. Because I am always the only interviewer, it is a valid assumption that keywords are mostly used with the same meaning; on this basis the results are more comparable.

Before round 2, the interview method has to be reviewed basing on the experiences of round 1 (e.g. questions not clear enough, weighting of lists with statements [see ‘Questionnaire’, Annexes 7.4, p 383ff]).

For the quantitative analysis the keywords are classified and grouped in codes. The validity of these codes is optimised by the examination of sociologist; if a code is not understandable or clear enough the examining person elucidates it together with me. For the application in a statistical calculation the codes are transferred into values; SPSS (Statistical Package for the Social Sciences – PSAW Statistics 18) is used as the technical basis for the calculation.

The interview design contains the interview procedure in companies, registration and coding of data as well as the statistical method for quantitative calculation. But that it constitutes results for the analysis of findings.

3.10 The way to research partners

In a next step I present the way to research partners after discussing the research methods and their transfer into praxis.

First, I aspired a systematic collection and analysis of information concerning the effects of the use management systems within about 15 SMEs of three European countries (Switzerland and Germany – two countries using the same language, but differing in politics, culture, economy and social systems; and Great Britain – the country having a stringent tradition in SMEs research, and in which 'The Open University' is located).

To motivate companies for two interview rounds, I contacted ten SMEs using the standard series ISO 9000ff (quality) and ISO 14001ff (environment) which had been certified by Bureau Veritas (certification body I was working for). I explained the aim of the research in an article for "Management und Qualität", the main Swiss journal for quality management, to advise a wider public (Bürgi 2002). However, I got minimal feedback from the contacts and the article. Only one company using several standardised management systems (quality, safety, and environment) was ready for interviews (an institution for handicapped adult persons with sheltered workshops).

I used this company for the pre-test. Six persons were interviewed, representing different departments and hierarchical levels. Because the top-manager was not available, another manager answered general company questions.

The pre-test showed that several questions were not clear enough, and therefore some amendment of content and methodology was needed[33]. Because there was little interest of the top-manager for a second round of interviews, and an additional meeting with the interviewee was needed for updating the first round, the company was not integrated in the final sample.

[33] Main changes in comparison to final questionnaire (s. Annexes 6.4, p. 383ff): Questions have been enlarged or additional issues have been added (e.g. not only contents of visions, but also their implementation in praxis – tradition and culture – leadership). The flow of list B was logical (which could influence the interviewees) and not stochastic.

In 2002, a new activity as manager of a church institution in Canton[34] Nidwalden, Switzerland, brought me back to the region in which I grew up. Personal relations and contacts as a member of the local business community gave my opportunities to get in touch with many SMEs; in total I communicated with 53 companies. Finally, twenty companies became part of the sample (one of them was split between the two interview rounds resulting in a final number of 21). The main reasons for refusals were no time, no interest, internal changes or intensive external pressure (an external interviewer could intensify the uncertainty of staff), and participation in other research projects.

To get a control sample from Germany, I had the chance to meet a minister of religion responsible for counselling companies during a conference of Deutsches Netzwerk für Wirtschaftsethik dnwe. She submitted a list of eleven companies from Southern Germany. Six of them were ready for collaboration. The German sample encloses two problems: All of them were in contact with a minister; their moral background could have been more intensively influenced by Christian faith than in Swiss companies. Three of them (nursing homes) belonged to a Christian holding, a possible contradiction to the desired autonomy of a SME; all three, however, had their autonomous past and organisational development; they shared only the industry and the Christian motivation.

It was not possible to get a second control sample from Great Britain. My contacts with researchers, small business consulting services and local chambers of commerce were ineffective (even from Milton Keynes, the city where The Open University is located). A contact with a mayor of small town in Middle England during the 2004 Conference of the UK Systems Society was encouraging: she hoped to motivate companies with which she already collaborated, but in the end none responded. A contact at the EBEN Conference 2004 with a researcher from Milan, Italy, resulted in the same experience; he also thought that he would easily find research partners in his region, but this was without success.

Because of the difficulty to find research partners in countries other than Switzerland and Germany, my originally aimed country mixture could not be attained, but the originally planned number of companies (15) was well exceeded (27).

[34] Canton: Switzerland is composed of 26 Cantons – relatively independent political units, comparable to Counties in UK.

Finally I had 20 Swiss and 6 German SMEs being ready for cooperation. They belonged to different industries (quarry, construction, chemistry, electric components, sanitary, furniture, garage, trade, tourism, finance, and health care) and to different sizes (micro, small, and medium).

3.10.1 Specifications of the two countries – Switzerland and Germany

Fueglistaller (2011) lists for 2008 the position of SMEs within the two countries by specifying the percentage of companies and of employees working in these companies (see Table 3.6). In Switzerland 2005, 99% of all manufacturing firms were SMEs (small: 96%), and more than 80% of all apprentices have been trained in SMEs (OECD 2005).

Country (data of 2008 in %)	**> 10**	**10-49**	**50-249**	**0-249**
Switzerland – number of companies	89.3	8.8	1.6	99.7
Germany – number of companies	83.1	14.1	2.3	99.5
Switzerland – number of employees	29.9	21.8	19.3	71.0
Germany – number of employees	19.3	21.8	19.3	60.5

Table 3.6: Number of companies and employees in Swiss and German SMEs 2008 (according to Fueglistaller 2011)

There are some differences between the countries regarding percentages. In Switzerland the number of micro companies and their employees is higher, and the number of small companies is lower. In Germany 10% more people work in large companies than in Switzerland.

a. Switzerland – Central Switzerland / Nidwalden

It would be out of proportion to describe Switzerland in detail – especially because nearly all of the analysed 21 companies were situated in the Canton Nidwalden (one company had its domicile in Canton Lucerne, but the owner was an inhabitant of Nidwalden). For a short insight I use issues from “The Swiss Portal” (www.ch.ch):

Switzerland has a population of about 7.7 million, living on land area of 41.285 square kilometres (half of it uninhabitable [mountains]). Foreigners account for around 20% of the

resident population. Switzerland has four unevenly distributed languages and a wealth of dialects.

The geography of Switzerland is notable for its great diversity. Switzerland's three main geographical regions are the Jura, Plateau and the Alps; the climate varies greatly from one region to another. Switzerland's topography implies that the central plateau is densely populated.

Switzerland's economy is based on a highly qualified labour force performing highly skilled work. The main areas include micro technology, hi-tech, biotechnology and pharmaceuticals, as well as banking, insurance and tourism. The service sector employs the greatest number of people. The age of unlimited economic growth in Switzerland is over. Fear of unemployment has been one of the main concerns of the Swiss for several years.

Switzerland developed slowly over many centuries, as more and more regions came together to form a loose confederation whose members gave each other mutual support. It was only in 1848 that Switzerland became a more centralised federal state (consisting of 26 relatively independent Cantons). This favoured its economic development and ended any possibility that Switzerland might break up.

For the short introduction concerning Nidwalden I use official texts (see www.nw.ch; Nidwalden Contact 2005).

The small Canton Nidwalden (276 square kilometres) mainly consists of one valley, situated in the Centre of Switzerland; its' natural boarders are the Lake of Lucerne to the North, and the Alps to the South.

Before the Second World War the Canton was economically poor. The decision to build a Cantonal hydroelectric power plant allowed industrial development. It became favoured due to the installation of an air force base and associated repair plants which became the basis of a large aircraft industry. The construction of the motorway from Hamburg to Southern Italy brought international integration and a direct railway connection from

Lucerne into the national public traffic network. These developments were accompanied by a tax policy favouring national and international companies.

Nowadays, Nidwalden has nearly 40 000 inhabitants (about 80% Catholics, and 10% foreigners). The income per capita is higher than the Swiss average (2005 – Switzerland: CHF 54 031 – Nidwalden: CHF 73 286). Its rate of unemployment is extremely low (2008: 1.6%). It remains in the top Swiss Cantons for taxation of corporate and private bodies (the tax is about half the Swiss average). The mountainous landscape still guarantees a high quality of life.

b. Germany – Bavaria and Baden-Württemberg

Because the control sample consists of only six companies, a detailed presentation of Germany with its 16 Bundesländer (Federal Lands)[35] would be excessive.

The companies of the control sample are situated in the two Southern Federal Lands:

- Baden-Württemberg (35 751 square kilometres): Landkreis (administrative district) Alb-Donau – four companies
- Bavaria (70 552 square kilometres):
    - Landkreis Wunsiedel in the North – one company (health care)
    - Landkreis Donau-Ries in the Middle West – one company (health care)

Baden-Württemberg[36] is one of the economically most powerful, competitive and innovative regions of Europe – especially in the field of industrial high technology. Its rate of unemployment is relatively low (2008: 4.0%).

The Landkreis Alb-Donau is situated in East of the Federal Land and surrounds the city of Ulm. The name of the Landkreis describes its geography: the North being part of the Swabian Mountains, and the South being divided by the upper Danube. In 2007, more than 190 000 people lived on 1 357 square kilometres within Alb-Donau.

[35] More details see: http://www.deutschland-auf-einen-blick.de/statistik/index.php

[36] http://de.wikipedia.org/wiki/Baden-Württemberg; http://de.wikipedia.org/wiki/Alb-Donau-Kreis; http://www.insm-regionalranking.de/ki_217.html

Bavaria[37] is a very economical powerful and rich Federal Land which developed in recent decades from an agriculturally-based region to a technology-orientated region with the lowest rate of unemployment in Germany (2008: 3.6%).

The Landkreis Wunsiedel is situated in North-East Bavaria, bordering the Czech Republic. It is part of the tourist area Fichtelgebirge and in 2006 had about 80 000 inhabitants living on 606 square kilometres. The rate of unemployment is relatively high (9.7%), and is one of the reasons for its ongoing and increasing decline in population.

The Landkreis Donau-Ries is situated in Middle Bavaria (Northern Swabia), bordering Baden-Württemberg. The region is famous for its specific geography: a nearly circular dip with a diameter of about 22 kilometres (created by a meteorite impact). Donau-Ries has about 130 000 inhabitants living on 1 275 square kilometres. It has the lowest rate of unemployment in Bavaria; more than half of the employees are working in production industries, but the region is also famous for tourism and calmness (no motorways).

3.11 Model and measurement design

After assessing quantitative and qualitative methods to collect and analyse data for answering the research questions and describing the SSM methodology to construct a suitable model, the research procedure was designed by answering the question how to synthesise the project requirements with the methodological approaches. I complete this process of the design of the research procedure by describing the way to the design of the SME model and measurement tool.

The questionnaire delivers a lot of data concerning the elements SMEs, morality and management systems and their common environment as well as their effects on sustainable performance of SMEs. The interplay of the elements can scarcely be explained by this conglomerate of data. The experience with the data analysis after round 1 of interviews asks for a model to elucidate this interplay and its effects; this model is designed by applying SSM (see above 3.6, p 144ff).To integrate and measure the data a

[37] http://de.wikipedia.org/wiki/Bayern; http://www.landkreis-wunsiedel.de/stdscripts/dp ; http://www.donau-ries.de/cms/

specific measurement tool is designed; it consists of a general matrix allowing a general evaluation of the interplay of the elements and their effects in a individual company and specific tables generating particular results (details see 4.3.4, p 189ff).

3.12 Summary and Conclusions

I started into this chapter by summarising the gaps in the research questions. The aim of the chapter was designing a methodology to fill these gaps.

Since the starting period, I have adjusted the general research hypothesis by using abduction as methodology. The iterative process concentrated on splitting the hypothesis in more differentiated sub-hypotheses. Similarly, I adapted the research questions.

By reflecting on the philosophical foundation I concentrated on the description of ontology and epistemology in relation to positivism and constructionism. As main methodologies I explored induction, deduction and abduction; and finally I presented different forms of practical use of methodologies.

I especially focused on abduction because it is able to explain complexity and to design hypotheses to be tested in iteration. Abduction also matches with 'action research' and contemporary system thinking, both methodologies regarding research as an ongoing process. The use of an abductive action research methodology allows to become at least partly an active participant within my research by using an iterative structure of finding out real-world problems of SMEs, building a model making these problems perspicuously, then discussing/debating the model with real-world findings; these steps permit defining and taking action within companies.

In 'System Approaches to Management' Jackson (2000) presents different methodologies, within them the 'Soft Systems Methodology SSM' of Peter Checkland seemed me to be most qualified to build a SME model. The description of the development of the SSM of Checkland and Holwell (1998) suits to abduction and its implementation with the seven steps shows that SSM is appropriate for designing a model explaining the dynamic interplay of SMEs, morality and (standardised) management systems and their common

environment as well as their effects on the performance of SMEs. The steps help to systematically design the model bearing in mind that the model has to be optimised during the process of development and practical use in real world. Checkland and Poulter (2006) examine the application of SSM with different case studies; these practical illustrations of 'Learning for Action' underline the appropriate structure of the methodology. The cycle can be used multiply and allows me plan the implementation of my research in two phases.

The assessment of the gaps in literature review showed two trends: Some required nomothetic measures which would necessitate a relatively large sample of SMEs or additional literature review, and a similar number for a more idiographic approach with case studies. To overcome these unequal requirements a frame work of qualitative and quantitative research was designed.

In order to study SME's I found from a review of the methodological literature and the methods that a questionnaire and interviews are the appropriate methods to use. Using the methodological literature I am able defining the suited sample and the questions.

The chapter is supplemented by reflections how to use the designed methodologies in praxis and the way to find research partners.

The chosen palette of methodologies is applied in the next chapter 4 'Findings' as the basis of proceeding. Abduction will help do design the research hypothesis, the questionnaire and the case studies to prepare the needed data for analysis, and SSM to build the SME model.

4. Findings

4.1 Introduction

In this chapter I present, discuss and finally analyse the findings of the longitudinal survey of this research. Hereby I follow the methodology of abduction (chapter 3) and examine the considerations reflected within literature review (chapter 2). My research proceeding became increasingly differentiated by ongoing reading and reflecting; the development of my 'framework of ideas' (F) and 'methodology' (M) was in a running progress. That is why the chapter follows the narration of this research which leads to defining hypotheses and building of the SME model. The analysis of the findings allows drawing conclusions (Chapter 5) by answering the research questions, examining the hypotheses and defining fields of future research.

The outstanding issue of this research is the comprehensive view of SMEs. It profits of the SME model based on the interplay of SME, morality, and management systems within their environment and on its examination using a longitudinal survey with a detailed questionnaire and two rounds of interviews. Another important distinguishing topic is the integration of staffs of all hierarchical levels and different departments.

The SME model is built with the findings of the interview round 1 by using SSM; an outcome of the model building is the corresponding measurement tool. Both are reflected after the analysis of the findings of the round 2. The results of the survey allow furthermore formulating hypotheses.

However, the methodology of the longitudinal survey embodies the main weakness of this research; the willingness to participate was reduced because of the needs of the companies (the time and effort required). An additional element has to be considered in the analysis: the period of round 1 (2003 to 2004) was characterised by a rather economic depression, and the period of round 2 (2005 to 2007) by an increasing boom; these issues influenced the interviewees (e.g. motivation, resources of time) and the companies (e.g. innovation, finance for investments).

The chapter follows three stages: 1. Getting into the research and building the SME model, 2. Round 2 of interviews and analysis, and 3. comparison with results of other surveys and generalisation.

The interplay of the three stages embodies the methodology of abduction and by that hypotheses can be deduced and tested. This proceeding allows drawing conclusions (chapter 5).

4.2 Stage 1 – A: Pre-test and round 1 of interviews, definition of hypotheses

In Stage 1 I discuss the first round of data collecting and its analysing. The findings allow building the SME model by applying SSM and designing the corresponding measuring tool.

As mentioned above (3.10, p 156ff) a certification customer of Bureau Veritas was available at pre-test partnership (an institution for handicapped adult persons with sheltered workshops). Because there was little interest of the top-manager for a second round, and an additional meeting with the interviewee was needed for updating the first round, the company was not integrated in the final sample.

The pre-test showed that several questions were not clear enough, and therefore some amendment of content and methodology was needed[38].

4.2.1 Data collection, results and analysis

In chapter 3 (Methodologies – 3.10, p 156ff), I described my quite labyrinthine way to find companies. Finally I had 20 Swiss and 6 German SMEs being ready for cooperation. I interviewed the Swiss sample between summer 2003 and summer 2004, the German in October 2004.

[38] See examples in 3.8, p 153ff

Results of all issues of the questionnaire have been arranged in tables. The presentation of the results of the round 1 of interviews is limited, because the results of both rounds are presented and discussed and compared in detail in Stage 2 of this chapter (p 195ff).

Overviews concerning specifications of the sample during the two rounds see Table 4.4, p 210.

a. Economic Issues

The market position of the companies was relatively strong (often regional market leader or in second position); some were niche players. Especially companies with standardised management systems had a good position.

The large majority were limited companies [39] - mainly owned by the general manager (and in some cases by family members) or partners. The four health care companies were foundations, one company was a co-operative (bank) and one small one was private (tourism).

The companies were mainly privately financed (ltd, owner, family, partner). Nearly a third was also supported by banks (a few very intensively).

More than the half of the companies had a mix of PR activities (personal relations, events, info letters, advertisements, sponsoring). Two had specific PR divisions which also worked for customers. Construction companies often used public invitations of tenders.

Most companies were members of associations – mainly of their industries and of the region. Some of the owners were also members of the association's board.

More than three quarters of the companies had a division or profit-centre organisation (some with combinations – matrix, function, and team). Half of the micro companies had a team organisation.

Only half of the companies had a steadily increasing turnover. Only a quarter of them were market leaders. It is of interest that none of the micro, medium, ISO 14001 and QMS companies had a decreasing turnover.

[39] The Swiss law distinguishes between AG (=Aktiengesellschaft) and GmbH (Gesellschaft mit beschränkter Haftung). Both can be regarded as limited.

Less than the half of the companies had an increasing or good cash flow. Half of the micro companies had a decreasing cash flow. Medium sized, ISO 14001 and QMS companies had no decreasing or minimal cash flow.

More than half of the micro companies had a decreasing profit. On the other side medium, ISO 14001 and QMS companies had no decreasing profit. More than a quarter of the Swiss sample optimised their profits on the background of the tax law. Nearly all companies used their profits for innovation (products, process, maintenance, and training). Few used their profits for financial reserves.

The great majority had good relations to their partners / suppliers (intensive communication, friendship, co-operation, contracts, and sustainability); only two were dependent (getting parts under specific sales conditions).

Related to the mix of industries there was also a mix of types of customers (private, companies, public). There were often personal relations to customers providing business (individuals or other SMEs).

A majority had many and a big minority few competitors. Two thirds had some exchange or quite good relations to their competitors. A fifth had to fight for its customers. The medium, ISO 14001 and QMS companies mentioned no fights.

b. Environmental issues

Half of the companies had to manage immense or many environmental issues, the others some or minimal (waste disposal, consulting).

Only the medium and companies with ISO 14001 measured their immissions and emissions.

Only staff of medium and companies with ISO 14001 mentioned additional activities besides training, purchasing, looking for alternative matters and products, separation, recycling and disposal of wastes.

c. Social issues

All companies showed social responsibility. Two thirds of the companies had external (sponsoring, political mandates, board of associations) and internal (individual support of employees, optimising work conditions, education of apprentices, work for handicapped people) social activities, one third concentrated on inside behaviours. The part of external and internal activities was greater with small, medium, ISO 14001 and QMS companies.

The staff of nearly all companies spoke of different social activities (intensive, comprehensive, employee orientation, family feeling, and training of behaviours). Only few mentioned low or minimal activities.

d. Management and management systems

A third of the companies had a methodology to define their mission and strategies; hereby the relations to customers were important. Some people exactly knew what their company wanted, but quite often staff had no clear idea about the contents of mission and strategies.

Decision making was mainly management orientated. Leadership provoked a mix of answers. Most frequent were participation (mentioned in half of the companies) and a paternal (owner) orientated model (nearly one third).

Half of the companies had full systematic control, a third only a financial and some control within the management. Half of the micro companies kept its control within the family, or the team or the partners. Three quarters of the companies had some risk management procedures (nearly half of the sample used a systematic procedure).

Nearly half of the companies had a list of defined objectives, most of the others single objectives (as customer orientation, turnover, quality). Few micro companies had no defined objective. However, only the staff of a quarter had clear ideas about objectives.

Only few companies had general descriptions of culture (e.g. system, orientation, openness, and common style). The majority mentioned external and internal elements of

culture. Most frequently mentioned were special events (for example parties, excursions). Important for micro companies were issues of family, relations, and participation or team.

Most companies had a mix of access to information. This mix depended often on the hierarchical position of people and the style of communication. Companies got external information mainly from associations and training courses, and internal information from meetings. The rating of communication issues (see questionnaire, Annexes 6.4, p 383) showed that superiors often haven a more positive evaluation of their relations to subordinates than contrariwise.

An ‘ideal boss’ had to have knowledge, to be an example, a motivator or colleague and partner. An ‘ideal employee’ was characterised by experience and knowledge, confidence, loyalty and fairness was well as communicative and joyful behaviours.

The education in the companies was generally quite high. Half of the companies employed a mix of people having no professional education, apprentices and specialists – a quarter also people with university education. Nearly the other half had staff with professional education and specialisation, few had only specialists. All companies with ISO 14001 had staff or managers with university education.

The definition of quality was based on a customer orientation perspective and delivery of good products or services, secondary were contextual factors (e.g. quality of life) practical influence of a focus on quality in three quarters of the companies resulted the aim to deliver excellent work.

The main reason to implement a management system was the internal aim to optimise the company; secondary reasons were the external pressures. All companies with ISO 14001 and the majority those with QMS were lead by internal issues; however, it does not astonish me that companies only having an OHS mentioned legislation first.

Quite a lot of people mentioned – especially those working in service companies – that they have been involved in the implementation of the system. In a few cases there had only been some training or information received. However, a quarter of those interviewed had little or no knowledge of the existence of their management system.

There was a mix of answers concerning duties related to management system - depending to the different duties staff had. It was interesting that some people – even within companies with ISO 14001 and QMS – had no impression that they had any duties in relation to the system.

In about half of the companies the introduction of additional systems was on the way (already some elements introduced) or planned (EFQM, Q for tourism, ISO 9001, optimisation of customer satisfaction, time management). Some companies planed an optimisation of their existing QMS.

e. Moral issues

More than a quarter of the companies had at least some elements of industry ethics. Some mentioned general influences coming from legislation, insurances, price agreements or the holding they belonged to.

The majority of top-managers or owners saw elements of an ethics code within their company. Nearly a quarter had a systematic way to control it (all these companies had a QMS).

As mentioned problems world politics were in front for staff of half of the companies, followed by economy, growing egoism and lack of communication, decreasing social welfare, increasing number of laws and regulations, new taxes and environmental problems.

‘To be an example’ was the most selected issue out of list of seventeen, followed by ‘enough time for relations and leisure’. In a third of companies there were no differences between the values of owners / to-managers and staff; this parallelism was higher in small companies. In two thirds of the companies people had problems to find enough time for their private relations and leisure.

For most interviewees family and experience were the important value drivers. Many also mentioned religion and some school education.

There was a balance between people who practise their religion and / or philosophy of life and those who did not. It is interesting that people whose religion was combined with an individual philosophy of live had more intensive praxis.

Only a minority of interviewees said that their religion or philosophy of life influences their activities within the company. On the other hand nearly half of the people thought that their religion or philosophy of life influences their activities within their private life.

The great majority of people had no party preference and was not politically active; if they were they mainly behaved according to specific problems. About a third of the interviewed had a personal party preference; early half of them elected the Christian parties, followed by liberals, rights, socialists and greens.

Because phrasing ethical management models was very difficult (according to Ulrich P. 1998 – see questionnaire, Annex 6.4, p 389)[40], only about half of the interviewees made a rating. The majority followed the reformist model, followed by the idealist. Companies with QMS seemed to be more idealistic.

f. Review

The interviews brought a collection of information concerning structure, culture, leadership, management, management systems, relations to physical environment and morality. The results follow the questionnaire which was designed as a palette of issues concerning SMEs, morality, physical environment and management systems.

Only few companies looked for a balance of economic, social and environmental values. One half of the companies were ranking the economic aspects first or as important. The other half regarded economic success as decisive for survival. Nearly all companies saw the social aspects as focal, important or sustainable. The majority called economic aspects as sustainable or important.

[40] University of St. Gallen: written interviews with 112 leaders of great German and Swiss companies in 1995.

The staff of nearly all companies saw their main problems in connection with economy (economy, EU, comprehensive, enough work). Internal problems concentrated on communication, management of finance and time management.

The staff of two third of the companies validated the future of their company as good, a quarter as decreasing, bad or unsure. The future was regarded as decreasing, bad or unsure mainly by people of service companies.

After shortly presenting the main results of interview round 1 I formulate a first analysis of these data. The aims of this analysis are to give primary interpretations which will be deepened in Stage 2 and to give inputs for the further development of my research.

The results of the individual companies were concentrated in lists allowing first quantitative results. These were the main results:

The market position of the companies was relatively high; some were niche players. Especially companies with standardised management systems had a good market position. More than three quarters of the companies had a division or profit-centre organisation. The great majority had good relations to their partners / suppliers. Two thirds had some exchange or quite good relations to their competitors.

Half of the companies had to manage issues of physical environment. All companies showed social responsibility.

4.2.2 Feedback to companies

Every company got lists based on anonymous data with its results and comments. About half of the Swiss companies took the opportunity to discuss the results in a meeting. With nearly all German companies I had a written feedback exchange.

I made different experiences with these feedback meetings. The majority of owners or top-managers were quite happy to hear that their appraisal of the company complied with that of their people. About a quarter had difficulties to realise that the information they regularly gave to their staff did not arrive in the manner they aspired; there was a divergence in the

perception of communication. As a consequence one company collaborated with a consultant to optimise this problem.

The feedback to companies allowed reviewing and improving case studies, e.g. by complementing the lists or the comments.

Another consequence of the feedbacks to companies could have been to review of the questionnaire. I decided to abstain because since the start of the research I had aimed to compare the results of the two rounds. I only added the special questionnaire for the owners / top-managers two matrixes – one asking for a moral positioning of the companies (according to Basu and Palazzo 2005), the other for a general positioning (according to the measurement tool, see 4.3.4, p 189ff); the use of these matrixes would help to compare the results with the evaluation by the owner / top-manager.

4.2.3 Definition of hypotheses

The examination of the research questions basing on literature review and results of interview round 1 allows deriving hypotheses.

Hypothesis 1: Influence of original intentions of management standards

The original intentions of the standards (optimising quality, avoiding harm to people and physical environment) influence their implementation and use. Motives of SMEs for the implementation of standards have often been external requirements or needs to optimise shop floor procedures guaranteeing product or service quality as well as to avoid harm. For this reason a number of companies had difficulties implementing a comprehensive management system. The hypothesis relates to research questions 4, 5, 6 and 7 concerning the implementation of management systems and their integrated moralities in SMEs.

1. The implementation and use of a standardised management system is influenced by its original intention (e.g. ISO 9000: [shop floor] processes to guarantee product

quality; ISO 14001: system to avoid harm and to guarantee sustainability). Therefore it may hinder a comprehensive implementation of the system.

The literature review intensively demonstrated that many SMEs using the quality management series ISO 9000 still act according to the spirit of the version of 1994; their activities concentrate on optimising shop floor procedures. A number of companies use the revised version of 2000 which widened their views towards TQM.

Literature shows that many SMEs using ISO 14001 see improving the working conditions within the firm as the most important reason for investing in environmental issues.

These issues have been confirmed by round 1 of interviews; however the companies applied the version of ISO 9001:2000.

Hypothesis 2: Long term effects of the interplay of SMEs, morality and (standardised) management systems within their common environment

The main focus of the SME model is highlighting the interplay between its elements within their common environment. On this background a hypothesis has to explain the long term effects of this interplay. The thesis relates to the research questions 8 and 9 concerning the environment of the elements and their interplay.

2. The more SMEs implement and use the dynamic interplay of management systems and moral elements in relation to their environment the more intensive are the effects – especially in the field of integrating missions, strategies, leadership and processes – as a basis for a long term survival.

Literature review as well as the results of round 1 illustrated that there is some dynamic interplay of the elements and their issues as well as to attitudes and behaviours of owners, top-managers, and employees. Case studies of different SMEs illustrate that the ideal correspondence of the elements rarely is attained in real world; however, a lot of companies have realised a partial overlapping and interplay.

Hypothesis 3: Relations between long term use of standardised management systems and personal backgrounds of individuals

A number of SMEs developed their original, elementary management systems towards a comprehensive TQM system. Since SMEs have been mainly influenced by the personality of the owner or top-manager, the design of the management system relates to their focus. The hypothesis relates to different research questions, mainly on 1, 2 and 3 concerning the characteristics of SMEs, their morality and leadership; however there is also an intensive relation to question 9 examining the SME model.

3. The more SMEs implement and use management systems in relation to their environment the more intensive they integrate vision, strategies, leadership and processes as well as morality and alter to companies with a long term survival. However, the main drivers of moral elements are the original attitudes and behaviours of the principal and collaborators.

As already explained in the comment to hypothesis 2, an intensive overlapping of three elements 'people and their moralities', 'mission, strategies and traditions – embedded in company culture' and 'management systems' supports their dynamic interplay towards their long-term survival in a changing environment. The literature review demonstrated that particularly moral attitudes and behaviours of SMEs are essentially influenced by the individual milieu of top-managers and employees, even if there is a certain overlapping of the elements. This detection was confirmed by round 1 of interviews.

4.3 Stage 1 – B: Design of the SME model and measuring tool

After discussing the proceeding and results of interview round 1 and optimising the hypotheses, I go about designing the SME model and the corresponding measurement tool by using issues of system thinking as highlighted in literature review (chapter 2) and methodology (chapter 3).

The structure of the questionnaire brought an apposition of results which would allow improving individual issues of or within companies. With my SME model, I fill this gap

created by separate examinations by positioning SMEs in an overall context and use a transdisciplinary approach; the model explains the dynamic interplay of SMEs, morality and (standardised) management systems within their environment – supporting the sustainable performance of companies. The aspect of 'time' provides for continuous change and is a challenge for ongoing adaptations.

This model bases the development of an analysis and measurement tool which identifies options for continuous improvement. The model and its theoretical background give an additional rationale for the research hypotheses, integrating aspects of the fields of reflection. The hypotheses examine the intensity of the interplay between SMEs, the issues of their environment and the impacts of the use of management systems. The model and the tool help to analyse the findings of the longitudinal survey.

A central aim of this research is to design a system representing the real world entities of the dynamic interplay of SMEs, morality and (standardised) management systems within their environment. This system may allow learning devices to inquire into real world entities. This system is visualised by an adequate model abstracting the real-world; this model is the basis of an evaluation tool.

4.3.1 Application of Soft System Methodology SSM

As explained in Methodologies (3.6, p 144ff), I consider, reflecting on the development of my research, the 'Soft Systems Methodology SSM' of Checkland and Holwell (1998) as the most suitable for the design of the SME model. In a second step, I adjust the model by applying parts of 'Critical System Heuristics (CSH)' of Ulrich, W. and Reynolds (2010).

To design the SME-model, I follow the seven steps of SSM – starting in the real world (i), reflecting in system thinking about the real world (ii), and returning back to the real world (iii).

i. Starting in the real world

Step 1: Situations considered problematical:

- The economic and social importance of SMEs has not been explored to the same extent as large companies; however SMEs are the pillar of economy and social responsibility, having an immense influence on physical environment.
- Research concerning SMEs concentrates on individual science (e.g. economy, ethics and morality, organisation, and management systems).
- Users of standardised management systems often only concentrate on shop floor processes and activities, and on reliability, not on managerial issues.
- Standardised management systems enclose at least implicitly moral issues. However, there is minimal systematic knowledge about the influences of these moral issues on attitudes and behaviours of the users of the systems.
- There is a wide public knowledge concerning the three individual topics (‘SMEs’, ‘morality’ and 'standardised management systems’) but relatively little knowledge concerning the interactions of the three individual components within their common environment.

Step 2: Problem situation expressed:

The specific situations of SMEs with their benefits and constraints as well as the SMEs’ handling of morality and management systems within their common environment are described in details in literature review and to some extent in the results of interview round 1 (Figure 4.1 – Problem situation).

- To fill this gap of little knowledge concerning the interaction of the different elements of SMEs, it would be helpful to have some transdisciplinary research enclosing the dynamic interplay between SMEs, (standardised) management systems and morality by considering their common environment as well as their influence on the performance of SMEs.
- A measuring tool should support the use of the output of such research to define possibilities of improvement.

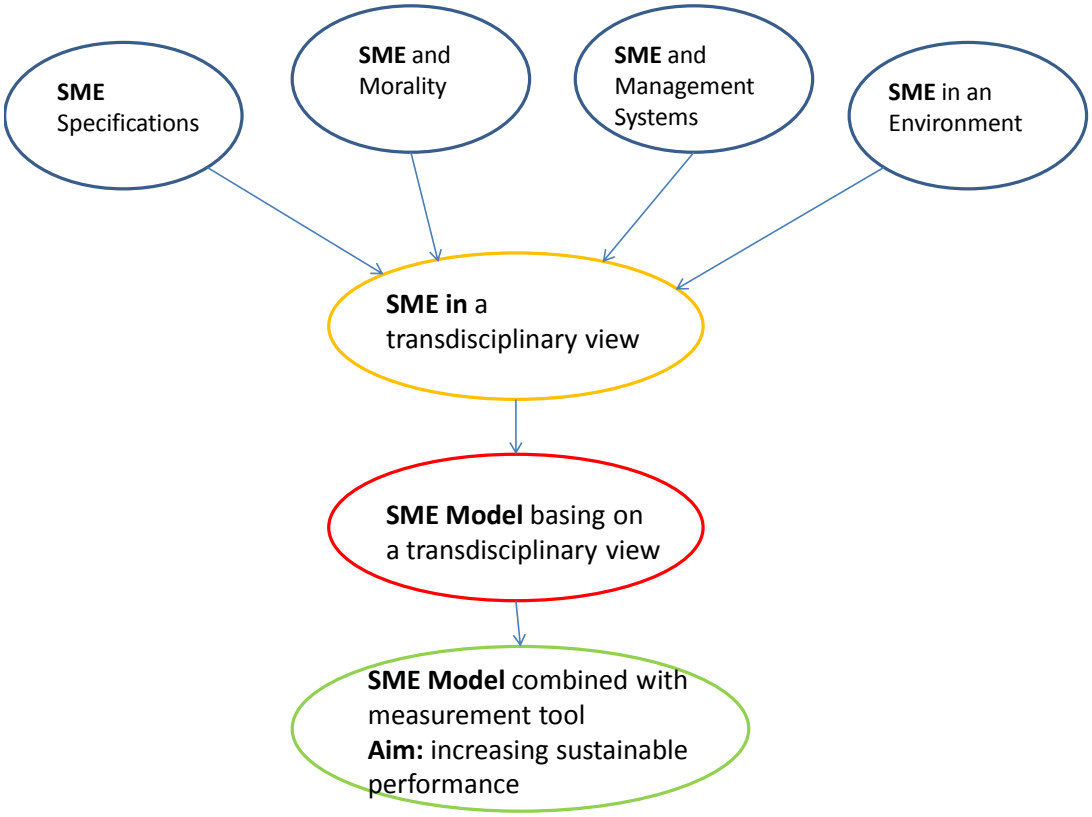


Figure 4.1: Problem situation: Defining a SME model und measuring tool with the aim of increasing SME's sustainable performance

ii. System thinking about the real world

Step 3: Root definitions of relevant purposeful activity systems (by applying mnemonic CATWOE – relevant terms in **boldface**):

- Possible **Customers** of the system 'SMEs with morality and management system in a common environment' are primarily SMEs (with managers, employees, owners) and their different stakeholders (as customers, neighbours, local community, competitors) as well as the public and academia.
- Facilitating **Actors** of the system are primarily again SMEs with their innovative tenor and flexibility (with managers, employees, owners). They are squired by their stakeholders (e.g. customers, suppliers, competitors, designers of morality and [standardised] management systems, legislative bodies, neighbours, local communities, public, physical environment, and academia). Several parts of the main

sub-system SME are spanning elements; this is because they are at same time elements of the environment (e.g. morality, standardised management systems).

- The **Transformation process** relates to SMEs which go into challenges of changing requirements of a variety of stakeholders within a common environment. They start with their actual situation to be optimised and move on-going in future guaranteeing a sustainable survival incorporating the needs of stakeholders.
- The **Weltanschauung** (world-views) or moralities of individuals (managers and staff) and companies may intensively differ; they depend on personal histories of people and organisations, as well as on regional, national or continental philosophical or religious trends. An individual company aims to have a common world-view being reliant on the morality of the owner, top-manager, and as far as possible staff; it may be available in an ethical code. Companies of the same industry, region or moral background (e.g. religion) may have similar word-views.
- **Owners** of the system are the author of this research and all co-authors and possible users (e.g. companies [especially those participating in the research], public, and academia).
- **Environmental influences** can come from all sorts of stakeholders of SMEs (owners, knowledge, employees, customers, suppliers / partners, financiers, and competitors) as well as philosophical streams, owners of standardised management systems, public administration, politics, legislation, and physical environment.

The relations between the different issues of the mnemonic CATWOE as well as their influences on the transdisciplinary SME model are shown in Figure 4.2. The output of the model is a measurement tool aiming increased sustainable performance of the SME.

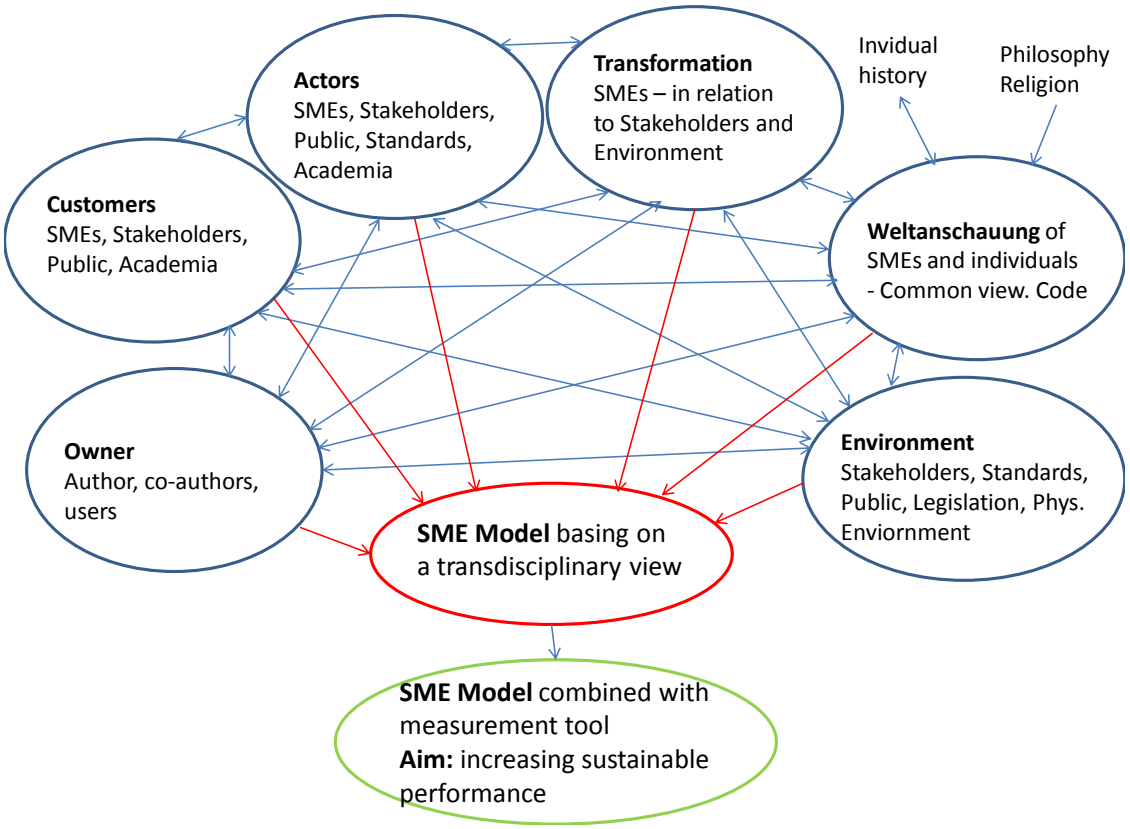


Figure 4.2: Rich picture of CATWOE issues influencing the design of SME model

The summarising of the analysis applying the mnemonic CATWOE and its rich picture leads to this root definition (see figure 4.3):

A system to improve the sustainability of SME's by active consideration by the staff of the SME – in conjunction with external actors (e.g. consultants, customers, suppliers) and its environmental circumstances and influences (e.g. moral views, standards, laws, economy, local community, physical environment) – the management system, the moral standards underpinning the SME's values and operation

The inputs of the system are the knowledge of staff concerning leadership, management system, morality and environment, then recommendations and requirements of external actors as consultants, customers and suppliers, and thirdly influences of the environment as moral views, standards, laws, local community and physical environment. The learning process within the system consists of the examination of different inputs, followed by selection, optimisation and integration of relevant issues. This process leads to the output

of the model which is an improved operational functioning of the SME and by that increased sustainable performance.

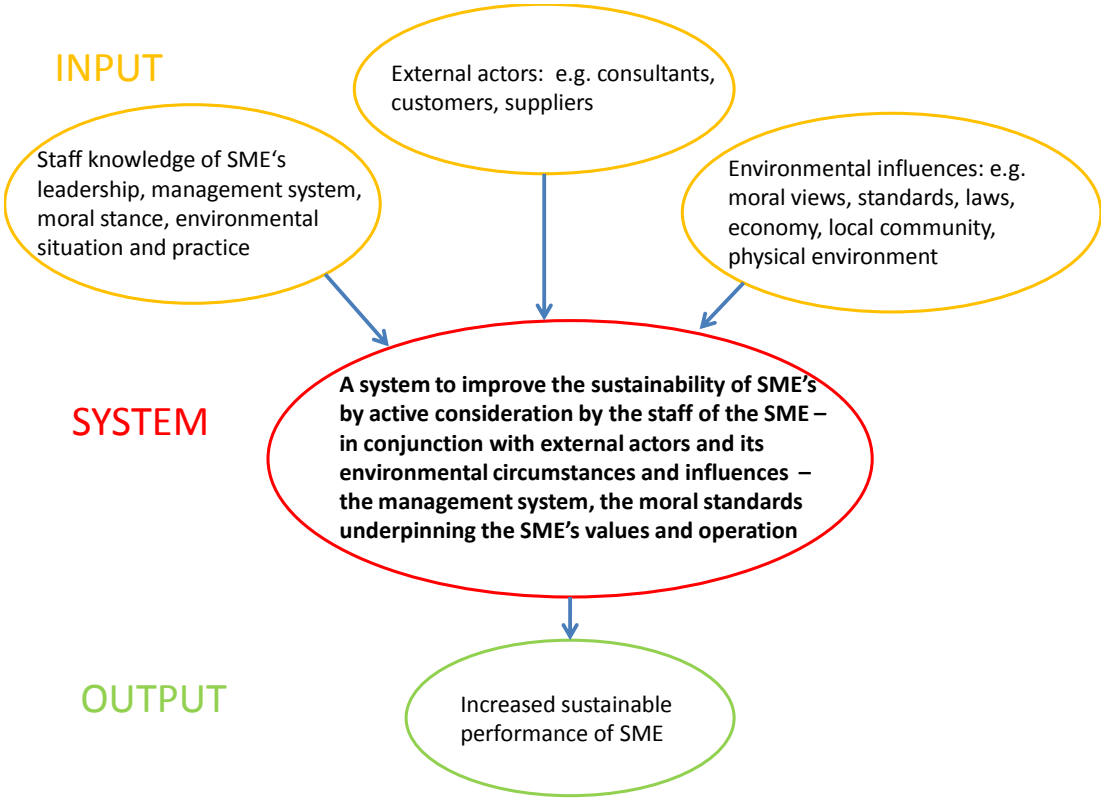


Figure 4.3: Root definition of SME model – conceptual model 1

Step 4: The conceptual model of the relevant systems named in the root definition: In consideration of the root definition, I designed a large-scale model which I applied afterwards for positioning SMEs in a global system (see Figure 2.12, p 110). Because this first model was too much macro level oriented, I designed a conceptual model that I believe corresponds to the conditions of complexity and heterogeneity of the problem situation of an 'SME' on a meso and micro level – without excluding the macro level.

The inputs of the model (Figure 4.4) are the three elements management system, morality and the environment. They relate to the sustainable performance of the SME. The output is the optimised sustainable performance of the SME basing on the ongoing interplay of optimised knowledge, service and product, and stakeholder satisfaction.

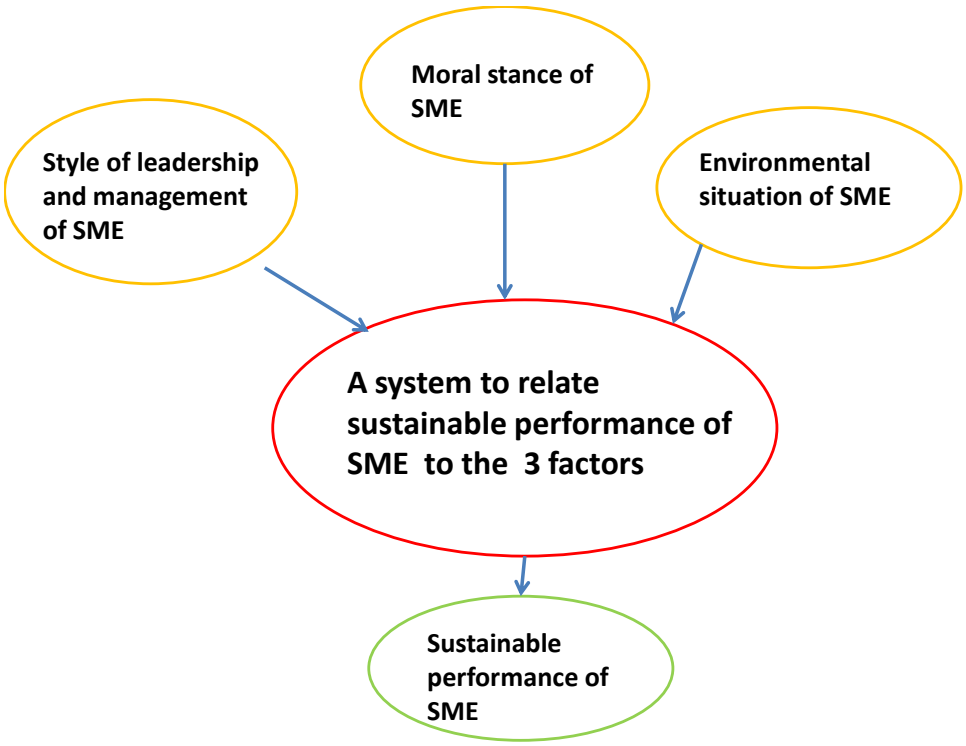


Figure 4.4: Conceptual SME model 2 of this research.

The model determines how to work and advise when external actors and effects determine some of the internal processes of the first model above. The two conceptual models are clearly intimately related, the second determining the interaction processes and being the core of the first.

Additionally to the conceptual model I designed a Venn diagram (Figure 4.5) with the four elements ‘SME’, ‘morality’, ‘management system’ and ‘environment’. It concentrates on their interplay and especially on the overlapping and system spanning character of ‘morality’ and ‘management’. The challenges of ongoing changes are expressed by ‘TIME = continuous change and adaption’.

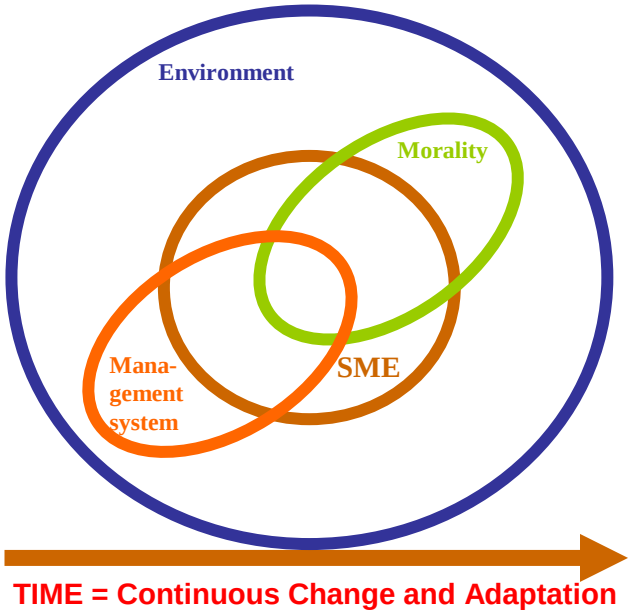


Figure 4.5: SME model – Venn diagram of this research

The root definition contains a number of other elements which are part of SMEs' discussion and the complex SMEs' environment. To integrate all of them would make the model confusing; and this research concentrates on the four elements 'SME', 'morality', 'management system' and 'environment'. In the discussion of the environment other elements are examined (society, economy, and physical environment – each with its specifications).

iii. Back to the real world

Step 5: Comparison of models and real world: The model permits a transsubject research and monitoring (e.g. by a consultant) by illustrating the elements and their interplay and by that allows answers on the mentioned real world problems.

Step 6: Changes – systemically desirable, culturally and politically feasible: The application of the model permits one to recognise the functioning of an individual company within its environment. Real world problems can be solved appropriately, with relevance to the specific situation of the company as far it is feasible (regarding specific benefits and constraints within the company and of society, economy and physical environment).

Step 7: Action to improve the problem situation: The measuring tool supports the outcomes of the SME model and helps the user (internal – in possible cooperation with external actors) to define and implement issues of improvement. Feedbacks of users facilitate the optimisation of the model and the measurement tool.

4.3.2 Review by Critical System Heuristics CSH

To get a broader validation, I scrutinise the SME model designed according to SSM by applying the issues of CSH (see chapter 3.6, p 144ff). 'Critical System Heuristics' (CSH) of Ulrich, W. and Reynolds (2010) builds on 12 boundary questions divided into involved (i) and affected participants (ii). I answer these questions using my SME model (terms of the boundary questions in **boldface**).

i. The involved

Sources of motivation

1. **Intended beneficiaries of the system (S)** are companies, different stakeholders, consultants, and the academia.
2. **The purpose of S** is to get an insight in the dynamic interplay of SME, (standardised) management system, and morality within their common environment, and to recognise the functioning of an individual company as well as to detect possibilities of its improvement.
3. **The measure of success** is an improved rating of a company within the measuring tool of the model.

Sources of control

4. **In control of the conditions of success** are owners and management of the company and as many stakeholders as possible.
5. **Conditions of success under the control** are the level of the performance of the 'utopia' (details see 4.3.3, p 187) of the interplay of the four elements.

6. **Conditions of success outside the control of the decision makers** are possible feedbacks of different stakeholders.

Sources of knowledge

7. **Relevant knowledge and skills are provided** by owners, managers and staffs as well as by consultants, other stakeholders, and the academia.
8. **Relevant for new knowledge** are the experiences and reflections of owners, managers and staffs of SMEs as well as consultants, different stakeholders and the academia.
9. **Regarded as assurances for the successful implementation** are owners, managers and staffs of SMEs as well as consultants, different stakeholders (under others certification bodies of standardised management systems).

ii. The affected

Sources of legitimacy

10. **The interest of those negatively affected, but not involved with S is represented** by the critical view of academia, facilitators and a number of stakeholders (e.g. pressure groups for social and environmental issues, trade unions and media).
11. **The opportunities for the interests of those negatively affected to have expression and freedom from the world view of the S** is the possibility to publish or incriminate attitudes or behaviours of an individual SME and to choose another partner.
12. **The space available for reconciling different worldviews regarding S among those involved and affected** depends on the intensity of relationships people have to their company. The space of owners and managers will be quite small, that of staff, consultants and suppliers wider, and that of people being not part of the company is not constrained. If a SME uses standardised management systems its space is restricted by the world view requirements of the standard.

The examination by CSH validates the SME model of this research designed by using SSM. The application of CSH shows that the model answers to the twelve questions; the model comes up to the sources of influence, satisfies the requirements for the involved and affected persons, and enlarges the issues of SSM.

4.3.3 SME-model – interplay of the elements

After the design of the SME model by applying SSM and controlling by CSH, I educe a 'utopia'[41] basing on the interplay of the elements SMEs model; this 'utopia' describes an all-inclusive implementation of the model.

For applying SSM, 'Literature review' and the results of interview round 1 were my starting points in the real world. I defined CSR as an approach of sustainability and triple-bottom-line thinking integrating human and physical environments as well as all stakeholders and internal elements of organisations. For me, TQM is really integrative and comprehensive if it explicitly integrates beneath internal issues all sorts of stakeholders as employees, customers, suppliers, public, neighbours, finance, and physical environment.

Contemporary system thinking (according to Jackson 2000) seemed to me suited best to reflect this interplay of CSR and TQM because this interplay asks for an optimal mix of foundation, openness, and responsibility; this relationship thereby corresponds with the requirements of the SME model developed in 4.3.1, p 177ff, which covers the dynamic interplay of SMEs, morality and (standardised) management systems within their environment and aims the sustainable performance of the SME..

Simply said, important issues of the SME model which integrate CSR and TQM aiming the sustainable performance are

1. Attitudes and behaviours of owners, top-managers, and employees – based on an ongoing interplay of their moralities with a view to common values;
2. Mission, strategies, traditions – based on common values and on consideration of internal and external stakeholders, embedded in company culture;

[41] According to Hinkelammert (2011) a 'utopia' is a state of perfection which can never be totally achieved (e.g. Kingdom of God, communism); however its visions can be partly implemented and lived in an on-going process with highs and lows of success.

3. Management systems – tools supporting long-term survival and containing moral issues;
4. Intensive relations to the different elements of the environment and openness for change.

a. SME model – utopia

The interplay of these guiding elements asks for a ‘utopia’ which has to be reflected before I examine everyday reality, or in the term of SSM go ‘back to the real world’. Ideally the elements cover one another: people within a SME develop and share the same (moral) values embedded in and supported by a living culture. These values are commonly translated into a corresponding vision and related strategies. The use of appropriate managed systems, containing iterative methodologies for controlling and continuous improving, supports a sustainable translation into action (moral behaviours in business and towards all sorts of stakeholders).

The literature review and results of interview round 1 let suppose that the translation of this correspondence has an optimal chance within a seriously managed and future orientated SME owned by a family, business partners or a co-operative, typified by the principle of subsidiary decision making. This sort of SME is based on a proven common culture. This culture is characterised by transparency, integration, participation and empowerment of people, a holistic vision with comprehensive strategies and (moral) responsibility towards the customers, suppliers, employees, neighbours, society and physical environment. As a result, such a culture guarantees the sustainability of life. The consideration of ‘time’ is important; continuous and various changes challenge the elements of the model in that they imply their dynamic interplay.

b. SME model in detail

The ideal developing of a SME focuses on the interplay of TQM and CSR and is typified by integration, participation, circularity and (moral) responsibility towards all sorts of stakeholders. Therefore my SME model uses issues of humans working within a company, living the company’s culture and implementing management tools. The model pays attention to moral elements of the management tools: ISO 9000 concentrates on

staff, company, and economy (relations to customers, suppliers/partners), and only on society; ISO 14001 focuses on physical environment, staff and society; the OHS standards concentrates on staff; and the comprehensive 'TQM excellence models' examine all aspects.

In short, the interplay of the issues within the SME model is based on their systemic issues as structural coupling and on the system spanning characteristics of morality and management systems. As already mentioned in 4.3.1, the presentation of the model would become too complex if all other issues and possible multifaceted effect–effect feedbacks were integrated (e.g. company's history, culture, size, products and services, industry, customers, suppliers, competitors, methods of PR – society, economy, physical environment), however the issues were asked within the interviews and are analysed.

The model reflects interrelationships of the four components: SMEs, morality, management systems, and their environment. The companies' practices may differ considerably, producing different forms of overlap and interplay. That is why the individual overlapping of a SME has to be monitored and as far as possible measured; the results may be converted into opportunities for continuous improvement of the company providing sustainable performance. A specially designed tool supports this aim by defining criteria for the assessment of successful companies following the four components. By designing and using the measurement tool we are going 'back to the real world' – using the SSM term.

4.3.4 Measuring tool

The measuring tool of the SME model aims to test compliance with and effects of the SME model and detect possibilities for continuous improvement. It has to integrate the interplay of TQM and CSR; this interplay is typified by integration, participation, circularity, and subsidiary decision making as well as responsibility towards all sorts of stakeholders and issues of humans working within a company. It is characterised by living the company's culture and implementing management tools as well as by integrating the challenges of the environment for a long-term survival.

Literature review (see 2.2.4, p 50ff) presents different tools to measure effects of SMEs. The examination of these tools is used to optimise the SME measuring tool by highlighting possible issues or detecting gaps.

The aim of the measuring tool of this research is the wide-ranging monitoring of an individual company's ability to realise the SME model. The individual overlapping and dynamic interplay of the four elements are examined.

The analysis starts with a simple matrix with four quadrants – using the basic idea of business engineering 'from the universal to the delicate and complex'; in a second step the matrix is enlarged by tables for a differentiated use. The successful monitoring of the long-term change of the four elements and the development of the ongoing adaptations of an individual SME can be attained by setting different periods of measurement (as employed in this research).

The quadrants of the basic matrix describe ideal types. The objective position of a company can only be defined by using the differentiated tables. This position is influenced by internal and external issues and may change.

a. Basic matrix

Theoretical backgrounds

Theoretical backgrounds are recapitulated before designing the universal matrix of the SME model measuring tool.

CSR follows, in my opinion, an approach of sustainability and triple-bottom-line thinking integrating human and physical environments as well as all stakeholders and internal elements of organisations. TQM is really integrative and comprehensive if it explicitly integrates beneath internal issues all sorts of stakeholders as employees, customers, suppliers, public, neighbours, finance, and physical environment. Contemporary system thinking seems to me suited best to reflect this interplay of CSR and TQM, because this interplay asks for an optimal mix of foundation, openness, and responsibility.

The organisational approaches of Merchant and Simons (see above 2.5.1, p 82ff) can be combined within a company system model based on system thinking: Besides cybernetic, contingency and cultural issues there may also be human resource, agency and bureaucratic/mechanic elements influencing companies and their subsystems.

The findings of Treviño (Treviño et al.1998) support the idea that effective management systems depend on compliance orientation (e.g. by following legal requirements and using standardised management systems) and on optimal integration of all concerned people (owners, managers and staff, external stakeholders). It can be expected that a long term success of a company is guaranteed by the circular integration of all concerned.

Korten's characteristics and Enderle's recommendations (see 2.7, p 113ff) concentrate on optimal conditions of SMEs in economies practising moral issues; they aim sustainable circular interplay of different elements (e.g. human beings, companies, communities, nations, and economies within their common environment).

The measuring tools described in 2 Literature review (see 2.2.4, p. 50ff) contain issues which have to be taken into account to realise a comprehensive measurement tool for SMEs: ISO 9000 basis on purpose orientation, circular thinking, customer orientation, integration of employees and interested parties. TQM models are characterised by consideration, interplay and integration of different internal and external elements. CSR or business ethics standards evaluate values and moral performance of companies and individuals. Tsiakals and West evaluate the ongoing development of management systems. Fueglistaller and Fust focus on the interplay of innovation and tradition. Frey examines the ongoing development of SMEs during their life cycle, interplay of innovation and added value. Basu and Palazzo describe the interplay of values and strategy as well as characteristics of CSR. Boiral and Amara measure the effectiveness of the implementation of a management system. Blundel, Spence, and Zerbinati design a model of the interplay of entrepreneurial dynamic and positive social change in consideration of the relevance of all phases of the entrepreneurial process.

Basic matrix (see Figure 4.6)

The reflection of the backgrounds asks for a tool which is comprehensive and at same time dynamic. The four quadrants of the basic matrix show different levels of comprehensiveness; the dynamics are detected by different times of measurement.

The two parameters 'Fit with Effectiveness' and 'Fit with Strategy' present the main elements of the elements of the SME model to be examined. They illustrate possible degrees of performance of overlapping and dynamic interplay of SME, morality and management system within their environment providing sustainable performance of SMEs.

'Effectiveness' is the "extent to which planned activities are realized and planned results achieved" (ISO 2005:9); it represents the potency and extent of the implementation of an activity. 'Strategy' is "the starting point and the context in which all other planning begins" (Borawski 2007:31) and it stands for the range of severeness of long term orientation and/or sustainability.

Therefore the parameter 'Fit with Effectiveness' describes the characteristics of the performance of the elements as well as of their interplay. The implementation and optimisation of activities of a company may concentrate on daily activities (mainly in optimising activities on shop floor level and/or individual or chains of processes) or on the company as a whole (in relation to its visions and model of leadership). The more a company reaches a holistic effectiveness the more the elements are overlapping and interplaying.

The distinction between the properties of separate activities/procedures and comprehensive systems is additionally important; it demonstrates their relationship with the second parameter 'Fit with Strategy' which expresses the (principally long-term) emphasis of company's (moral) attitudes and behaviours. The specific position of a company on the parameter shows the specification, importance and implementation of its values, visions and strategies and the degree of overlapping and interplaying of the elements.

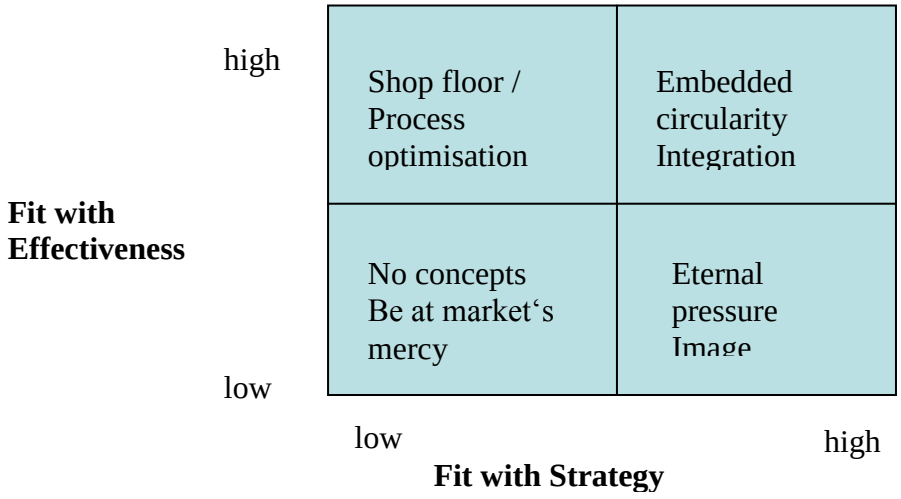


Figure 4.6: SME model measurement tool: Basic matrix

Characteristics of the four quadrants

No concepts – Be at market's mercy

Some companies may not have defined or at least implied visions relating to their activities. They only react on the continual (mainly short-time) changes of the market's requirements and customers demands as well as public requirements. That is why they behave neither strategically nor effectively. These companies have no long term concepts of leadership and use no or only minimal components of management systems.

These companies may be characterised by moral attitudes and behaviours because of the personal backgrounds and virtues of managers and staff, but these elements have not become part of a vision and have no planned influence on specified activities.

Shop floor/Process optimisation

Other companies concentrate on the shop floor or process level and try to achieve the optimum in these domains. They are either forced by the market and their customers, by legislation, or by financiers. They mainly optimise quality and process time or efficiency; these sorts of improvement correspond to the traditional application of quality assurance and the use of earlier versions of ISO 9001, which intended the improvement of individual issues of the production chain, or had the simple purpose of reducing costs.

Again, these companies may be characterised by moral attitudes and behaviours because of the personal backgrounds of managers and staff; these elements become not part of a vision, but may have some planned influence on activities.

External pressure – Image

Quite a lot of companies are forced by legislation, customers or holdings (if being a subsidiary) to implement a (standardised) management system or specific form of leadership. Others may use a management system to cultivate their external image and / or to improve their marketing activities.

External pressure and image optimisation may have some (short term) impacts on business performance. But the management systems of such companies remain often ineffective and not effectively implemented. Internal and external controls are frequently artificial and not capable of detecting the companies' reality; by that they are not able to offer a basis for continuous improvement.

Also these companies may be characterised by moral attitudes and behaviours because of the personal backgrounds of managers and staff. These may coexist with moral elements and codifications being forced by the requirements or the wish for image optimisation. Codified moral elements may have some planned influence on activities.

Embedded circularity – Integration

Companies typified by embedded circularity and integration, finally, are guided by strategy and effectiveness. They use all the possibilities of their management systems with participation, double loop feedbacks and subsidiary decisions making as well as moral approaches. They also fully integrate values, processes, customers, people, suppliers, public, physical environment and other interested parties.

Their behaviours depend on defined or at least implied visions and common values which are continuously controlled and adapted. They are characterised by circular thinking (starting with aims, visions, building and implementing strategies, integrating the demands of all sorts of stakeholders and earning money). In short they are following CSR and TQM

approaches and principles of the triple bottom line model regarding social, ecological and economic demands.

Their attitudes and behaviours are typified and accompanied by an integrated system of continuous analysis and control to base a continuous optimisation of the whole company and effective innovation. The companies are also characterised by a comprehensive, circular and sustainable risk management integrating opportunities and threats.

Values of management and staff are continuously discussed to become an integrated component of the company culture and system and by that to support its long term, sustainable optimisation.

An intensive range of overlapping and dynamic interplay of the four elements is realised in these companies: A SME is able to integrate morality, management system as well as its environment and to react on changes by reflecting its morality and adapting its management system – and as a result – to provide its sustainable performance.

b. Specifications

For their differentiation the issues of the four quadrants of the basic matrix are specified in tables (Tables 4.1 to 4.3) by reflecting and coding the overlapping and interplaying elements to be examined: SME, morality, management system and environment. The specifications are deduced from the definitions of the basic matrix and the SME model with the elements and literature review concerning SMEs as well as the results of interview round 1, their use of morality and (standardised) management systems. They portray ideal types and allow to rate the different elements according to the four quadrants.

The issues of the specifications describe individual company's characteristics and activities and allow measurement as a basis of continuous improvement. Every issue is validated according to the four quadrants of the basic matrix: No concepts / Be at market's mercy; Shop floor / Process optimisation; External pressure / Image; Embedded circularity / Integration.

To achieve reliability, characteristics of specific expressions within the specification tables are defined:

- Individualistic: Attitudes and behaviours of an individual (manager, employee) – in particular in context of moral issues
- Unconscious: There may be activities, but people do not know or reflect them.
- Recommendation management: Activities to optimise public image – often with minimal internal effects
- Circularity: Use of cybernetic circles for defining values, visions, strategies, processes, decision making – basis of stakeholder integration, double loop feedbacks and continuous improvement
- Integration: different elements of the SME model, people and stakeholders (including agents of the physical environment) being in sustainable communication

<u>Characterisation of issues</u>

- Element 'SME':
    - Ownership (e.g. family, partner, public – management of change)
    - Leadership and decisions making (e.g. hierarchical, patriarchal, partnership, team orientation)
    - People (e.g. position, integration)
    - Patterns of organisation (e.g. hierarchical, functional, matrix, team)
    - Culture and traditions (history, specifications as behaviours, events)
    - Values (e.g. moral concepts, virtues, specifications, issues of ideal boss and ideal employee)
    - Communication (specifications – e.g. hierarchical, partner, team – periodicity, contents)
    - Finance (turnover, cash flow, profit)
    - Resources (people, finance, time, equipment)
- Element 'Morality':
    - Motivation (of individuals, company, cultural background)

- Values (e.g. moral concepts, virtues, specifications, issues of ideal boss and ideal employee) – see SMEs
- Specifications (e.g. type of activity – individual, strategic)
- Sustainability and codification (degree of sustainability, degree of codification – effects)

- Element ‘Management system’:
  - Mission and strategies/statements (range, use, circularity, integration – managing of objectives)
  - Range and formality (system development – characteristics: e.g. shop floor, procedures, elements, used standards)
  - Quality (definition, methods for implementation, praxis and improvement)
  - Controlling and risk management (methodology [managing of objectives and measures], comprehensiveness [reflection and balancing of strength, weaknesses, opportunities, threats])
  - Knowledge management (e.g. strategy, activities, range)
  - Comprehensiveness (vision/strategy, morality, integration of people and stakeholders, management systems, other components [as finance and security] and circularity of processes)
- Element ‘Environment’:
  - Society:
    - Public activities (e.g. membership in local authority or parliament) and sponsoring (e.g. sports, handicapped),
    - Legislation (handling of requirements, laws)
    - Associations (e.g. membership, board)
  - Economy:
    - Innovation / agility and public relations (e.g. methodology, range)
    - Market position / competitors / geographical radius (specification, range, effects)
    - Customers (specification, relations)

        - Suppliers and partners (specification, relations)
        - Financing (specification, relations)
    - Physical environment: e.g. environmental aspects and activities, degree of sustainability

Differentiated matrix – SME specifications

	Ownership	**Leadership - decisions making**	**People**	**Patterns of organisation**	**Culture / traditions**	**Values**	**Communi-cation**	**Finance: Turnover – cash flow - profit**	**Resources: people, finance, time, equip.**
No concept / Be at markets mercy	Grown – danger of short time changes	Grown – short time – manager decisive	Grown – often undefined	Grown – often undefined – manager decisive	Grown – often undefined – unconscious	Grown – individualistic – often unconscious	No concept – often informal – individualistic	Varying – often minimal control	Varying – often pressures
Shop floor / Process optimisation	Grown – danger of short time changes	Grown – basic definitions	Training – basic integration	Grown – basic definitions	Grown – not conscious or partly defined	Grown – individualistic – basic definitions	Basic definitions – individualistic	Process efficiency controlled – some investment	Process efficiency controlled
External pressure / Image	Grown – danger of short time changes	Grown – formal definitions – often unused	Grown – formal definitions – often unused	Grown – formal definitions – often unused	Grown – partly defined	Grown – basic definitions (image)	Basic definitions – often not revised – individualistic	Varying – often minimal control	Control defined – varying – often pressures
Circularity / Integration	Planned changes - integration	Defined – circularity / integration	Defined – circularity / integration	Defined – circularity / integration	Reflected – circularity / integration	Defined – reflected – circularity / integration	Defined – circularity / integration	Controlled - investment	Risk management – circularity / integration

Table 4.1: *Differentiated matrix – SME specifications*

Differentiated matrix – Morality – Management system

	Morality: Motivation	**Morality: Specifi-cations**	**Morality: Sustain-ability – codification**	**Mgmt-S.: Mission / strategies – statement**	**Mgmt-S.: Range - formality**	**Mgmt-S.: Q: definition, - methods - praxis**	**Mgmt-S.: Controlling, risk mgmt.**	**Mgmt-S.: Knowledge mgmt.**	**Mgmt-S.: Comprehen siveness**
No concept / Be at markets mercy	Individualistic	Individualistic (employees, sponsoring)	None or not planned	None – just survive	None or minimal procedures	Existing procedures adapted – training – individualistic	None – minimal in finance	None or minimal	Minimal
Shop floor / Process optimisation	Individualistic – partly depending on mgmt system	Individualistic – depending on mgmt system (Q, Env., OHS)	Partly – depends on Mgmt system	Often none – survive	Processes defined – partly Mgmt system	Partly integration, minimal circularity – training	None – minimal in finance – process control	Training for specific jobs	Process, shop floor orientated
External pressure / Image	Recomm-endation mgmt - individualistic	Recomm-endation mgmt - individualistic	Recommend ation mgmt – partly official definition	Existing – often minimal use	Mgmt system officially implemented – often minimal use	Implemented – often not improved - individualistic	Recomm-endation mgmt	None or artificial	Recomm-endation mgmt
Circularity / Integration	Planned – circularity / integration – partly individualistic	Planned - triple bottom line	Triple bottom line on long-term – defined	Planned – circularity / integration – sustainable	Comprehensi ve - sustain-able	Planned – circularity / integration – sustainable	Planned – circularity / integration – sustainable	Planned – circularity / integration – sustainable	Planned – circularity / integration – sustainable

Table 4.2: Differentiated matrix – Morality – Management system

Differentiated matrix – Environment

	Society: Public - sponsoring	**Society: Legislation**	**Society: Associa-tions**	**Economy: Innovation / agility / PR**	**Economy: Market position / geo. range**	**Economy: Customers**	**Economy: Suppliers / partners**	**Economy: Financing**	**Physical E.: Sustain-ability**
No concept / Be at markets mercy	Grown – individualistic – varying	Inevitable observance	Grown – individualistic – varying	Minimal – varying	Me too – often short-time – varying	Varying	Varying	Partly defined – often problems	Grown - often undefined
Shop floor / Process optimisation	Grown – individualistic – varying	Purposeful use	Grown – individualistic – varying	Minimal – process innovation – varying	Me too – some-times short-term – varying	Adapted to production / service – often partner	Selected and validated – often partner	Partly defined – often problems	Partly – depends on Mgmt system
External pressure / Image	Recomm-endation mgmt – individualistic – varying	Inevitable observance	Recomm-endation mgmt	Minimal – varying	Me too – some-times short-term - varying	Defined – no strict use	Selected and validated – no strict use / varying	Partly defined – often problems	Recomm-endation mgmt
Circularity / Integration	Transpar-ency - circularity / integration	Reflected / purposeful use – integration	Planned - circularity / integration	Planned - circularity / integration	Planned – circularity / integration	Planned – circularity / integration	Planned – circularity / integration	Integral, circular risk management	Planned – circularity / integration

Table 4.3: Differentiated matrix – Environment

4.3.5 Review of research hypotheses

Before entering in Stage 2 and analysing the findings of the survey, the hypotheses are briefly controlled reflecting the design of the SME model.

1. The implementation and use of a standardised management system is influenced by its original intention (e.g. ISO 9000: [shop floor] processes to guarantee product quality; ISO 14001: system to avoid harm and to guarantee sustainability). Therefore it may hinder a comprehensive implementation of the system.

The literature review intensively demonstrates that many SMEs using the quality management series ISO 9000 still act according to the spirit of the version of 1994; their activities concentrate on optimising shop floor procedures. A number of companies use the revised version of 2000 which widened their views towards TQM.

Literature shows that many SMEs using ISO 14001 see improving the working conditions within the firm as the most important reason for investing in environmental issues.

These issues have been confirmed by round 1 of interviews; however the companies applied the version of ISO 9001:2000.

Reflecting the SME measurement tool, hypothesis 1 corresponds with ‘Shop floor / Process optimisation’. The analysis of results has to discuss this issue.

2. The more SMEs implement and use the dynamic interplay of management systems and moral elements in relation to their environment the more intensive are the effects – especially in the field of integrating missions, strategies, leadership and processes – as a basis for a long term survival.

The reflections concerning the design of the SME model (see 4.3.3, p 187ff) relate to the dynamic interplay of the elements and their issues as well as to attitudes and behaviours of owners, top-managers, and employees.

Ideally the guiding elements are overlapping one another. The total correspondence of the elements promises a maximum of effectiveness, efficiency and sustainability of a

company, if the issues of CSR and TQM are consequently integrated (with dynamic circularity).

Case studies of different SMEs illustrate that the ideal correspondence of the elements rarely is attained in real world; however, a lot of companies have realised a partial overlapping and interplay. The analysis of the results of the survey has intensively to argue with this topic.

3. The more SMEs implement and use management systems in relation to their environment the more intensive they integrate vision, strategies, leadership and processes as well as morality and alter to companies with a long term survival. However, the main drivers of moral elements are the original attitudes and behaviours of the principal and collaborators.

As already explained in the comment to hypothesis 2, an intensive overlapping of three elements ‘people and their moralities’, ‘mission, strategies and traditions – embedded in company culture’ and ‘management systems’ supports their dynamic interplay towards their long-term survival in a changing environment.

The literature review demonstrates that particularly moral attitudes and behaviours of SMEs are essentially influenced by the individual milieu of top-managers and employees, even if there is a certain overlapping of the elements. The analysis of the results of the survey especially has to reflect this component.

4.4 Stage 2: Round 2 of interviews and analysis of results

Chapter 4 Findings follows the history of this research. In Stage 1 I discussed the interview round 1 with experiences and first results. They supported the formulation of hypotheses as well as the design of the SME model and the corresponding measurement tool.

Stage 2 concentrates on round 2 of interviews and the differentiated analysis of the results allowing a comparison with other research and formulation a summary. Stage 2 starts with

a review of the interview and analyses' methods, followed by a short description of the experiences with round 2 and the results.

The original questionnaire corresponds not to the structure of the SME model and the measurement tool; however, it was not changed because I have always aimed close comparisons between the results of the two rounds to show developments of performance of SMEs. The design of a table (see 3 Methodology, Table 3.5, p 152) links the questionnaire with the SME model and the measuring tool and facilitates the evaluation of the cases studies according to the general matrix of the tool.

The interview method was adapted basing on the experiences with the handling of the three lists with statements which the interviewed had to weight (see 'Questionnaire', Annexes 6.4, p 383): In round 2, the interviewed persons got their lists some days in advance. With this adapted procedure the interview time was shortened. The comparison with round 1 showed that this change of method did not influence the data (similar results). The form for owners or top-managers was enlarged by a matrix to measure SMEs behaviour.

4.4.1 Round 2 of interviews

The Swiss sample was interviewed between autumn 2005 and summer 2006, the German between October 2006 and January 2007. A middle sized Swiss company with ISO 9001 and 14001 certification changed ownership between the two rounds; the new top-manager was not ready for round 2, therefore the company was only used for the analysis of round 1. A small sized Swiss company was split into two companies; the company was handled as two separate companies, and both attended round 2.

After the interviews every company received a written analysis of the two rounds with questions and comments. Again, about half of the Swiss and nearly all of the German companies took the opportunity to discuss the results. These discussions showed that some companies changed between the two rounds because of the survey results; these effects provide the partial character of field experiments.

Differences or developments between the two rounds are listed and analysed.

The qualitative data (e.g. individual comments of interviewees, feedbacks of top-managers, company documents) are used for the formulation of the 27 case studies – as far as possible combined with quantitative findings. Afterwards the case studies are compared as a basis for summaries.

The case studies of the companies follow Table 3.5 (p 152) and concentrate on the elements SME specifications, morality, management system and environment (details see Annexes 6.2, p 280ff). The companies are individually evaluated according to measurement tool by using the differentiated tables.

a. Evaluation of companies with standardised system

Companies using one or more standardised systems have shown since the first round of interviews an increasing trend towards circularity and comprehensive people integration and co-responsibility. This process has mostly been accompanied by an optimisation / simplification of their documentation.

Companies which introduced their system between the two rounds focused mainly on optimising their procedures. If there was a trend towards circularity and integration it is often concentrated on managers.

Companies using ISO 14001 were forced to circularity by the standard; because of their intensive internal and external requirements they aimed to over document their procedures.

Three companies explicitly complained about the behaviours of certification bodies (not enough industry knowledge, uninterested, short visits with no results).

The companies mentioned external and internal reasons for the implementation of their systems. The external reason ‘customer requirements’ was reduced, because of changing behaviours of public customers (instead collaboration with certified partners they prefered

increasingly low-price suppliers); on the other hand the adaptation to the needs of the industry increased. Most companies mentioned as internal reason definition and optimisation of competences and processes; other reasons were documentation of existing elements, reorganisation of company, optimising of efficiency, permanent improvement, and providing increasing integration.

Interesting was the development of the company which has been devided in two sections: At the time of the first round of interviews – when the company was still one – there was very little knowledge concerning the system. The second showed two different developments: The part actually managed by the former top-manager was characterised by process optimisation with little circulation; strategy was defined but not related to processes. The other part managed by the former deputy and co-owner concentrated on simple rules, used the review as reflexion and empowerment of staff, and was on a good way to integration.

b. Evaluation of companies with no re-certification of their system

Three medium sized Swiss companies followed a standardised system during the first round, but did it not hold on afterwards.

Two of them were constructing companies. One used ISO 9001 and ISO 14001 and the other ISO 9001. Both had been part of a holding, and their systems had been over documented and badly implemented (top-down and only down to the level of supervisors). That is why they did not aim a re-certification. But they still followed and constantly improved the existing procedures and regulations of responsibilities. Because of the integrating behaviours of the owners company wide communication was guaranteed. Because of external pressure (by public institutions) both reflected a re-certification. One of them started with the implementation of a Balanced Scorecard to integrate vision, strategy and measures; this BSC was thought as a basis for a new implementation of the standard. The other planed a re-certification for 2007 to get a basis for the future

(succession by a member of the owner family); it had some interplay between strategy and procedures.

The third (a service company in Health Care) followed an Industry EFQM model which was never fully implemented. The new top-manager did not want to reanimate the system. He prefered besides the use of existing procedures a communication orientated way to an integration of strategy and daily activities. Especially staffs of a lover hierarchical level felt uncertain.

c. Evaluation of companies without standardised systems

The situation of companies without standardises systems was quite variable – mainly depending on the market they were working in.

The two garages and the supporter of consumer electronics had to follow the standards of their suppliers. They also had their own system of OHS; and the quality of their activities based on professional knowledge. Besides that they were intensively depending on the behaviours of consumers. In the period of the first round the consumers had been chary, in that of the second round disposed to purchase. That is why their strategies were not sophisticated, they just wanted to sell and support their products. They were quite small and their internal communication and integration of people were quite high.

The situation of two constructing companies was similar. Both are very much depending on markets' demands. Besides OHS they had minimally defined procedures, the quality of their activities based on professional knowledge, and their strategies concentrated on company's survival. The decision making was owner concentrated.

The bank, the printing plant, the advertising agency, and the bus tour operator showed intensifing levels of integration. All four had their clear strategies and activity aligned procedures. Quality based on professional knowledge and individual responsibility. One of them was disapointed because of the feedback of round 1 and collaborated with a consultant; this activitiy resulted in a better integration of people as round 2 affirmed.

The furnishing company also had a clear strategy, and its quality based merely on professional knowledge. But the integration of people was quite low; decisions were management concentrated, and the communication between the departments was moderate.

Two German service companies (health care) were on the way to implement a standardised system. During the first round both applied for ISO 9001; meanwhile the new top-manager of the one was looking for a specific industry standard, and the other still aimed ISO 9001. Both were on a good way to define their procedures and followed a strategy. They also showed trends towards circularity and integration, the one with the new top-manger became more hierarchical.

Besides the two health care companies the majority perceived no reason for a certification or they had qualms against certification (no market demands, too expensive, certified suppliers deliver bad products).

4.4.2 Analysis of aggregated data – Rounds 1 and 2

After describing the the behaviours of the individual companies between the rounds of interviews and in round 2, I concentrate on the presentation and analyses of the quantitative data – using the results of both rounds.

During the two rounds, 212 people of all hierarchical levels were interviewed. 114 of them participated in both rounds. This number formed a sample allowing relatively reliable quantitative conclusions.

A synopsis of the case studies and the quantitative data allowed me to provide a general overview (Table 4.4).

	Interview round 1 2003 / 2004		Interview round 2 2005 / 2006	
Total: 27 companies / 212 interviewees	**26 / 171 / 100 %**		**26 / 155 / 100 %**	
VALUE	**Number of companies**	**Number of interviewed**	**Number of companies**	**Number of interviewed**
Country: Switzerland	20 / 76.9%	132 / 77.9%	20 / 76.9%	115 / 74.2%
Country: Germany	6 / 23.1%	38 / 22.2%	6 / 23.1%	40 / 25.8%
Size: Micro	7 / 26.9%	17 / 9.9%	7 / 26.9%	14 / 10.8%
Size: Small	10 / 38.5%	92 / 53.8%	11 / 42.3%	65 / 41.9%
Size: Medium	9 / 34.6%	62 / 36.5%	8 / 30.8%	76 / 49.0%
Industry: Service	14 / 53.8%	78 / 45.6%	14 / 53.8%	80 / 51.6%
Industry: Production	12 / 46.2%	93 / 54.4%	12 / 46.2%	75 / 48.4%
Market-position: Niche	11 / 42.3%	56 / 31.7%	12 / 46.2%	46 / 41.2%
Market-position: Leader	15 / 57.9%	115 / 67.3%	14 / 53.8%	92 / 58.7%
Ownership: Private	1 / 3.7%	5 / 2.9%	1 / 3.7%	5 / 3.2%
Ownership: Limited	20 / 76.9%	127 / 74.3%	20 / 76.9%	110 / 71.0%
Ownership: Foundation / Co-operative	5 / 19.2%	39 / 22.8%	5 / 19.2%	40 / 25.8%
Managementsystem: Quality – ISO 9001 / QQ	12 / 46.2%	90 / 52.6%	11 / 42.3%	60 / 38.7%
Managementsystem: Integration (BSC, EFQM)	5 / 19.2%	22 / 12.9%	5 / 19.2%	14 / 9.0%
Managementsystem: Environment – ISO 14001	5 / 19.2%	33 / 19.3%	5 / 19.2%	16 / 10.6%
ISO 9001 – Certification Before 2000	7 / 26.9%	66 / 38.6%	8 / 30.8%	52 / 34.4%
ISO 9001 – Certification After 2000	5 / 19.2%	33 / 19.3%	5 / 19.2%	29 / 19.2%
Sex: Male		115 / 67.3%		99 / 65.5%
Sex: Female		55 / 32.2%		56 / 36.1%
Task: Apprentice		6 / 3.5%		4 / 2.6%
Task: Staffs		72 / 42.4%		63 / 40.6%
Task: Manager		64 / 37.8%		59 / 38.1%
Task: Top manager / Partner		28 / 16.5%		29 / 18.7%

Table 4.4: Survey – overview on companies and sub-samples – basing on case studies and quantitative data

Table 4.4 lists the number of companies and participants as well as the corresponding percentages of the different sub-samples. This allows comparison of the frequencies of the different variables.

a. Comments concerning the sub-samples

Switzerland: The samples of number of companies and interviewed persons are comparable. In the period between the two rounds one company was split in two, and another refused to participate in round 2; this explains the unchanged number of

companies. The reduced number of interviewees in interview round 2 is related to the reason that one medium producing company was sold and got a new top manager who was not ready for interview during round 2, and that the management of a small producing company was not motivating its staff for round 2; that is why only one of the managing partners of this company participated in round 2.

Size: Because of their sizes, more people from small and medium sized companies have been interviewed, therefore their samples are larger. The number of small companies was reduced because one company became medium between the two rounds.

Industry: The samples of number of companies and interviewed people correspond, especially in round 2. Because two production companies did not or only minimally participate in round 2, the number of interviewees in production decreased.

Market position: The samples of number of companies and interviewed people correspond, especially in round 2. One leading company with a large number of interviewed persons refused to participate in round 2.

Ownership: Most companies are limited companies; this is related to legal advantages compared to private ownership (responsibilities, taxes). The four foundations and the co-operative belong to the service industry.

Management systems: The lower number of interviewed persons in round 2 is caused by a selection problem of the statistical program.

Sex: A larger proportion of females worked in service companies.

Task: Distribution of interviewed persons of the four hierarchical levels is relatively significant.

b. Results and analyses in detail

After the overview of samples and subsamples, I examine the findings according to the elements of the SME model – SME, morality, (standardised) management systems, and environment and compare them with results of other research. The presentation of the elements follows the list within Table 3.5, p 152.

I concentrate on generic results and results differing from these. Tables containing all results see Annex 6.3, p 355ff. Tables 6.1 to 6.5 are summaries of the case studies, 6.6 and 6.7 concern correlations, and all others relate to a specific issue. The group of numbers before a slash concerns results of round 1, the group after the slash results of round 2 (e.g.: 38 (22.4%) / 36 (23.2%).

4.4.3 SME – results

The importance of issues concerning 'SME' is indicated by the finding that 69 (of 234) variables with correlations to others are company orientated (company 47; company problems 11; strategy 7; culture 4), and 29 communication orientated (communication 24; information 5).

a. Ownership (Table 4.4, p 210)

Most companies were limited companies. The four foundations and the co-operative belonged to the service industry, and the majority of the interviewed persons in these had been females.

The majority of companies planned possible changes in ownership; a minority was in danger of short time reactions.

b. Leadership and decision making (Table 6.8, p 362; Table 6.9, p 363)

While in the majority of companies (15) leadership and decisions making concentrated on owners / top-managers, people were quite integrated. People saw their arguments as welcome and they were quite integrated in decisions – especially in foundations. Few experienced that decisions were taken lone by management. Round 2 showed different trends; half of the companies were characterised by increased or optimised (or both increased and optimised) integration and co-responsibility of people, and a minority trended to reduced staff integration, especially in companies which had been certified after 2000.

About a quarter saw leadership as a part of their strategy; this view increased in round 2.

About 70% described leadership as co-operative and motivating, more than a quarter as competent and clear. However, about a third characterised leadership as improvable and autocratic or hierarchic; quite often there were different styles within the same company.

Standardised management systems helped to clarify responsibilities.

c. People (Table 6.12, p 364)

Companies concentrated on full-time jobs. In round 2, one company was part-time orientated.

The average education was relatively high. Both countries profited from their dual system of apprenticeship (3 days in company, 1 to 2 days in school for duration of 3 to 4 years; this is in addition to an after basic education of 9 years). About half of the companies only hired people with a know-how equivalent to that gained during an apprenticeship. In most companies there was a basic integration, combined with job training. Between the two rounds, the number of people participating in training etc. increased, and that of participating in higher education decreased; that may be related to the fact that a great number were interviewed twice.

d. Patterns of organisation (Table 6.10, p 363)

Most companies had a mix of organisational patterns. Half of the companies had mainly functional structures, often in parallel with patriarchal forms. Team orientation was quite often used, especially in micro and German companies. Medium sized companies had mainly clear structures. The round table priniciple was only mentioned by a service companiny characterised by minimal procedures.

e. Culture and traditions (Table 6.11, p 363)

There was a wide range of cultures and traditions – from minimal common activities to intensive familiarity (even in medium companies). Companies with standardised management systems had very high values for optimal internal conditions (relations, motivation, and team spirit).

f. Values (Table 6.13, p 364; Table 6.14, p 364) – see below p 220

g. Communication (Table 6.15, p 365 ; Table 6.16, p 366)

There was a wide range of information patterns – depending on culture, traditions and pattern of organisation. Communication was mainly concentrated on shop floor level or procedures.

About half of interviewed persons experienced information as systemic, face-to-face and as something that has to be developed by oneself. Only a minority asked for optimisation. Many top managers requested external information (source: associations, seminars, literature).

The rating of arithmetic means of relations according to list A of the questionnaire (Annexes 6.4, p 389) was much higher for integrative relations and behaviours (good atmosphere, ideas are welcome, discussions or co-operative decisions, time for personal relations) than non-integrative ((looking for own advantage, people have to work, decisions only made by management).

Staff had quite a number of the lowest values of the top down approach and highest of the peers approach. However, top managers had a large number of lowest values of the peers and highest of the top down approach; the arithmetic means concerning top managers are underlined by relatively high correlations.

Regarding other sub-samples, micro companies had a large number of lowest values (integrative and non integrative), and foundations or co-operative quite a large number of highest values (integrative and non integrative).

h. Finance (Table 6.17, 6.18, 6.19, 6.20 – p 366f)

The two rounds of interviews showed converse turnover behaviours of service (decreasing) and production (increasing) companies; this may relate to changed economic situation, as in round 2 the financial basis of production companies was optimised. However, turnovers of companies with environmental management systems or a certification before 2000 increased in both rounds. Cash flows tended to increase between the two rounds. Profits were mainly used for investments and training, and secondly for

accumulation of reserves and dividends; this accumulation increased in the second round in medium and production companies. The correlation between financing and size as well as between finance and ownership was very high (> 0.61); private financing increased between the two rounds, and some small and medium companies made investments which increased their bank financing.

i. Resources (Tables 6.20 and 6.21, p 367)

The problem 'missing resources' (time, infrastructure, suppliers) increased between the two rounds due to the economic boom.

People: There was a broad trend for optimal internal conditions for people and for co-operative, motivating leadership. Two third mentioned the integration of staffs as the main social activity. People were important for implementing quality activities and management systems; this issue increased between the two rounds. Between the two rounds, however, there was some decreasing of staff satisfaction which may be related to the increasing pressure of time because of the economical boom.

Finance: Most companies looked for a good balance between money from company or family and from banks. Financing as a company problem decreased. Between the two rounds private financing increased (especially in companies with certification before 2000). Some tried not to require finance from banks, and a few totally depended on banks. Parallel to round 2, some small and medium companies made intensive investments because of expansion or innovation which increased the proportion of bank financing. More than half the companies had intensive financial control.

Time: Pressure of time increased from round 1 to round 2 and influenced staffs' integration negatively.

j. Future of company (Table 6.22, p 368)

The general evaluation concerning the future of company increased between the two rounds from 64.7% to 74.2%; especially the view of top managers from 15 (of 28) to 25 (of 29). The trend in micro companies was inconsistent.

4.4.4 Morality – results

38 variables (of 234) with correlations to others were morality orientated (morality 11; social responsibility 9; specific values 13; private problems 5). They are an indicator for the importance and complexity of ‘morality’ within the analysed companies.

a. Motivation (Tables 6.23 and 6.24, p 369)

The case studies showed that the great majority of all companies had a social motivation. About half of companies had a tendency to integrate morality into strategy. Moral attitudes and behaviours concentrated on improvement of internal issues. About a third of interviewed persons mentioned external activities (local community, sponsoring, relations to customers).

Moral activities were positively related to country, size and ownership, but negatively to industry. Companies in the German sample intensively related to morality. Four (of 6) were service companies and three of them foundations for people in need of care; this finding is related to the selection of the German companies by a pastor.

In round 1 about a third said that they had no or minimal influence on social issues, in round 2 the number decreased to a quarter. Two companies had changes or problems within their moral behaviours (reduction of sponsoring, gap between management and staffs).

b. Specifications (Table 6.25, p 370)

For the rating of values according to list B of the questionnaire (Annexes 6.4, p 389), interviewees could distribute a total of 25 points on 17 values; the possible rating of individual value was between 0 and 5. The values are listed in Table 4.5.

Descriptions of values
A) To be an example, to implement ideals and to keep commitments
B) To be integrated in decisions
C) To be strictly compliant with standards and laws
D) Fun is the most important element of my life
E) To produce a good impression, image
F) To have enough time for private relations, family, leisure
G) To put justice, community, solidarity, participation and tolerance in front
H) To be behave responsible - even if there is resistance within the company
I) To avoid all cost which are not directly productive, to maximise profit
J) To aim mental, psychic and physical health
K) To have the possibility for lifelong learning, to be enabled and challenged
L) To be loyal - to have primarily an engagement for tasks and the company
M) To be open to others, to respect one another - feedback (positive and negative)
N) To think in long terms, to value and integrate consequences
O) To have alternatives in work and private life
P) To have enough time for planning and reflecting
Q) To be flexible, spontaneous

Table 4.5: Longitudinal survey with SMEs – list of descriptions of values

Some values contain more internal and external issues of a company and some examine both areas.

Both areas: ‘example, true’, ‘justice, community’, ‘open to others’, ‘flexible, spontaneous’, ‘mental, psychic and physical health’, ‘good impression, image’, ‘alternatives’, ‘long terms’, ‘planning and reflecting’

More internal issues: ‘integrated in decisions’, ‘lifelong learning’, ‘responsible - even if there is resistance within the company’, ‘loyal - to have primarily an engagement for tasks and the company’, ‘strictly compliant’, ‘maximise profit’

More external issues: ‘private relations’, ‘fun’

Comparing the arithmetic means, the analysed companies were characterised by a mix of values guaranteeing private and company survival. Figure 4.7 gives an overview on the

ranking of the different values and shows the differences between the users of different management systems[42] in round 2. The peaks of valuation deflected minimally: The most impressive peaks were A 'being an example', F 'private relations', G 'justice, solidarity' and M 'openness, respect'. Incorporating the medium peaks J 'health', K 'life long learning' and Q 'flexibility', affirmed the optimal mix of values guaranteeing private and company survival. The minimal rate for I 'maximise profit' was not surprising, reflecting the triple bottom line values (two thirds of all companies weight 'social' as important); this weighting was underlined in most cases by the company's praxis (see case studies: Annexes 6.2, p 280ff).

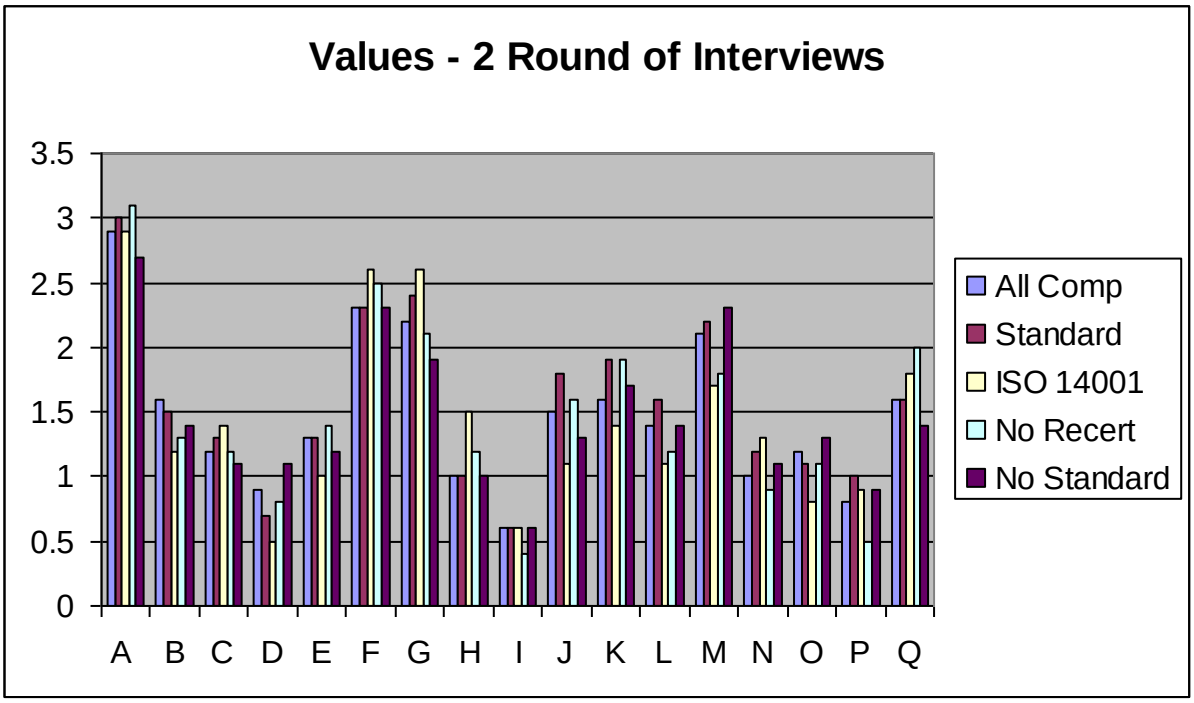


Figure 4.7: Longitudinal survey with SMEs – list of descriptions of values – evaluation of companies using different sorts of management systems

Choosing value specifications was mainly correlated to tasks of interviewed persons. Exceptions were 'openness' (positive to ownership, negative to industry) and 'lifelong learning' (positive to country, size and ownership); the fact, that the four health care

[42] Legend: All Comp = all companies; Standard = companies using a standardized management system; ISO 14001 = companies using ISO 14001; No Recert = companies which did not recertify their management system; No Standard = companies without standardized management system

companies belong to foundations, and that three of them were in Germany, explains these exceptions.

The ranking of the values showed these specifications for sub-samples:

‘an example’, ‘justice’, ‘responsibility’ and ‘long terms’ were more important for top managers than for staffs; on the other hand staffs had higher values for ‘integration’, ‘image’, ‘alternatives’ and ‘fun’. These differences show disparate emphasises of leaders and collaborators.

‘Enough time’ was especially relevant for micro companies, and ‘strictly compliant’ irrelevant; this may relate to restricted resources of micros. ‘Open to others’, ‘integrated’ and ‘lifelong learning’ were emphasised by foundations and co-operation showing specific issues of cultures.

c. Values – backgrounds (Table 6.26, p 371)

The interviewed based their moral attitudes on different issues. For nearly two thirds experience was fundamental, for more than half family, school, youth were essential; but also important were religion, education or job, and personal development or character building.

d. Personal/private problems (Table 6.27, p 372)

The analysis of the numerated personal/private problems showed two main trends – problems related to society and economy and to more private problems. Nearly a third mentioned individualisation and egoism, a quarter politics (European integration, globalisation, bureaucracy) and restrictions in living conditions. A minority stated increasing problems within economy (dependence and monopoly) and with availability of private time.

e. Religion/philosophy of life (Table 6.28, p 372; Table 6.29, p 373)

The majority of interviewed persons identified their religion or philosophy of life. The great majority of the Swiss sample was Catholic. In Germany there was a balance between Catholics and Protestants. Minorities were Muslim, Orthodox and people with no specific

religion (but having a philosophy of life). The influence of religion and philosophy of life was very important for company and private life.

Religion as a background is positively related to country; the German sample was selected by a pastor and contained three health care companies with a Christian background.

f. Politics: party preference / attitudes – distribution (Table 6.30, p 373)

Quite a lot had a party preference which increased at round 2. Also the number of people with no preference but theme orientated attitudes increased.

g. Rating of statements (Table 6.31, p 373)

The survey of Ulrich P. et al. (1998) concentrated on top managers of largest companies in Germany and Switzerland (Germany: 550 – Switzerland: 224). The aim of including validation of Ulrich's statements into my research was to detect differences between large businesses and SMEs. The most corresponding statement had to be rated with 4, then downwards 3, 2, 1; the arithmetic mean was calculated for every statement.

The interviewed persons of my research had an intensive trend towards conventionalism. In comparison to the managers of the large companies, the top managers of the SMEs tended less against economism and more against reformism. This finding underlines the different moral trends of SMEs and large companies; the morality of SMEs trends towards solid relations, responsibility towards people and (local) community and long-term survival of companies.

h. Sustainability and codification

The analysis the results of triple bottom line (Table 6.14, p 364) and codification (Table 6.13, p 364) shows that two thirds of companies had defined values, especially the small and early certified companies. Also two thirds regarded finance as fundamental for survival, but at the same time two thirds of companies with standardised systems assessed social elements as very important (companies without systems: about half); and

all companies with environmental systems considered social and environmental elements as decisive.

'Moral code' had positive correlations to country, but also a number of negative correlations (size, industry, market position, and year of certification). Five (of 6) German companies followed industry codes; this may explain the positive relation to country. The negative correlations can be clarified by that fact that especially small companies followed industry codes; a substantial number of small companies were niche players without certification.

4.4.5 Management system – results

51 variables (of 234) correlated to 'Management systems' (management systems 39; quality 6; environment 6), underlining the significance of the issue.

a. Mission and strategies, statements, objectives (Table 6.32/6.33, p 374f)

About three quarters had a mission and related strategies (with different degrees of formalisation and integration). More than half of the companies considered moral elements and quality leadership as part of their mission, followed by customer orientation and common survival.

Concerning strategies and objectives, there was a mix of external (customer satisfaction, market position, offering jobs) and internal issues (future orientation/innovative, internal conditions/staffs orientation, achievement of objectives/profit, flexibility/independence, management system, effectiveness).

Some of the issues increased between the two rounds (flexibility/independence, staffs orientation, effectiveness), others decreased (customer satisfaction, achievement of objectives/profit, offering jobs) and some did not change (future orientation/innovative, internal conditions, market position, management system).

Leading issues were customer satisfaction and optimising quality and management systems, innovation, and effectiveness. Less important were offering jobs or education, and flexibility or independence.

b. Range and formality (Tables 6.34 to 6.39, p 376ff)

The analysis of correlations showed intensive relations between use of standardised management systems and market leaders, integration, production, quality, physical environment as well as some moral issues.

The external pressure for the implementation of standardised systems was quite intensive in production; service companies showed a trend toward a mix of external and internal influencing issues.

The two rounds of interviews showed an intensive increase of turnovers of companies with environmental management systems or a certification before 2000. Also, the acceptance and handling of the systems increased between the two rounds. However, seven companies were concerned with the fragmentary use of their management system.

Company systems (without a standard) increased and have been mainly mentioned by people of micro companies. The number of persons mentioning integrative systems as BSC or EFQM, industry standards or ISO 14001 decreased; the decreasing of ISO 14001 is surely related to the fact that in round 2 there were fewer companies using the standard (3 instead of 5). The mentioning of OHS decreased intensively; they seemed to become part of company behaviour.

The analysis of answers concerning experiences with the implementation of management systems shows that the percentage of sensitised people increased from half to two thirds. The problems with the implementation (stress, opposition) decreased and the knowledge concerning systems increased; exceptions were people of micro companies – probably related to newly implemented systems. The possibilities of influence on management systems increased – especially in connection with system optimisation (procedures, meetings, knowledge as well as internal and external behaviours and effectiveness). There was quite an intensive increase in planning of integrated and industry systems. The

knowledge of staff concerning planned systems increased minimally. Integrative issues are increasingly implemented (strategy, objectives, integrated processes).

For a further analysis, I parallelised the variable 'year of certification' with trend to certification; there were high correlations between 'year of certification' and market position (0.59), management systems with BSC or EFQM (0.59). These correlations brought me to examine the influence of different variables on the (dependent) variable 'year of certification' by a linear regression[43]. The corrected R-square of influences on 'year of certification' was 0.499, which means that the variables explain 'year of certification' by 50%.

In round 1 market position, ownership, and size have influenced 'year of certification'; in round 2 the major influences were moral issues (influence of family / school and examples). Country's influence was probably negative, because only a third of the German firms had been certified. The negative influence of industry relates to the fact that mainly production companies have been certified.

c. Standardised management systems – in detail

Some leading companies applied integrative systems as TQM and BSC; this finding was affirmed by the positive correlation of 'Management system – Integration (TQM, BSC)' to size, market position, ownership and year of certification. However, two cases showed that the implementation of EFQM was superficial and top-manager orientated.

Companies being certified according to ISO 9001 were characterised by a concentration on owner or top manager, an intensified integration of people, and interplay of the elements of the SME model. 'Management system – ISO 9001' was positively correlated to industry, market position and year of certification; leading production companies trended to the use of the standard.

[43] The general purpose of a linear regression is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. R-square indicates the variance of the dependent variable; a corrected R-square moves between 0 and 1; it can be transferred into percentages (e.g.: 0.15 → 15 %). Standardised B-coefficients move between – 1.0 and + 1.0 and indicate the intensity and type of influence.

Companies being certified according to ISO 14001 showed a variety of issues – concentration on owner or top manager; integration of people, mix of partnership, collegiality, respect and trust; and an intensive interplay of the model's elements. However, a minority was still control and technology orientated, and nearly a quarter of people mentioned their minimal influence on the management system. 'Management system – ISO 14001' was positively correlated to size, industry, market position and year of certification, but negative to ownership; leading production companies tended to the use of the standard, and all foundations, the co-operation and the single private company were offering services and were not applying the standard.

d. Quality (Table 6.40, p 379)

Nearly two thirds of interviewees defined quality with customer orientation, and nearly half with professional or communicative behaviours. Nearly three quarters based their influencing quality on behaviours, equipment and material, and one quarter on staff integration and motivation. Top managers showed similar patterns as all other interviewees.

e. Risk management – company data (Table 6.41, p 379)

The great majority of companies controlled their financial activities. Besides micro companies nearly all had at least a partial risk management. Quite few had a comprehensive risk management of all activities and a defined methodology to plan their future; service and integrative companies had a trend to comprehensiveness.

f. Knowledge management (Table 6.12, p 364)

All profited of the dual system of professional education of Germany and Switzerland[44]; people regularly assisted trainings and seminaries. However, only a minority had a strategic knowledge management; an increasing number provided staff integration and support with education.

[44] Companies in Germany and Switzerland profit from the dual education system; apprentices work in company three days, and they stay in professional school for two other days.

g. Comprehensiveness

There was an increasing tendency for integration, while the management systems concentrated merely on shop floor and process level. Only a third had planned, integrated and circular systems aimed at sustainability.

4.4.6 Environment – Results

a. Society (Table 6.42, p 379)

With the exception of offering workplace, there were few public activities as events for customers and local communities, yet some sponsoring occurred. Three top managers were active in politics. Sponsoring (e.g. of sports) was partly reduced between the two rounds of interviews because of a lack of customer reactions from sponsored associations.

All followed legislation, but quite a lot suffered from the increasing number of requirements; nearly all tried to integrate public requirements in their targets. Few interviewees mentioned that politics limited economical activities; the number decreased in round 2. There was an intensive correlation between external requirements and country (0.68); external requirements depend mainly on specific situations of countries (legislation, industry culture).

Some managers mentioned activities in associations (e.g. membership, member of committee). A majority integrated these activities into strategies.

b. Economy (Tables 6.43 to 6.47, p 380f; Table 6.20, p 367)

More than half of the companies were innovative in products and processes; innovations were part of strategy and objectives – often combined with marketing. A few companies merely reacted to market changes.

Within PR most companies applied a mix of advertisements, expositions, personal contacts, events, mailing, and customer calls; personal contacts and customer calls have intensively decreased at round 2.

All companies have been market orientated. About half were market leaders or in second position; for them market planning was an integrated element. Micro and service companies were mainly acting in niches. Small companies were found in both positions.

Nearly two thirds of the companies were exposed to competition – mainly small ones. The relation to competitors depended on industry. Between the two rounds of interviews the relations became less stressed.

Market orientation implied fulfilment of customer requirements. About two thirds of companies planned their customer relations. The majority of companies were regionally active; because of their products, nearly half of the production companies had national and international customers. Depending on industry the geographical radius was enlarged because of market pressures. More than a third had private customers, and about half a mix of private and company customers. A fifth concentrated their activities on company customers; the majority of them were companies with an environmental management system.

Generally the relations to suppliers had the form of long term partnership. Only a minority regarded prices as decisive.

Most companies looked for a good balance between money from company or family and from banks. Financing as a company problem decreased. Between the two rounds private financing increased (especially in companies with certification before 2000). Some tried not to require financing from banks, and a few depended totally on banks. More than half of the companies had intensive financial control as part of their risk management.

c. Physical environment (Tables 6.48 and 6.49, p 381)

All companies felt responsible for the physical environment and fulfilled at least the legal requirements. Some had only minimal or even no issues concerning physical

environment. The serious handling of material was self-evident; however, the aim of economisation of energy and water was only mentioned by a quarter. Quite a lot tried to do more than required (not only companies with ISO 14001) and some intensified their activities between the two rounds; nearly half integrated environmental activities into strategies. Three quarters of interviewees could influence the optimisation of the physical environment through daily activities; this influence increased between the two rounds. Interestingly nearly a quarter of people working in companies with ISO 14001 mentioned only minimal possibilities of influence.

4.4.7 Exploring interrelationships according to the SME model

After reviewing the findings to the individual elements and the environment of the SME model, the comprehensive view and its effects on performance has to be analysed.

The findings above show issues of the interplay of the elements within the environment. The main correlations of variables – as mentioned in sub-chapters 4.4.3, 4.4.4, and 4.4.5 – rely on the elements of the SME model designed in 4.3. This corresponds with the main highlights in most companies; they address company (owner, staff, future, technology / infrastructure), morality (behaviours within company, public responsibilty) and environment (customers, local community, children labour, physical environment). Certified companies – especially those applying ISO 14001 – showed a trend towards integration of people. Nearly a quarter of the companies, however, were concerned with the fragementary use of their management system, had problems with leadership and integration of staff and suffered from increased pressure because of competition.

a. ‘SME’ and ‘morality’

Two thirds of companies had defined values; most small and early certified had defined values.

More than half of the companies considered moral elements and quality leadership as part of their mission. They also included customer orientation and common survival in their mission.

b. ‘SME’ and ‘(standardised) management system’

All companies had a sort of management system; half applied a standard. Standardised management systems helped to clarify responsibilities and – especially those applying ISO 14001 – showed a trend towards integration of people; companies using standards also had very high values for optimal internal conditions.

c. ‘SME’ and ‘enviroment’

Companies mentioned quite few public activities. All have been customer orientated. The relations to competitors distressed between the two rounds because of the economic boom. There was a general openness towards the requirements of the physical environment.

d. ‘Morality’ and ‘(standardised) mangement system’

Nearly all early certified companies had defined values. Two thirds of companies with standardised systems assessed social elements as very important (companies without systems: about half); and all companies with environmental systems considered social and environmental elements as decisive. More than half of the companies considered moral elements and quality leadership as part of their mission, followed by customer orientation and common survival.

e. ‘Morality’ and ‘enviroment’

There was a high sensibility towards the challenges of the environment. People mentioned a large diversity of problems and fears concerning society, politics, economy, and physical environment; a great number also spoke about their concerning activities. The companies’ moral responsibility towards society, however, was relatively small (offering of jobs, events for the community, some activities in associations and politics, little sponsorship), and towards the physical environment a matter of course.

f. ‘(Standardised) mangement system’ and ‘environment’

In round 1 there was an intensive correlation between market position and ‘year of certification’; the use of standards was, at times, often a requirement of customers or a market instrument. In round 2 the effects of the standards were internal or customer orientated. Companies applying ISO 14001 had a high sensitisation towards the physical environment.

g. Owners/top-managers

The outstanding highlight of the case studies was the concentration on owner and top-manager (all: 15 of 26 – ISO 9001: 8 of 12 – ISO 14001: 3 of 5). The owners and top-managers influenced moral activities, tried ‘to be an example’, and were responsible for external relations; their leadership reduced their time for values which did not directly refer to their duties. Between the two rounds of interviews changes occurred in leadership which were mainly related to the owner or top manager (change from patronal behaviour to partnership: 4 of 26 – trend to patriarchal/hierarchical behaviours and/or stringent procedures/centralisation: 8 of 26); four companies got new owners (2) or top-managers (2), influencing intensively the application of the management system.

There is an intensive convergence between this and other researches concerning the position of the owners and top-managers within SMEs. Their (moral) backgrounds coined all attitudes and behaviours of the company.

h. Interplay of all elements

The analysis of the case studies shows different levels of integration and interplay of the elements. Three (of 5) companies with ISO 14001 had an intensive integration of all elements, followed by companies with ISO 9001 (6 of 12) and companies without standard (6 of 14); this finding indicates that integration is not bound on standardised systems. Some users of standards also had systems which were comprehensive but not integrated or even sophisticated; on the other hand there were companies with no standard but with high moral attitudes and behaviours. The finding, that standards are not

needed, is underlined by the finding that about three quarters had a mission and related strategies containing different degrees of formalisation and integration.

The interplay of the elements provide performance: Decisive are customer orientation and common survival, high sensibility towards the challenges of the environment, general openness towards the requirements of the physical environment. Standardised management systems help to clarify responsibilities and – especially those applying ISO 14001 – show a trend towards integration of people.

4.4.8 Key findings of the longitudinal survey

The findings demonstrate that attitudes and behaviours of and with SMEs are directly related to the personalities of owner or top-managers and people, and with that to their moralities. On the other hand, SMEs are embedded in an ongoing, changing and challenging environment which forces them into permanent adaption. (Standardised) Management systems support the integration of morality, leadership, people, and all sorts of stakeholders. The effects of the interplay of these issues provide sustainable performance of SMEs.

I deepen these universal statements by examining a number of key findings as time of interviews, country, size, nature of enterprise, adoption of management system,

a. Time (depression and growth)

Especially productive SMEs and service companies working under competing market conditions were challenged by economic depression and growth. Both times were stressing; during depression managers were looking for new orders and staffs were afraid of their personal future; during growth managers were forced to get enough resources (workforce, finance, material).

The four service care companies were less influenced by time; however, reduced financial resources forced them to optimise their procedures and led them towards functionalist systems with objectives and controls.

b. Country (Switzerland and Germany)

There were differences in the selection of companies of the two countries. I found the Swiss partners by the use of professional and personal relations as well as internet platforms; there is mix of different productive and service companies. The German SMEs were procured by a pastor; that is why at least all owners or top-managers had a religious or moral background; and three of the six companies were care companies belonging to a Christian holding.

With this background, the findings concerning the German companies are more moral orientated; on the other hand, they are characterised by a national culture with a trend toward more administrative requirements and to the use of industry codes. Only a third of German companies applied standards in comparison to half of the Swiss. The distribution of the nature of companies was the same; only a third of German companies were in production compared to half of the Swiss companies. In addition, the German sample contained no micro company.

c. Size of SME (micro, small and medium)

Micro companies trended toward team orientation, and to acting in market niches, and to designing management systems of their own. There were minimal differences between small and medium companies; these trended more intensively to defined procedures and responsibilities.

d. Nature of enterprise (production or service)

The production companies were more in leading market positions, and as a consequence applying more standards aiming clear procedures. Two construction companies without standard were an exception; they were totally delivered to market's mercy. Service companies trended to more team orientation; this may be related to the composition of the sample (e.g. health care, co-operation bank, micro companies).

e. Adoption of standardised management system

The companies applied a large palette of standardised management systems. The use of the standards helped clarifying responsibilities and showed a trend towards integration of people (especially those applying ISO 14001); companies using standards also had very high values for optimal internal conditions. On the other hand there were two companies which minimally applied their system and one which obtained it only for image within the market.

All the key findings characterise a specific issue of the survey and therefore support a clearer discussion about the research questions and hypotheses in 5 Conclusions and the effects on performance.

4.4.9 SME model and measurement tool

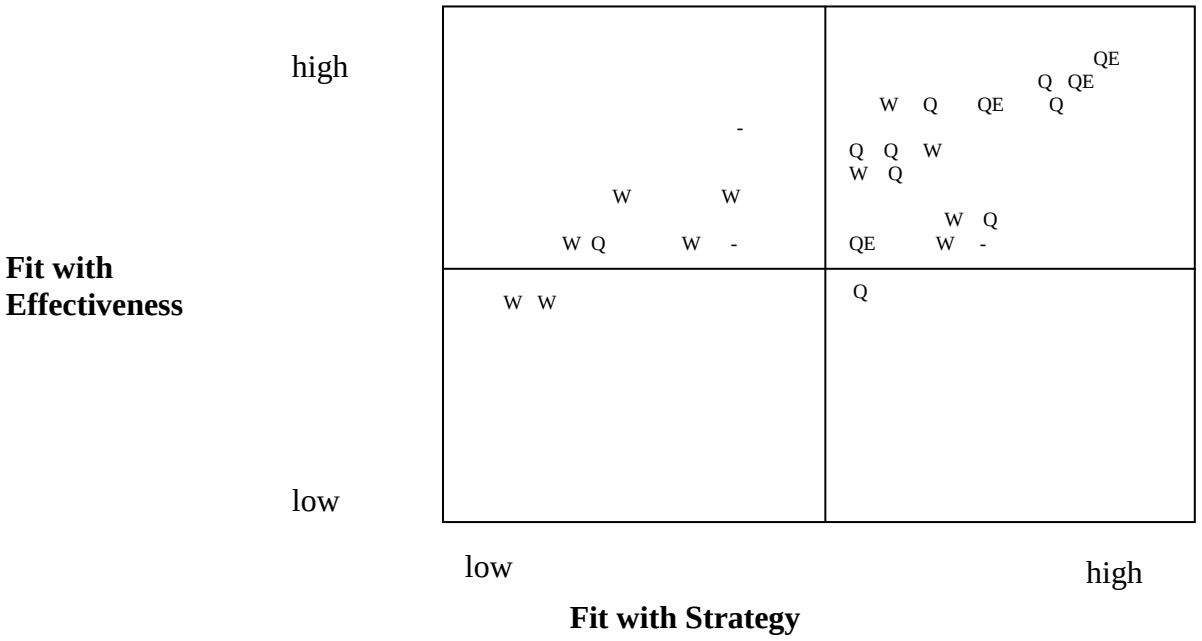
After discussing the findings concerning the elements and the comprehensive view of the SME model, the corresponding measurement tool has to be tested and discussed – especially concerning its ability to measure SMEs' performance.

To apply and test the measurement tool, I validated every company using evaluation Table 3.5 (p 152), following the specifications (see Tables 4.1, 4.2, 4.3, p 199ff). In a second step, the results were positioned in the basic matrix.

The summary in Figure 4.8 shows the distribution of the validation of the 26 SMEs of the author's survey after round 2. Because there were minimal changes of companies' positions in the basic matrix, the presentation concentrates on round 2.

Nearly all companies optimised their integration in different issues. It supports the assumption that primarily motivated companies have been ready to assist a longitudinal survey with time intensive interviews. Generally, the analysis shows (as in 4.4.7.h, p 227) that SMEs do not need a standardised management system to implement an increasingly circular system with intensive integration of people (basic results see Table 6.50, p 382).

The result shows that the tool is able to measure changes in performance, especially if the differentiated tables are applied.



Legend:
Q : companies with standardised quality system
QE: companies with standardised system for quality and environment
- : companies with no re-certification of their standardised system
w : companies without standardised systems

Figure 4.8 : Validation of the SMEs within the survey of the author – round 2

The SME model has been designed by applying SSM of Checkland and Holwell (1998) and examined by CSH of Ulrich, W. and Reynolds (2010). The inputs of the model (Figure 4.4) are the three elements management system, morality and the environment. They relate to the sustainable performance of the SME. The output is the optimised sustainable performance of the SME basing on the ongoing interplay of optimised knowledge, service and product, and stakeholder satisfaction.

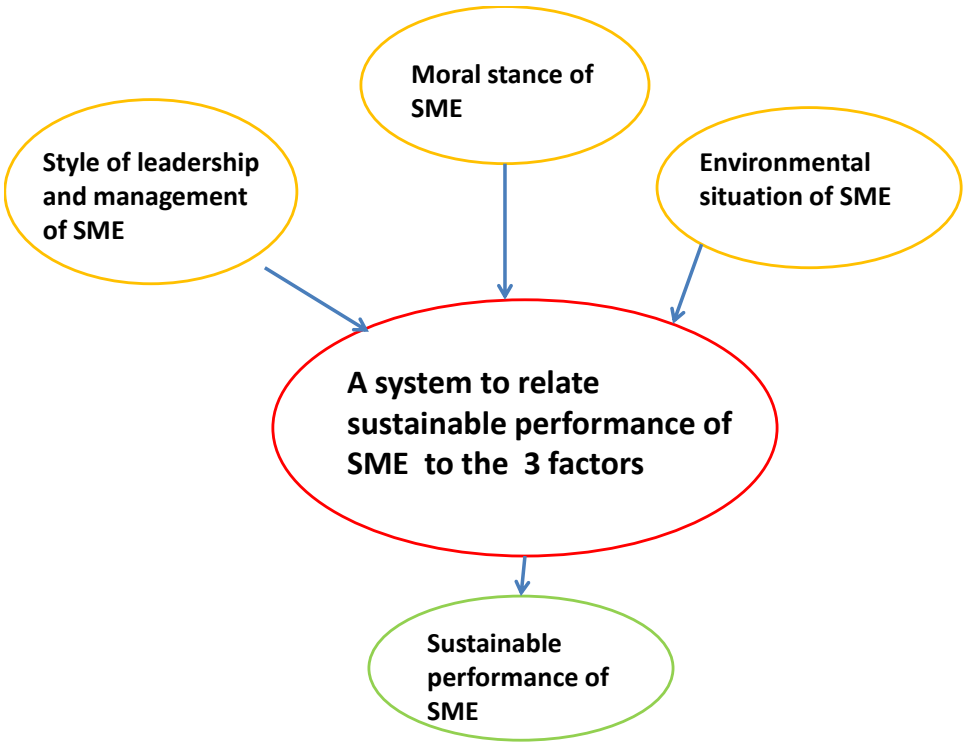


Figure 4.4: Conceptual SME model 2 of this research.

The model has been successfully tested by the practical use with the results of my survey. It illustrates specifications of the elements, their interplay and reciprocal influencing of effects as well as the ability to show changes in performance; the issue of time opens the view for possible challenges in improvements within companies, morality and management systems within their common environment.

The general matrix of the measurement tool allows companies a catchy portrait of their actual situation and supports fields of improvement. I could it verify during the feedbacks with companies and as a consultant with customers.

I designed the specific tables according to the questionnaire and presented the results according to the Table 3.5, p 152). That is why they are quite complex and have to be redefined following to the definition of the basic matrix (4.3.4.a., p 190ff); this allows optimising the questionnaire.

4.4.10 Critical review of results

The findings demonstrate that attitudes and behaviours of and with SMEs are directly related to the personalities of owner or top-managers and people, and with that to their moralities. On the other hand, SMEs are embedded in an ongoing, changing and challenging environment which forces them into permanent adaption. (Standardised) Management systems support the integration of morality, leadership, people, and all sorts of stakeholders.

Because of their readiness for a long term analysis it can be presumed that the observed companies mainly belonged to a higher quality level of management. Some companies mentioned a direct influence of the feedbacks of interview round 1 on their development. Another problem for the validity of data may be that in most companies the individuals have been selected by the owner or top-manager. Some managers noted explicitly that it was difficult to motivate people.

The validation of the results of my research is limited by the selection of companies because its basis is not on a random sample. In fact, the selection of companies depended on my personal and professional contacts and on relations of a German colleague. Furthermore, the longitudinal survey with two rounds of intensive interviews demanded quite intensive willingness for cooperation.

The sample of 27 companies is relatively small, although comparable surveys analyse similar numbers of companies (Friedman et al. 2000, Laeis 2005, Martinez and Martinez 2007, Martinez and Martinez 2004, Sneep 2007, Spence and Rutherfoord 2001, Spence et al. 2003, Wagenbach 2001, Werner 2007, Williamson 2006). While these surveys concentrate mainly on owners or top managers, my research also includes a large number of people from several hierarchical levels and departments.

Samples of 1000 persons serve for forecasting behaviours of constituents. In my research 212 people were interviewed during the two rounds of interviews; 114 of them participated in both rounds. This number forms a sample allowing relatively reliable quantitative conclusions. The sub-samples (see Table 4.4, p 210) with 100 and more participants are

quite reliable. The lesser the number becomes the more findings are reduced on trends.

4.5 Stage 3: Comparison with other surveys

In Stage 3 the results of my survey are compared with those of others and a summary of findings is presented in a table.

4.5.1 Comparison with results of other surveys

Compliances and differences of the results of the survey are discussed and examined to test their relevance and to discuss their possible generalisation by literature review and other surveys.

a. SMEs

My survey showed a mix of organisational patterns for most companies (with an emphasis on team orientation). People were quite integrated in leadership and decisions making. The range of cultures and traditions was wide; many companies with standardised management systems had very high values for optimal internal conditions.

Information patterns were depending on culture, traditions and pattern of organisation. Communication was mainly concentrated on shop floor level or procedures. About half of interviewed persons experienced information as systemic, face-to-face or as something that had to be developed by oneself; the rating of integrative relations and behaviours was very high.

The education of the average was high; about half of the companies hire only people with a know-how which includes apprenticeship experience. Most companies offer internal or external training.

Cash flows tended to increase between the two rounds. Profits were mainly used for investments and trainings, and secondly for accumulation of reserves or dividends. Most companies looked for a good balance between money from company or family and from banks. Financing as a company problem decreased. Pressure of time increased from round 1 to round 2.

There was a broad trend for optimal internal conditions for people and for co-operative, motivating leadership. Two-thirds mentioned the integration of staffs as the main social activity. Between the two rounds there was some decreasing of staffs' satisfaction.

The positive evaluation of the future of the company was increasing between the two rounds.

In comparison to other research, the advantages of my research are the integration of staffs' arguments to emphasize the substance of the issues as well as the two periods of interviews.

There is a long range convergence comparing the internal issues (see 2.3.1, p 57ff). Looking at the external issues (see 2.3.2, p 63ff), there are topics which have only been touched upon by my research as 'SMEs driving forces of the economical development' and 'integration in globalisation' (only one company had an intensive cross-border activity).

Concerning the detected gaps in research questions, my findings are able to fill some of them. The results give information concerning the organisation and ownership of SMEs, SMEs and culture, and employ of processes, technology and knowledge management within SMEs. The case studies showed minimal differences between behaviours of owner-managers and employed managers; both groups have been very much motivated towards the survival of the companies. Four cases showed effects of the replacement of managers; all four tried to change the companies according to their visions, and in two cases they were supported by the owners. Watching external issues, this research provides some input concerning market fluctuations; the production companies profited from the economic boom.

According to the Table 2.1 (p 45), the evaluation of 'SME' shows a mix of approaches suited to the contemporary system thinking of Jackson (2000); there are functionalist issues in organisation (e.g. hierarchical procedures), and also interpretative and postmodern (e.g. team orientation, matrix procedures). Using Table 2.3 (p 47), the

classification ‘complex pluralist’ suits most because the range of the analysed companies is very wide, and only a minority of micros can be classified as simple.

b. Morality

Service companies trend to social issues, productive to environmental. Especially companies with certification have a value orientation. Two thirds of companies (especially small and early certified) had defined values. About half had a tendency to integrate morality into strategy. Also two thirds regarded finance as basis for survival, but at the same time again two thirds of companies with standardised systems assessed social elements as very important (companies without systems: about half); and all companies with environmental systems considered social and environmental elements as decisive.

Moral attitudes and behaviours concentrated on improvement of internal issues. About a third of those interviewed also mentioned external activities. The analysis of the mentioned personal or private problems showed issues related to society and economy and issues based on privacy.

Small companies followed industry codes and had defined values.

Companies in the German sample were intensively related to morality, four (of 6) were service companies. Nearly all German companies followed industry codes; this may be related to the industrial tradition of the country.

The rating of 17 values was mainly related to tasks of interviewed persons. The companies were characterised by a mix of values guaranteeing private and company survival. The most impressive peaks were ‘being an example’, ‘private relations’, ‘justice, solidarity’ and ‘openness, respect’. The minimal rate for ‘maximise profit’ was not surprising, reflecting the triple bottom line values (two thirds of all companies weight ‘social’ as important); this weighting was underlined in most cases by the company’s praxis.

There is a general convergence between this research and others (see 2.4.2, p 71ff). Morality is very much influenced by people and their backgrounds. The specific

characteristic of my research is the mix of interviews showing differences in values of top-managers and staffs; the research also shows a trend to defined values – especially for small and German companies.

The examination of ‘morality’ according to system thinking shows a clear trend towards the interpretive and postmodern approaches; morality in SMEs is an ongoing complex pluralist process triggered by internal and external issues.

The examination of ‘SME’ and ‘morality’ leads to third element ‘(standardised) management system’ characterised by a partial integration of the other two.

c. Management systems

About three quarters of the companies had a mission and related strategies More than half considered moral elements and quality leadership as part of their mission, followed by customer orientation and common survival.

Companies with standardised management systems had a value orientation, especially very high values for optimal internal conditions. The external pressure for the implementation of systems was quite intensive in production. The acceptance and handling of the systems increased between the two rounds.

Leading production companies tended to the use ISO 9001. Half of the companies showed an intensive interplay of the elements of the SME model and an integration of people, a third an intensive orientation towards physical environment. Within a minority the management system was still control and technology orientated.

Companies using ISO 14001 generally had a high rating of highlight issues. All had their people integrated, and customer orientation and effectiveness are their main issues. A majority had an intensive interplay of the elements. Technically leading production companies tended to the use of the standard ISO 14001.

Nearly two thirds of participants interviewed defined quality as customer orientation, followed by professional and communicative behaviours (nearly half). For nearly three

quarters quality was based on behaviour, equipment and material and for one quarter by staffs integration and motivation.

Beside micro companies, nearly all had at least a partial risk management; service and integrative companies (e.g. using EFQM or BSC) had a trend to comprehensiveness. All profited from the dual system of professional education of Germany and Switzerland; however, only a minority had a strategic knowledge management.

There was an increasing tendency for integration; however, the management systems concentrated on shop floor and process levels. Only a third had planned, integrated and circular systems focussed on comprehensiveness and sustainable performance.

There is a quite intensive convergence between this and other researches. My survey cannot answer all the gaps mentioned in 2.5.3 (p 86ff); there are still no data concerning the number of certified SMEs and reasons for the implementation of standardised management systems in specific regions. However, there is information concerning company designed management systems, and internal effects of standardised management systems; especially the examination of the round 2 of interviews showed an intensive trend towards a more comprehensive use of the standards and an increasing value orientation. Problems with third party auditing were not explicitly discussed; companies mainly used the audits for getting the needed certificates, long lasting effects of advice from auditors were rarely mentioned.

According to 2.5.4 (p 101ff) all management systems contain in their concepts at least implicitly moral issues which enlarge the functionalist character of the systems. This research shows that management systems challenged the user and triggered their attitudes towards a more morally reflected behaviour (e.g. internal and external relations, use of materials). On the other hand the range of implementation of management systems depended intensively on the attitudes of owners or top-managers and their moral backgrounds as well as on motivation of staffs (especially development of visions and strategies or the implementation of ISO 14001).

The range of applicable system thinking approaches in ‘management systems’ reaches from functionalist (clearly defined procedures) to interpretive and postmodern (integrative systems with ongoing moral reflections). There are simple systems in micro or functionalist organised companies; the majority, however, is characterised by complex pluralism.

d. Environment

Society

There were quite few public activities (events for customers or local communities, and some sponsoring, activities in politics, associations). Quite a lot suffered from the increasing number of public requirements. Public activities were often integrated in strategies.

There is an intensive convergence with other research (see 2.6.1, p 110f). Other surveys, however, describe a larger palette of activities in local communities. Managers and staffs are integrated in associations and politics. The increasing problems with authorities are confirmed.

Economy

More than half of the companies were innovative in products and processes; innovations were part of strategy and objectives – combined with public relations. A few companies were merely reacting on market changes.

All companies have been market orientated. About half were leaders or in second position. The relation to competitors depended on industry. The majority was regionally active; nearly half of the production companies had national and international customers because of their products. Depending on industry the geographical radius was enlarged because of the market pressure.

More than a third had private customers, and about half a mix of private and company customers. A fifth concentrated their activities on company customers; the majority of

them were companies with an environmental management system. About two thirds planed their customer relations. Most companies lived in partnership with their suppliers.

The results are comparable with other research (see 2.6.2, p 111f). A characteristic of this research is the high number of companies in leading market positions; other research contains minimal information concerning market position.

Physical environment

All companies felt responsible towards physical environment and fulfilled the basic legal requirements. Some had only minimal or even no issues concerning physical environment. Overall, however, many companies tried to do more than required by administration or customers. Nearly half integrated environmental activities into strategy. Three quarters of interviewed participants could influence the optimisation of the physical environment by their daily activities.

This research is in large convergence with other surveys (see 2.6.3, p 112f). A specification of this research is discussing data of persons of different hierarchical levels. Other research intensively mentions internal and external barriers hindering the implementation of environmental systems; in mine, environmental questions have been discussed as a matter of course, and environmental systems have been applied if the company needed it.

After examining SMEs and their environment, several system approaches can be applied. Functionalist issues work by following defined procedures, attaining objectives and fulfilling legal or other requirements; interpretive or postmodern approaches are suited to comprehensive activities within the environment (by using various inputs of the environment and influencing it).

The comparing activities are closed with the highlight of my research – the comprehensive view basing on the SME model.

4.5.2 Comprehensive view

Nearly half of the companies had an intensive echange and interplay of management systems, morality and environment. A third had an interplay, but no systematic integration or formalised system. Nearly a quarter were characterised by an intensive motivation and integration of employees. And again nearly a quarter intensified their mission towards physical environment.

Companies were characterised by a concentration on top-manger and an intensive trend for integration of people combined with a family culture. Standardised (especially environmental) systems demonstrated generally more effects towards effectiveness as well as embedded circularity and integration than companies without standard.

The economical situation changed between the two rounds; a depression characterised the period of round 1, and a boom during the time of round 2. All elements of the SME model have been concerned with changes between round 1 and round 2. Some of the strategic issues increased between the two rounds (flexibility/independence, staff orientation, effectiveness), others decreased (customer satisfaction, achievement of objectives/profit, offering jobs) and some did not change (future orientation/innovative, internal conditions, market position, management system). The integration and co-responsibility of people were increased or optimised in half of the companies. Leadership showed two patterns: a quarter displayed a trend toward patriarchal or hierarchical behaviours, stringent procedures, or centralisation and more than a third changed from patronal attitudes to partnership. A fifth has been hindered in their development by time pressure, and some became more sensitive towards physical environment, and expanded or made acquisitions. Profound changes occurred in six companies (different adaptions, additional certifications, TQM orientation, and use of supplier standards). Production companies and service companies with market orientation (e.g. garage, shop, tourism, and bank) were challenged by the economic growth; however, the findings indicated that the lack of resources did not hinder the increase of integration.

The case studies showed specific changes within individual companies. Two companies mentioned a direct influence of the feedback from the first interview round on their development; one of them was so disillusionised after feedback 1 that the owners employed a coach to assist in the development of internal communication and integration of staff.

Two constructing companies without a standardised system remained completely at their market's mercy. A tourism and a production company had procedures which were only moderately used, with little relation to their strategies. A construction company used its management system only for optimisation of its image.

The functionalist system approach does not fulfil the requirements of the comprehensive view of the SME model. The interpretative and postmodern thinking suits more. Companies which do not or only partly integrate the elements of the model trend toward functionalism (process and objective orientation). Using the 'system of system methodology' (Table 2.3, p 47), an integrated, comprehensive SME is in a complex pluralist system or in complex coercive if it is confronted with a competitive environment.

The outstanding issue of this research is the comprehensive view of SMEs. It profits from the SME model basing on the interplay of SME, morality, and management systems within their environment, and from the examination by a longitudinal survey with a detailed questionnaire and two rounds of interviews. Another important distinguishing topic is the integration of staffs of all hierarchical levels and different departments. However, the methodology of the longitudinal survey embodies the main weakness of this research; the willingness to participate was reduced because of the needs of time and effort of the companies. These issues are unique in comparison with other research.

4.5.3 Review of the findings

The analysis of the results of the longitudinal survey of my research show that these results correspond with those of other researches. An outstanding difference of this

research is its comprehensive approach based on the SME model demonstrating effects on performance, the longitudinal survey with two rounds of interviews, and the integration of people from all hierarchical levels and different departments into the survey.

The findings demonstrate that attitudes and behaviours of and with SMEs are directly related to the personalities of owner or top-managers and people, and with that to their moralities. On the other hand, SMEs are embedded in an ongoing, changing and challenging environment which forces them into permanent adaption. (Standardised) Management systems support the integration of morality, leadership, people, and all sorts of stakeholders.

4.6 Presentation in generalised table

I conclude this chapter with a list of characteristics (Table 4.6) as specific output of the analysis of literature review and findings.

Charac-teristic	Large Companies	Medium companies	Small companies	Micro companies
Ownership	Public limited – mainly quoted at the stock exchange	Public limited – some quoted –	Limited or private (family)	Limited or private (family)
Finance management	Shares – external (mainly banks)	Shares – external (mainly banks) – private (owner) – often risky	Shares – external (mainly banks) – private (owner) – often risky	Shares – external (mainly banks) – private (owner) – often risky
Leadership	Board – employed managers – hierarchical division (vision, strategy, operation)	Board –owner or employed manager – mainly professional	Board – mainly owner – some employed managers – mainly operational – intuitive or structured	Board – mainly owner – mainly operational – intuitive, sometimes structured
Patterns of self organisation	Hierarchical – some autonomy of departments	Hierarchical – some autonomy for departments	Patriarchal and / or team orientation	Patriarchal and / or team orientation
Visions / strategies	Long-term – but: depending on quarterly statements	Mainly long-term	Mainly long-term, but often not formulated	Often long-term, but often not formulated
Culture, traditions	Defined – often superficial	Cooperative – common events	Cooperative – common events	Cooperative – common events
Market – customers	Mainly long-term - departmental and / or regional relations	Mainly long-term – personal relations	Sometimes short-term (few influence) – personal relations (also of staff)	Often short-term (few influence) – personal relations (also of staff)

Suppliers	Supply chain - departmental	Mainly regional – personal relations	Regional – personal relations	Regional – personal relations
Competitors	Mainly world wide – often intensive fight	Mainly regional – differs by industry	Mainly regional – differs by industry	Mainly regional – differs by industry
Process management / production	Supply chain – departmental – continuously optimised	Continuously optimised – some flexibility	Continuously optimised – spontaneous, flexible	Continuously optimised – spontaneous, flexible
Use of resources	Multi-national – supply chain – departmental – continuously optimised	Continuously optimised – regarding local and internal elements	Continuously optimised – regarding local and internal elements	Continuously optimised – regarding local and internal elements
Integration of people	Defined – part of resources	Defined – part of resources or partnership	Partnership with owner / manager – empowerment	Partnership with owner / manager – empowerment
Relation to local neighbours	Second-rate – not bound	Frank – often partnership	Frank – often partnership	Frank – often partnership
Relation to the public (including legislation)	Reputation – selective	Reputation - targeted use	Reputation - targeted use	Reputation - targeted use
Ethical / Moral attitudes	Different – often defined	Different – owner / manager orientated – some defined	Different – owner / manager orientated – some defined	Different – owner / manager orientated – some defined
Social responsibility	Different – reputation	Different – owner / manager orientated – respect for staff	Different – owner / manager orientated – respect for staff	Different – owner / manager orientated – respect for staff
Environ-mental responsibility	Different – reputation – depending on environmental risks	Different – reputation – depending on environmental risks	Different – depending on environmental risks	Different – depending on environmental risks
Knowledge management / innovation	Strategically defined – mainly quite intensive – technical knowledge in staffs	Often defined – often quite intensive – some technical staffs	Often not defined – often short-term – mixture of general and professional knowledge	Often not defined – often short-term – mixture of general and professional knowledge
Use of management systems / models	Mainly existing – different degree of implementation	Mainly existing – different degree of implementation	Often existing – different degree of implementation	Rarely existing – different degree of implementation

Table 4.6: Characteristics of large, medium, small and micro companies – basing on the research of the author

4.7 Conclusion

In chapter 4 I presented and analysed the findings of the longitudinal survey of this research – following the methodology of abduction (chapter 3) and discussing the inputs of literature review (chapter 2). The chapter followed the narration of the research which leaded to defining hypotheses and building of the SME model.

The Chapter followed three stages: 1. Getting into the research and building the SME model, 2. Round of interviews and analysis of round 1 and 2, and 3. Comparison with results of other surveys and generalisation.

In Stage 1 I discussed the use of the questionnaire in pre-test und round 1 of interviews with analysis of its results as well as the experiences with the feedback to companies. These and literature review allowed designing the hypotheses and SME model by using SSM; an outcome of the model building is the corresponding measurement tool with the general matrix and the tables with specifications.

Stage 2 started with the review of interview methods and the experiences of round 2 and companies' feedbacks. An important part was the analysis and comparison of the results of both rounds – discussion of individual companies and aggregated data. It closed with the reflection concerning the experiences with use of the SME model and measurement tool with its differentiated tables.

The methodology of the longitudinal survey embodies the main weakness of this research; the willingness to participate was reduced because of the needs of the companies (the time and effort required – including interviewees of different hierarchical levels). An additional element was considered in the analysis: the period of round 1 (2003 to 2004) was characterised by a rather economic depression, and the period of round 2 (2005 to 2007) by an increasing boom; these issues influenced the interviewees (e.g. motivation, resources of time) and the companies (e.g. innovation, finance for investments).

Stage 3, finally, compared my findings with other research. As a summary of findings i formulated a generalised table comparing companies of different size according to different issues.

The large literature review illustrates that authors mainly concentrate on specific issues as SMEs, SMEs and morality, SMEs and standardised management systems; and analyses concentrate mainly on top managers. A comprehensive approach and model is missing. The SME model of my research fills the gap by explaining the influencing effects on and of

SMEs and their performance – basing on the dynamic interplay of morality and (standardised) management systems and their common environment.

The measuring tool of this research (see section 4.3.4, p 189ff) allows a simple evaluation by using its basic matrix which can be deepened by the application of the differentiated tables containing all the elements of the SME model (SME, morality, management system, environment).

I could fill the gaps of the research questions as far as the sometimes undersized data allowed. Only gaps concerning the reasons for the regionally different growing of standardised management systems and the number of certificates hold by SMEs remain; however, these data do not concern the subject of my thesis.

The design of the SME model and measurement tool has been successfully tested by analysing the findings of this research and comparing with other research. The outcomes of chapter 4 provide to draw conclusions (see chapter 5), to answer every research question, and examine the hypotheses.

5. Conclusions

In this thesis I have investigated the specific position and relation of SMEs within society, the economy and the physical environment. By using a systemic approach I have focussed on different influencing elements on and within these companies – especially on the influence of (standardised) management systems on attitudes and behaviours of companies, management and staff. As a particular aspect, the importance of moral effects of these elements was examined. These reflections allowed – by using SSM of Checkland and Holwell (1998) – the design of an SME model for a better understanding of the SME world and a tool for measuring SME performance. I tested the model and the tool using a longitudinal survey with 27 companies located in Switzerland and Germany.

In this final chapter, I reflect on the research questions and hypotheses, examine the usability of the SME model and its measurement tool, detect gaps, and outline further possibilities for research.

5.1 Reflection and review of the research questions and hypotheses

The reflection of the main findings as well as the literature review in chapter 2, the development of the SME model and the corresponding measuring tool and the analysis of the findings in chapter 4 allow examination of the research questions and hypotheses.

5.1.1 Reflection on the research questions

1. What is typical for SMEs? Which are differences between SMEs and large companies?

The literature review enumerates characteristics of SMEs, often differing from large companies. SMEs are centred on the personality of the owner-manager or entrepreneur. Securing long-term survival or maintenance or cumulating of family assets is more important than increasing market value. SMEs are characterised by multi-tasking, often

combined with strength of innovation and a greater flexibility which can be used for opportunity. Procedures are often marked by informality, and are usually less visible, less formal or articulated, and less bureaucratic at the core. Personal relationships are salient; communication and coordination depend mainly on personal and often amicable relations. There is often a lack of personnel, and financial and time resources.

SMEs are the backbone of the market economy and one of the principal driving forces of economic development; they generate employment and contribute to alleviation of poverty. SMEs are vehicles for knowledge spillovers, particularly in terms of competition for new ideas and human capital embodied in knowledge workers, and they contribute significantly to the regional and local development.

Through my research some gaps are filled by information concerning the organisation and ownership of SMEs, SMEs and culture, and use of processes, technology and knowledge management within SMEs. Taking account of external issues, this research provides some inputs concerning market fluctuations; during a depression companies were stressed by a lack of orders, during growth by a lack of resources. The manufacturing companies profited from the economic boom, and the geographical range depended on market demands.

The survey showed a mix of organisational patterns embedded in a wide range of cultures and traditions; patterns often had an emphasis on team orientation, and the integration of people in leadership and decision making. Information patterns were dependant on culture, traditions, and pattern of organisation; communication was mainly concentrated on shop floor level or procedures. Between the two rounds of interviews changes in leadership occurred which were mainly related to the owner or top manager; four companies had new owners or top-managers who were intensively influencing the application of the management system.

Cash flows tended to increase between the two rounds. Most companies looked for a good balance between money from company or family and from banks; financing as a company problem decreased.

There is a long range convergence comparing the internal issues with other research (see 4.5.1.a., p 236f). Looking at the external issues, there are topics which have only been touched briefly by my research, because only one company had an intensive cross-border activity.

2. Which are specific issues of morality for and within SMEs?

Literature shows that moral activities concentrate on employees and their families, local communities, business partners, and the physical environment. Because ownership, management and control are usually concentrated in the same hands, the personal preference of top management and owners is the most influential factor.

In contrast to other surveys, my research also includes employed managers and staff and offers some information concerning the use of ethical standards. The industries differed concerning the weighting given to issues of morality; service companies tended more weight to social issues and manufacturing companies more weight to environmental issues. A majority of companies had defined values, and about half had a tendency to integrate morality into strategy. Small companies followed industry codes. Two thirds of companies with standardised systems regarded social elements as very important, and all companies with environmental systems considered social and environmental elements as decisive. However, moral attitudes and behaviours concentrated on internal issues, and only a third mentioned external activities.

The rating of 17 values was mainly related to tasks of interviewed persons (see 4.4.4.b ., p 216f). The companies were characterised by a mix of values guaranteeing private and company survival. The most impressive highlights were ‘being an example’, ‘private relations’, ‘justice, solidarity’ and ‘openness, respect’. The minimal rate for ‘maximise profit’ was not surprising, reflecting the triple bottom line values.

There were minimal differences between behaviours of owner-managers and employed managers; both influenced moral attitudes and behaviours. Managers and staff feel responsible for the improvement of quality, customer satisfaction and optimal internal

situations; they differ within the weighting values (managers prefer to long term or company, and staff short or private effects of values).

3. How are the guiding elements of and within SMEs characterised? Do they establish a company's management system – at least informally?

According to literature, the guiding of SMEs depends primarily on the morality, motivation, experiences, knowledge and resources of its owner (family) or top-manager. Especially in micro and small companies, planning, decision-making and corresponding activities depend on a few people meeting regularly. Documentation mainly concentrates on procedures and records. Visions and derived strategies are often not formalised and sometimes vague. SMEs having a standardised management system are forced to develop a policy and corresponding activities which may lead to formulated visions and strategies.

My research validates such views. The findings show that successful guiding of an SME is mainly related to people and not to management systems, but the use of (standardised) management systems intensifies the effects of leadership being supported by defined procedures, clear responsibilities, objectives and measures which are regularly controlled.

There is an intensive convergence between this and other research concerning the position of the owners and top-managers within SMEs. The outstanding highlight of my case studies was also the concentration on owner or top-manager as this people influenced moral activities, tried 'to be an example', and were responsible for external relations. Between the two rounds of interviews changes in leadership occurred which were mainly related to the owner or top manager; four companies received new owners or top-managers influencing intensively the application of the management system.

On the other hand, the range of implementation of management systems depended intensively on the motivation of staff. The case studies showed minimal differences between behaviours of owner-managers and employed managers; both groups were very much motivated towards the survival of the companies. Managers and staff felt

responsible for the improvement of quality, customer satisfaction, and optimal internal situations. Differences can be found within the weighting of values; managers tended towards long term or company interests while staff had shorter of private value associations.

4. Which are attributes of standardised management systems? Which are differences between the standards? Which of these systems are applied in SMEs, and with what success?

As literature shows, standardised management systems demand analysis of significant issues, a policy for their management (and corresponding planning, resources, activities and measuring), a documentation of requirements, procedures and records, and a regular review aimed at continuous improvement. The standards mainly concentrate on specific issues such as increasing moral attitudes and behaviours, optimising quality and customer relations, avoiding (or at least reducing) harm to life and physical environment, and improving sustainable performance. TQM and risk management models aim to integrate the different issues. The actual version of ISO 9001 (ISO 9001:2008) is nearer to TQM; especially as customer relations are intensified. It can be expected that relatively few SMEs use TQM standards like EFQM or MBNQA, although results of SME award winners demonstrate their successful implementation improving performance. In an increasing number of nation states companies are at least forced to introduce a (financial) risk management system (e.g. US SOX, Germany KonTraG); these activities are supported by financial trustees and the successful implementation of standardised management systems.

SMEs often use the implementation of standards as opportunity for organisational systemisation and improvement – mainly provoking improved productivity. However the implementation is often fragmentary, especially if it was forced by customers, regulatory authorities or holding companies.

My research underlines these views. The implementation of a standardised system improves organisational systemisation and increases productivity. However, there is often no effective circularity between analysis, policy, planning, activities and measuring. On the other hand, the results from round 2 of interviews showed that the aim of continuous improvement may lead to increasing circularity, integration of different issues and optimised performance.

The implementation of the quality management standard ISO 9001 within SMEs was sometimes externally forced by customers, head offices and governments, and sometimes this implementation provoked increased bureaucracy.

SMEs often implement an environmental management standard if their impact on the physical environment is significant; companies with an environmental system had their people integrated, and customer orientation and effectiveness are their main issues. A majority had an intensive interplay of the elements of the SME model. Leading, technically-orientated production companies tended to use the standard ISO 14001.

Legal requirements in Switzerland and Germany force companies to avoid harm. Therefore all the SMEs made an effort integrating occupational health and safety; some followed an industry standard, others developed their own system. The opportunity for successful implementation increases if reduced numbers of accidents are rewarded by insurers (e.g. in Switzerland).

There are minimal data concerning the use of moral standards by SMEs; however my research shows that SMEs quite often follow internal codes and industry requirements.

5. Which are the moral elements of standardised management systems? Which are used in SMEs, and to what success?

The reflections in chapter 2 showed that quality management is important for the survival of a company and the satisfaction of customers, but also to benefit people, communities,

society and the physical environment – terms which nowadays are mentioned as elements of CSR.

TQM and CSR share similar philosophical roots, and have a substantial overlap between elements of the two concepts. Both TQM and CSR ultimately result in the realisation of 'doing the right thing right'. CSR can be advanced more rapidly if it can be incorporated into existing standards and methodologies (particularly in relation to policy and strategy), rather than being viewed as a separate phenomenon.

There are parallels between the explicit CSR standards and commonly used management standards like ISO 9000 and ISO 14001. The eight quality management principles of ISO 9000 contain a number of moral elements; and the revision of 2009 intensified the moral elements within ISO 9004 and combined them with sustainability. The environmental management systems according to ISO 14001 and EMAS specify their moral issues (physical environment and health and safety of people); they aim to reduce or, if technically and economically possible, to avoid pollution and any harm against interested parties or stakeholders in- and outside the company – in the short and long term.

All occupational health and safety standards demand explicitly to reduce or, if technically and economically possible, to avoid any harm against employees. Established models of business excellence incorporate a social responsibility element and advocate management practices compatible with the ideals of CSR.

The controlling of management systems is an important issue to identify moral effects; therefore the auditing itself has to follow moral attitudes. The lists of audit principles as well as personal attributes of auditors within ISO 19011 aim explicitly to guarantee morality in auditing activities; the other elements of the auditing standard support this objective at least implicitly.

The literature review illustrated that SMEs often implement standards as a motive for organisational systemisation and improvement – mainly provoking improved performance. However the implementation is often sophisticated; there is no effective circularity between analysis, policy, planning, activities and measuring. Regarding the poor

implementation, it can be assumed that the influence of moral issues of the standards is not rigorous; except for users of health and safety and environmental standards. In numerous cases moral attitudes and behaviours of SMEs depend mainly on the individual backgrounds of management and staff and on the evolved company culture and values.

My research presents similar results. (Standardised) Management systems are used for structuring companies' processes and improving performance. Quite a lot of companies defined codes and strategies which include moral issues or use industry codes including moral elements. Quality is regarded as a value guaranteeing customer and supplier relations and thereby as a basis for long term success; however, quality depends intensively on the attitudes and behaviour of people.

At least implicitly, all management systems contain moral issues in their concepts (see 2.5.4, p 101ff). This research shows that management systems challenged the user and triggered their attitudes towards a more morally reflected behaviour. Companies using environmental and safety systems are guided to behave morally because moral issues are part of the standards.

At the time of round 2, an increasing number of companies showed an intensifying trend towards circularity facilitating the integration of morality into strategy and daily life.

About three quarters of the companies had a mission and related strategies More than half considered moral issues and quality leadership as part of their mission, followed by customer orientation and common survival.

Companies with standardised management systems had a value orientation, especially for optimal internal conditions. Half of the ISO 9001 companies showed an intensive interplay of the elements of the SME model and corresponding effects on performance as well as an integration of people, a third an intensive orientation towards physical environment. All companies using ISO 14001 had their people integrated, and customer orientation and effectiveness were their main issues. A majority had an intensive interplay of all elements.of the model.

6. What encourages the prosperous implementation of standardised management systems? What hinders it? Which are used in SMEs, with what success?

As literature shows, companies often have been forced by customers, industry or authorities to implement standardised management systems; the external pressure for the implementation of systems was especially intensive in production. The aim of these users was merely to follow requirements rather than utilise the standards as comprehensive tools providing performance. These and other influences like owner and leadership, company culture, industry, economic and political situation challenged the substantial importance of the standards.

SMEs use specific standards for quality, environmental and occupational health and safety improvement. They are often sceptical about the benefits, cost savings and customer rewards associated with standardised management systems (intensive need of resources like time, skills, finance and more paperwork – without improving productivity and motivation of employees). In relation to environmental systems, SMEs are largely ill-informed about managing and possible benefits and do not regard the environment as their core business; market incentives from either the public or private sector are insufficient to provoke implementation. However, many SMEs – especially from service industry – apply the standards successfully optimising internal issues as well as their external relations to customers and other stakeholders.

My survey shows scepticism of some companies against implementation of standards. People fear complicated procedures and bureaucracy; three certified companies did not renew their certificates because of the superficial implementation of the systems. One construction company had implemented its standardised management system at time of round 1; at round 2 it only was using the shop floor procedures, and all issues of circularity and people integration disappeared. Others having nearly no structures at the time of round 1 were defining processes and partly following industry standards (e.g. of car or electronic manufacturers). Companies, which successfully implemented the standards, used them as a tool for continuous improvement, integration, ongoing circularity and

optimising performance; and staff's acceptance and handling of the systems increased between the two rounds.

7. How far do SMEs combine implementation and continuous improvement of standardised management systems with morality? What encourages and what hinders it?

According to literature, environmental and OHS management standards explicitly include moral issues by principle to avoid or minimise harm; quality management standards at least implicitly support moral attitudes and behaviours. However, there are minimal findings concerning the interplay of standardised management systems and morality within the large literature review. Except for the large literature concerning the use of environment management standards, the number of research findings is too limited to answer the question concerning the improvement of morality.

The use of environmental management standards provokes positive outcomes in terms of improved environmental performance, assured legal compliance and energy and material efficiencies. Staff's training improves awareness of environmental issues and morality, increases responsibility and accountability. Sørensen's (2007) showed that private-owned SMEs have fewer resources for OHS work and with that a higher risk of severe and fatal accidents. One of the SMEs analysed by Enderle (2004) uses a quality management standard which has had positive effects on moral attitudes and behaviour.

The survey of my research aimed to enlarge the basis of information. Already at the time of round 1 some companies had mission statements as part of their standardised management systems which included moral issues (e.g. concerning staff and their families, local community, physical environment). This trend was intensified during round 2, and was accompanied by an increasing integration of people; this may be partly related to the reflecting on the feedbacks after round 1. However, one production company in particular had an impressive mission statement; it was designed by a highly motivated moral owner during round 1 (including processes for TQM and BSC), although he was not

able to convince his managers and staff to implement and use the mission statement successfully. Consequently, the survey showed that the integration of morality into management systems is intensively dependant on the personal involvement and deployment of managers and staff.

8. What is the relation of SMEs to their environment? How do SMEs, morality and (standardised) management systems act in their common environment?

According to the reflection in chapter 2, owners, managers and employees are within the 'company' and – having system spanning character – at the same time elements of its environment. The effects of this condition are especially vital for SMEs and at least partly explain the often obvious social responsibility of SME owners and top-managers who can be influenced by local and regional moral traditions.

As well as people, morality and (standardised) management systems have a system spanning character (see Venn diagram, Figure 4.5, p 184). The morality of an SME is deeply influenced by the owners and managers; they all have experiences which form their morality and they bring this into the company. Management systems are formed within the company; this forming is influenced by external ideas and experiences, especially if a SME applies the requirements of an international standard.

SMEs are a fundamental pillar of a state by their direct impact through job creation, education and reducing poverty as well as an indirect impact through taxation of their profits and wages, etc. Thus, they have an intensive share in social welfare. However, the influences of government and authorities are increasing, and the control of economic areas by legislation is escalating and quite often changing – in opposition to the world-wide demand to promote SMEs.

The developing market challenges SMEs to enlarge their activities regionally, nationally and even globally; this development is related to the industries the SMEs are belonging to.

Expanding geographical radius demands additional methodologies guaranteeing product and service quality as an alternative to personal relations to local customers and suppliers. International regulations concerning product and services requirements as well as their production management and processes increasingly have filled this gap.

While little is known about the actual total impact of SMEs on the physical environment, even less is known about the burdens of individual SMEs. However, if a SME is forced to change by legislation or is confronted with severe environmental aspects, it implements correspondingly activities. Environment friendly efforts of companies are supported by international institutions and national legislation.

In my research, there was a high sensibility towards the challenges of the enviroment. People mentioned a large diversity of problems and fears concerning society, politics, economy and physical environment; a great number also spoke about their related activities. The companies' moral responsibility towards society, however, was relatively small (offering jobs, events for the community, some activities in associations and politics, few sponsoring), and towards the physical enviroment a matter of course. In round 1 the use of standards was often a requirement of customers or a market instrument, while in round 2 the effects of the standards were internal or customer orientated; companies applying ISO 14001 had a high sensitisation towards the physical environment.

My survey is characterised by a high number of companies being in leading market position; other research contain minimal information concerning market position. More than half of the companies were innovative in products and processes; innovations were part of strategy and objectives; a few companies were merely reacting to market changes. All companies have been market orientated. The majority were regionally active; the geographical radius was enlarged because of the market pressure. About two thirds planed their customer relations. Most companies lived a partnership with their suppliers. The relations to competitors became less stressed between the two rounds because of the economic boom.

All companies analysed fellt responsible towards physical environment and fulfilled at least the legal requirements; environmental questions have been discussed as a matter of course. Nearly half integrated environmental activities into strategy.

9. Which model describes the relations and the dynamic interplay of SMEs, morality, (standardised) management systems and is able to explain comprehensively the complex attitudes and behaviours of SMEs? Which issue influences another issue and why? How can these influences be measured?

SMEs are relatively multifaceted systems consisting of managers and staff using information, equipment and materials to produce services and products. They are embedded in a complex environment, composed of economic issues, society, and physical environment. SMEs are influenced by these environmental issues; and they can only organise themselves, develop and survive by optimally dealing with their environment, thereby discovering and using its 'spaces of freedom' or influence capabilities.

The literature review revealed little research examining the complexity and interplay of different influences. Therefore it made sense to design a comprehensive SME model describing influences of morality and management system and common environment on sustainable performance of SMEs.

I developed a SME model applying these influences and designed a corresponding measurement tool; both were tested using data from the 27 companies.

I designed the model by applying the 'Soft Systems Methodology SMM' of Checkland and Holwell (1998); in a second step I adjusted the model by using parts of 'Critical System Heuristics CSH' of Ulrich, W. and Reynolds (2010). The model is characterised by the dynamic influences interplay of morality, (standardised) management system and common environment on the sustainable performance of SMEs (see Figure 4.4, p 183). A Venn diagram (see Figure 4.5, p 184) underlines the system spanning character of the elements.

Contemporary system thinking (Jackson 2000) seems best suited to reflect the interplay considering issues of CSR (morality) and TQM (management system), because this interplay calls for an optimal mix of foundation, openness, responsibility, and effectiveness.

Simply said, important issues of the SME model which integrate CSR and TQM are

1. Attitudes and behaviours of owners, top-managers, and employees – based on an ongoing interplay of their moralities with a view to common values;
2. Mission, strategies, traditions – based on common values and on consideration of internal and external stakeholders, embedded in company culture;
3. Management systems – tools supporting long-term survival and containing moral issues;
4. Intensive relations to the different elements of the environment and openness for change.

The measuring tool consists of a basic matrix and the specifications using differentiated tables. The basic matrix describes different states of SMEs; the two parameters 'Fit with Effectiveness' and 'Fit with Strategy' present the main issues of the elements of the SME model to be examined and illustrate possible degrees of performance of overlapping and dynamic interplay. For every quadrant, measurable specifications in large tables have been designed – No concepts / Be at markets mercy; Shop floor / Process optimisation; External pressure / Image; Embedded circularity / Integration. The application of the differentiated tables provides a comprehensive measuring of an SME by considering a large palette of variables.

Outstanding topic from this research is the comprehensive view of SMEs. It benefits from the SME model based on the dynamic interplay and the combined effects on performance of morality and management systems and the environment as well as the examination using a longitudinal survey with a detailed questionnaire and two rounds of interviews.

Another important distinguishing feature is the integration of staff across all hierarchical levels and different departments.

The findings of my survey show that there was an increasing tendency for integration; however, the management systems concentrated on shop floor and process level. Only a third had planned and integrated circular systems aimed at comprehensiveness and sustainability.

The results demonstrate that attitudes and behaviours of and with SMEs are strongly related to the personalities of owner/top managers and people, and hence their moralities. On the other hand SMEs are embedded in a continually changing environment which forces permanent adaptation. (Standardised) management systems support the integration of morality, leadership, people and various stakeholders; management systems demonstrate generally more influence towards effectiveness and sustainable performance as well as embedded circularity and integration.

The application of a functional system approach is difficult to imagine within a dynamic interplay of the elements and their effects; interpretative or postmodern approaches are more appropriate. However, standardised management systems are objective and control orientated; they demand at least a certain degree of functionalism within companies with an profound integration of morality and an openness to the challenges of a changing environment. That is why the contemporary system thinking according to Jackson (2000) is suited to answer “to the complexity and heterogeneity of the problem situation addressed” (p. 393) which is characteristic of the dynamic interplay and its sustainable effects according to the SME model. Contemporary system thinking uses the uniqueness of functionalist, interpretive, emancipatory and postmodern theoretical rationales, and draws upon them to improve real-world situations.

The nine research questions have been satisfyingly answered; and nearly all gaps from literature review have been filled. The assessment of the questions allows examination of the research hypotheses.

5.1.2 Reflections of research hypotheses

1. The implementation and use of a standardised management system is influenced by its original intention (e.g. ISO 9000: [shop floor] processes to guarantee product quality; ISO 14001: system to avoid harm and to guarantee sustainability). Therefore it may hinder a comprehensive implementation of the system.

The literature review demonstrates intensively that many SMEs using the quality management series ISO 9000 still act according to the spirit of the version of 1994; their activities concentrate on optimising shop floor procedures, and the commitment of top management often focuses on daily activities having minimal resources for long-term planning. Frequently, companies apply the two cybernetic circles of the version 2000 sophisticated or even not; however, the use of the revised version of 2000 enlarged the view of a number of companies towards TQM. Many SMEs using ISO 14001 see improving the working conditions within the firm as the most important reason for investing in environmental issues, followed by the reasons of satisfying legislation, serving moral duty and serving order and cleanliness. However, many companies do not even have a strategic policy or concept.

The findings of my research also show that companies primarily concentrate on the optimisation of shop floor effects and the interrelated processes and procedures. However, surely half of all certified companies were on the way to a comprehensive and circular use of their systems with integrated controlling allowing an on-going optimisation.

Hypothesis 1 is not verified by this research. This may relate to the specific mixture of the sample (companies being ready for two rounds of interviews with number of interviewees) and the later date of interviews in comparison with other research.

2. The more SMEs implement and use the dynamic interplay of management systems and moral elements in relation to their environment the more intensive are the effects – especially in the field of integrating missions, strategies, leadership and processes – as a basis for a long term survival.

The reflections concerning the design of the SME model of this research depend on the dynamic interplay of the elements providing sustainable performance, attitudes and behaviours of owners, top-managers, employees, mission, strategies, and traditions. People within a SME develop and share the same values embedded in and supported by a living culture. These values are commonly translated into a corresponding vision and related strategies. The use of appropriate managed systems containing iterative methodologies for controlling and continuous improving supports a sustainable translation into action (moral behaviours in business and towards stakeholders) and as a consequence provides performance.

TQM is a comprehensive model to integrate the elements. TQM shares with CSR similar philosophical roots. There is a substantial overlap between the elements of the two concepts and the ultimate expected outcome shows significant similarities. Ideally the guiding elements are covering one another, and the grouping of CSR and TQM allows the conclusion that the total correspondence of the elements promises (by a dynamic and circular integration) a maximum of effectiveness, efficiency and sustainability of a company.

Publications of different SME case studies and the case studies of my sample illustrate that the ideal correspondence of the elements is rarely attained in reality; on the other hand, a remarkable number of companies within my survey had partly realised an overlapping and interplay (see Figure 4.8, p 233).

To examine hypothesis 2, I calculated all relevant variables of the survey concerning the correlations between management systems as well as moral elements and mission,

strategies and leadership. There are no significant correlations for explicit moral values. However, I found significant positive correlations for values containing moral issues:

1. Company systems and strategies correlate significantly positive to ‘optimal internal conditions’ and ‘flexible, independent’;
2. Culture, ISO 9001 and strategies to ‘job security’ and ‘customer satisfaction’;
3. Integrative culture, integrative systems and strategy to ‘optimal internal conditions’.

Additionally, many findings of this research support the hypothesis. The two rounds of interviews show that half of the companies successfully used their management systems (according to standards or in-house developed) and were on the way to continuous improvement by becoming more efficient, as well as more effective, by integrating missions, strategies, leadership and processes; the results show that at least some companies established a basis for long term sustainable performance by this behaviour. However, there were other companies experiencing reduced success because of concentrating on shop floor improvements or by being at the market’s mercy.

The optimising effects of moral attitudes and behaviour are also affirmed. In some companies (especially in SMEs with environmental management systems) morality became increasingly part of missions and strategies, and activities were submitted (as well as other managerial issues) to on-going control aiming for continuous improvement. However, personal moral attitudes and behaviour of management and staff were the decisive factors for developing moral activities and the integration of moral issues into missions and strategies.

These reflections allow the conclusion that hypothesis 2 is verified.

3. The more SMEs implement and use management systems in relation to their environment the more intensive they integrate vision, strategies, leadership and processes as well as morality and alter to companies with a long term survival. However, the main drivers of moral elements are the original attitudes and behaviours of the principal and collaborators.

As already explained in the comment to hypothesis 2, an intensive overlapping of the elements ‘people and their moralities’, ‘mission, strategies and traditions – embedded in company culture’ and ‘management systems’ supports their dynamic interplay towards their long-term sustainable performance in a changing environment. Literature review demonstrates that even if there is certain overlapping, moral attitude and behaviours of SMEs are mainly influenced by the individual milieu of top-managers and employees.

For my research, the same arguments can be formulated as in hypothesis 1 and 2. In some companies (especially in SMEs with environmental management systems) morality became increasingly part of missions and strategies, and activities were submitted with all other managerial issues to an on-going controlling aiming continuous improvement. Certainly half of all certified companies were on the way to a comprehensive and circular use of their systems with integrated controlling allowing for an on-going optimisation. However, personal moral attitudes and behaviour of management and staff were the decisive factors for moral activities and the integration of moral issues into missions and strategies.

These reflections allow the conclusion that hypothesis 3 is also valid.

5.2 Conclusions and academic contribution

The combination of the examination of the main findings of literature and my research allowed examining research questions and hypotheses. In this section I discuss the contribution of the SME model and the measurement tool to academia, practitioners and public.

By that I revert to the reflections in chapters 3 and 4 designing the SME model. I regarded the ‘Soft Systems Methodology SSM’ of Checkland and Holwell (1998) as the most suited for the design of the conceptual SME model (see Figure 4.4, p. 183). The model can be used by academia, consultants, and appropriate persons in an SME or even in public discussion. I fill a substantial gap in existing research by reflecting and integrating different issues influencing the sustainable performance of SMEs.

The inputs of the model (Figure 4.4) are the three elements management system, morality and the environment. They relate to the sustainable performance of the SME. The output is the optimised sustainable performance of the SME basing on the ongoing interplay of optimised knowledge, service and product, and stakeholder satisfaction.

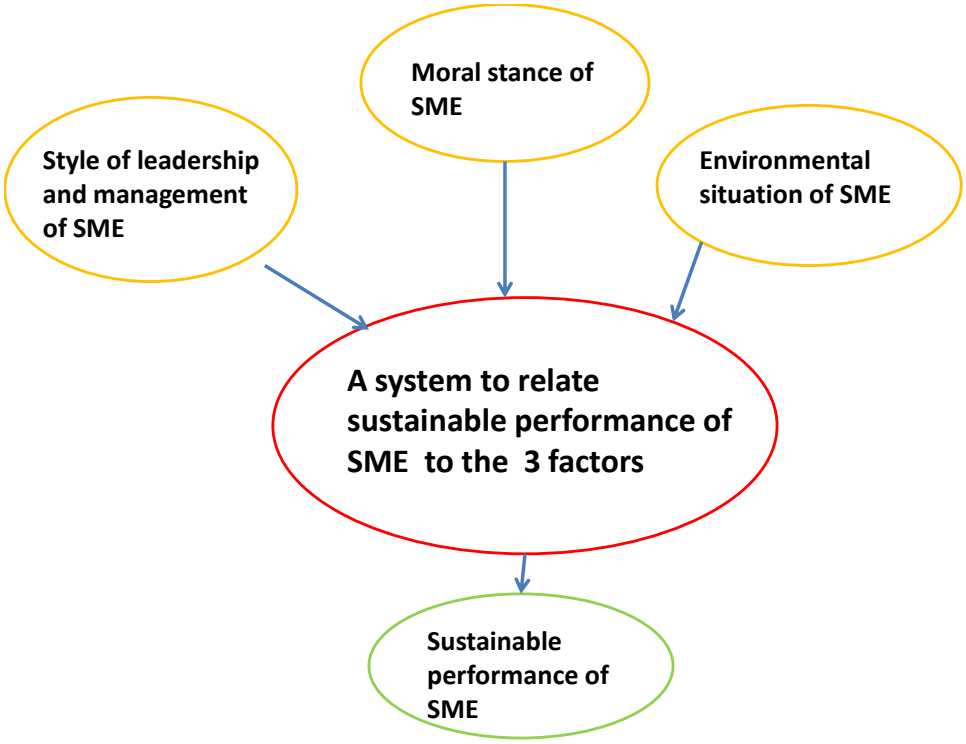


Figure 4.4: Conceptual SME model 2 of this research.

A test of the model has been carried out by the practical use with the results of my survey (see 4.4.9, p 232ff). The model illustrates specifications of the elements, their interplay and reciprocal influencing of effects as well as the ability to show changes in performance; the issue of time opens the view for possible challenges in improvements within companies, morality and management systems within their common environment.

The general matrix of the measurement tool allows companies a portrait of their actual situation and supports areas of improvement. I have verified this during my feedback with companies and as a consultant with different SMEs.

The the relevance of th SME model and the measurement tool is especially highlighed by my research. The weight of a survey depends intensively on the validation of its data. In

comparison with other research the number of analysed companies (27) in my survey was high; and the integration of people of all hierarchical levels provided a somewhat presentative sample of interviewees (212). There was also a relatively equal distribution of sizes and industries as well as companies applying and not applying standards.

The elements of the SME model are important for companies' performance (SME, management system, morality and environment). The examination of all variables with significant correlations confirmed this statement by showing four clusters of variables: company (company, company problems, strategy, and culture), communication (communication and information), morality (morality, social responsibility, specific values, and private problems) and management (management systems, quality, and environment). The review of the main highlights of the case studies showed a comparable pattern; company (forms of leadership, management of resources), morality (relations to employees, public responsibility) and environment (relations to customers and physical environment) were prominent. Outstanding were the concentration on top-manger and a strong tendency for integration of people combined with a family culture.

All elements of the SME model have been influenced by changes. The positive evaluation of the future of the companies improved between the two rounds. The integration and co-responsibility of people increased or was optimised in half of the companies. Leadership showed two patterns: a quarter of the companies tended to more patriarchal or hierarchical behaviour and stringent procedures or centralisation, while nearly a third changed from patronal attitudes to partnership. Minorities were hindered in their development by time pressures, and reacted by becoming more sensitive towards physical environment and expanding and making acquisitions.

Especially productive SMEs and service companies working under competing market conditions were challenged by periods of economic depression and growth. Both times were stressing; during economic depression managers were looking for new orders and staff were afraid for their personal future; during periods of growth managers were forced to get enough resources (workforce, finance, material). The four service-care companies

were less influenced by time; however, reduced financial resources forced them to optimise their procedures and lead them towards functionalist systems with objectives and controls.

Nearly half of the companies showed an intensive interplay of SME, management systems, morality, and environment; the majority of these were production companies. A third of all had interplay, but no systematic integration or formalised system. Nearly a quarter were characterised by intensive motivation and integration of employees; the majority of these were German companies. Nearly a quarter of the companies intensified their mission towards the physical environment. On the other hand, nearly a quarter of the all companies made fragmentary use of their management system, had problems with leadership and integration of staff, and suffered from increased pressure from competition.

a. Academia

The large literature review illustrated that authors mainly concentrate on specific issues, and that a comprehensive approach and model are missing. The SME model of my research fills this gap. Reflection on the research questions and the hypotheses intensified the idea that a comprehensive model was needed to explain the complexity of SMEs. As mentioned in the finding back to the real world (iii – 5.) of the SSM (4.3.1, p 184), the model allows a transsubject research and allows answers on comprehensive real world problems of SMEs. These can be analysed by a research containing the issues of the model.

In my thesis I successfully tested the transsubject character of the SME model through the use of the measurement tool. The specifications allowed positioning the companies within the basic matrix. To use and test the measurement tool, I validated the comprehensive real world problems of every company with the evaluation table (see Table 3.5, p 152) following the specifications (see Tables 4.1, 4.2, 4.3, p 199ff) . In a second step the results were positioned in the basic matrix.

I had the chance to publish an article presenting my research with the SME measuring tool and findings in the volume of Spence and Painter-Morland (2010) concerning a global

view of SMEs and ethics. Actually I am in contact with the publishers of the ASQ Quality Management Journal concerning a presentation of my SME model especially discussing system thinking, management systems and an adapted methodology for the application of the measurement tool.

b. Practitioners

As mentioned in the finding back to the real world (iii – 6. and 7.) of the SSM (4.3, p 184f), the application of the model permits to recognise the functioning of an individual company; and real world problems can be solved appropriate to the specific situation of the company and by that the performance of the SME can be improved. Alike the measuring tool supports the outcomes of the SME model and helps the user to define and implement issues of improvement.

The findings of this research showed that issues of the SME model cover the complexity of companies. The measuring tool allows a simple evaluation through the use of its basic matrix which can be supported by the application of the differentiated tables containing the complexity of SMEs. The results become more significant if not only managers, but also staffs, are integrated in the investigation.

In my research, I applied the basic matrix within feedback meetings with company managements. Actually, I use the matrix in my consulting with SMEs, discussing possibilities for continuous improvement.

c. Public

The public discussion of the SME model helps to get a common insight into the complexity of SMEs – not only concentrating on economical and legal issues of SMEs, but also on their issues related to society and physical environment as well as their guiding issues as morality and management systems. The comprehensive approach of the SME model directs one from the use of a constricted functionalist system approach to an outsized application of a contemporary system thinking seen as a meta-methodology understanding, respecting and using the uniqueness of functionalist, interpretive,

emancipatory and postmodern theoretical rationales, and drawing upon them to improve real-world situations (Jackson 2000).

A practical public profit of the SME model is an expanded application of the basic matrix; a simple electronic questionnaire on a public platform allows benchmarking the situations and performance of SMEs. Actually I am discussing the project with a possible partner.

The Global Ethics Forum of 2011 in Geneva listed a number of recommendations concerning SMEs and Ethics to be discussed in future meetings. For the next Forum, end of June 2012, I got the chance to prepare an interview round with managers of SMEs discussing these questions:

1. Which are the impacts of your company on society and environment (positive & negative)?
2. How can you influence and manage these impacts?
3. Which are your experiences with ethical behaviours – internally in your company and externally as part of your relationships and interaction with other stakeholders?
4. Tell us specific cases when you have made challenging ethical business decisions and how did they influence the business outcomes?
5. What are the basic core ethical principles that you apply in your decision making concerning management, operations and governance of your company as well as relationships with your stakeholders?
6. Which are the backgrounds of your ethical attitudes? How did you come up with the formulation of the above ethical principles?
7. What provides and what hinders ethical attitudes and behaviours?
8. Which are limits of your ethical behaviours?
9. Which are your plans for future? How do you plan to further apply business ethics as part of the development of your company?
10. Which recommendations should be given to the Global Ethics Forum – how better to respond to company's needs concerning business ethics and CSR, what questions should be discussed further, and what topics should be addressed in next GEF?

In the introduction part I will present the main results of my research. The results of the meeting will be published by the Globethics.net.

5.3 Future possibilities for research

The discussing of main findings, research questions and hypotheses as well as the applicability of the SME model and the measurement tool asks for describing gaps within my research.

Literature review (Chapter 2) showed these gaps in research:

Examining internal issues of SMEs, I found minimal data concerning organisation and ownership, SMEs and culture, and implementation of processes, technology and knowledge management; yet to be discussed are the weighting of the influences of owner-managers and the differences between that of owner-managers and employed managers, as well as the effects of the replacement of managers. Focussed on external issues, I did not notice or examine any research concerning market fluctuations on SMEs.

Another gap was the minimal knowledge about the conscious use of ethical standards within SMEs. Additional knowledge is needed concerning the influence of (standardised) management systems on the definition of policy and corresponding activities.

There are number of gaps in research concerning company designed management systems, number of certified SMEs, reasons for the implementation of standardised management systems in specific regions, problems with third party auditing, and internal effects of standardised management systems.

In my extensive research I have not been able to find any research concerning the influence of management systems on morality of SMEs, behaviours of auditors, or the influence of virtues on management systems. And additional research may deepen the knowledge concerning the implementation of standardised management systems. There are also minimal findings concerning the interplay of SMEs, standardised management systems and morality within their common environment. And finally, the literature does

analyse the influence of individual elements, but presents no comprehensive description or model of their interplay and there is no measurement tool concerned with this.

I could fill – at least partly – nearly all of the gaps detected in the literature (see answering research questions 5.1.1, p 249ff) – except some questions concerning the certification of standards.

The outstanding issue of this research is the comprehensive view of SMEs. It profits from the SME model based on the influences of morality, and management systems and environment on SMEs and their sustainable performance, and the examination through the use of a longitudinal survey with a detailed questionnaire and two rounds of interviews. Another important distinguishing topic was the integration of staff across all hierarchical levels and different departments. However, the methodology of the longitudinal survey embodies the main weakness of this research; the willingness to participate was reduced because of the needs of time and effort of the companies, which possibly provoked one-sidedness and thereby constrained validity of findings.

There is minimal research beside this concerning different issues of SMEs, morality and management systems as well as their dynamic interplay in a common environment, but quite lot discussing SMEs, morality and standardised management systems.

Therefore the unique methodologies and experiences of this research as well as its SME model and measurement tool should be used for further research. A greater number of SMEs from different countries need to be integrated as well as large companies (as control sample). This will allow more valid conclusions – especially if people of different hierarchical levels and departments are taken in account.

For a further research and practical use of the specifications, the questionnaire has to be reviewed and directly related to the tables. On the other hand, the use of the evaluation table and the specifications is time-consuming, especially if a larger community of people is involved; however, the results become significant and allow more quantitative

conclusions. For future successful use, the specifications have to be aggregated with a simpler questionnaire.

An expanded application of the basic matrix provides the use of the SME model; a simple electronic questionnaire on an internet platform allows describing the situations and performance of SMEs as well as a benchmarking. Actually I am discussing the project with a possible partner.

Other focus of research could be the analysis of reports of certification audits using the basic matrix getting information concerning the comprehensiveness of the application of standardised management systems; a possible problem would be the accessibility of data (data protection).

5.4 Conclusions

As pointed out in the introductory chapter of this thesis, most economies are characterised by a large number of SMEs that represent over 98% of companies, employ about two thirds of the workforce, and generate a large share of new jobs. Given the current global economic position, the roles of SMEs are increasingly important and hopefully. My research may contribute to the understanding of the way they operate and thereby, in a small way, to their continued success.

I discussed the specific positions and relations of SMEs within the overall context of business, economy, society and physical environment. By applying system thinking approaches, I concentrated on the triggering elements of and within these companies, especially on the influence of their morality, management systems and environment. Parallel to the accumulation of knowledge my inherent understanding has been continually improved with the aim of designing a model which allows describing the theoretical background of the dynamic interplay of SMEs, morality and (standardised) management models within their environments. The aim was to design a comprehensive, SME-orientated model by specifying every subsystem. The discussion of these influencing elements demonstrated that a comprehensive SME model and a corresponding

measurement tool are needed to detect issues for effective continuous improvement and sustainable performance of SMEs.

The model – designed by applying SSM of Checkland and Holwell (1998) – demonstrates the influences of the dynamic interplay of moral, management system and environmental issues on the sustainable performance of SMEs. The specific measurement tool checks the model and measures the effective performance a company. I examined both within the results of a longitudinal survey with 27 companies and over two hundred interviewees from two countries.

The model and the measurement tool can be applied as a comprehensive analysis system for companies thereby serving as a basis for widespread continuous improvement of performance containing vision, strategies, and activities as well as financial control – built on sustainable philosophies: CSR and TQM and applying approaches of system thinking.

The literature review and the longitudinal survey illustrate that the effects of the standardised management systems often concentrate on optimisation of (shop floor) processes. Additionally my survey shows that quite a lot of companies are on the way to a circular integration of people and processes. This impact is in many cases not linked to the system used, but based on moral attitudes and behaviour of owners or top-managers and employees.

Exceptions are SMEs using an environmental management system; they tend to be more effective than companies without the environmental standard, and are also characterised by more embedded circularity, integration and a successful dynamic interplay of the elements morality, standardised management system and environment. This may be related to the moral issues and the basic spiral circular conception within the environmental management standard ISO 14001.

On reflection I believe that the process of my research and the findings could have been improved, if I had designed a clear concept of the research procedure at an early stage – consequently using more effectively the approach of system thinking. An early building of

an SME model describing possible influences on the performance of SMES would have been the basis of a measurement tool; and I could have derived a questionnaire using the specifications of model and tool. The combination of these issues would have been a tool for an easier process of finding participating companies. Finally, this approach would have helped to a more effective finalising of the research project.

By applying system thinking approaches in the design of the model and the measurement tool, I believe that I have filled the gap of a so-far missing transsubject research concerning SMEs, morality, and (standardised) management systems within their changing environment.

6. Annexes

6. 1 Ethical standards – short descriptions

The UN Global Compact (2008) is a multi-stakeholder voluntary initiative that UN Secretary-General Kofi Annan spearheaded in 1999. The GC principles are based on the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the Rio Principles of Environment and Development, and the UN Convention Against Corruption.

In 2003, the UN Norms (United Nations Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights) were put together by an expert body of the UN Sub-Commission on the Promotion and Protection of Human Rights and set out in a single, succinct statement, and were a coherent and comprehensive list of the human rights obligations of companies (UN 2004). They do not create new legal obligations, but simply explain how existing obligations under international law are relevant to companies and their global operations.

The ILO Declaration on Fundamental Principles and Rights at Work (IOE 2006) establishes four 'core' labour standards – freedom of association and the effective recognition of the right to collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour, and the elimination of discrimination in respect of employment and occupation.

The key component of the OECD Norms (edited by the OECD DAC Network on Development Evaluation, OECD 2010) is to develop internationally agreed norms and standards to strengthen evaluation policy and practice. Shared standards contribute to harmonised approaches in line with the commitments of the Paris Declaration on Aid Effectiveness. The body of norms and standards is based on experience, and evolves over time to fit the changing aid environment. The principles serve as an international reference point, guiding efforts to improve development results through high quality evaluation.

The Global Reporting Initiative GRI (Global Reporting Initiative 2004) is a multi-stakeholder process and institution that has set out to develop and promote a globally

applicable framework for reporting on sustainability issues (aspects of an organization's economic, environmental and social performance). In 2004 a specific guide was developed for SMEs.

The AccountAbility AA 1000 Assurance Standard (AccountAbility 2003) addresses all assurance aspects of an organization's disclosure and performance. It integrates stakeholder engagement into a cycle of planning, auditing, accounting, reporting and assurance.

The Sarbanes-Oxley (SOX), Act of 2002 (H.R. 3763 2002), is the U.S. government's response to the financial scandals at Enron, WorldCom, Tyco and other large companies under the purview of the Securities and Exchange Commission (SEC).

6.2 Case studies

The case studies follow the structure designed in 3 Methodologies (Table 3.5, p 152).

Size: The numbers in brackets show number of employees at round 1 and round 2 (e.g. small (45) / medium (55); if only one number is mentioned, the size has not changed.

The evaluation of 'Morality: Specifications' basis on the list 'B – Rating of values' of the questionnaire (see 6.4, p 389). The interviewed persons had 25 points to rate 17 values from 0 to 5. Only values with an arithmetic mean of 1.8 and higher are mentioned.

Case 1

Country: Switzerland

Size: small (45) → medium (55) No of interviewed: 9/9

Industry: Production: building construction/plaster/rebuilding

Foundation/history: founded in 1932 by an Italian ancestor of the wife of owner – 1995 part of a holding – 2002 takeover by the actual owner – fractional takeover of previous 2 competitors

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – 100 % actual owner	Ltd – 100 % actual owner	None	
Leadership, decisions making	Some partnership	Some partnership	Increasing integration of	Owner is estimated –

	Owner – partly in contact with managers	Owner – increasing integration of managers	managers	some managers not
People	Mainly specialists – new staff from competitor	Increasing number of young specialists	Good image intensifies attractiveness	Good image
Patterns of organisation	Divisions – diversification Central administration and logistics – Function orientated	Division – specialised staff Central administration and logistics – Function orientated	Growth asks for specialised staff	Final coordination owner-centred
Culture/traditions	CI – events – personal relations – regular info-meetings	CI – events – personal relations – regular info-meetings	CI, personal relations and integration of supervisors intensified	People feel well
Values: ideal boss, employee	B: example, co-operative, honest E: loyal, interested	B: successful, recognised, self-assurance E: loyal, motivated, understanding	B: increased external orientation E: increased co-responsibility	Result of growing – tendency to people integration
Communication	Good personal relations Job info flow	Job oriented relations intensified	Decisions by managers increased	Result of growing and boom
Finance: Turnover, cash flow, profit	T: increasing CF: stagnation P: use for investments	T: doubled CF: stagnation P: use for investments	Building construction: CF decreasing	Danger of overcapacity in collapse
Resources: people, finance, time	P: enough F: mainly own T: not enough leisure time	P: enough F: mainly own T: boom	Boom reduces capacities	
Society: Public, sponsoring	Regional parliament – sponsoring – employees and their families	Regional parliament – sponsoring – employees and their families	Social responsibility for employees very important	Employees recognise and sustain social activities
Society: Legislation	Environment, social, industry	Environment, social, industry	Environmental requirements difficult to translate	
Society: Associations	Industry – regional president	Industry – regional president	none	
Economy: Innovation, agility, PR	I: processes, material A: employees PR: advertisements	I: processes, material A: employees PR: advertisements, customers	I: increasing efficiency PR: controlling by customer feedbacks	
Economy: Market position, geographical range	MP: 1st polyvalence, 1st facades, 2nd size GR: region	MP: 1st polyvalence, 1st facades, 2nd size GR: region	Very good image – by young employees preferred	
Economy: Customers – competitors	Mainly private – few public Personal relations	Mainly private Personal relations Increasing	Public reduced – regular feedbacks Increasing	Increased pressure by nationwide companies

	Increasing competition	competitions (nationwide)	competitions (nationwide)	
Economy: Suppliers, partners	2 or 3 for material – quality as measure	2 or 3 for material – quality as measure	None	
Economy: Financing	Merely private	Merely private	None	
Physical Environment: Sustainability	Recycling of material, use of petrol, poisons – material externally defined	Recycling of material, use of petrol, poisons – material externally defined	High environmental conscience of employees	Definition of materials often depending on price – little influence on customers
Morality: Motivation	Personality of owner and people – some issues in strategy	Personality of owner and people – some issues in strategy	Higher identification of people	
Morality: Specifications	Balance of external and internal values – family/leisure (3.0), to be an example (2.9), flexible (2.1), justice (2.0)	Balance of external and internal values – to be an example (3.4), family / leisure (2.6), flexible (2.6), justice (2.4)	To be an example became more important	Not enough time for family/leisure
Morality: Sustainability, codification	1st social responsibility – ecology and economy are important Nationwide contracts Matrix of success	1st financial success – followed by social responsibility Nationwide contracts Matrix of success	Financial success became more important Integration in management training	Increasing economical pressure
Mgmt-System: Mission/strategies, statement	Remain 1st in polyvalence Customer, employee satisfaction	Remain 1st in polyvalence Qualitative optimisation Customer satisfaction Employee motivation	Integration of young employees	Clear system is missing – some steps towards BSC
Mgmt-System: Range, formality	ISO 9001 – ISO 14001 – as part of holding – superficial - OHS	Clear shop floor procedures – no re-certification – OHS	Procedures known – methodology for planning	No formalised link between shop floor activities and long-term mgmt
Mgmt-System: Q: definition, -methods -praxis	Customer orientation – consciousness of employees decisive	Customer orientation – individual behaviours, organisation, use of materials	Application of procedures and individual behaviours intensified	
Mgmt-System: Controlling, risk mgmt	Use of financial data – matrix of market success	Data insufficient – activities towards BSC	Need for larger palette of data	Not enough resources for consequent use
Mgmt-System: Knowledge mgmt	Planned integration of new employees	Trainings for specialists and supervisors	Intensified support of young collaborators	Commitment of owner
Mgmt-System: Comprehensiveness	Matrix of market success and shop floor	Revision of existing elements	Increased integration of employees and	Concentration on owner – increasing

	procedures		managers	integration of people

Highlights
- Concentration on owner – increasing integration of people

Weaknesses
- No clear system for strategy design – some steps towards BSC
- No formalised link between shop floor activities and long-term management
- Not enough resources for consequent use of measuring data

Problems:
- Increased pressure by large nationwide companies – increased competition

Specific changes between the two rounds of interviews
- Increased size related to market position and economic boom
- Increasing integration of managers
- Increased co-responsibility of employees
- Social responsibility for employees very important
- High environmental conscience of employees
- Financial success became more important

Specific developments after the 2nd round
- Additional growth
- BSC not implemented because of lack of managerial resources

Interplay of morality, mgmt-system and environment
- Based on individual attitudes and behaviours of management and employees
- Commitment towards employees and their families as well as public
- Some relation to strategies, but minimal integration in management system

Case 2

Country: Switzerland

Size: medium (50) No of interviewed: 12/12

Industry: Production: building construction/plaster/rebuilding

Foundation/history: founded in 1953 by the father of the owner together with others – later: father only owner – part of a holding - since 2003 takeover by owner

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – 100 % actual owner	Ltd – 100 % actual owner	None	
Leadership, decisions making	Partnership Partly owner – partly management	Partnership Partly owner – partly management	None	Owner is very much estimated by employees
People	Mainly specialists –	Mainly	Boom asks for	Short-term

	new staff from competitor	specialists – some hired for short-time	additional people from Germany	people often unqualified
Patterns of organisation	Divisions, function orientated – central administration and logistics	Divisions, function orientated – central administration and logistics	None	
Culture/traditions	Intensive relations – events	Intensive relations – events – problems with integration of Germans	Problems of integration of short-term employees	
Values: ideal boss, employee	B: available – open for problems E: confidential – responsible	B: professional knowledge – communicative E: confidential – responsible – innovative	Professional issues increased	
Communication	Good personal relations Job information flow	Personal relations increased Job information flow	Increased integration	
Finance: Turnover, cash flow, profit	T: minimal growth CF: fluctuation P: Re-investment	T: minimal growth CF: decreasing P: Re-investment, reserve fund	Increasing competition	Responsibility towards employees provoked negligent business behaviours.
Resources: people, finance, time	P: enough F: balanced T: enough	P: short-time F: mainly own T: boom – short time foreigners	Boom provoked hiring of short-term employees	
Society: Public, sponsoring	Organisation of festivities Sponsoring	Organisation of festivities Sponsoring	Increasing activities of owner's wife	High public responsibility
Society: Legislation	Law for public orders leads to concentration on private customers	Law for public orders leads to concentration on private customers	None	
Society: Associations	Industry, sports, local festivities	Industry, sports, local festivities	None	Social orientation
Economy: Innovation, agility, PR	I: Re-investment A: knowledge PR: reactions on tenders invitations, advertisements	I: Re-investment A: knowledge PR: mouth to mouth, cars with logos, advertisements	New ways of PR	No distinctive activities
Economy: Market position, geographical range	MP: 1st GR: Region	MP: 1st GR: Region	None	Growth basing on increasing turnover
Economy: Customers - competitors	Private Many competitors	Young architects – private – measurement of satisfaction	New sorts of customers and measurement Increased competition	Increased pressure by large nationwide companies –

		Increased competition		increased competition
Economy: Suppliers, partners	Few – regular measurement	Minimal changes – influenced by customers	Increasing dependence of customers	
Economy: Financing	Balance between private and bancs	Mainly private	Private financing increased	Banks become increasingly restrictive
Physical Environment: Sustainability	Handling of machinery and materials, recycling	Handling of machinery and materials, recycling	Material often chosen by customers	High responsibility of management and employees
Morality: Motivation	Personality of owner and people – some issues in strategy	Personality of owner and people – some issues in strategy	Morality becomes part of strategy	Employees estimate social behaviour of owner.
Morality: Specifications	To be an example (2.5), integration/autonomy (2.0), flexible (1.8), compliance (1.8), justice (1.7)	To be an example (2.6), family/leisure (2.2), flexible (1.8), good image (1.7), health (1.5)	Reduced time for leisure/family Sorrow about health	Result of economic boom
Morality: Sustainability, codification	Company codes	Company codes in revision		Social responsibility is ongoing issue.
Mgmt-System: Mission/strategies, statement	Maintaining in collaboration with employees	Maintaining in collaboration with employees – geographical expansion	Geographical expansion	Geographical expansion as remedy to increase turn over
Mgmt-System: Range, formality	ISO 9001 – as part of a holding – used by managers and supervisors – OHS	ISO 9001 re-certification planned as future basis – OHS – employees often sceptical	Too much shop floor and reliability orientated	Not integrated in comprehensive system
Mgmt-System: Q: definition, -methods -praxis	Planning, procedures, perfect work – customer orientation – somewhat holistic	Planning, procedures, perfect work – customer orientation – somewhat holistic	None	Definitions depend on position within company
Mgmt-System: Controlling, risk mgmt	Book keeping – no re-calculation – customer feedbacks – buildings for sale as risk mgmt	Book keeping – no re-calculation – customer feedbacks – buildings for sale and planning of succession as risk mgmt	Planning of succession	No systematic procedure
Mgmt-System: Knowledge mgmt	Not systematic	Not systematic – insufficient part-time employees	None	No systematic procedure
Mgmt-System: Comprehensiveness	Shop floor and reliability orientation	Shop floor and reliability	Geographical expansion and	Coexistence of formalised

	– not integrated	orientation – not integrated	short-term employees to increase turn over	system and good climate and partly intensive relations

Highlights
- Owner is very much estimated by employees
- High public responsibility
- High environmental responsibility of management and employees

Weaknesses
- Economical pressure and increasing competition provoked geographical expansion and use of part-term employees being badly integrated.
- No systematic procedure for controlling and risk management

Problems:
- Increased pressure by large nationwide companies – increased competition
- Boom asks for additional – often unqualified – people
- Coexistence of formalised management system, good climate and partly intensive relations

Specific changes between the two rounds of interviews
- Economical pressure and increasing competition provoked geographical expansion and use of part-term employees which are badly integrated
- Professional issues increased
- Banks become increasingly restrictive with financing
- People miss time for leisure/family
- Management system too much shop floor and reliability orientated

Interplay of morality, mgmt-system and environment
- Social responsibility is main attitude and behaviour of owner – guaranteed by a solid economical stock
- Intensive interplay between morality and environment with minimal relation to the formalised management system.
- Management system consists of a shop floor and reliability orientated formalised system and mix of leadership and culture, the latter two being decisive.

Case 3

Country: Switzerland

Size: micro (9) (boom: 5 short-time employees) No of interviewed: 3/3

Industry: Production – Construction – carpentry (roof truss, interiors, isolations)

Foundation/history: founded in 1953 by the father of owners with two others – since 1985 Ltd – since 1990 owned by two brothers

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Family Ltd	Family Ltd	None	
Leadership, decisions making	High responsibility for employees – like colleagues	High responsibility for employees – like colleagues	None	Differences between owner and employees

People	Mainly specialists	Mainly specialists	Short-term German employees	Minimal integration of short term staff
Patterns of organisation	Functional – some division between brothers	Functional – some division between brothers	None	
Culture/traditions	Minimal – like colleagues	Minimal – flexibility – like colleagues	Short-term employees	Problems with integration of foreigners
Values: ideal boss, employee	B: professional and managerial knowledge E: experienced, act on one's own, flexible, customer orientated, modest	B: professional and managerial knowledge E: experienced, act on one's own, flexible, customer orientated, modest	None	E: High expectations
Communication	Mediocre Info have to be asked	Mediocre, worsened Info have to be asked	Worsened	Possibly due to short-term employees
Finance: Turnover, cash flow, profit	T: increasing CF: decreasing P: re-investment, reduction of debt	T: increasing CF: stagnation P: re-investment	T: by using short-term foreign employees P: debt paid off	Aim: increasing turnover
Resources: people, finance, time	P: knowledge, flexibility F: merely from bancs T: reduced	P: knowledge, flexibility F: balance T: short-time employees	Short-time employees – financial situation optimised	Problem solving by short-time employees
Society: Public, sponsoring	Handicapped collaborator, sponsoring of local activities	Handicapped collaborator, sponsoring, member of regional parliament	Member of regional parliament	
Society: Legislation	OHS, physical environment	OHS, physical environment	None	
Society: Associations	Industry (committee member)	Industry (committee member)	None	
Economy: Innovation, agility, PR	I: Minimal A: Flexibility of employees PR: reactions on tenders, invitations, some advertisements	I: Minimal A: Flexibility of employees PR: mailings	PR: Mailings	
Economy: Market position, geographical range	MP: Niche GR: mainly local	MP: Niche GR: mainly local	None	
Economy: Customers - competitors	Architects, private – few local competition	Private, some public – few local competition	Public customers	External competition intensified
Economy: Suppliers, partners	Few – long time relations – prices relevant	Few – long time relations – prices relevant	None	
Economy: Financing	Mainly bancs	Balance private and bancs	Private financing	Depth paid off

			increased	
Physical Environment: Sustainability	Wood recycling (energy), Material recycling	Wood recycling (energy), Material recycling	None	
Morality: Motivation	Owner: Responsible citizen	Owner: Responsible citizen	None	How far experienced by employees
Morality: Specifications	Not enough time for leisure/family (3.7), demands for trainings (2.5)	Not enough time for leisure/family (3.7), to be an example (2.3), healthiness (2.3)	Growth for internal issue 'example'	
Morality: Sustainability, codification	Owner: Responsible citizen No codification	Owner: Responsible citizen No codification	None	Not measurable
Mgmt-System: Mission/strategies, statement	Planning of succession – flexibility	Planning of succession – flexibility	None	
Mgmt-System: Range, formality	OHS – according to industry – procedures	OHS – according to industry – procedures	None	
Mgmt-System: Q: definition, -methods -praxis	Customer orientation, sustainability	Customer orientation, sustainability	None	Related to basic material 'wood'
Mgmt-System: Controlling, risk mgmt	None	None	None	
Mgmt-System: Knowledge mgmt	Minimal – education of apprentices	Minimal – education of apprentices	None	
Mgmt-System: Comprehensiveness	Minimal procedures – patriarchal mgmt	Minimal procedures – patriarchal mgmt	None	

Highlights
- Integration of handicapped collaborator
- Sustainability related to basic material wood

Weaknesses
- Short term German employees to fill gaps – problems with integration
- Not enough time for private/leisure
- Different views of owner and employees in evaluating several issues

Problems:
- Minimal communication and formalisation

Specific changes between the two rounds of interviews
- Financial situation optimised – turnover increased by foreign short-term employees
- Communication became worse
- Owner became member of regional parliament

Interplay of morality, mgmt-system and environment
- Financial survival is decisive

- Wood as a sustainable material
- No mgmt-system – some informal issues

Case 4

Country: Germany

Size: Small (44/35 to 49 – depending on season) No of interviewed: 4/4

Industry: Production: flat roofs

Foundation/history: starting 1970 with trade of flat roof materials – followed by increasing specialisation in flat roof constructing – 2005 turnover by son of incorporator and partner

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – owned by father	Ltd – owned son and partner	Ltd – owned by son and partner	
Leadership, decisions making	High responsibility of managers Orders by owner – details by managers	Good colleagues Co-operation	From patron to partnership	Result of new generation
People	Many specialists	Merely specialists	No of specialists increased	Minimal integration
Patterns of organisation	Grown – planning, administration concentrated on owner – process orientated	Functional orientation	Clear organisation	Result of specialised new ownership
Culture/traditions	Familiar, events	No pressure – changing	Different reactions of employees	New style has to be developed
Values: ideal boss, employee	B: Knowledge concerning activities and employees, respected E: Honest, loyal,	B: Calm, respected, colleague E: Responsible, initiative	From patron to partnership	New generation of management
Communication	Good relations – but: info top-down	Partnership – but: info top-down	Minimal	Planning department very important
Finance: Turnover, cash flow, profit	T: decreasing CF: minus P: minus	T: changing CF: nearly none P: no answer	Minimal	T: price decisive P: probably minimal in future
Resources: people, finance, time	P: specialists F: use of private assets T: seasonal	P: specialists F: never liquid money T: seasonal, short-term employees	None	Ongoing problems with financing
Society: Public, sponsoring	Guaranteeing work place	Guaranteeing work place	None	Missing finance hinders development
Society: Legislation	Environment, OHS	Environment, OHS	None	

Society: Associations	Industry	Industry	None	Industry association forces reduction of companies
Economy: Innovation, agility, PR	I: suppliers A: knowledge PR: advertisements, events for architects, tenders	I: suppliers A: knowledge, short-term employees PR: internet, info plates at sites	A: short-term employees PR: concentration	Advantage: high quality – disadvantage: higher prices
Economy: Market position, geographical range	MP: 1st GR: region	MP: 1st – niche GR: region	none	
Economy: Customers - competitors	Different Regular feedbacks Many competitors	Public – large companies Regular feedbacks Number of competitors decreasing – some relations	No of competitors decreasing	Price is decisive – bad quality of competitors brings customers
Economy: Suppliers, partners	Few – regular measuring	Few – quality assurance by buyers association	Buyers association supports quality.	
Economy: Financing	Banks – private	Banks – private	None	Ongoing problem
Physical Environment: Sustainability	Material recycling	Material recycling	None	
Morality: Motivation	High responsibility towards employees	High responsibility towards employees	None	To be guaranteed by financial success on long-terms
Morality: Specifications	To be an example (2.8), justice (2.8), good image (1.8), family/leisure (1.8), lifelong learning (1.8)	Family/leisure (2.4), lifelong learning (2.4), openness (2.3), to be an example (2.1), fun most important (2.0)	Trend towards individual values	Probably because of missing leisure or integration
Morality: Sustainability, codification	Attitude of owner Company and industry codes	Attitude of owners Company and industry codes	Control of application of industry codes intensified	
Mgmt-System: Mission/strategies, statement	Specialist in niche Succession	Specialist in niche	Succession solved	Missing finance hinders long-term vision
Mgmt-System: Range, formality	OHS – internal procedures	OHS – internal procedures	None	Employees ask for optimisation
Mgmt-System: Q: definition, -methods -praxis	Customer orientation – industry standards	Customer orientation – top materials and execution	None	
Mgmt-System: Controlling, risk mgmt	Financial	Re-calculation	Minimal	
Mgmt-System: Knowledge mgmt	Annual trainings with suppliers	Annual trainings with suppliers	None	Knowledge as a guarantee for survival
Mgmt-System: Comprehensiveness	Personality of owner	Personality of owners	From patron to partnership	No comprehensive

	Internal procedures	Internal procedures		system

Highlights
- Concentration on owners and their high morality – increasing integration of people

Weaknesses
- Minimal financial resources
- Minimal formalisation – concentration on owners

Problems:
- Minimal financial resources – hindering long term development

Specific changes between the two rounds of interviews
- New management: Sun and partner took over the company
- From patron to partnership – clear responsibilities
- Number of specialists increased
- Number of competitors decreasing – but prices are still low
- Trend towards individual values

Interplay of morality, mgmt-system and environment
- High moral attitudes and behaviours of owners towards employees – social responsibility seems to be more important than economical survival.
- Short-term reactions on changing environment – no mgmt-system, only internal procedures which should be optimised

Case 5

Country: Switzerland

Size: Small (30) / (35) No of interviewed: 7/1

Industry: Production: sanitation facilities

Foundation/history: Founded in 1876, family company – since 2002 Ltd owned by three partners (one is member of original owner family)

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – partners	Ltd – partners	None	
Leadership, decisions making	Partners with functional divisions – colleagues	Partners with functional divisions – patriarchal behaviours	Trend to patriarchal behaviours	Increasing business and planned new site reduce time for communication
People	Specialists	Specialists	None	Minimal integration
Patterns of organisation	Functional – division between partners (planning, execution, administration)	Functional – division between partners (planning, execution, administration)	None	Decreasing time for communication
Culture/traditions	CI – some events – respect	Daily work stresses relations	Stress hinders cultural development	No feedback of employees

Values: ideal boss, employee	B: communicative – partnership E: communicative – partnership	B: common objectives E: communicative – partnership	None	E: individual differences make realisation difficult
Communication	Defined system – good relations	Defined system – some problems	Worsened	Decreasing time for communication
Finance: Turnover, cash flow, profit	T: increasing CF: no data P: trainings, optimisation of wages	T: increasing CF: changing P: investment	Finance needed for new production site	T: increasing, but price competition
Resources: people, finance, time	P: many specialists F: Partners T: overtime	P: many specialists F: Partners - bancs T: stress	T: Increasing business and planned new site produce time pressure	
Society: Public, sponsoring	Apprentices Employment of handicapped Sponsoring	Apprentices Employment of handicapped	Sponsoring reduced	
Society: Legislation	Hygiene	Hygiene	None	
Society: Associations	Industry Committee member	Industry Committee member	None	
Economy: Innovation, agility, PR	I: new products, optimal services A: people PR: brochures, public buses, advertisements	I: new products, optimal services A: people PR: brochures, public buses, advertisements	None	
Economy: Market position, geographical range	MP: 1st GR: Region	MP: 1st GR: Region	None	
Economy: Customers - competitors	Architects, general contractors, private Regular feedbacks Competition	General contractors, private – few public Regular feedbacks Competition	Minimal	Competition – price often decisive
Economy: Suppliers, partners	Few – regular controlling	One – minimal controlling	Number reduced	
Economy: Financing	Partners	Partners - bancs	Bancs	Planning of new production site
Physical Environment: Sustainability	Recycling, serious use of resources	Recycling, serious use of resources	None	No public support
Morality: Motivation	Individual – company codes	Individual – company codes	None	
Morality: Specifications	Support of elderly employees To be an example (2.4), justice (2.4), openness (2.3), private/leisure (2.1), health (2.0)	Support of elderly employees 3.0: to be an example, leisure/private, responsibility, health, lifelong learning, openness	None	Round 2: only one interviewee
Morality:	Company codes	Company codes	None	

Sustainability, codification	– quality, friendly	– quality, friendly		
Mgmt-System: Mission/strategies, statement	Leader – diversification (services) – customer satisfaction	Leader – diversification (services) – new site	New site	
Mgmt-System: Range, formality	ISO 9001, OHS – common development	ISO 9001, OHS – shop floor orientation	Shop floor orientation	No consequent use of system
Mgmt-System: Q: definition, -methods -praxis	Customer satisfaction – individual behaviours, meetings	Customer satisfaction – the right person at the right place	Hierarchical planning	
Mgmt-System: Controlling, risk mgmt	Partners, financial analysis	Partners, financial analysis – analysis of creditors	Minimal	
Mgmt-System: Knowledge mgmt	Permanent trainings	Permanent trainings	None	
Mgmt-System: Comprehensiveness	Motivated new owners	Shop floor orientation	Reduction on shop floor orientation	Minimal relation between formalised system and reality

Highlights
- Construction of new, more suited site

Weaknesses
- Minimal integration of employees
- No consequent use of management system

Problems:
- Competition – price often decisive
- Minimal relation between formalised system and reality

Specific changes between the two rounds of interviews
- Management did not support round 2 – partner (family member) only interviewee
- Trend to patriarchal behaviour
- Increasing business and planned new site reduce time for communication
- Stress hinders cultural development, communication became worse.
- Sponsoring reduced
- Management system: reduction on shop floor activities

Specific developments after the round 2
- In early 2008 new large production site inaugurated

Interplay of morality, mgmt-system and environment
- Differences in moral motivations of partners
- Possibilities of defined mgmt-system not used
- New site as an answer on developing market

Case 6

Country: Switzerland

Size: Small (46) / (20) [with new acquired company: 70]) No of interviewed: 9/3

Industry: Production: cable nets (radio, TV, internet, phone)

Foundation/history: Originally with other partner: radio business with aim cable nets – 1975 foundation of company – diversification (telecommunication, security technology, cable nets, electrification of buildings) – 1985 new partner – 2001 transfer of electrification in a separate company – 2003 splitting into two companies (telecommunication [20%] and security technology [50%] – cable nets [30%]) – 2006 acquisition of large cable net company

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – with 2 partners	Ltd – family		
Leadership, decisions making	Mix – co-operative, patriarch, traditional Top manager in cooperation with department managers – regular monitoring	Co-operative Top manager in cooperation with managers – financial controlling	Adaptation to owner and smaller company	The personality of the partners provoked different styles of leadership.
People	Specialists – ready for new developments	Specialists – ready for new developments	None	Some team orientation
Patterns of organisation	Departments with separate accounting – sales	Functional	Adaptation to owner and smaller company	
Culture/traditions	Familiar – many events	Colleagues - events		
Values: ideal boss, employee	B: to be an example leads to acceptance E: loyalty, clear aims, specialist	B: to be an example - reliable E: loyalty, co-operative	Minimal	
Communication	Mixed View ‘top-down’ better than ‘bottom-up’	Direct relations	Adaptation to owner and smaller company	
Finance: Turnover, cash flow, profit	T: increasing CF: balanced – differences between departments P: investments, financial reserve	T: increasing CF: increasing P: investments	Concentration on department	
Resources: people, finance, time	P: specialists F: at the beginning mainly bancs – private increasing T: missing leisure	P: specialists F: over 50 % private T: not specific	Private financing increased	
Society: Public, sponsoring	Sponsoring, committee of political party Work place	Committee of political party Work place	Sponsoring reduced	

Society: Legislation	Telecommunication	Telecommunication		
Society: Associations	Industry	Industry		
Economy: Innovation, agility, PR	I: technical development A: diversification PR: company journal, articles, advertisement, sponsoring, workshops	I: technical development A: enlargement of geographical range PR: info for local and regional communities	PR: cable nets are only implemented by communities	
Economy: Market position, geographical range	MP: cable nets / security technology: good GR: region	MP: 1st GR: greater region	1st because of acquisition	Fast technical development
Economy: Customers - competitors	Depending on department – mainly long-term – high satisfaction – mixed relations to competitors	Intensive long-term contracts – high satisfaction, regular tests – mixed relations to competitors	Concentration on specific segment (communities)	Cable nets need partnership and trust
Economy: Suppliers, partners	Installation and support of products of contract partners – regular tests	Contract partners – proven products – qualitative tests	Concentration on department	Future? e.g. wireless communication
Economy: Financing	Start-up mainly bancs – private increasing	Over 50 % private – mix of company and private	Private increased	
Physical Environment: Sustainability	Energy use, material recycling – alternative products	Part of company code Material recycling	Few energy use	High responsibility of employees
Morality: Motivation	Individual Responsibility towards employees and families	Individual Responsibility towards employees and families	None	
Morality: Specifications	Justice (4.0)To be an example (3.7), family / leisure (3.0), integration / autonomy (2.3)	Openness (3.7), loyalty (2.7), to be an example (2.3), flexibility (2.3)	More internal issues	
Morality: Sustainability, codification	Company code: quality of life and products, trustful	Company code:, image making proud (reasonable, respectful, environment)	Adapted	
Mgmt-System: Mission/strategies, statement	Customer satisfaction Diversification Work place	Optimising market position (quality, reliability) – to reduce dependence of large partner	To reduce dependence by concentration on new customers	
Mgmt-System: Range, formality	ISO 9001 Problems with use	ISO 9001 Tailored to company's need	Optimised	
Mgmt-System: Q: definition, -methods -praxis	Customer satisfaction Optimal management, projects and work	Customer satisfaction Clear procedures	Minimal	
Mgmt-System: Controlling, risk mgmt	Monitoring of departments - portfolio	Financial controlling – analysis of specific	Analysis of specific risks of industry	

		risks of industry		
Mgmt-System: Knowledge mgmt	Regular trainings (new products)	Regular trainings	Proven products	
Mgmt-System: Comprehensiveness	Formalised systems often collides with unclear leadership	Formalised systems is tailored and correlates with management	Adaptation to owner and smaller company	

Highlights
- Concentration on owner – increasing integration of people

Specific changes between the two rounds of interviews
- Splitting into 2 companies basing on personal arguments – one partner owns 2 departments, one 1 department
- The splitting had positive effects on the new company (e.g. mgmt-system, leadership, culture).
- Formalised system is tailored to the company's need and correlates with management.
- Leadership and organisation were adapted to the owner and the reduced size of company.
- Analysis of specific risks of the industry
- Values are more company orientated
- Private financing increased
- Sponsoring reduced

Interplay of morality, mgmt-system and environment
- Economical success is needed to allow social activities
- Individual motivation of partners changed in correspondence with morality, mgmt-system and environment.
- The owner of the new company shows more motivation and integrates employees.

Case 7

Country: Switzerland

Size: Small (46) / (30) No of interviewed: 9/4

Industry: Production: telecommunication/security technology

Foundation/history: Originally with other partner: radio business with the aim cable nets – 1975 foundation of company – diversification (telecommunication, security technology, cable nets, electrification of buildings) – 1985 new partner – 2001 transfer of electrification in a separate company – 2003 splitting into two companies (telecommunication [20%] / security technology [50%] – cable nets [30%])

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – with 2 partners	Ltd – family with junior partners	Family and partner orientation	
Leadership, decisions making	Mix – co-operative, patriarch, traditional Top manager in cooperation with department	Different view: partnership (owner) vs. patriarchal (employees) Team with	Minimal	Different views of owner and employees

	managers – regular monitoring	feedbacks		
People	Specialists, ready for new developments	Specialists, ready for new developments	Minimal	Integration reduced
Patterns of organisation	3 Departments with separate accounting – centralised administration, sales	2 Departments – common administration	Minimal	Adapted to reduced size
Culture/traditions	Familiar – many events	Differences: colleagues vs. distance – many events	Different views	Unclear
Values: ideal boss, employee	B: to be an example leads to acceptance E: loyalty, clear aims, specialist	B: building up trust E: open for customers, innovative	E: customer orientation	New issues by new top manager
Communication	Mixed View 'top-down' better than 'bottom-up'	Function orientated More patriarchal View 'top-down' better than 'bottom-up'	More patriarchal	
Finance: Turnover, cash flow, profit	T: increasing CF: balanced – differences between departments P: investments, financial reserve	T: telecommunication: stagnation – security: increasing CF: increasing P: investments	Minimal	
Resources: people, finance, time	P: specialists F: start-up mainly bancs – private increasing T: missing leisure	P: specialists F: private part increasing T: missing leisure	F: private part increasing	
Society: Public, sponsoring	Sponsoring, committee of political party Work place	Sponsoring increased Work place	Minimal	
Society: Legislation	Telecommunication	Telecommunication	None	
Society: Associations	Industry	Industry, sponsoring	Sponsoring intensified	
Economy: Innovation, agility, PR	I: technical development A: diversification PR: company journal, articles, advertisement, sponsoring, workshops	I: technical development A: knowledge PR: events, workshops	Concentration because of splitting	
Economy: Market position, geographical range	MP: cable nets, security technology: good GR: region	MP: Niche GR: greater region	GR: enlarged	
Economy: Customers - competitors	Depending on department – mainly long-term – high satisfaction Mixed relations to competitors	Mix of private and public – high satisfaction Increasing competition	Increasing competition with large companies (price pressure)	
Economy: Suppliers, partners	Installation and support of products of contract partners – regular tests	Certified contract partners for spares – Support of marketing	Minimal	

Economy: Financing	Start-up mainly bancs – private increasing	Mainly private	Private increased	
Physical Environment: Sustainability	Energy use, material recycling – alternative products	Energy use (buildings optimised), material recycling	Buildings optimised (energy)	
Morality: Motivation	Individual Responsibility towards employees and families	Individual Responsibility towards employees and families	None	
Morality: Specifications	Justice (4.0)To be an example (3.7), private/leisure (3.0), integration/autonomy (2.3)	To be an example (3.8), openness (2.5), private/leisure (2.3)	Internal issues more important	
Morality: Sustainability, codification	Company code: quality of life and products, trustful,	Company code reviewed	Comprehensive: partners, environment, morality	
Mgmt-System: Mission/strategies, statement	Customer satisfaction Diversification Work place	High quality, Sustainable profit guarantees work place	Quality as a specific characteristic	
Mgmt-System: Range, formality	ISO 9001 Problems with use	ISO 9001 Problems with use – new tool	none	
Mgmt-System: Q: definition, -methods -praxis	Customer satisfaction Optimal management, projects and work	Customer satisfaction Optimal management, projects and work, individual motivation	Minimal – individual motivation	
Mgmt-System: Controlling, risk mgmt	Monitoring of departments Portfolio	Financial, employee evaluation Regular review of marketing	Concentrated	Splitting of company
Mgmt-System: Knowledge mgmt	Regular trainings (new products)	Regular trainings (new products)	None	
Mgmt-System: Comprehensive-ness	Formalised system often collides with unclear leadership	Formalised system often collides with unclear leadership	Minimal	

Highlights

Weaknesses
- No clear leadership

Problems:
- New owner was not able to implement a generally accepted form of leadership.

Specific changes between the two rounds of interviews
- Splitting into 2 companies basing on personal arguments – one partner owns 2 departments, one 1 department
- New owner tried to implement more stringent procedures and leadership which are not already experienced by employees. – Different view: partnership (owner) vs. patriarchal (employees).

Specific developments after the 2nd round

- In May 2008 a new management has been implemented. The owner is acting as member of Board.

Interplay of morality, mgmt-system and environment
- Economical success is needed to allow social activities.
- Individual motivation of partners changed in correspondence with morality, mgmt-system and environment. The owner of the new company reduced the integration (leadership, management system).

Case 8

Country: Switzerland

Size: small (18) / (20) No of interviewed: 6/6

Industry: Production: furniture

Foundation/history: Founded by the father of owner – 1974 partnership father/owner –

1981 management by actual owner – 1987 Ltd

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Family Ltd – father president of the board	Family Ltd – integration of wife and daughter	Concentration on family of owner	
Leadership, decisions making	Owner orientated Differences between sales and production Production manager collegial	Owner orientated – not enough time for leadership New branch/shop with site manager Differences between sales and production Production manager collegial	Integration of wife and daughter Site manager of new branch/shop	Owner has not enough time for leadership
People	Specialists	Specialists	None	Good image for apprenticeship Minimal integration
Patterns of organisation	Concentration on owner – departments, function orientated	Concentration on owner – departments, function orientated – new branch	New branch	
Culture/traditions	Customer orientation – some events for staff – good atmosphere in production site	Stress hinders good atmosphere – owner shows staff orientation	Minimal	Distance between sales and production
Values: ideal boss, employee	B: customer and staff orientation E: business	B: customer and staff orientation E: business and	Minimal	B: Concentration on customer orientation – not

	orientation	customer orientation		enough time for staff
Communication	Insufficient access to information Proposals are asked Good relations between peers	Insufficient access to information Communication minimally optimised Good relations between peers	Minimal optimisation	Not enough time, procedures not clear enough
Finance: Turnover, cash flow, profit	T: decreasing CF: decreasing P: investments	T: equivalent CF: balanced P: investments	optimised	Economical growth – but: the main site was damaged by flood
Resources: people, finance, time	P: specialists F: private T: some pressure	P: specialists F: private, some banks T: boom increases pressure	F: some banks (water damage, new branch) T: increased pressure	P: good image as trainer
Society: Public, sponsoring	Apprentices Some sponsoring	Apprentices Some sponsoring	None	
Society: Legislation	Minimal (Safety)	Minimal (Safety)	None	
Society: Associations	Industry, music (regional president)	Industry, music (regional president)	None	
Economy: Innovation, agility, PR	I: new products (purchased, own production) A: own production PR: events, individual communication, advertisements	I: new products (purchased, own production) A: own production – new shop PR: events, individual communication, advertisements, mailings	A: new shop	A: motivation of production manager very high
Economy: Market position, geographical range	MP: Leader in high quality furnishing GR: Mainly region	MP: Leader in high quality furnishing GR: Mainly region – increasing	GR: increasing	
Economy: Customers - competitors	Mainly private (higher price segment) Restaurants Competition mainly in low price segment	Mainly private (higher price segment) Restaurants Competition mainly in low price segment	None – difficulties to get new customers in region	Concentration on high price segment, probably hindering
Economy: Suppliers, partners	Specialised companies – good relations	Specialised companies – good relations Looking for new innovative partners	Looking for new innovative partners	
Economy: Financing	Mainly private	Mainly private	None	
Physical Environment: Sustainability	Purchasing Waste management, recycling	Purchasing Waste management, recycling	Some optimisation in waste management	What's about sensitisation of customers?

Morality: Motivation	Individual - high awareness for social and company problems Responsibility towards customers and staff	Individual - high awareness for social and company problems Responsibility towards customers and staff	Minimal	Owner mentions customers first
Morality: Specifications	Justice (3.8), to be an example (2.8), lifelong learning (2.3), family / leisure (2.2), flexible (2.1)	Justice (2.8), to be an example (2.6), family/leisure (2.6), health (1.9), openness (1.9)	Less importance for justice	Justice: theory vs. praxis?
Morality: Sustainability, codification	Customer orientation, some social and environmental issues Company code	Customer orientation, some social and environmental issues Company code	Minimal	
Mgmt-System: Mission/strategies, statement	Market leader with high quality products Customer orientation, own production	Market leader with high quality products, niche Customer orientation, own production	None – intensified niche orientation	Concentration on high price level: a long term success?
Mgmt-System: Range, formality	Internal system with procedures ISO 9001 planned	Internal system with procedures	ISO 9001 out of discussion	
Mgmt-System: Q: definition, -methods -praxis	Customer orientation Optimal product	Customer orientation Optimal product Motivation, collaboration	Increased importance of behaviour	
Mgmt-System: Controlling, risk mgmt	Calculation after delivering Financial controls	Calculation after delivering Financial controls Benchmarking	Benchmarking	
Mgmt-System: Knowledge mgmt	Apprentices Benchmarking	Apprentices Benchmarking	Minimal	No long-term concept
Mgmt-System: Comprehensiveness	Some procedures – gaps in leadership and communication	Some procedures – gaps in leadership and communication	None	

Highlights
- Absolute customer orientation
- Motivated production manager

Weaknesses
- Owner has not enough time for leadership
- Concentration on high price segment

Specific changes between the two rounds of interviews:
- Leadership: Integration of wife and daughter and site manager of new branch/shop
- Increased importance of behaviour towards customers

Interplay of morality, mgmt-system and environment: minimal

- Morality: individual orientated
- No functioning mgmt-system
- Minimal activity supporting physical environment
- Economical issues in front

Case 9

Country: Switzerland

Size: medium (50 - Group: 180)/ (57 - Group: 290) No of interviewed: 10/11

Industry: Production: Chemistry – surface coating – wage company

Foundation/history: 1963 (holding 2002) – aluminium: important material for constructing industry since 1970 – foundation of subsidiaries since 1995

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Since beginning Ltd – belonging to the two top-managers	Family Ltd	Intensified concentration on one family	
Leadership, decisions making	Co-operative – owners also in operations – differentiation sometimes not clear enough Decisions on relevant levels – finally by owners	Co-operative – owners also in operations – differentiation sometimes not clear enough Decisions on relevant levels – finally by owners	Communicatio n optimised	
People	2/3 specialists (apprenticeship or technical education), 1/3 semi-skilled	2/3 specialists (apprenticeship or technical education), 1/3 semi-skilled	Intensified integration	Intensified integration
Patterns of organisation	Holding Company: Technical and administrative directors – departments – specialised staff – matrix orientated	Holding Company: Technical and administrative directors – departments – specialised staff – matrix orientated – continuous improvement	Intensified continuous improved (forced by aircraft industry)	Organisation adapted to changing requirements
Culture/traditions	Familial, collegial, collaborative Performance orientated and individual flexibility Events	Familial, collegial, collaborative – sometimes stress Performance orientated and individual flexibility Events	Minimal – because of stress	Stress may influence relations (but: management of major fire in 2007 was supported by living culture)
Values: ideal boss, employee	B: High professional/industri al knowledge Understanding for customers and employees Clear,	B: High professional/industri al knowledge Understanding for customers and employees Clear,	B: activities have been intensified E: Knowledge transfer (form new subsidiary in Dresden D)	B: increasing orientation towards integration E: increasing orientation towards

	comprehensible management Sustainable view E: good education – self-reliant, innovative, trusty	comprehensible management Sustainable view E: ongoing education (knowledge transfer) – self-reliant, innovative, trusty		integration
Communication	Many meetings (external, internal) – asking for information (against passivity) Good relations, making proposals – correspondence mgmt-people	Many meetings (external, internal) – asking for information (against passivity) Good relations, making proposals – correspondence mgmt-people	Fight against passivity intensified	Integration of people
Finance: Turnover, cash flow, profit	T: mainly increasing (depending on fluctuating demand of industries) CF: increasing (over 15 %) P: Investment	T: increasing CF: increasing (over 15 %) P: Investment	T: Construction industry with increasing demand CF: minimal	CF: on long term balanced – even if demand is fluctuating P: only used for investment
Resources: people, finance, time	P: 2/3 specialist – advanced training F: mainly banks T: relatively balanced	P: 2/3 specialist – advanced training F: mainly banks T: increased stress, but employees satisfied	Minimal T: increased stress	F: good relations to banks – new site under construction T: new activities
Society: Public, sponsoring	Job security	Job security Knowledge transfer to poor countries	Knowledge transfer	Personal activity of owner
Society: Legislation	Environment	Environment	None	Increasing responsibility
Society: Associations	Industry – committee member	Industry – committee member	None	Responsible market leader
Economy: Innovation, agility, PR	I: new industries, adaption of products and processes A: company, partners – ongoing adaption to technology and market PR: prospectuses, expositions, internet	I: new industries, adaption of products and processes A: additional company – ongoing adaption to technology and market PR: prospectuses, expositions, internet	A: additional know-how by acquisition of competitors	Expansion in new industries (automotive, aircraft) Additional knowledge by acquisition
Economy: Market position, geographical range	MP: Market leader CH GR: 1/3 CH – expansion Europe	MP: Market leader CH – subsidiary in D GR: 1/3 CH – increasing expansion Europe	Expansion	
Economy: Customers - competitors	SMEs – watch, machines, medical, construction Some small competitors – no fighting	Watch, machines, medical, construction – additional: automotive, aircraft Competitors: some fighting in construction industry	New industries – larger companies	Expansion – acquisition of competitors
Economy:	Few, long-term	Few, long-term	None	Long-term

Suppliers, partners	orientated: Chemistry, energy (electricity)	orientated: Chemistry, energy (electricity)		relations as basis
Economy: Financing	Mainly banks, rest private (30 %)	Mainly banks, rest private (25 %)	None	Banks: good rating
Physical Environment: Sustainability	Chemistry: intensive, long-term orientated (Energy, off gas, recycling, hazardous waste)	Chemistry: intensive, long-term orientated (Energy, off gas, recycling, hazardous waste) Sensitisation of employees	Increasing sensitisation of employees	Increasing integration
Morality: Motivation	High awareness for social and company problems	High awareness for social and company problems	Increasing	Increasing integration
Morality: Specifications	Justice (2.9), to be an example (2.8), family/leisure (2.6), openness (2.1), integration/autonomy (2.0), responsibility (2.0)	To be an example (2.8), family/leisure (2.8), justice (2.6), openness (2.1), integration/autonomy (1.6), flexible (1.5)	Minimal	Different economical situation (rd1: depression – rd1: boom)
Morality: Sustainability, codification	Long-term (social, environment) Mission statement: quite comprehensive	Long-term (social, environment) Mission statement: comprehensive, enlarged	Intensified	Increasing consciousness of employees
Mgmt-System: Mission/strategies, statement	Expansion to Europe – innovation – responsibility to be widened	Expansion to Europe – innovation – responsibility to be widened – relation to objectives and measures intensified	Relation to objectives and measures intensified	Increasing integration
Mgmt-System: Range, formality	ISO 9001-14001 – EFQM and BSC planned Own system, integration of people	ISO 9001-14001 – aircraft standards Own system, integration of people	New customers ask for additional certification Integration of people	High system thinking Mgmt-models in background
Mgmt-System: Q: definition, -methods -praxis	Customer satisfaction – zero defaults Supported by leadership and procedures	Customer satisfaction (not only technical) – zero defaults Supported by leadership (example) and procedures	Increasing TQM orientation	Integration
Mgmt-System: Controlling, risk mgmt	Quality, environment Finance: external revision	Comprehensive risk analysis	Comprehensive	Integration of all risks planned
Mgmt-System: Knowledge mgmt	Innovation Ongoing trainings	Acquisition (knowledge transfer) Innovation Ongoing trainings	Acquisition (knowledge transfer)	Different strategies
Mgmt-System: Comprehensive-ness	Quality, environment – TQM orientation - intensive people integration	Quality, environment – TQM orientation But: intensified customer demands	Intensified customer demands	Very intensive activities towards integration

Highlights

- Personality of owner motivates people, familial culture

- System thinking

Specific changes between the two rounds of interviews:
- Expansion in Europe, additional industries (automotive, aircraft), acquisition of companies/knowledge
- Communication, integration optimised
- Knowledge transfer from new subsidiary and optimised agility by acquisition of competitors
- Increasing sensitisation of employees towards physical environment
- New customers ask for additional certification
- Increasing TQM orientation, high system thinking

Specific developments after the 2nd round:
- June 2007 major fire in a new built site – optimal risk management, integration of people and collaboration with competitors allows to satisfy customers (nearly no lost) – reopening of reconstructed site in July 2008
- 2009: operational responsibility to a son of the owner, owner concentrates as president of board on visions and strategies

Interplay of morality, mgmt-system and environment:
- Intensive interplay of all elements
- Increasing people integration
- Economical issues as basis (but evaluation of triple bottom line weighting changes from 60 % [rd1] to 50 % [rd2])

Case 10

Country: Switzerland

Size: small (30) / (38) No of interviewed: 7/7

Industry: Production: transformers

Foundation/history: 1950 – father of owner produced washing machines; contacts with large customer asked for transformers (starting with 2 employees) – owner entered in the own company in 1973 (father was ill) – in 1986 takeover of management – since then: immense growth of the company

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Starting with a financial partnership – since 1978 Ltd (family)	Ltd (family company)	None	
Leadership, decisions making	Partnership, owner very friendly – problems with managers Meetings as basis for decisions	Cooperative – partly chaotic (new managers) Decisions: sometimes patriarchal, but always inclusion of mgmt	New managers Stile becomes more patriarchal	Integration of new managers – concentration on owner
People	Office: engineers and specialists –	Office: engineers (enlarged) and	Number of engineers	New skills integrated

	production: specialists and semi-skilled	specialists – production: specialists and semi-skilled	enlarged	Reduced integration
Patterns of organisation	Top management – departments – function orientated	Top management – departments (intensified) – function orientated	Importance of departments intensified	Collaboration between departments to be intensified
Culture/traditions	Familiar, events	Familiar – stressing, partly chaotic, mobbing	Diffuse	Lack of common culture
Values: ideal boss, employee	B: to be an example, some assertiveness E: objective orientated, communicative, team orientated	B: to be an example, active, ongoing education E: entrepreneurial thinking	B: ongoing training E: integration in common responsibility	Gap to reality
Communication	Meetings, intranet – to be improved Differences in perception in different hierarchical levels	Meetings, intranet – to be improved Generally worsened	Generally worsened	Problems with dissemination of information
Finance: Turnover, cash flow, profit	T: changing CF: balanced P: reinvestment, capital reserve	T: increasing (10-15 %) CF: balanced – should be higher P: reinvestment	T: increasing	Boom allows growth
Resources: people, finance, time	P: specialists, semi-skilled F: own capital – banks T: good workload	P: specialists, semi-skilled – increasing number of engineers F: own capital (40 %) – banks T: boom = stress	P: increasing number of engineers F: minimal T: boom = stress	P: adaption to technical development F: high rate of own capital T: boom management
Society: Public, sponsoring	Work place Some sponsoring	Work place Some sponsoring	minimal	
Society: Legislation	Industry standards	Industry standards	None	
Society: Associations	Industry, TQM, science	Industry, TQM, science	Minimal	Networking
Economy: Innovation, agility, PR	I: adaption of products and processes A: ongoing adaption to technology and market PR: Mailings, events, internet	I: adaption of products and processes A: additional young engineers – co-operation with customers – complete solutions PR: plan – internet, expositions, advertisements	A : young engineers – co-operation with customers – complete solutions PR : new concept	Increased integration (customers, people)
Economy: Market	MP: market	MP: market	GR: expansion	Long-term

position, geographical range	leader in CH GR: mainly CH	leader in CH GR: expanding to Italy		planning
Economy: Customers - competitors	Larger companies – co-operation in design Competitors: mix of competition and cooperation	Mix – excellent feedback from Italian customers – regular contacts Competitors: mix of competition and cooperation	Expansion – regular contacts	Increasing integration
Economy: Suppliers, partners	Few – partnership, friendship	Few – partnership, friendship	minimal	
Economy: Financing	Own capital – banks	Own capital (40 %) – banks	Minimal	High rate of own capital
Physical Environment: Sustainability	Comprehensive resources management – power-saving products	Comprehensive resources management – power-saving products (in co-operation with federal administration)	Intensified – power-saving products (in co-operation with federal administration)	Integration of people – customers: minimal power saving orientation
Morality: Motivation	General company and social orientation – jobs in CH	General company and social orientation – jobs in CH	Intensified	
Morality: Specifications	Mix between company and private issues – to be an example (3.3), fun (2.4), compliance (2.1), justice (2.1)	Mix between company and private issues – to be an example (3.6), justice (2.1), compliance (1.8)	'to be an example' as leading element	
Morality: Sustainability, codification	Mission statement – triple bottom line	Mission statement – partnership – triple bottom line	Aim to integrate people	Reality shows problems in communication
Mgmt-System: Mission/strategies, statement	Management of succession – survive – partnership with customers Some integration of people	Management of succession – survive – partnership with customers Some integration of people	Minimal – new engineers not yet integrated	Problems in internal communication
Mgmt-System: Range, formality	ISO 9001:1994 optimised by EFQM	Process orientated – some circularity	Trend towards circularity	Gap between theory and implementation
Mgmt-System: Q: definition, -methods -praxis	Customer orientation – common result which pleads Comprehensive – integration of people	Corresponding with requirements – Depending on communication	Integration reduced	New engineers not integrated
Mgmt-System: Controlling, risk mgmt	Finance orientated	Finance orientated – introduction of BSC planned	Introduction of BSC planned	No effective risk management – SWOT-analysis planned

Mgmt-System: Knowledge mgmt	Mix of skills corresponding to duties	Number of specialists and engineers enlarged	Number of specialists and engineers enlarged	Buy-in of knowledge
Mgmt-System: Comprehensiveness	Good theoretical background with problems in implementing	Good theoretical background with problems in implementing – BSC planned	Optimisation aspired	Gap between (idealistic) theory of owner and praxis

Highlights
- Concentration on owner

Weaknesses
- Gap between (idealistic) theory of owner and praxis
- No effective risk management

Specific changes between the two rounds of interviews:
- Expansion and demand for innovation asked for additional external knowledge (engineers)
- Problems with integration and dissemination of information
- Leadership: Integration of new managers is demanding and forces concentration on owner
- Organisation: Importance of departments intensified
- Physical environment: Intensified, power-saving products

Interplay of morality, mgmt-system and environment:
- Idealistic intentions of owner: comprehensive management system. – gap to reality
- Palette of products asks for resource savings.

Case 11

Country: Germany

Size: medium – (100) / (120) No of interviewed: 7/8

Industry: Production: hydraulic components

Foundation/history: 1964 company for hydraulic engineering founded by owner – 1970 production of hydraulic components – 1977 Ltd. – 1978 relocation – 1988, 1995 extensions of plants integrating environmental and safety issues – 2005 additional production hall

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd of founder	Ltd of founder	None	
Leadership, decisions making	Partnership with special position of owner (experience, knowledge, leadership) Collegial decisions with special position	Partnership with special position of owner (experience, knowledge, leadership) Collegial decisions with special position	Minimal	Mix of partnership, collegiality and trust – what is about future (owner more than seventy years old)?

	of owner	of owner		
People	Only specialists (some engineers) Integration	Only specialists (some engineers) Integration	Minimal	Basis for innovation
Patterns of organisation	Functional orientation – process orientated	Functional orientation – process orientated	Minimal	Management of growth?
Culture/traditions	Soundness (towards customers, employees), respect, openness, big family, events	Soundness (towards customers, employees), respect, openness, big family, events	Intensified	Good relations, integration
Values: ideal boss, employee	B: competent, good behaviour E: competent, loyalty towards company	B: competent, good behaviour – with employees E: competent, loyalty towards company (but baring in mind personal interests), high level of commitment	Increased employee orientation	Increased integration
Communication	Information have often to be asked Co-operation often does not work, top-down evaluation better than bottom-up	Meetings Collaboration optimised	Importance of meetings increased Collaboration optimised	Increasing integration
Finance: Turnover, cash flow, profit	T: steadily increasing CF: stable P: future of company (investments, own funds)	T: intensively increasing CF: increasing P: future of company (investments, own funds, providing jobs)	Increasing interest towards employees	Boom
Resources: people, finance, time	P: specialists F: good relations to banks – some own assets T: enough – some people complain missing leisure time	P: specialists F: increasing own assets – superior rating by banks T: sometimes gaps – individual flexibility	Boom provokes some stress	Solid basis
Society: Public, sponsoring	Healthy and safe work conditions Science, city	Healthy and safe work conditions Science, city	Intensified	Feedbacks of employees match with owner
Society: Legislation	Industry standards, environment	Industry standards, environment	Ongoing	Ongoing
Society: Associations	Industry, standards, science, service	Industry, standards, science, service	Relations to science increased	Intensive network

	club	club		
Economy: Innovation, agility, PR	I: adaption of products and processes A: ongoing adaption to technology and market, contact to science PR: advertisements, expositions, local events	I: adaption of products and processes A: ongoing adaption to technology and market, contact to science, new production hall PR: advertisements, expositions, local events	Minimal	Intensified
Economy: Market position, geographical range	MP: innovation: one of leaders GR: worldwide, many competitors	MP: innovation: one of leaders – new production hall GR: worldwide, many competitors – quality as advantage	Intensified – quality as advantage	Example of worldwide active SME
Economy: Customers - competitors	Different mechanical industries, co-operation in design High rated Competition: quite intensive, some relations	Different mechanical industries, co-operation in design Rate optimised Competition: intensive, some close relations	Increasing	High rated Quality and reliability guarantee success.
Economy: Suppliers, partners	Clearly defined requirements, evaluation, some partnerships	Clearly defined requirements, evaluation, partnership intensified (steel)	Intensified	Fast clearing
Economy: Financing	Good relations to banks, some own assets	Increasing own assets, superior rating by banks	Optimised	
Physical Environment: Sustainability	Very comprehensive (energy, material, water, air) – awareness of people depending on duty	Very comprehensive (energy, material, water, air) – awareness of people depending on duty	Intensified (new production hall)	Exemplary
Morality: Motivation	Personality of owner and people Employees and families, society	Personality of owner and people Employees and families, society	Increased	Increasing integration
Morality: Specifications	Justice (3.0), to be an example (2.9), family/leisure (2.7), openness (2.6), health (2.3)	To be an example (3.1), justice (2.2), lifelong learning (1.9), loyalty (1.8)	‘to be an example’ in front – broad distribution of values	Long term model of leadership
Morality: Sustainability,	Long term orientation	Long term orientation	Optimised	Exemplary

codification	(humans in centre – solid economical basis allows long term social and environmental activities) Mission statement: comprehensive	(humans in centre – solid economical basis allows long term social and environmental activities) Mission statement: comprehensive		
Mgmt-System: Mission/strategies, statement	Sustainable economic activity, growth, innovation Leadership Familiarity	Sustainable economic activity, growth, innovation, trustiness Leadership Familiarity	Optimised	Moral background, familiarity decisive
Mgmt-System: Range, formality	ISO 9001, ISO 14001, EMAS People integration	ISO 9001, ISO 14001, EMAS Some circularity People integration	Optimised	Circular loops not fully working
Mgmt-System: Q: definition, -methods -praxis	Security, serviceable	Security, serviceable, reliability	Minimal	Still quality control orientated
Mgmt-System: Controlling, risk mgmt	Financial, Q-, E-controlling Market analysis, annual reports (customers, suppliers, Q, E)	Financial, Q-, E-controlling Market analysis, annual reports (customers, suppliers, Q, E)	Minimal	The integration of these issues is not stringent
Mgmt-System: Knowledge mgmt	External and internal trainings, collaboration with customers and science	External and internal trainings, collaboration with customers and science	Optimised	Remain market leader
Mgmt-System: Comprehensiveness	Different elements – combined in daily use, but not systematically	Different elements – combined in daily use, but not systematically	Minimal	Too much technical and owner orientated

Highlights

- Concentration on owner – mix of partnership, collegiality and trust
- Exemplary responsibility towards employees and their families, society, physical environment
- Networking

Weaknesses

- Management system still control and technology orientated, no stringent integration of elements

Problems:

- Succession: owner more than seventy years old

Specific changes between the two rounds of interviews:

- Minimal
- Responsibility of advisory board and management team intensified (succession plan)
- Increasing integration and interest towards employees

- Relations to science increased

Specific developments after the round 2:

Interplay of morality, mgmt-system and environment:
- Intensive interplay, but not systematically integrated
- Morality and commitment for environment very intensive (formed by owner family)

Case 12

Country: Switzerland

Size: small (37) / (40) No of interviewed: 7/7

Industry: Production: printing plant

Foundation/history: 1964: father of owners aimed self-employment – 1974 publishing house – 2001 takeover by two sons (actual owners)

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Family Ltd.	Family Ltd.	Reimbursement to father	
Leadership, decisions making	Differences between departments – sometimes unclear Directorate with 3 persons	Clear, familiar, collegial Team orientated – final decisions: directorate	Integration of people Team orientated decisions	Coaching between the rounds Often no time for long term reflections
People	80 % specialists Often not integrated	80 % specialists Increasing integration	Increasing integration	Optimised culture
Patterns of organisation	Departments with specific sales, function orientated	Departments with specific sales, function orientated	Increased integration	Relatively independent departments (publishing, advertiser, printing)
Culture/traditions	Some events	Improvement, communication, high collegiality, events	Increased integration	Common value: improvement
Values: ideal boss, employee	B: competent, fair E: competent, fair	B: time to manage problems, fair E: effective, happy, fair	Increased problem and people orientation	Change
Communication	Mix of information (formalised, on demand, internet) Discrepancy of communications' perception	Mix of information (daily meetings, formalised, on demand, internet) Communications optimised	Daily meetings Communications optimised	Increasing integration of people
Finance: Turnover, cash flow, profit	T: decreasing (general downturn) CF: mix	T: increasing CF: increasing P: investments, reserves	Increasing	Boom

	(depending on department) P: repayment (father)			
Resources: people, finance, time	P: sufficient F: mainly own assets T: not enough for leisure	P: minimal people with needed technological knowledge on market F: aim: only own assets – new equipment asks financing by bank T: not enough for long term planning and sometimes for leisure	Increased	Expansion and boom
Society: Public, sponsoring	Regional sponsoring	Regional sponsoring		e.g. cost free advertisements
Society: Legislation	Minimal	Minimal	None	
Society: Associations	Industry, business	Industry, business	None	
Economy: Innovation, agility, PR	I: new equipments A: different products PR: own agency, networking, quality	I: technical top A: different products PR: own media, direct mailings	Ongoing optimisation	Technically leading company
Economy: Market position, geographical range	MP: art print/publisher: leader – industry GR: national – regional	MP: art print/publisher: leader – industry GR: national – regional	minimal	Long-term: technical and knowledge orientation
Economy: Customers - competitors	Publisher, industry, public, private – regular analysis Competition on regional level	Supra-regional enlarged – relations intensified Competition on regional level intensified	Supra-regional enlarged – relations intensified	Long-term orientation
Economy: Suppliers, partners	Few, often partnership – ecological optimisation – intuitive evaluation	Few, often partnership – product and ecological optimisation – intuitive evaluation	Intensified partnership – product and ecological optimisation	Sustainable – evaluation to optimise
Economy: Financing	Mainly own assets	Aim: only own assets – new equipment asks financing by bank	Innovation asks for external financing	Solid basis
Physical Environment: Sustainability	Technological progress: reduced pollution, planned waste management	Material optimisation with regional partner (waste paper)	Ongoing serious optimisation	Optimisation of waste management planned
Morality: Motivation	Social	Social	Intensified	Long-term

	responsibility, especially towards employees	responsibility, especially towards employees		integration
Morality: Specifications	Family/leisure (2.9), to be an example (2.6), health (2.6), good image (2.1), justice (2.1)	To be an example (3.1), family/leisure (2.4), good image (1.9), openness (1.9, alternatives (1.9)	Company orientation increased	Possibly connected with optimised culture
Morality: Sustainability, codification	Moral principles	Long-term orientation Mission statement	Mission statement allows long-term orientation	Sustainable orientation
Mgmt-System: Mission/strategies, statement	High quality, high technology – own assets – no growth	Small but nice, keep turnover – high quality, high technology	minimal	Long-term: high quality
Mgmt-System: Range, formality	Some standards (printing, layout)	Department orientated standards	Minimal	Against external standards
Mgmt-System: Q: definition, -methods -praxis	Price, deadline, service	Everything we offer (behaviour, product, deadline, price)	Behaviour important	Integration
Mgmt-System: Controlling, risk mgmt	Financial controlling 5 year financial planning	Quality and financial controlling Long-term strategy (new site), financial planning	Enlarged (not only finance)	Integration
Mgmt-System: Knowledge mgmt	Quality basing on knowledge	Technical development asks for knowledge	Intensified	Difficult to find real specialists on market
Mgmt-System: Comprehensiveness	Own system with minimal standards	Own system with departments' standards	Optimised	Demand-orientated

Highlights
- Concentration on owners, increasing integration of people
- Technically leading company

Weaknesses
- Often no time for long term reflections

Problems:
- Difficulties to find real specialists on market

Specific changes between the two rounds of interviews:
- Because of disillusioning results of round 1: collaboration with a coach
- Leadership: Integration of people, team orientated decisions
- Mission statement allows long-term orientation
- Communication/integration optimised
- Suppliers: Intensified partnership, product and ecological optimisation
- Physical environment: Ongoing serious optimisation

Specific developments after round 2:

Interplay of morality, mgmt-system and environment:

- Morality as matter of course being integrated in vision/strategy and related to environmental responsibility
- Minimal standards: demand-orientated

Case 13

Country: Switzerland – only one interview round: Company was sold; top-manger was replaced by a new person which refused to participate round 2.

Size: medium – (135 – of them 2/3 Swiss) No of interviewed: 12

Industry: Production: stone quarry, concrete goods, landscape gardening

Foundation/history: 1929 mother company – 1931 stone quarry for street (gravel) and railway constructing (ballast) – 1941 concrete goods (manual, mechanical) – automation – 2003 new site (concrete slabs) – 2006 sold to a holding installing a new management

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – number of main owners reduced from 4 to 2 – some employee participation			
Leadership, decisions making	Official: co-operative – reality: mix (depending on department)			
People	Half specialists – half semi-skilled New procedures ask for an increasing number of specialists.			
Patterns of organisation	Divisions, function orientated Manual operations – increasing automation			
Culture/traditions	Meetings, different events Integration of stakeholders			Integration of stakeholders (because of public pressure)
Values: ideal boss, employee	B: autonomous with own opinion – ready for synthesis E: critical towards requirements and processes – team player			
Communication	Mix depending on duties: meetings, intranet, minimal People orientated			
Finance: Turnover, cash flow, profit	T: retracement CF: retracement			Long winter, depression

	P: needed investments			2003
Resources: people, finance, time	P: long-time F: long-established, bank credits < 50 % T: minimal			
Society: Public, sponsoring	Offering employment, sponsoring (sports, theatre, music, social)			
Society: Legislation	Environment, safety, security, landscape			Planning of new quarry
Society: Associations	Industry			
Economy: Innovation, agility, PR	I: new production sites A: new products PR: exposition, new carry			
Economy: Market position, geographical range	MP: leader GR: nation wide			
Economy: Customers - competitors	Quarry: railway, road construction – goods: underground, building construction, horticulture Growing competition from abroad			
Economy: Suppliers, partners	From holding (integration of former competitors)			
Economy: Financing	Long-established, bank credits < 50 %			
Physical Environment: Sustainability	Comprehensive (complex: noise, water, air, waste, landscape) – regular ecological audits and search for optimisation			
Morality: Motivation	Responsibility towards employees, sustainability			
Morality: Specifications	Private/leisure (2.7), justice (2.5), to be an example (2.3), integration/autonomy (2.1)			External issues in front
Morality: Sustainability, codification	Long-term responsibility Mission statement (comprehensive)			
Mgmt-System: Mission/strategies, statement	Raw material assuring, new products and processes			
Mgmt-System: Range, formality	ISO 9001, ISO 14001 – circularity			
Mgmt-System: Q: definition, -methods	Customer orientation Circularity,			

-praxis	elaborateness			
Mgmt-System: Controlling, risk mgmt	Different indices, supervised by holding Integrated (market, resources)			
Mgmt-System: Knowledge mgmt	Regular optimisation of needs			
Mgmt-System: Comprehensiveness	Comprehensive, circularity Mainly concentrated on management			

Highlights

- Integration of stakeholders because of public pressure

Specific changes between the two rounds of interviews: no round 2 because of new owner and management

Interplay of morality, mgmt-system and environment:

- Intensive interplay basing on specific environmental situation of company and commitment of top-manager

Case 14

Country: Germany, Northern Bavaria

Size: small (50) / (38) No of interviewed: 8/8

Industry: Service: nursing home

Foundation/history: Starting as general hospital – 1996 geriatric rehab-clinic – 2003 acquisition by actual owner, stationary nursing home – 2006 new top-manager

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Foundation (catholic) under public law	Foundation (catholic) under public law	None	
Leadership, decisions making	Co-operative	Mix of co-operative and hierarchy	Position of top-manager intensified	New top-manager brought new style (more hierarchic)
People	70 % specialists	50 % specialists	Number of specialists reduced	
Patterns of organisation	Matrix – customer orientated	Function orientated	More hierarchical	New boss
Culture/traditions	Humans in front – collegial, familiar	Partnership – some people feel uncertain	Economical aspects more important	
Values: ideal boss, employee	B: loyal, team orientated, understanding E: team orientated, cooperative,	B: just, honest, transparent, precise E: honest, loyal, critical,	More hierarchy orientated	

	adaptive	communicative, able to accept decisions		
Communication	Meetings, personal contacts, internet, documentations, journals Making proposals	Documentations, journals, internet, meetings Making proposals	Increased orientation towards written forms	New culture Managers evaluate quality of communication higher
Finance: Turnover, cash flow, profit	T: increasing CF: launching cost – minimal P: investments	T: increasing – no results of departments CF: minimal P: investments – payback to holding		
Resources: people, finance, time	P: high regional unemployment F: starting capital by holding T: some organisational problems – shift and weekend working	P: high regional unemployment F: demand for increasing independence T: often not enough time (pressure to save) – additionally: shift and weekend working	Demand for increasing independence forces pressure	Holding has also financial problems
Society: Public, sponsoring	Town and its elderly citizens – public restaurant	Citizens of socially weak region		
Society: Legislation	Health care	Health care		
Society: Associations	Christian care association	Christian care association		
Economy: Innovation, agility, PR	I: psychiatry A: resident orientation PR: advertisements, mouth-to-mouth	I: integration of relatives A: resident orientation PR: meetings, networking, advertisements, open house	I: integration of relatives PR: new ideas	
Economy: Market position, geographical range	MP: niche GR: region	MP: niche GR: region	Minimal	
Economy: Customers - competitors	People from town and region Feedbacks by interviews, meetings Few competitors	Inhabitants and relatives – employees Feedbacks by interviews, meetings Intensive competition	Minimal Competition intensified	New private (low cost) competitors
Economy: Suppliers, partners	Holding partners, different externals – measuring according to importance Contracts, good relations	Holding partners, different externals Contracts, some are exchangeable (price orientation)	Increasing price orientation	Financial pressure
Economy: Financing	Starting capital by	Demand for	Demand for	Holding with

	holding	increasing independence	increasing independence	propensity to save
Physical Environment: Sustainability	Energy and waste management	Energy and waste management	Minimal	Benchmarking within holding
Morality: Motivation	Tradition of Christian owner Inhabitants of town – common responsibility	Tradition of Christian owner Customers in a socially disadvantaged region – employees	Minimal	
Morality: Specifications	To be an example (4.0), integration/autonomy (2.9), openness (2.4), justice (2.1)	To be an example (3.5), openness (3.3), lifelong learning (2.3), private/leisure (2.1), loyalty (2.0)	Integration / autonomy became unimportant	New management style
Morality: Sustainability, codification	Mission statement (Christian) Long-term vision	Mission statement in revision (vision of holding important) Temporary contracts (employees, suppliers) provoke uncertainness	Increasing uncertainness	New politics of holding
Mgmt-System: Mission/strategies, statement	Optimum for inhabitants – forcing psychiatric issues Education of employees	Optimum for inhabitants Transparency and some co-deciding	Some decrease of employees' integration	New management
Mgmt-System: Range, formality	Quality manual – ISO 9001 planned – integration of employees	Quality manual – use of model planned – some integration of employees	New orientation	New management
Mgmt-System: Q: definition, -methods -praxis	Harmony between inhabitants and employees – collaboration	Attaining goals of management – commitment	More hierarchical	New management
Mgmt-System: Controlling, risk mgmt	Controlling by co-operation Projects within holding	Controlling by communication on different levels Projects within holding	More hierarchical	New management
Mgmt-System: Knowledge mgmt	Ongoing education, innovation	Unclear	No clear position	New management
Mgmt-System: Comprehensiveness	Company system with high integration	Company system with hierarchical orientation	Decreasing employee integration	New management

Problems:

- New manager destabilises employees and provokes decreasing integration.

Specific changes between the two rounds of interviews:

- New (external) manger forces hierarchical orientation, probably supported by holding
- Communication: Increased orientation towards written forms
- Finance: Demand for increasing independence
- Temporary contracts (employees, suppliers) provoke uncertainness

Interplay of morality, mgmt-system and environment:

- Morality as basic element (Christian institution)
- Environment important
- Interplay of elements decreased with new management

Case 15

Country: Germany, Middle Bavaria

Size: small (31) / (32) No of interviewed: 7/8

Industry: Service: nursing home

Foundation/history: old castle (built in 1551) – 1899 bought by nuns – 1922-1992 domestic science school – since 1945 nursing home – 1997 acquisition by actual owner – since 1997 increasing number of offered places (from 32 to 97)

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Foundation (catholic) under public law	Foundation (catholic) under public law	none	
Leadership, decisions making	Co-operative, familiar – nuns: more authoritarian	Co-operative, familiar – nuns: authoritarian style reduced (parallel to decreasing number of nuns)	Optimised	People unlike that director are responsible for two homes.
People	Nearly 2/3 specialists, apprentices – jointly responsible	Nearly 2/3 specialists, apprentices – jointly responsible	Minimal	
Patterns of organisation	Matrix – process and people orientated	Matrix – process and people orientated – increasing integration	Increasing integration	
Culture/traditions	Christian background – to foster live, challenging – familiar	Christian background – respect, open, friendly, free of fear	More tangible	Increased integration
Values: ideal boss, employee	B: social, methodological and professional competencies – having time E: competencies – jointly responsible, acting independently – profession as	B: social, methodological and professional competencies – having time – shows strength of character E: competencies – jointly responsible,	B: strength of character	

	mission, high identity	acting independently – profession as mission, high identity		
Communication	Many meetings, personal contacts – literature, internet Communicative partnership	Many meetings, personal contacts – literature, internet Communicative partnership	Intensified	
Finance: Turnover, cash flow, profit	T: increasing, more capacity CF: balanced – more inhabitants reduce fixed cost P: investments	T: increasing, fully booked CF: increasing – more inhabitants reduce fixed cost P: investments	CF: increasing	CF: reduced, if many inhabitants die
Resources: people, finance, time	P: specialists F: holding, inhabitants, public, insurances T: shift and weekend working	P: specialists F: inhabitants, public, insurances T: shift and weekend working	F: increasing independence from holding	
Society: Public, sponsoring	People in need of care – public restaurant	People in need of care – public restaurant, Christmas market	Minimal	
Society: Legislation	Health care, business inspectorate	Health care, business inspectorate	Minimal	
Society: Associations	Christian, industry, cultural	Christian, industry, cultural		
Economy: Innovation, agility, PR	I: Optimisation of building A: comprehensiveness PR: feedback, reports, advertisements, internet, hospitals	I: new groups of customers A: comprehensiveness PR: holding, reports, internet, hospitals	I: New groups of customers PR: Activities of holding	
Economy: Market position, geographical range	MP: good reputation GR: region, supra-region	MP: good position (middle price) GR: region, supra-region	optimised	
Economy: Customers - competitors	Region: people in need of care and/or dement Supra-region: chronically dependent people Relatives Competitors: some public	Region: people in need of care and/or dement Supra-region: chronically dependent people Relatives Competitors: cheap private homes	Enlarged Intensified competition	Quality as differentiation
Economy: Suppliers, partners	Different, some co-operation	Part of purchasing organisation, partnership	Concentration	
Economy: Financing	Holding, inhabitants, public, insurances	Inhabitants, public, insurances	Holding activity reduced	
Physical Environment: Sustainability	Material/waste management, energy optimisation Long term orientation	Material/waste management, energy optimisation intensified Long term	Energy optimisation intensified	Old buildings ask for ongoing optimisation

		orientation		
Morality: Motivation	Tradition of Christian owner Public social orientation absolutely in front – economy as basis, ecology important	Tradition of Christian owner Public social orientation absolutely in front – economy as basis, ecology important		
Morality: Specifications	To be an example (3.6), justice (3.1), openness (2.5), family/leisure (2.0), integration/autonomy (1.9)	Lifelong learning (2.4), openness (2.4), flexible (2.3), justice (2.2), to be an example (2.1), health (2.1)	Larger distribution of values	People had more time for reflection.
Morality: Sustainability, codification	Long-term orientation Christian background (holding) – mission statement	Long-term orientation Christian background (holding) – mission statement – some constraints because of social legislation	Some constraints because of social legislation	Legal constraints
Mgmt-System: Mission/strategies, statement	Comprehensive, customer orientated – optimisation of culture and buildings – co-operation with external partners	Christian care for different sorts of people needing care – ongoing optimisation of training and buildings – co-operation with external partners intensified	Christian issues and co-operation intensified	
Mgmt-System: Range, formality	Internal standards – ISO 9001 as option – integration of employees	Internal standards optimised – ISO 9001 in preparation – integration of employees intensified	Integration intensified	
Mgmt-System: Q: definition, -methods -praxis	Customers satisfied – intensive relations, optimal behaviour	Quality of life, customers satisfied – optimal behaviour and relations – regular measuring	Integration intensified	
Mgmt-System: Controlling, risk mgmt	C: financial, insurances RM: financial, insurances – long term	C: financial, insurances RM: financial, insurances – long term – benchmarking	Benchmarking	Mainly financial
Mgmt-System: Knowledge mgmt	Ongoing trainings	Ongoing trainings – to be prepared for additional groups of customers	Specification	
Mgmt-System: Comprehensive-ness	Comprehensive mission and corresponding activities	Comprehensive mission and corresponding activities	Intensified	

Highlights

- Quality of services as differentiation

Problems:

- Director is responsible for two homes – people unlike it
- Energy optimisation: castle with high rooms and large stare ways

Specific changes between the two rounds of interviews:
- Leadership became less hierarchical
- Optimisation of buildings for additional groups of customers
- Trainings intensified
- Finance: Holding activity reduced
- Energy optimisation intensified
- Strategy: Christian issues and co-operation intensified

Specific developments after round 2: In Spring 2007 the director became top-manager of a group of hospitals.

Interplay of morality, mgmt-system and environment:
- Intensive interplay of all three elements
- Ongoing development with integration of employees

Case 16

Country: Germany, Baden-Wurttemberg

Size: small (38) / (38) No of interviewed: 7/7

Industry: Service: nursing home

Foundation/history: 1929 House bought from local community, mother house of missionary province – convalescence home for mothers – 1974 new building (after fuel) – since 1976 home for elderly people – since 1995 actual owner: number of beds increased (20 %), still some nuns working in

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Foundation (catholic) under public law	Foundation (catholic) under public law		
Leadership, decisions making	Mainly co-operative – nuns with trend to hierarchical style	Mainly co-operative – nuns with trend to hierarchical style	Minimal	
People	More than half: specialists – quality in front – apprentices	More than half: specialists – quality in front – apprentices	Minimal	
Patterns of organisation	Matrix – inhabitants orientated	Matrix – inhabitants orientated – process orientation, employees' integration	Process orientation, employees' integration	Employee's integration slowly increasing
Culture/traditions	Christian background: heal and help – to foster live, take chances - familiar	Christian behaviour –respect, open, friendly, free of fear – collegial, friendly, conflict conscious	More tangible	

Values: ideal boss, employee	B: social, methodological and professional competencies – having time E: competencies, jointly responsible, acting independently – profession as mission, high identity	B: social, methodological and professional competencies – having time – show strength of character E: competencies, jointly responsible, acting independently – profession as mission, high identity	B: strength of character	Number of German nuns decreasing (young nuns from India)
Communication	Many meetings, personal contacts – literature, internet Cooperative behaviour	Many meetings, personal contacts – literature, internet Cooperative behaviour	Cooperative behaviour decreasing	
Finance: Turnover, cash flow, profit	T: increasing (because of capacity) CF: positive (fixed cost can be shared) P: renovation of buildings	T: positive CF: positive (high standard) P: new buildings, new medical products	Increased capacity	
Resources: people, finance, time	P: specialists F: holding, inhabitants, public, insurances T: shift and weekend working	P: specialists F: inhabitants, public, insurances T: shift and weekend working	F: activity of holding reduced	
Society: Public, sponsoring	Region, local community, inhabitants	Region, local community, inhabitants	Minimal	
Society: Legislation	Health care, business inspectorate	Health care, business inspectorate	Minimal	
Society: Associations	Christian care, industry	Christian care, industry	Minimal	
Economy: Innovation, agility, PR	I: comprehensive care A: employees, optimisation of buildings PR: reputation, internet, advertisements, associations,	I: additional groups of inhabitants A: employees, optimisation of buildings PR: holding, advertisements,		
Economy: Market position, geographical range	MP: reputation, inhabitants in front GR: region	MP: Christian background GR: region	Christian issues increased	
Economy: Customers - competitors	People from region Regular	Inhabitants and relatives Intensive	Minimal Contacts to competitors	

	adapted feedbacks Intensive competition (public, private)	Regular contacts to (public) competitors		
Economy: Suppliers, partners	Different – some co-operation	Part of purchasing organisation - partnership	Concentration	
Economy: Financing	Holding, inhabitants, public, insurances	Inhabitants, public, insurances	Activity of holding reduced	
Physical Environment: Sustainability	Energy optimisation, waste management Long term	Energy optimisation, waste management Long term	Minimal	Sustainable responsibility
Morality: Motivation	Tradition of Christian owner Activity orientated – social issues in front (inhabitants, employees, city), environment	Tradition of Christian owner Activity orientated – social issues in front (inhabitants, employees, city), environment	Minimal	
Morality: Specifications	Justice (3.6), to be an example (3.4), openness (2.9), health (2.4), family/leisure (2.3), integration / autonomy (1.9), lifelong learning (1.9)	To be an example (3.3), justice (3.3), family/leisure (3.1), integration/autonomy (2.3), compliance (2.3), loyalty (2.1), openness (2.1), health (2.0)	Larger distribution of values – more importance for family / leisure	People had more time for reflection.
Morality: Sustainability, codification	Industry ethics, holding requirements, mission statement, long term orientation	Industry ethics, holding requirements, mission statement, long term orientation	Minimal – adapted to ongoing social decline	
Mgmt-System: Mission/strategies, statement	Comprehensive care, integration of relatives – ongoing adaption of systems and building	Christianity based care, additional offers, comprehensive – ongoing adaption of systems and building	Additional offers – ongoing optimisation	
Mgmt-System: Range, formality	ISO 9001 – from minimal use to ongoing implementation	ISO 9001 – trend to circularity and integration	Trend to circularity and integration	Renewal of certification
Mgmt-System: Q: definition, -methods -praxis	Satisfaction of customers and employees – ongoing professionalism	Satisfaction of customers – high professionalism	Minimal	
Mgmt-System: Controlling, risk mgmt	C: mainly financial RM: financial, conceptual	C: mainly financial RM: coverage by holding, benchmarking	RM: benchmarking	

Mgmt-System: Knowledge mgmt	Ongoing trainings	Ongoing trainings – especially for additional services	Concentration on additional services	
Mgmt-System: Comprehensiveness	Motivated employees	Increasing circularity and integration	Increasing circularity and integration	Highly motivated people

Highlights
- Highly motivated people

Problems:
- Energy optimisation: Relatively old buildings

Specific changes between the two rounds of interviews:
- Renewal of ISO 9001 – recertification
- Increasing circularity and integration
- Organisation: increasing integration of employees
- Finance: decreasing activity of holding
- Additional services

Specific developments after the round 2: In Spring 2007 director became top-manager of a group of hospitals.

Interplay of morality, mgmt-system and environment:
- Intensive interplay of all issues
- Basing on highly motivated people
- Management system: increasing circularity and integration

Case 17

Country: Switzerland

Size: medium (114) / (119) – many part-time No of interviewed: 11/12

Industry: Service: nursing home

Foundation/history: 1967 new foundation for patients with chronic diseases (buildings of former hospital) – 2004 new top manager (follower of a long-term caretaker) – 2005 new additional building

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Foundation	Foundation	None	
Leadership, decisions making	Mainly partnership – partly unclear No clear distinction between strategy and operation	Communicative Knowledge, respect, team orientated – partly working	New style – theoretical	New boss trying new issues People with difficulties to adapt leave
People	Half specialists	Half specialists	None	
Patterns of organisation	Department orientated, function orientated	Trend to matrix - sub departments, function orientated	Trend to matrix – sub departments	New boss

Culture/traditions	Openness, familiar, self development	Openness – sometimes unclear	New trend – unclear	New boss
Values: ideal boss, employee	B: self development, pedagogical E: flexibility, ready for learning	B: high identification with job – self critical, ethical E: high identification with job, self critical, ethical, consistent	Job orientation	New boss
Communication	Meetings, standards Communicative	Meetings, clear standards Communicative, more hierarchical	More hierarchical	New boss
Finance: Turnover, cash flow, profit	T: increasing CF: sufficient P: payoff	T: increasing CF: sufficient P: payoff	None	
Resources: people, finance, time	P: mainly specialists, self competent F: customers, insurances, public, foundation T: minimal – shift work, often part time	P: mainly specialists, self competent F: customers, insurances, public, foundation T: minimal – shift work, often part time	None	
Society: Public, sponsoring	Regional home, contacts	Regional home, contacts – own restaurant	Own restaurant	
Society: Legislation	Health and social	Health and social	None	
Society: Associations	Industry	Industry		
Economy: Innovation, agility, PR	I: communication, new customers A: customer orientation PR: local journals, website, relations	I: comprehensive offer A: customer orientation PR: local journals, relations	minimal	
Economy: Market position, geographical range	MP: leader GR: regional	MP: leader GR: regional	Minimal	
Economy: Customers - competitors	Regional – regular feedbacks Minimal competition	Regional – systematic feedbacks Minimal competition	Systematic feedbacks	
Economy: Suppliers, partners	Pool with others	Cost orientated – local	Cost orientated	New boss
Economy: Financing	Customers, insurances, public, foundation	Customer, insurances, public, foundation	None	
Physical Environment: Sustainability	Energy, waste – basing on concept	Energy, waste – not systematic	Not systematic	New boss

Morality: Motivation	Tradition of foundation Social issues in front Customer, employee orientation	Tradition of foundation Social issues in front Customer, employee orientation	Minimal	
Morality: Specifications	Openness (3.1), to be an example (2.8), family/leisure (2.6), flexible (2.4), integration / autonomy (2.1), justice (2.1), lifelong learning (2.1)	Openness (2.9), to be an example (2.6), family/leisure (2.3), lifelong learning (2.3), justice (2.2)	Minimal	No influence of new boss
Morality: Sustainability, codification	Mission statement – comprehensive	Mission statement to be revised – round-table principle	Round-table principle	
Mgmt-System: Mission/strategies, statement	Customer, employee orientation	Customer, employee orientation – more stringent	More stringent	New boss
Mgmt-System: Range, formality	EFQM adaption for homes: minimally implemented – shop floor standards	New model in discussion: peer evaluation – shop floor standards	No specific system	New boss
Mgmt-System: Q: definition, -methods -praxis	Quality of life, customer and employee orientation Communication, respect	Customer and employee orientation, win-win Communication, knowledge optimisation	Minimal	
Mgmt-System: Controlling, risk mgmt	C: financial, some effects by EFQM, meetings RM: demographic development	C: financial, satisfaction RM: demographic development	Minimal	
Mgmt-System: Knowledge mgmt	Adapted to new challenges	Adapted to new challenges – more systematic	More systematic	New boss
Mgmt-System: Comprehensiveness	EFQM, but minimally implemented	Round-table – minimally formalised	Round-table – minimally formalised	New boss

Highlights
- Round table principle for problem solving

Problems:
- New boss brought more strength, aspiring a new culture

Specific changes between the two rounds of interviews:
- New boss brought more strength, aspiring a new culture
- Employees insecure
- Trend to matrix organisation with sub departments

- Communication: more hierarchical
- Public restaurant
- Selection of suppliers: cost orientated
- Management system: round table principle with minimal formalisation

Interplay of morality, mgmt-system and environment:
- Round 1: interplay with poorly implemented mgmt system
- Round 2: minimally formalised, but practise and aim of integration (because of mission, boss and employees)

Case 18

Country: Switzerland

Size: micro (3) / (4) No of interviewed: 2/3

Industry: Service: garage

Foundation/history: 1996 entrepreneurial spirit of owner family – 2002 Ltd (GmbH) – repair of cars, sale of special parts for cars, some sale of used cars -

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – family	Ltd – family	None	
Leadership, decisions making	Cooperative, everyone knows his duties – final decisions by owner	Teamwork, respect, everyone knows his duties – final decisions by owner	Minimal	
People	Specialists	Specialists	None	
Patterns of organisation	Team orientation, everyone knows all the duties – final decisions by owner	Team orientation, everyone knows all the duties – final decisions by owner	None	
Culture/traditions	Good relations, events	Good relations, events	Intensified	
Values: ideal boss, employee	B: partner, motivator, flexible, open E: autonomous, loyal, on schedule	B: boss of team E: autonomous, jointly responsible	B: more strength E: more joint responsibility	ambivalent
Communication	Meetings, feedbacks Intensive	Meetings, feedbacks Intensive	Minimal	
Finance: Turnover, cash flow, profit	T: variable CF: stagnation P: none	T: minimally decreasing CF: increasing P: investment, reduction of debt	Optimised	Better, basis of future development
Resources: people, finance, time	P: specialists F: banks, own T: some pressure	P: specialists F: mainly own T: some pressure	F: mainly own	
Society: Public, sponsoring	Apprentices Intensive	Apprentices Sponsoring	Sponsoring reduced	No feedbacks of sponsored

	sponsoring	reduced		associations
Society: Legislation	Car, safety	Car, safety	None	
Society: Associations	Industry	Industry – support	Minimal	
Economy: Innovation, agility, PR	I: new products A: high knowledge PR: sponsoring	I: new products A: high knowledge PR: mouth-to-mouth	PR: mouth-to-mouth	Minimal financial resources
Economy: Market position, geographical range	MP: niche GR: region	MP: niche GR: region	Minimal	
Economy: Customers - competitors	Private Positive feedbacks Hard competition	Private, some business Positive feedbacks Good relations to competitors	Some business customers Good relations to competitors (all having problems)	
Economy: Suppliers, partners	Partners, some dependency – principal agent for some products	Partners, some dependency – principal agent for some products	Minimal	
Economy: Financing	Mix of banks and own	Mainly own	Mainly own	
Physical Environment: Sustainability	Products, waste management – high consciousness	Green cars, products, waste management – high consciousness	Intensified	Common responsibility
Morality: Motivation	Personality of owners Social contacts – common responsibility	Personality of owners Triple bottom line – common responsibility	More comprehensive towards triple bottom line	High consciousness of owner
Morality: Specifications	To be an example (4), justice (4), co-responsible (4), family/leisure (3)	Justice (3), family/leisure (3), to be an example (3),	Minimal	Minimal number of interviewee
Morality: Sustainability, codification	Not formalised, some ideas	Not formalised, some ideas	High common consciousness	
Mgmt-System: Mission/strategies, statement	Survival of company – good relations to customers and within company	Survival of company – good relations to customers and within company – adequate	Adequate strategies	
Mgmt-System: Range, formality	Safety – ongoing adapted – standards of partners	Safety – ongoing adapted – standards of partners	Minimal	Bad image of ISO 9001: no guarantee of quality
Mgmt-System: Q: definition, -methods -praxis	Good people make good work – customer and people satisfaction	Good work, no stress – customer and people satisfaction	Minimal	
Mgmt-System: Controlling, risk mgmt	Financial, discussions in family	Financial, discussions in family	Minimal	
Mgmt-System: Knowledge mgmt	Ongoing trainings	Ongoing trainings	Minimal	Co-operation with partners

Mgmt-System: Comprehensiveness	Minimal formalisation, but quite adequate	Minimal formalisation, but quite adequate	Minimal	

Highlights
- Spirit of owners
- Team orientation, respect
- Good internal and external relations

Specific changes between the two rounds of interviews:
- Relations intensified
- More joint responsibility – e.g. towards physical environment
- Sponsoring reduced because of missing feedbacks of associations
- Training in co-operation with partners

Interplay of morality, mgmt-system and environment
- Intensive, but minimal formalisation

Case 19

Country: Switzerland

Size: Micro (8) / (7) No of interviewed: 3/3

Industry: Services: garage

Foundation / history: 1993 acquisition of existing company – entrepreneurial spirit – since

1999 new site – sales and repair of cars (different models)

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – owned by manager	Ltd – owned by manager	None	
Leadership, decisions making	Cooperative – final decisions by owner	Cooperative, more stringent – final decisions by owner	More stringent	
People	Specialists	Specialists	None	
Patterns of organisation	Departments, function orientated	Departments, function orientated	None	
Culture/traditions	Common spirit – events	Common spirit, even by discord	Concretised	
Values: ideal boss, employee	B: friendly, ability to assert oneself E: cooperative, enthusiastic	B: no stress, no conflicts E: friendly, authentic	Less emotional	Intensive workload
Communication	Meetings, handbooks, standards Personal relations	Handbooks, standards Personal relations	Less meetings	Intensive workload
Finance: Turnover, cash flow, profit	T: increasing CF: satisfying P: investment	T: mixed (less sales) CF: good P: investment	minimal	
Resources: people, finance, time	P: specialists F: mainly own	P: specialists F: mainly own	T: pressure intensified	

	T: some pressure	T: pressure intensified		
Society: Public, sponsoring	Regional projects, sponsoring	Regional projects, sponsoring	Intensified	
Society: Legislation	Cars, safety	Cars, safety	Minimal	
Society: Associations	None	None	No	
Economy: Innovation, agility, PR	I: knowledge A: knowledge PR: internet, advertisements, sponsoring, cars	I: knowledge A: knowledge PR: internet, advertisements, sponsoring, cars	Minimal	
Economy: Market position, geographical range	MP: only representative of model GR: region	MP: only representative of model GR: region	Minimal	
Economy: Customers - competitors	Private, partly business Good relations Many competitors, but in contact	Private, partly business Good relations Many competitors, but in contact	Minimal	
Economy: Suppliers, partners	Model producers Good relations, but dependence	Model producers Good relations, but dependence	Minimal	
Economy: Financing	Mainly own assets	Mainly own assets	Minimal	
Physical Environment: Sustainability	Waste management, recycling, water protection	Waste management, recycling, water protection	Minimal	Following legal requirements
Morality: Motivation	Personality of owner Social responsibility – region, guarantee of workplace	Personality of owner Social responsibility – region, guarantee of workplace	Minimal	
Morality: Specifications	Family/leisure (3.0), to be an example (2.7), health (2.7), openness (2.3), flexible (2.0)	Good image (2.5), openness (2.2), lifelong learning (2.2)	More company orientated	
Morality: Sustainability, codification	None – some from industry	Reflections of owner – some from industry	Reflections of owner	
Mgmt-System: Mission/strategies, statement	Comprehensive customer orientation	Comprehensive customer orientation – employee integration	Employee integration	
Mgmt-System: Range, formality	Safety – model standards	Safety – model standards intensified	Model standards intensified	ISO 9001 not needed
Mgmt-System: Q: definition, -methods -praxis	Mix of satisfaction (customers, owner, employees) Optimal work	Mix of satisfaction (customers, owner, employees) Optimal work, but time	Time pressure	

		pressure		
Mgmt-System: Controlling, risk mgmt	C: daily financial RM: minimal	C: daily financial RM: failure management	Failure management	
Mgmt-System: Knowledge mgmt	Ongoing trainings	Ongoing trainings	Intensified	
Mgmt-System: Comprehensiveness	Model standards – use quite comprehensive	Model standards – use quite comprehensive	Intensified	

Highlights
- Concentration on owner, some integration of people

Problems:
- Intensive workload impedes optimisation of system and integration of employees

Specific changes between the two rounds of interviews:
- Generally intensified, but more time pressure

Specific developments after the 2nd round: minimal

Interplay of morality, mgmt-system and environment:
- Quite intensive interplay of morality and mgmt-system with ongoing formalisation
- Activity concerning the physical environment fulfils legal requirements.

Case 20

Country: Switzerland

Size: Micro (5) / (5) No of interviewed: 3/3

Industry: Service: consumer electronics

Foundation / history: 1962 founded by father of owner – 1976 takeover by son (parents as employees)

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – family	Ltd – family	None	
Leadership, decisions making	Familiar (boss as elder brother) – main decisions by owner	Familiar (boss as elder brother) – main decisions by owner	Minimal	
People	Specialists	Specialists	None	
Patterns of organisation	Departments, function orientated – supported by boss	Departments, function orientated – supported by boss	None	
Culture/traditions	Familiar, harmony, regular events	Familiar, harmony, regular events	None	
Values: ideal boss, employee	B: mutual trust – free with guide board E: happy with work and leisure – customer orientation,	B: father, trust – guide board and support E: like critical son following the same aim	More familiar, patriarchal	

	sound			
Communication	Daily meetings – exchange of knowledge Partnership	Daily meetings – exchange of knowledge Partnership	Minimal	
Finance: Turnover, cash flow, profit	T: fluctuation – depends on products CF: decreasing P: investment - PR	T: fluctuation – depends on products CF: increasing P: investment	CF: increasing	New main product on market
Resources: people, finance, time	P: specialists F: own assets T: some pressure	P: specialists F: own assets T: pressure intensified	T: pressure intensified	Boom
Society: Public, sponsoring	Sponsoring	Sponsoring – supporting other SMEs	Supporting other SMEs	
Society: Legislation	Education	Education	Minimal	
Society: Associations	Industry, region	Industry, region	Minimal	
Economy: Innovation, agility, PR	I: ongoing trainings A: ongoing trainings PR: mouth-to-mouth, advertisements, mailings	I: ongoing trainings A: ongoing trainings PR: mouth-to-mouth, advertisements, mailings	Minimal	
Economy: Market position, geographical range	MP: Niche, high quality GR: region	MP: Niche, high quality GR: region		
Economy: Customers - competitors	Mainly private Discounters are hard competitors	Mainly private Discounters are hard competitors – niche as alternative	Niche as alternative	
Economy: Suppliers, partners	Producers, good relations	Producers, good relations – increasing margin pressure	Increasing margin pressure	
Economy: Financing	Own assets	Own assets	None	
Physical Environment: Sustainability	Customer consulting, waste management	Customer consulting, waste management	None	Consulting
Morality: Motivation	Personality of owner family Social responsibility – growing importance of ecology	Personality of owner family Economy as basis for survival	Economy as basis for survival	Economical pressure
Morality: Specifications	To be an example (2.7), private/leisure (2.7), justice (2.7), good image (2.0), openness (2.0)	To be an example (3.0), loyalty (2.3), flexible (2.3), responsible (2.0), openness (2.0)	More company orientation	
Morality: Sustainability, codification	Customer orientation – not formalised	Customer orientation – not formalised	Minimal	

Mgmt-System: Mission/strategies, statement	High quality and reasonably price – customer orientation Networking, trainings, consulting	High quality and reasonably price – customer orientation Networking, trainings, consulting	Minimal	
Mgmt-System: Range, formality	Minimal	Some supplier standards – good work	Supplier standards	
Mgmt-System: Q: definition, -methods -praxis	High quality products – good work, planning	High quality products – good work, consulting	Minimal	
Mgmt-System: Controlling, risk mgmt	C: financial, monthly RM: not possible	C: financial, monthly RM: minimal turnover – future products	RM: minimal turnover – future products	
Mgmt-System: Knowledge mgmt	Ongoing trainings	Ongoing trainings	Minimal	
Mgmt-System: Comprehensiveness	Minimally formalised, but quite comprehensive	Minimally formalised, but quite comprehensive	Minimal	

Highlights
- Familiar (boss as elder brother)
- Support for other SMEs
- Physical environment: consulting of customers

Problems:
- Discounters are hard competitors, niche products as alternative

Specific changes between the two rounds of interviews:
- Generally intensified
- Use of supplier standards

Interplay of morality, mgmt-system and environment:
- Intensive interplay
- Minimal formalisation
- Familiarity as basis

Case 21

Country: Switzerland

Size: small (10) / (11) No of interviewed: 4/4

Industry: Services: trading of food

Foundation/history: 1975 – founder wanted to become independent – actual owner since 2003 (son of founder still in company)

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – family	Ltd – family	None	
Leadership, decisions making	Cooperative, very free – final	Cooperative, very free – final	Minimal – more freedom	

	decisions by owner	decisions by owner		
People	Specialists – some high qualified	Specialists – some high qualified	Qualification intensified	Larger market needs additional people.
Patterns of organisation	Function orientated – often multifunctional	Function orientated – often multifunctional	Optimised	
Culture/traditions	Good mix of people, friendly, open	Good mix of people, friendly, open – to be optimised	To be optimised	Boom
Values: ideal boss, employee	B: difficult to define E: exact, authentic, fair, good behaviour	B: autonomous E: exact, motivated – ready for ongoing training	Enlarged	
Communication	Internet, contacts with customers, meetings Partnership, intensive	Internet, contacts with customers, meetings Partnership, intensive	optimised	
Finance: Turnover, cash flow, profit	T: intensively increasing CF: intensively increasing P: re-investment	T: intensively increasing CF: increasing P: financing of growth	Ongoing growth	
Resources: people, finance, time	P: specialists – some with high quality F: 60 % own T: some pressure	P: specialist – some with very high quality F: nearly all own T: some pressure	P: quality optimised	Additional people
Society: Public, sponsoring	Suppression of child work – some sponsoring	Suppression of child work – some sponsoring	Minimal	
Society: Legislation	Food, industry	Food, industry	Intensified	
Society: Associations	Industry	Industry	Intensified	
Economy: Innovation, agility, PR	I: new products A: knowledge PR: known - mailings	I: new products A: knowledge PR: mouth-to-mouth – mailings	Minimal	
Economy: Market position, geographical range	MP: largest assortment GR: national	MP: partly leader, partly niche GR: national	Intensified	
Economy: Customers - competitors	Processors – regular feedbacks Some competitors – in contact	Processors, always the same – feedbacks Competition intensified	Competition intensified	
Economy: Suppliers, partners	Open for all – regular controls, meetings	Selected – long relations – audits	Selected – long relations – audits	
Economy: Financing	60 % own	Nearly all own	Optimised	
Physical Environment: Sustainability	Internal: material, energy External:	Internal: material, energy External:	Intensified	High responsibility

	transports, way of production	transports, way of production		
Morality: Motivation	Personality of owner and people Social and ecological, triple bottom line	Personality of owner and people Social and ecological, triple bottom line	Intensified	
Morality: Specifications	Health (3.0), family/leisure (2.8), justice (2.5), to be an example (2.3), responsibility (2.0), planning (2.0)	Justice (2.8), to be an example (2.5), compliance (2.5), family/leisure (2.3)	Larger distribution of moral specifications	
Morality: Sustainability, codification	Existing not formalised	Mission statement - comprehensive	Mission statement - comprehensive	Statement is applied.
Mgmt-System: Mission/strategies, statement	Good image – financial basis, growth	Long term orientation – cooperation with customers	Cooperation with customers	Solid basis
Mgmt-System: Range, formality	ISO 9001/14001, GMP Cooperation with consultant	ISO 9001/14001, GMP, product labels Cooperation with consultant	Intensified, integrated circularity	
Mgmt-System: Q: definition, -methods -praxis	Good product and work – customer support	Clear product definitions Regular controlling, good work	Intensified	
Mgmt-System: Controlling, risk mgmt	Owner and partner – financial, standards	Owner and partner – financial, standards	Minimal	Relations between issues unclear
Mgmt-System: Knowledge mgmt	Ongoing training	Ongoing training – intensified	Intensified	
Mgmt-System: Comprehensiveness	Different issues, comprehensive – integration by owner / partner and employees	Different issues, comprehensive – integration by owner / partner and employees	Intensified	Circularity

Highlights
- Cooperative, large freedom of action
- Ongoing growth
- Prevention against child labour

Specific changes between the two rounds of interviews:
- Integration intensified
- Intensive co-operation with suppliers/partners

Interplay of morality, mgmt-system and environment:
- Intensive interplay, very comprehensive – circularity

Case 22

Country: Switzerland

Size: micro (6) / (6) No of interviewed: 4/4

Industry: Services: public relations

Foundation/history: 1981 aim to become autonomous – later: with partner – 1994 merger with third partner

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – partners	Ltd – partners	None	
Leadership, decisions making	Partnership – team, trust – but 3 bosses with different stiles Semi-yearly partner meetings for general aims – projects with employees	Partners in team – team with employees – but 3 bosses with different stiles Semi-yearly partner meetings for general aims – projects with employees	Integration of employees intensified	Nearly all former employees have left.
People	All specialists, optimal mix	All specialists, optimal mix	Optimised	
Patterns of organisation	Partner and project orientation – executive changing every year – departments	Partner and project orientation – executive changing every year – departments	Optimised	
Culture/traditions	Internal and external events	Internal and external events – friendly	Friendly	
Values: ideal boss, employee	B: example, able to take criticism E: technical knowhow, spontaneous, creative, communicative	B: clear, constitutive E: extraverted, creative, cooperative	More cooperation, creative spirit	
Communication	Meetings – integration of customers and employees – internet Not enough bottom-up	Open eyes, meetings – handbooks Integration of employees improved	Integration of employees improved	
Finance: Turnover, cash flow, profit	T: increasing CF: little increasing P: to be minimised (taxes)	T: increasing CF: increasing P: to be minimised (taxes)	Minimal	
Resources: people, finance, time	P: mix of specialists F: only own assets T: some pressure	P: mix of specialists F: only own assets T: minimal pressure	Minimal	

Society: Public, sponsoring	Social projects, support of public culture	Sponsoring, support of public culture	Minimal	
Society: Legislation	minimal	Requirements of post offices		
Society: Associations	Regional	Regional	Minimal	
Economy: Innovation, agility, PR	I: new media A: knowhow PR: relations, own journal	I: new media A: knowhow PR: relations, own journal	Minimal	
Economy: Market position, geographical range	MP: niche GR: supra regional	MP: niche GR: supra regional	none	
Economy: Customers - competitors	Small to medium companies, long term relations, feedbacks Competitors: in contact	Small to medium companies, long term relations, feedbacks Competitors: good relations	Good relations to competitors	
Economy: Suppliers, partners	Regional partners (changing) – technical specialists	Reduced (technical progress) – good relations	Technical progress: many activities in-house	
Economy: Financing	Only own assets	Only own assets	None	
Physical Environment: Sustainability	Energy, material use – consulting	Energy, material use – consulting: reduction of paper, internet	Consulting: reduction of paper, internet	
Morality: Motivation	Personality of owners and people Triple bottom line – support of public culture	Personality of owners and people Triple bottom line – support of public culture	Minimal	
Morality: Specifications	Private/leisure (3.3), justice (3.0), to be an example (2.5), flexible (2.5), lifelong learning (2.3), integration / autonomy (2.0)	Integration/autonomy (3.0), challenge (3.0), private/leisure (2.5), flexible (2.5), justice (2.3)	Internal values became more important	New employees
Morality: Sustainability, codification	Mission statement: people for people, creativity	Mission statement: people for people, creativity	Minimal	
Mgmt-System: Mission/strategies, statement	Efficient, creative – basis for life Enough time	Demanding work, enlarging range, keep customers Long term, good culture	Growth, long term, internal culture	
Mgmt-System: Range, formality	Company handbook with standards	Company handbook with standards	Enlarged, optimised	Comprehensive
Mgmt-System: Q: definition, -methods	Perfected ideas, technically	Right ideas for the right customer	Minimal	Comprehensive

-praxis	optimal implemented, optimal price Communication in team and with customers	Meetings, ongoing controlling		
Mgmt-System: Controlling, risk mgmt	C: partners, within projects RM: partners	C: partners, within projects (daily) RM: partners (no calculation)	Minimal	Link between finance and other issues has to be reflected.
Mgmt-System: Knowledge mgmt	Ongoing analysis and training	Ongoing analysis and training	Intensified	
Mgmt-System: Comprehensiveness	Intensive with circularity, but minimal formalisation	Intensive with circularity, but minimal formalisation Integration of employees increased	Integration of employees increased	

Highlights
- Partner and project orientation
- Executive officer changing every year

Specific changes between the two rounds of interviews:
- Integration of employees increased
- More cooperation and creative spirit
- Technical progress: many activities in-house
- Good relations to competitors

Interplay of morality, mgmt-system and environment:
- Quite intensive interplay of the three issues
- But: minimal impact on physical environment – some consulting
- Border/distance between partners and employees is ongoing reduced

Case 23

Country: Switzerland

Size: Micro (7) / (5) No of interviewed: 4/4

Industry: Service: financial trustee

Foundation/history: 1990: to become autonomous, planned since a long time – slow growth – 2005 partner

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – founder	Ltd – partner	Partner	
Leadership, decisions making	Cooperative, clear requirements Final decisions by founder, in contact with team leaders	Clear distinction between partners and employees Common decisions of partners	Clear distinction between partners and employees	Partner young serious lady

People	Specialists, some high qualified	Specialists, some high qualified	Minimal	Difficulties to find qualified people
Patterns of organisation	Team orientated	Matrix	Matrix	Not enough employees to make teams
Culture/traditions	Few meetings	Few meetings Job orientation	Minimal	Job orientation
Values: ideal boss, employee	B: professional expert, cooperative, motivator, decisive E: professional specialist, autonomous, ready to take responsibility, loyal	B: authentic, example, supportive E: open, readiness for development, learning and overtaking duties	Division between partners and employees	
Communication	Regular meetings, intranet, library, trainings, QMS Proposals are welcome	Intranet, library, trainings, QMS, dialogue with collaborators Proposals are welcome	Because of reduced number: direct dialogues	Because of reduced number: direct dialogues
Finance: Turnover, cash flow, profit	T: somewhat increasing CF: somewhat increasing P: financial reserve	T: reduced CF: balanced P: financial reserve	T: reduced number of people	
Resources: people, finance, time	P: Specialists, some high qualified (difficult to find) F: own assets T: minimal pressure	P: Specialists, some high qualified (difficult to find) F: own assets T: increased pressure	T: not enough people	People prefer to work in a city
Society: Public, sponsoring	Activity in public organisations	Activity in public organisations	Minimal	
Society: Legislation	Tax, company	Tax, company	Minimal	
Society: Associations	Industry – president of region, expert for examinations	Industry – president of region, expert for examinations	Minimal	Maintenance of knowledge
Economy: Innovation, agility, PR	I: ongoing analysis of needs, training A: people PR: image, own journal, mailings	I: ongoing analysis of needs, training A: people PR: image, own journal, mailings, gifts	Minimal	Optimal mix
Economy: Market position, geographical range	MP: one of leaders, niche GR: region	MP: one of leaders, niche GR: region	Intensified	
Economy: Customers - competitors	Mainly companies Feedbacks Competitors: good relations	Mainly companies Feedbacks Competitors: good relations, some cooperation	Competitors: some cooperation	
Economy:	Experts – long term	Experts – long	Minimal	

Suppliers, partners	relations	term relations		
Economy: Financing	Only own assets	Only own assets	Minimal	
Physical Environment: Sustainability	Minimal impacts (office)	Minimal impacts (office)	None	
Morality: Motivation	Personality of owner Future for employees, economy as basis for social activities	Personality of partners Future for employees, economy as basis for social activities	Minimal	
Morality: Specifications	Openness (3.3), integration/autonomy (2.8), lifelong learning (2.8), private/leisure (2.5)	Health (3.0), to be an example (2.3), private/leisure (2.3), justice (2.3), openness (2.3)	Importance of external values intensified	One of the partners was ill.
Morality: Sustainability, codification	Industry, mission statement combined with BSC	Industry, mission statement combined with BSC	Minimal	
Mgmt-System: Mission/strategies, statement	Leader, basing on mgmt system and integration	SME orientated – leadership, use of mgmt system		
Mgmt-System: Range, formality	ISO 9001 combined with BSC: long term activities, supporting daily work	ISO 9001 combined with BSC: long term activities, supporting daily work	Minimal	Instrument for management Integration of employees could be optimised
Mgmt-System: Q: definition, -methods -praxis	Correct work, according requirements	Useful work, free of failures, according requirements	Minimal	
Mgmt-System: Controlling, risk mgmt	BSC, other data – regular measurements – definition of risks	BSC, other data – regular measurements – definition of risks	Minimal	Comprehensive
Mgmt-System: Knowledge mgmt	Industry: president of region, expert for examinations – ongoing internal trainings	Industry: president of region, expert for examinations – ongoing internal trainings	Minimal	Excellent basis
Mgmt-System: Comprehensiveness	ISO 9001, integrated BSC - circularity	ISO 9001, integrated BSC - circularity	Minimal	Integration of employees not optimal

Highlights

- High professional partners (president of industry association, expert in examinations)

Weaknesses

- Not enough employees to build teams

Problems:
- Clear distinction between partners and employees

Specific changes between the two rounds of interviews:
- Young lady as partner

Interplay of morality, mgmt-system and environment:
- Intensive interplay
- Reduced with employees and physical environment

Case 24

Country: Switzerland

Size: small (29) / (30) No of interviewed: 6/6

Industry: Services: bank

Foundation/history: 1910 according Raiffeisen philosophy: invest money from village in village – 1999 merger of 4 local banks

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Co-operative: owned by members	Co-operative: owned by members	None	
Leadership, decisions making	Mix of collegiality, patriarchy and personal responsibility Discrepancy between departments Decisions top-down	Officially democratic but increasingly hierarchic Decisions top-down (middle management excluded)	Increasingly hierarchic	Services of national head increasing: local banks loose competences Organisational, financial optimisation
People	Specialists (half of them with higher education) – the right person on the right place	Specialists (half of them with higher education) – the right person on the right place	Minimal	
Patterns of organisation	Departments, function orientated	Departments, function orientated	Some differentiation	
Culture/traditions	National Corporate Governance – not profit orientated – local specification: familiar teams, events	National Corporate Governance – not profit orientated – local specification: familiar teams, events	Differentiation depends on local management and team leaders	
Values: ideal boss, employee	B: professional expert, loyal E: specialist, loyal, moral	B: expert, moral attitude E: specialist, autonomous,	Minimal	

	attitude	loyal, with issues of a maverick		
Communication	Intranet, meetings – info flow often on demand	Intranet, meetings – info flow often on demand	Minimal	Hierarchy Centralisation
Finance: Turnover, cash flow, profit	T: increasing CF: increasing P: reserves	T: increasing CF: increasing P: reserves	Minimal	
Resources: people, finance, time	P: Specialists (half of them with higher education) F: mix of money from co-operation, reserves, customers T: pressure	P: Specialists (half of them with higher education) F: mix of money from co-operation, reserves, customers T: pressure	Minimal	T: more work for same number of people
Society: Public, sponsoring	Sponsoring (local), bank of village	Sponsoring (local), bank of village	Minimal	
Society: Legislation	Banking	Banking	Intensified	Preventing risks
Society: Associations	Industry, industry near, local	Industry, industry near, local	Minimal	
Economy: Innovation, agility, PR	I: new products, partners A: knowledge PR: intensive customer relations, sponsoring, advertisements	I: new products, partners A: knowledge PR: intensive customer relations, sponsoring, advertisements	Minimal	
Economy: Market position, geographical range	MP: second GR: local	MP: second GR: local	Minimal	
Economy: Customers - competitors	Private, SMEs – feedback survey One local competitor	Private, SMEs, few institutions – feedback survey One local competitor	Few institutions	Advantage of bad image of large institutes
Economy: Suppliers, partners	Co-operation with other bank and insurance	Co-operation with other bank and insurance	Minimal	To complete services
Economy: Financing	Mix of money from co-operation, reserves, customers	Mix of money from co-operation, reserves, customers	Minimal	
Physical Environment: Sustainability	External: support of associations, local companies – eco-funds Internal: material (e-banking), energy	External: support of associations, local companies – eco-funds Internal: material (e-banking), energy (travelling)	Minimal	
Morality: Motivation	Tradition: Bank of the village Offering jobs and education, good conditions	Tradition: Bank of the village Offering jobs and education, good conditions	Minimal	

	for customers Economy as basis High awareness of people	for customers Economy as basis High awareness of people		
Morality: Specifications	To be an example (3.3), compliance (2.3), private/leisure (2.3), justice (2.2), openness (2.2)	To be an example (2.7), private/leisure (2.7), openness (2.3), health (2.0)	Internal and external issues more balanced	Effect of timely pressure and centralisation?
Morality: Sustainability, codification	Bank association – code of group, local directives	Bank association – code of group, local directives	Minimal	
Mgmt-System: Mission/strategies, statement	Bank with moral issues: customer, employee and objective orientation	Bank with moral issues: customer, employee and objective orientation		
Mgmt-System: Range, formality	Local marketing strategy Handbooks, standards	Local marketing strategy Handbooks, standards - increasing	Increasing number of standards edited by head quarter	
Mgmt-System: Q: definition, -methods -praxis	Long term customer and employee satisfaction Common responsibility Objectives for different levels	Long term customer and employee satisfaction Common responsibility Objectives for different levels	Minimal	
Mgmt-System: Controlling, risk mgmt	C: external: revision – internal: division between activity and control RM: market, persons	C: external: revision – internal: division between activity and control RM: market, persons	Minimal	
Mgmt-System: Knowledge mgmt	Ongoing analysis and trainings	Ongoing analysis and trainings	Minimal	
Mgmt-System: Comprehensiveness	Quite hierarchical, team orientation	Quite hierarchical and increasingly centralised, team orientation	Increasingly centralised	Quite comprehensive, increasingly centralised

Highlights
- Local orientation

Problems:
- Increasing centralisation

Specific changes between the two rounds of interviews:
- Increasing centralisation
- Increasing time pressure

Specific developments after round 2:
- Increasing centralisation
- Increasing number of standards edited by head quarter
- More work for the same number of people
- Image problems because of unmoral attitudes of head quarter
- Customer relations increasingly professionalised and less relation orientated

Interplay of morality, mgmt-system and environment:
- Intensive interplay of all issues, threatened by centralisation

Case 25

Country: Germany

Size: small (45) / (50) (mainly drivers) No of interviewed: 5/6

Industry: Service: coach tours, local transports

Foundation/history: 1952 founded by parents of owners – 1987 son started to collaborate

– ongoing expansion

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd - family	Ltd - family	None	
Leadership, decisions making	Familiar, cooperative – divergence in answers of drivers	Familiar, cooperative – concentration on owners		Divergence in answers of drivers
People	Management: higher education Drivers: different backgrounds	Management: higher education Drivers: different backgrounds	Minimal	
Patterns of organisation	Top management and departments: matrix – 2 subsidiaries, drivers	Top management and departments: matrix – 2 subsidiaries, drivers	None	
Culture/traditions	Familiar, events – minimal standards	Familiar, events – personal, even under pressure	Minimal	
Values: ideal boss, employee	B: friendly, not only businesslike, feeling for employees, trustful E: open	B: friendly, not only businesslike, feeling for employees, trustful E: open	Minimal	
Communication	Meetings, feedbacks of drivers	Meetings, feedbacks of drivers, discussion with colleagues	Minimal	
Finance: Turnover, cash flow, profit	T: stable CF: decreasing P: re-investment	T: increasing CF: decreasing P: re-investment	Minimal	CF: decreasing because of petrol price
Resources: people, finance, time	P: Management: higher education Drivers: different backgrounds F: some own, mainly banks T: pressure (especially during busy seasons)	P: Management: higher education Drivers: different backgrounds F: some own, mainly banks T: pressure (especially during busy seasons)	Minimal	

Society: Public, sponsoring	Sponsoring, president of service club Guarantee of work	Sponsoring, president of service club Project in Eastern Europe Guarantee of work	Enlarged	
Society: Legislation	Traffic	Traffic	Minimal	
Society: Associations	Industry – leading position	Industry – leading position	Enlarged	
Economy: Innovation, agility, PR	I: new products, collaboration A: knowhow of office and drivers PR: internet, catalogues, advertisements, articles in journals	I: new products, customers, collaboration A: knowhow of office and drivers PR: internet, catalogues, advertisements, articles in journals	Minimal – Increasing Chinese business	
Economy: Market position, geographical range	MP: tours: leader GR: region, supra-regional	MP: tours: leader GR: region, supra-regional	Minimal	Public transport under financial pressure
Economy: Customers - competitors	Depends on service: individuals, groups, public – regular surveys Hard competition	Depends on service: individuals, groups, public – regular surveys Hard competition	Competition intensified	
Economy: Suppliers, partners	Partners (hotels, coaches), contracts	Partners (hotels, coaches), contracts	Intensified	
Economy: Financing	Some own, mainly banks	Some own, mainly banks	Minimal	
Physical Environment: Sustainability	Material, energy, waste management, drivers training	Material, energy, waste management, drivers training	Intensified	Long term, intensive awareness of employees
Morality: Motivation	Personality of owners Morality vs. Economical pressure Personal background of owners (ethics seminar)	Personality of owners Morality vs. Economical pressure Personal background of owners (ethics seminar)	Intensified	Very much interested in ethics
Morality: Specifications	To be an example (2.8), family/leisure (2.6), justice (2.4), openness (2.4), integration/autonomy (1.8)	To be an example (3.3) openness (2.2), family leisure (2.0), lifelong learning (2), integration/autonomy (1.8)	Much more weight on “to be an example”	
Morality: Sustainability, codification	Mission statement planned: honesty, no overreaching	Mission statement planned: honesty, no overreaching	Still planned	
Mgmt-System: Mission/strategies, statement	Long term orientation, maintaining Customer orientated, serious, innovative, cooperation	Long term orientation, maintaining Customer orientated (sell emotions), serious, innovative, cooperation	Intensified: sell emotions	Serious planning
Mgmt-System: Range, formality	Internal standards, defined responsibilities	Internal standards, defined responsibilities	Optimised	

Mgmt-System: Q: definition, -methods -praxis	Added value for customers – good staff, partners, busses	Added value for customers, clear offers – good staff, partners, busses	Intensified	
Mgmt-System: Controlling, risk mgmt	C: finance, quality survey RM: finance	C: finance, quality survey RM: finance	Improved	
Mgmt-System: Knowledge mgmt	Analyses, partnership, trainings	Analyses, partnership, trainings	Intensified	
Mgmt-System: Comprehensiveness	Familiar, defined responsibilities, standards etc.	Familiar, defined responsibilities, standards etc.	Intensified	Financial and time pressure Integration of drivers to be improved

Highlights
- High morality of owners
- Familiar, cooperative
- Long term orientation

Weaknesses
- Integration of drivers to be improved

Problems:
- Public transport under financial pressure

Specific changes between the two rounds of interviews:
- Improvement of all issues

Interplay of morality, mgmt-system and environment:
- Intensive interplay of the issues
- Long term perspective
- Problem: time pressure hinders integration of drivers

Case 26

Country: Switzerland

Size: small (30) / (30) – many part-time No of interviewed: 8/8

Industry: Service: cable car with restaurant/shop – spring to autumn

Foundation/history: 1891 tourism boom: cable car in 3 with hotel on top – 1970 hotel fuel – 1974 upper 2 sections replaced by aerial cableway – 1976 new restaurant – 2001 rebuilding – 2014: the actual aerial cableway has be to be replaced

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Ltd – region	Ltd – region	None	
Leadership, decisions making	Board: patriarchal Top manager: participative, communicative, motivating, familiar – one of the other managers is more	Board: patriarchal Top manager: participative, communicative, motivating, familiar – one of the other managers is more	Partnership intensified	

	patriarch	patriarch		
People	Mix (higher education, specialist, non-skilled), depending on jobs	Mix (higher education, specialist, non-skilled), depending on jobs	Minimal	Between elderly guards also some academics
Patterns of organisation	Matrix between departments, functional	Matrix between departments, functional	Minimal	
Culture/traditions	Tradition of cable car Team orientated, familiar	Tradition of cable car Team orientated, familiar (even with stress)	Minimal	
Values: ideal boss, employee	B: motivator, supporting autonomy E: extraverted, service/customer orientated – positive view of life	B: customer orientation with financial knowledge, motivator E: loyal, motivated, open, innovative	More differentiated	
Communication	Mixed – info have sometimes to be asked Participative	Meetings, internal journal, internet Participative	Meetings, internal journal, internet	optimised
Finance: Turnover, cash flow, profit	T: stabile CF: increased P: re-investment, reserve	T: decreasing (flood provoked interrupt of railroad) CF: decreasing P: improvement of pensions, reserve	Flood provoked interrupt of railroad P: improvement of pensions	Intensively depending on weather Social background
Resources: people, finance, time	P: Mix, depending on jobs F: capital of Ltd, local banks T: depending on weather, some pressure	P: Mix, depending on jobs F: capital of Ltd, local banks T: depending on weather, some pressure	Minimal	
Society: Public, sponsoring	Offering jobs (often early retired people) – handicap friendly – some sponsoring	Offering jobs (often early retired people), improvement of pensions – handicap friendly – some sponsoring	Optimised	
Society: Legislation	Traffic, ecology, food, safety	Traffic, ecology, food, safety	Minimal	
Society: Associations	Industry, local	Industry, local (president)	President of local tourism	
Economy: Innovation, agility, PR	I: services A: knowledge PR: media partnership, posters, internet, mailings, sponsoring	I: services A: knowledge PR: media partnership, posters, internet, mailings, sponsoring	Intensified, additional services	
Economy: Market position, geographical range	MP: niche, international tours GR: national, tours: international	MP: niche, international tours GR: national, tours: international	Minimal	
Economy:	1/3 tour operators,	1/3 tour operators,	Cooperation	

Customers - competitors	2/3 day trippers – regular very positive feedbacks Many competitors, some cooperation	2/3 day trippers – regular very positive feedbacks Many competitors, minimal cooperation	with competitors reduced, because of China market	
Economy: Suppliers, partners	Industry, cable care specialists, intensive relations	Industry, cable care specialists, intensive relations	Minimal	
Economy: Financing	Capital of Ltd, local banks	Capital of Ltd, local banks	Minimal	
Physical Environment: Sustainability	Comprehensive: material, water (100% rain), isolation, energy (largest solar plant of region), waste	Comprehensive: material, water (100% rain), isolation, energy (largest solar plant of region), waste	Optimisation	Comprehensive, long term, integration of people
Morality: Motivation	Personality of board, managers and employees Triple bottom line	Personality of board, managers and employees Triple bottom line, protection of mountain	Optimisation	
Morality: Specifications	To be an example (2.9), justice (2.6), family/leisure (2.4), openness (2.3), flexible (2.1)	Justice (2.9) openness (2.9), to be an example (2.4), good impression (2.1) family/leisure (2.0)	More importance of public behaviours (justice, openness), less of family/leisure	Increased integration
Morality: Sustainability, codification	Standards for behaviour	Mission statement in preparation	Mission statement in preparation	
Mgmt-System: Mission/strategies, statement	Long term: company, environment, employees Marketing strategy – customer orientation, trainings	Long term: company, environment, employees Marketing strategy – customer orientation, trainings	Optimisation	
Mgmt-System: Range, formality	Tourism Q People motivated	Tourism QQ Integration of people – QQQ (ISO 9001) planned	Tourism QQ	
Mgmt-System: Q: definition, - methods -praxis	Fulfil, exceed customer requirements Optimal work, feedback	Fulfil, exceed customer requirements Optimal work, feedback, identification with service	Intensified	
Mgmt-System: Controlling, risk mgmt	C: financial, customer/employee feedbacks RM: Marketing strategy, management	C: financial, customer/employee feedbacks RM: Marketing strategy, management, integration of board	Optimised	
Mgmt-System: Knowledge mgmt	Analyses, trainings (not enough time)	Analyses, trainings (not enough time)	Intensified	
Mgmt-System:	All issues –	All issues	Optimised	Very

Comprehensive-ness	employee integration to be optimised			comprehensive

Highlights
- Leadership: Participative, communicative, motivating, familiar
- Physical environment: innovative, comprehensive solutions

Problems:
- Mountain tourism: Intensively depending on weather

Specific changes between the two rounds of interviews:
- Generally intensified (also employee integration)
- Tourism QQ, planning of QQQ (ISO 9001)
- Internal communication optimised
- Cooperation with competitors reduced, because of China market

Specific developments after round 2:
- Certification according to ISO 9001
- Rangers to support visitors
- International awards

Interplay of morality, mgmt-system and environment:
- Intensive interplay of all the elements and ongoing improvement

Case 27

Country: Switzerland

Size: small (22) / (15) No of interviewed: 5/5

Industry: Service: hotel/restaurants

Foundation/history: 1946 founded by father of owner – 1990 owner became top manager – 1996 acquired from parents

	Round 1	**Round 2**	**Changes**	**Comments**
Ownership	Single member company	Single member company	none	Cannot be changed because of debts.
Leadership, decisions making	Cooperative, no clear concept	Cooperative – some improvement	Some improvement	Owner: nice, but no leader
People	Mix of specialists and semi-skilled	Most are specialists	Improvement	
Patterns of organisation	Departments, function orientated	Departments, function orientated	Some improvement	
Culture/traditions	Place for feeling well Familiar, good relations	Familiar, friendly, good relations	Some improvement	
Values: ideal boss, employee	B: to be an example, autonomous E: to be an example,	B: to be an example E: proactive, sensible for duties	Minimal	

	autonomous			
Communication	Meetings, long and short term planning, checklists	Meetings, long and short term planning, checklists	Some improvement	
Finance: Turnover, cash flow, profit	T: decreasing CF: minimal P: re-investment	T: increasing CF: increasing P: increasing		
Resources: people, finance, time	P: specialists and semi-skilled F: horrible (problems with heritage) – totally depending on banks T: some pressure	P: mainly specialists F: 90 % banks T: pressure intensified	P: optimised T: more pressure	
Society: Public, sponsoring	Member of local administration Some sponsoring Workplaces	Some sponsoring Workplaces	Concentration on company	
Society: Legislation	Food, labour	Food, labour	Minimal	
Society: Associations	Industry	Industry	Minimal	Great number of memberships
Economy: Innovation, agility, PR	I: additional services A: knowledge PR: marketing concept – internet, minimal advertisements	I: additional services A: knowledge PR: advertisements, new concept of internet		
Economy: Market position, geographical range	MP: niche GR: individual, 70 % tour operators	MP: niche GR: individual	Tour operators reduced	
Economy: Customers - competitors	Hotel: business, groups Restaurant: different Regular surveys Many competitors	Hotel: mainly business Restaurant: private, business Regular surveys Competition intensified	Tour operators reduced Competition intensified	
Economy: Suppliers, partners	Food, tour operators Good cooperation	Food No contracts because of missing finance	No contracts because of missing finance	
Economy: Financing	Horrible (problems with heritage) – totally depending on banks	90 % from banks	Ongoing problems	
Physical Environment:	Water, energy, waste	Water, energy, waste management	Minimal	

Sustainability	management (with internal standard)	(with internal standard)		
Morality: Motivation	Personality of owner Social and ecological issues important, but intensive financial pressure	Personality of owner Social and ecological issues important, but intensive financial pressure	Minimal	
Morality: Specifications	To be an example (3.4), family/leisure (2.6), openness (2.6), justice (2.4), health (2.4)	To be an example (3.8), family/leisure (2.8), justice (2.8), integration/autonomy (2.2), openness (2.2)	Minimal, trend to integration	Minimal financial optimisation as motivator?
Morality: Sustainability, codification	Mission statement	Requirements of QQ	Minimal	
Mgmt-System: Mission/strategies, statement	Satisfied guests – niche fish Amortisation in 15 years Market analysis Friendly staff	Satisfied guests – niche fish, additional offers Amortisation Market analysis Friendly staff	Additional offers	
Mgmt-System: Range, formality	Safety, internal standards	Implementation of QQ – integration of management yet insufficient		
Mgmt-System: Q: definition, -methods -praxis	Comprehensive customer satisfaction Supporting behaviour and standards	Comprehensive customer satisfaction Supporting behaviour and standards	Effects of Q	
Mgmt-System: Controlling, risk mgmt	C: financial, annual/monthly planning	C: financial, annual/monthly planning	Minimal	Many financial measurements
Mgmt-System: Knowledge mgmt	Analysis of market	Analysis of market	Minimal	
Mgmt-System: Comprehensive-ness	Some standards – familiar	Q for tourism – familiar	minimal	Minimal comprehensiveness

Highlights
- Reputable owner

Weaknesses
- Single Member Company (cannot be changed because of debts)
- Many measurements, minimally used

Problems:
- Owner: nice person, but not a leader

Specific changes between the two rounds of interviews:
- On the way to QQ tourism
- Some organisational improvement

- Number of tour operators reduced
- Competition intensified

Interplay of morality, mgmt-system and environment:
- Intensive moral background
- But: minimal interplay

6.3 Tables: Qualitative and quantitative analyses – correlations, frequencies, arithmetic means

Highlight	Switz-erland	Ger-many	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Lea-der	Niche	ISO 9001	ISO 14001	EFQM BSC	Pro-ce-dure
Concentration on owner / top manager – motivator	12	3	4	7	5	6	9	9	6	8	3	2	7
Future orientated – consequent planning of succession	2	1		2	1	2	1	1	1	2	1		1
Motivated production manager / employees	1	1		1	1	1	1		2				2
Mix of partnership, collegiality, respect and trust	3	2	2	2	1	3	1	3	2	3	2		3
Integration of people, familial culture – employment of handicapped	8	2	3	5	4	3	7	6	4	5	3		5
Round table principle for problem solving	2		1		1	2		1	1				2
Integration of stakeholders because of public pressure (physical environment, children work)	2		2		1	2	1	2		2	2		
Public responsibility, high morality – local orientation	3	1		3	2	2	2	3	1	1			2
Customer orientation – quality of services as differentiation – orientation towards physical environmental	4	1	1	2	2	3	2	1	4	2	1		3
Technically leading - More suited site and shop	3	1		2	2		4	4		3	2		1

Table 6.1: Case studies – summary: Highlights

Weakness	Switz-erland	Ger-many	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Lea-der	Niche	ISO 9001	ISO 14001	EFQM BSC	Pro-ce-dure
Management system still control and technology orientated	1	1		1	2		2	2		2	2		
Minimal use of management system -Minimal formalization	2	1		3	1	1	2	2	1	1			2
Gap between (idealistic) theory of owner and praxis - Different views of owner and employees	2		1	1			2	1	1	1		1	1
No clear leadership - owner: not enough time for leadership	2			2			2		2	1			1
Integration of employees to be optimised	1	1		2		1	1	1		1			1
Expansion: badly integrated part-time employees	2		1		1		2	1	1	1			1
No effective risk management – no time for long term planning	2			2			2	2		1		1	1

Table 6.2: Case studies – summary: Weaknesses

Problem	Switz-erland	Ger-many	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Lea-der	Niche	ISO 9001	ISO 14001	EFQM BSC	Pro-ce-dure
Increased pressure because of competition	6	1	1	5	2	4	3	4	3	4	1		3
Minimal financial resources – hindering long term development	1	1		2	1	1	1	1	1				2
Difficulties to recruit suited staffs	2		1	1		1	1	1		1		1	1
No generally accepted form of leadership – owner no leader	2			2		1	1		2	1			1
Clear distinction between partners and staffs	2		2			2			2	1		1	1
Old buildings – energy optimisation difficult		2			2	2			2	1			1

Table 6.3: Case studies – summary: Problems

Changes between round 1 and round 2	Switz-erland	Ger-many	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Lea-der	Niche	ISO 9001	ISO 14001	EFQM BSC	Pro-ce-dure
Integration of people, communication increased / optimised – co-responsibility	10	3	4	6	6	6	7	7	5	7	5		6
Trend to patriarchal / hierarchical behaviours - centralisation	3	1		2	2	3	1	3		1			3
From patron to partnership – integration of employees and / or board	1	3		2	3	1	3	3	1	1	1		3
Time pressure hinders integration, communication , formalisation, cultural development	4	1	1	4		4	2	4	1	2			3
Stringent procedures and leadership - centralisation	3	1		2	2	3	1	1	1	1			3
Leadership / organisation / system adapted – mission statement	2			2			2	2		1			1
Additional certifications Increasing TQM orientation – high system thinking	2		1		1	1	1	2		2	2		
No recertification	3			2	2	1	2	3		2	1	1	1
Use of supplier standards	2		2			2			2				2
Expansion, acquisition of companies / knowledge – additional industries / services	2	1		1	2	1	2	2	1	3	1	1	
Increasing sensitisation towards physical environment	3	1		2	2	1	3	3	1	2	1	1	2
Selection of suppliers: cost orientated	1	1			2	2		2					2
Splitting into 2 companies	2			2			1	1		2			

Table 6.4: Case studies – summary: Changes between round 1 and round 2

Interplay of SME, management systems, morality and environment	Switz-erland	Ger-many	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Lea-der	Niche	ISO 9001	ISO 14001	EFQM BSC	Pro-ce-dure
Some	4		3	1	1	2	2	1	2	1	2	1	2
(Very) Intensive	8	3	4	2	5	8	3	5	5	6	3		5
Reduced	1	1		1	1		1	1	1	1			1
Interplay between strategies and mgmt. system	1	1		1	2	1	1	1	1	2	1		
Intensive interplay, but no systematic / poor integration	2	1	1		2	2	1	2	1	1	1		2
Minimal relation to formalised management system – no formalised system	7		2	3	2	3	4	3	4	2			5
Intensified motivation and integration of employees – High morality of owner towards employees	2	3		2	4	1	4	4	1	3	1		2
Morality: individual orientated – Christian background	2	2		2	2	3	1	1	2				4
Intensive orientation towards physical environment – integration in mission	5		1	3	1	1	4	3	1	4	3		1
Minimal supporting of physical environment	2		1	1		1	1		1	1		1	1

Table 6.5: Case studies – summary: Interplay of SME, management systems, morality and environment

	Country	1 Size	2 Size	1 Industry	2 Industry	1 Market-position	2 Market-position	1 Owner-ship	2 Owner-ship	Year of certifi-cation
Country	1	.382**	.455**	-.273**	-.217**	-.047	-.044	.448**	.399**	-.196**
1 Size	.382**	1	.812**	.122	.075	.412**	.342**	.351**	.449**	.285**
1 Industry	-.273**	.122	.187*	1	1.000**	.512**	.399**	-.535**	-.446**	.225**
1 Staff total	.105	.718**	.581**	-.022	-.093	.350**	.305**	.444**	.571**	.443**
2 Staff total	.385**	.751**	.715**	.059	.043	.304**	.386**	.530**	.478**	.498**
2 Staff full- / part-time	.396**	.288**	.216**	-.201*	-.226**	.177	.196*	.375**	.388**	-.215**
1 Education - non skilled	-.358**	.291**	.348**	.364**	.465**	.387**	.362**	-.090	-.150	.162*
2 Education - non skilled	-.347**	.220*	.342**	.399**	.303**	.362**	.440**	-.121	-.032	.202*
1 Customers	-.214**	-.330**	-.214*	.288**	.231*	-.022	-.047	-.243**	-.165	.094
2 External requirements	.680**	.153	.245**	-.339**	-.322**	-.250**	-.171*	.448**	.390**	-.293**
1 PR - advertisement, exposition	.238**	.462**	.373**	.265**	.223*	.364**	.237*	-.006	.008	.109
2 PR - customer call	.585**	.307**	.294**	-.231*	-.275**	-.106	-.237**	.573**	.577**	-.154
1 Financing	.409**	.654**	.493**	-.229**	-.178	-.027	-.051	.618**	.616**	.045
Sex	.230**	.085	.116	-.462**	-.406**	-.150*	.003	.488**	.514**	-.037
2 Triple bottom line	-.103	-.043	.055	.354**	.337**	.267**	.185*	-.237*	-.270**	.231**
1 Moral code	.022	-.277**	-.341**	-.328**	-.366**	-.377**	-.372**	-.160*	-.167	-.258**
1 SR - customers, community, sponsoring	.375**	.279**	.373**	-.418**	-.362**	-.184*	-.099	.587**	.568**	-.064
Year of certification	-.196**	.285**	.181*	.225**	.166*	.594**	.599**	.023	.072	1
1 Mgmt-sys - Q - ISO 9001	-.343**	.050	-.062	.397**	.315**	.330**	.287**	-.306**	-.237*	.429**
1 mgmt-sys - integration (TQM, BSC)	.088	.227**	.044	-.177*	-.192*	.267**	.329**	.252**	.236*	.592**
1 Mgmt-sys - E - ISO 14001	-.013	.241**	.213*	.327**	.229*	.339**	.355**	-.241**	-.195*	.334**
1 Mgmt-sys - ISO 9001 planned	.414**	.261**	.218*	-.244**	-.202*	.154*	.188*	.400**	.374**	-.228**
2 Mgmt-sys - desired - company	-.146	-.184*	-.281**	-.238*	-.240**	-.305**	-.296**	.284**	.231**	-.229**
1 Mgmt-sys-planned - none	.294**	-.030	-.079	-.225**	-.240*	-.228**	-.244**	.223**	.258**	-.125
1 Risk management	-.290**	-.167*	.017	.424**	.473**	.219**	.174	-.290**	-.260**	-.165*

**. The correlation is significant on level 0.01 (2 sided).

Table 6.6: Correlations – relations of sub-samples to all variables with a high number of significant relations

	1 mgmt-sys - company	2 mgmt-sys - Q - ISO 9001	2 mgmt-sys - integration (TQM, BSC)	2 mgmt-sys - industry	2 mgmt-sys - company
1 strategy - optimal internal conditions (relations, motivation)	.203**	-.108	.087	-.202*	.200*
1 strategy - customer satisfaction: quality, price, information	.145	.163	.071	-.255**	.190*
2 strategy - job security, appretiship	-.055	.250**	.049	-.087	-.066
2 strategy - optimal internal conditions (relations, motivation)	-.105	.059	.228**	-.130	-.138
2 strategy - customer satisfaction, quality, price, information	.043	.232**	-.079	-.272**	.148
2 strategy - flexible, independent, small	.220*	-.074	-.060	-.028	.210**
2 culture - social, integrative	.525**	.222**	-.093	-.077	.316**

**. The correlation is significant on level 0.01 (2 sided).

Table 6.7 - Correlations – relations of management systems to strategy / culture variables with a high number of significant relations

Leadership	**R1 / R2**	**Micro**	**Small**	**Me-dium**	**Ser-vice**	**Pro-du-ction**	**Qualit y**	**Inte-gra-tion**	**Envir-on-ment**	**Cert. befor e**	**Cert. after**	**Top man-ager**
Co-operative, motivating	120 (70.6%) / 107 (69%)	11 (of 17) / 9 (of 14)	59 (of 92) / 41 (of 65)	50 (of 62) / 56 (of 76)	62 (of 78) /55 (of 80)	58 (of 93) / 51 (of 75)	63 (of 90) / 44 (of 60)	16 (of 22) / 6 (of 14)	22 (of 33) /14 (of 16)	45 (of 66) /36 (of 52)	24 (of 33) /19 (of 29)	24 (of 28) / 25 (of 29)
Mix of styles	36 (21.2%) / 20 (12.9%)	5 (of 17) / 1 (of 14)	19 (of 92) / 12 (of 65)	12 (of 62) / 7 (of 76)	16 (of 78) /10 (of 80)	20 (of 93) / 10 (of 75)	24 (of 90) /10 (of 60)	8 (of 22) / 0 (of 14)	8 (of 33) / 1 (of 16)	18 (of 66) / 9 (of 52)	8 (of 33) / 1 (of 29)	7 (of 28) / 4 (of 29)
To be optimised	29 (17.1%) / 26 (18.8%)	2 (of 17) / 3 (of 14)	18 (of 92) / 16 (of 65)	9 (of 62) / 7 (of 76)	11 (of 78) /14 (of 80)	18 (of 93) / 12 (of 75)	13 (of 90) /13 (of 60)	3 (of 22) / 3 (of 14)	5 (of 33) / 3 (of 16)	11 (of 66) / 9 (of 52)	3 (of 33) / 4 (of 29)	5 (of 28) / 7 (of 29)
Autocratic, hierarchic	29 (17.1%) / 33 (21.3%)	2 (of 17) / 2 (of 14)	17 (of 92) / 15 (of 65)	10 (of 62) / 16 (of 76)	14 (of 78) /21 (of 80)	15 (of 93) / 12 (of 75)	14 (of 90) / 11 (of 60)	6 (of 22) / 8 (of 14)	7 (of 33) / 0 (of 16)	9 (of 66) / 9 (of 52)	7 (of 33) / 6 (of 29)	5 (of 28) / 9 (of 29)
Competent, clear, natural authority	26 (15.3%) / 34 (21.9%)	5 (of 17) / 4 (of 14)	11 (of 92) / 10 (of 65)	10 (of 62) / 20 (of 76)	11 (of 78) /20 (of 80)	15 (of 93) / 14 (of 75)	12 (of 90) / 10 (of 60)	7 (of 22) / 9 (of 14)	6 (of 33) /4 (of 16)	9 (of 66) / 9 (of 52)	8 (of 33) /12 (of 29)	3 (of 28) / 6 (of 29)
Co-responsi-bility	25 (14.7%) /10 (6.5%)	1 (of 17) / 1 (of 14)	19 (of 92) / 4 (of 65)	5 (of 62) / 5 (of 76)	8 (of 78) / 4 (of 80)	17 (of 93) / 6 (of 75)	17 (of 90) / 3 (of 60)	1 (of 22) / 1 (of 14)	5 (of 33) / 1 (of 16)	11 (of 66) / 4 (of 52)	5 (of 33) / 2 (of 29)	5 (of 28) / 5 (of 29)

Table 6.8: Leadership

Relation, behaviour	Bottom up		Top down		Peers	
	Round 1	Round 2	Round 1	Round 2	Round 1	Round 2
c) If someone has good arguments, ideas are welcome.	2.0	1.9	1.5	2.0	1.8	2.1
d) Plans are discussed and decisions are taken in co-operative, partnership.	1.7	1.6	1.4	1.6	1.6	1.8
g) Decisions are only taken by the management.	0.8	0.9	0.3	0.6	0.6	0.6

Table 6.9: Rations, behaviours – rating (between 0 and 3 – arithmetic mean) - selection

Type - orientation	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after
Functional	14 / 16	2 / 1	9 / 9	3 / 6	6 / 7	8 / 9	5 / 5	2 / 1	2 / 2	3 / 3	3 / 3
Activity, procedure	4 / 3	0 / 0	3 / 3	1 / 0	1 / 1	3 / 2	3 / 2	0 / 0	2 / 1	2 / 2	1 / 1
Matrix	6 /5	0 / 0	2 / 1	3 / 3	4 / 3	1 / 1	3 / 3	0 / 0	1 / 1	2 / 2	0 / 0
Team	4 / 5	3 / 3	0 / 0	0 / 0	3 / 3	0 / 0	1 / 1	1 / 1	0 / 0	0 / 0	0 / 0

Table 6.10: Patterns of organisation

Culture, traditions	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after	Top manager
Optimal internal conditions (relations, motivation, team spirit)	154 (90.6%) / 137 (88.4%)	15 (of 17) /	82 (of 92) /	57 (of 62) /	66 (of 78) /72 (of 80)	88 (of 93) / 64 (of 75)	87 (of 90) / 54 (of 60)	21 (of 22) / 11 (of 14)	33 (of 33) /16 (of 16)	64 (of 66) /47 (of 52)	32 (of 33) /25 (of 29)	23 (of 28) / 26 (of 29)
Customer orientation, events	18 (10.6%) /10 (6.3%)	1 (of 17) / 1 (of 14)	14 (of 92) / 8 (of 65)	3 (of 62) / 1 (of 76)	10 (of 78) / 7 (of 80)	8 (of 93) / 3 (of 75)	4 (of 90) / 1 (of 60)	2 (of 22) / 1 (of 14)	1 (of 33) / 1 (of 16)	0 (of 66) / 1 (of 52)	4 (of 33) / 1 (of 29)	8 (of 28) / 7 (of 29)
Social/ integrative	10 (5.9%) / 8 (5.2%)	1 (of 17) / 1 (of 14)	5 (of 92) / 3 (of 65)	4 (of 62) / 3 (of 76)	8 (of 78) /7 (of 80)	2 (of 93) / 1 (of 75)	4 (of 90) / 0 (of 60)	2 (of 22) / 1 (of 14)	1 (of 33) / 1 (of 16)	1 (of 66) / 0 (of 52)	1 (of 33) / 1 (of 29)	6 (of 28) / 3 (of 29)
Reduced staffs integration (less time)	5 (2.9%) / 26 (16.8%)	0 (of 17) /	1 (of 92) /	4 (of 62) /	4 (of 78) /11 (of 80)	1 (of 93) / 15 (of 75)	1 (of 90) / 13 (of 60)	1 (of 22) / 4 (of 14)	0 (of 33) / 1 (of 16)	1 (of 66) / 8 (of 52)	1 (of 33) / 6 (of 29)	0 (of 28) / 2 (of 29)

Table 6.11: Culture and traditions

Type	Starting in company	Activity at round 1	Activity at round 2
None	7 (3.3%)	18 (10.6%)	18 (11.6%)
Training, seminar – experience	34 (16.0%)	102 (60.0%)	101 (65.2%)
Apprenticeship	169 (79.7%)	31 (18.2%)	24 (15.5%)
Specialised education	31 (14.6%)	33 (19.4%)	32 (20.6%)
Higher education	13 (6.1%)	42 (24.5%)	1 (0.6%)

Table 6.12: Education of interviewed persons at different times

Values, moral codes	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Qualit y	Inte-gratio n	Envir-on-ment	Cert. before	Cert . afte r
Defined values	17 / 18	2 / 3	9 / 9	5 / 5	7 / 9	9 / 8	10 / 9	2 / 1	3 / 3	7 / 6	3 / 4
DV: partly, rudimental	6 / 8	1 / 1	2 / 3	2 / 4	3 / 5	2 / 3	0 / 2	1 / 1	1 / 1	0 / 1	1 / 1
Industry ethics	13 / 17	1 / 1	8 / 9	4 / 6	8 / 5	5 / 5	6 / 7	3 / 2	3 / 3	3 / 5	4 / 4

Table 6.13: Values/moral codes

TBL - orientation	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert . after
Balanced	5 / 7	2 / 2	1 / 3	1 / 1	3 / 5	1 / 1	1 / 2	0 / 0	0 / 0	1 / 1	0 / 0
Social: most important	7 / 6	1 / 0	3 / 2	3 / 4	4 / 3	3 / 3	4 / 3	1 / 0	1 / 0	3 / 2	1 / 1
Finance: basis for survival	16 / 16	2 / 2	10 / 8	3 / 4	7 / 6	8 / 8	7 / 6	2 / 2	4 / 4	3 / 4	4

Table 6.14: Triple bottom line

Information	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Qualit y	Inte-gratio n	Envir-onme nt	Cert. befor e	Cert. after	Top mana g.
Systematic (plan, bulletin, intranet)	99 (58.2%) / 77 (49,4%)	5 (of 17) / 4 (of 14)	56 (of 92) / 30 (of 65)	38 (of 62) / 42 (of 76)	39 (of 78) /41 (of 80)	60 (of 93) / 35 (of 75)	55 (of 90) / 31 (of 60)	15 (of 22) / 9 (of 14)	22 (of 33) / 6 (of 16)	41 (of 66) / 26 (of 52)	22 (of 33) /21 (of 29)	5 (of 28) / 8 (of 29)
Face-to-face	80 (47.1%) / 83 (53.2%)	8 (of 17) / 8 (of 14)	41 (of 92) / 33 (of 65)	31 (of 62) / 42 (of 76)	31 (of 78) /46 (of 80)	46 (of 93) / 37 (of 75)	40 (of 90) /35 (of 60)	11 (of 22) / 4 (of 14)	22 (of 33) / 9 (of 16)	27 (of 66) / 29 (of 52)	17 (of 33) /13 (of 29)	22 (of 28) / 21 (of 29)
To be developed by oneself	80 (47.1%) / 72 (46.2%)	11 (of 17) / 7 (of 14)	45 (of 92) / 34 (of 65)	24 (of 62) / 32 (of 76)	35 (of 78) /21 (of 80)	45 (of 93) / 37 (of 75)	43 (of 90) / 29 (of 60)	11 (of 22) / 5 (of 14)	14 (of 33) / 7 (of 16)	29 (of 66) / 25 (of 52)	19 (of 33) /15 (of 29)	13 (of 28) / 17 (of 29)
External (association, seminary)	19 (11.2%) / 21 (13.5%)	3 (of 17) / 3 (of 14)	9 (of 92) / 9 (of 65)	7 (of 62) / 9 (of 76)	10 (of 78) /13 (of 80)	9 (of 93) / 8 (of 75)	8 (of 90) / 8 (of 60)	2 (of 22) / 3 (of 14)	5 (of 33) /4 (of 16)	5 (of 66) / 6 (of 52)	4 (of 33) /4 (of 29)	17 (of 28) / 16 (of 29)
To be optimised	13 (7.6 %) / 14 (9.0%)	0 (of 17) / 0 (of 14)	7 (of 92) / 8 (of 65)	6 (of 62) / 6 (of 76)	3 (of 78) / 6 (of 80)	10 (of 93) / 5 (of 75)	5 (of 90) / 5 (of 60)	3 (of 22) / 0 (of 14)	3 (of 33) / 3 (of 16)	5 (of 66) / 4 (of 52)	3 (of 33) / 0 (of 29)	1 (of 28) / 1 (of 29)

Table 6.15: Information

Relation, behaviour	Bottom up		Top down		Peers	
	Round 1	Round 2	Round 1	Round 2	Round 1	Round 2
a) Good communication, friendly atmosphere	2.2	2.1	1.7	2.1	2.1	2.4
b) Everybody is looking for his own advantage.	0.2	0.3	0.1	0.2	0.2	0.4
c) If someone has good arguments, ideas are welcome.	2.0	1.9	1.5	2.0	1.8	2.1
d) Plans are discussed and decisions are taken in co-operative, partnership.	1.7	1.6	1.4	1.6	1.6	1.8
e) People have to work and not to bring in new ideas - that is the job of the management.	0.4	0.4	0.2	0.4	0.3	0.3
f) Besides the working activities there is also time for personal relations.	1.2	1.0	0.9	1.1	1.2	1.4
g) Decisions are only taken by the management.	0.8	0.9	0.3	0.6	0.6	0.6

Table 6.16: Rations, behaviours – rating (between 0 and 3 – arithmetic mean)

Turnover	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-du-ction	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after
Decreasing	6 / 7	1 / 2	5 / 3	0 / 1	2 / 5	4 / 1	1 / 2	0 / 1	1 / 0	1 / 1	0 / 2
Balanced	4 / 3	1 / 1	1 / 2	1 / 0	3 / 1	0 / 2	1 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Increasing	18 / 17	3 / 1	8 / 8	6 / 8	9 / 8	9 / 9	10 / 9	3 / 1	4 / 4	6 / 6	5 / 3

Table 6.17: Turnover

Cash flow	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after
Decreasing	10 / 5	1 / 0	6 / 2	2 / 2	5 / 5	4 / 2	3 / 2	0 / 0	1 / 1	1 / 1	0 / 0
Balanced	7 / 8	1 / 1	3 / 3	3 / 3	2 / 1	5 / 4	4 / 3	2 / 1	1 / 0	3 / 1	3 / 3
Increasing	11 / 14	3 / 3	5 / 8	3 / 4	7 / 8	3 / 6	6 / 6	1 / 1	3 / 3	3 / 5	2 / 2

Table 6.18: Cash flow

Use of profits	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after
Investment, training	21 / 20	3 / 3	10 / 9	6 /	9 / 8	10 / 10	10 / 9	1 / 1	5 / 4	7 / 7	3 / 3
Reserve, dividend	7 / 8	2 / 1	3 / 2	1 / 4	4 / 2	2 / 5	3 / 3	2 / 2	1 / 2	1 / 3	2 / 2
Dept reduction	2 / 6	0 / 1	1 / 2	1 / 3	1 / 5	1 / 1	0 / 1	1 / 0	0 / 0	0 / 1	1 / 1
No profit	2 / 0	1/ 0	1 / 0	0 / 0	1/ 0	1 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

Table 6.19: Use of profits

Finance	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after
Private	8 / 11	4 / 4	3 / 3	0 / 2	4 / 5	3 / 4	3 / 4	1 / 1	1 / 1	1 / 4	2 / 1
Bank	3 / 0	1 / 0	2 / 0	0 / 0	2 / 0	1 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
Mix: private/bank	13 / 14	0 / 0	8 / 10	4 / 3	4 / 5	8 / 8	7 / 5	1 / 1	4 / 3	5 / 2	2 / 3
Foundation / public	4 / 4	0 / 0	1 / 0	3 / 4	4 / 4	0 / 0	2 / 2	1 / 0	0 / 0	1 / 1	1

Table 6.20: Financing

Company problem	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. Before	Cert. after	Top manager
Staffs integration reduced (decisions, procedures, communication)	49 (28.8%) / 42 (33.5%)	4 (of 17) / 1 (of 14)	29 (of 92) / 22 (of 65)	16 (of 62) / 29 (of 76)	20 (of 78) /29 (of 80)	29 (of 93) / 24 (of 75)	23 (of 90) / 16 (of 60)	6 (of 22) / 6 (of 14)	6 (of 33) / 4 (of 16)	20 (of 66) / 19 (of 52)	6 (of 33) / 13 (of 29)	0 (of 28) / 3 (of 29)
Missing resources (time, infrastructure, supplier)	28 (16.6%) / 37 (23.9%)	3 (of 17) / 1 (of 14)	13 (of 92) / 17 (of 65)	12 (of 62) / 18 (of 76)	19 (of 78) /23 (of 80)	9 (of 93) / 13 (of 75)	18 (of 90) / 18 (of 60)	4 (of 22) / 1 (of 14)	3 (of 33) / 3 (of 16)	9 (of 66) / 13 (of 52)	7 (of 33) / 6 (of 29)	5 (of 28) / 6 (of 29)
Financing	24 (14.1%) / 9 (5.8%)	7 (of 17) / 0 (of 14)	11 (of 92) / 4 (of 65)	6 (of 62) / 5 (of 76)	13 (of 78) / 4 (of 80)	11 (of 93) / 5 (of 75)	10 (of 90) / 4 (of 60)	5 (of 22) / 1 (of 14)	4 (of 33) / 3 (of 16)	6 (of 66) / 2 (of 52)	7 (of 33) / 2 (of 29)	10 (of 28) / 3 (of 29)
Intensive competition	22 (12.9%) / 13 (8.4%)	/ 4 (of 14)	/ 8 (of 65)	/ 1 (of 76)	11 (of 78) / 8 (of 80)	11 (of 93) / 5 (of 75)	11 (of 90) / 5 (of 60)	2 (of 22) / 2 (of 14)	5 (of 33) / 1 (of 16)	7 (of 66) / 3 (of 52)	3 (of 33) / 3 (of 29)	9 (of 28) / 8 (of 29)
Future (succession, know-how, market position, expansion)	20 (11.8%) / 9 (5.7%)	4 (of 17) / 0 (of 14)	7 (of 92) / 4 (of 65)	9 (of 62) / 5 (of 76)	10 (of 78) / 3 (of 80)	10 (of 93) / 6 (of 75)	11 (of 90) / 6 (of 60)	6 (of 22) / 1 (of 14)	3 (of 33) / 2 (of 16)	8 (of 66) / 6 (of 52)	6 (of 33) / 1 (of 29)	8 (of 28) / 5 (of 29)
Politics concerning economy	15 (8.8%) / 9 (5.8%)	0 (of 17) / 2 (of 14)	9 (of 92) / 5 (of 65)	6 (of 62) / 0 (of 76)	3 (of 78) /5 (of 80)	12 (of 93) / 4 (of 75)	13 (of 90) / 3 (of 60)	0 (of 22) / 1 (of 14)	4 (of 33) / 0 (of 16)	12 (of 66) / 2 (of 52)	0 (of 33) / 3 (of 29)	7 (of 28) / 8 (of 29)
Staffs not satisfied, stress, missing motivation	13 (7.6%) /30 (19.4%)	0 (of 17) / 9 (of 14)	6 (of 92) / 5 (of 65)	7 (of 62) / 11 (of 76)	4 (of 78) /15 (of 80)	9 (of 93) / 14 (of 75)	8 (of 90) / 13 (of 60)	3 (of 22) / 4 (of 14)	4 (of 33) / 5 (of 16)	6 (of 66) / 10 (of 52)	5 (of 33) / 5 (of 29)	0 (of 28) / 3 (of 29)
No internal problems	22 (12.9%) / 13 (8.4%)	1 (of 17) / 2 (of 14)	12 (of 92) / 3 (of 65)	9 (of 62) / 8 (of 76)	7 (of 78) / 5 (of 80)	15 (of 93) / 8 (of 75)	11 (of 90) / 3 (of 60)	3 (of 22) / 0 (of 14)	8 (of 33) / 0 (of 16)	8 (of 66) / 4 (of 52)	6 (of 33) / 1 (of 29)	0 (of 28) / 0 (of 29)

Table 6.21: Company problem

Future	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after	Top manager
Positive	110 (64.7 %) / 115 (74.2 %)	5 (of 17) / 7 (of 14)	64 (of 92) / 50 (of 65)	41 (of 62) / 57 (of 76)	48 (of 78) / 57 (of 80)	62 (of 93) / 57 (of 75)	69 (of 90) / 48 (of 60)	12 (of 22) / 9 (of 14)	26 (of 33) / 14 (of 16)	48 (of 66) / 38 (of 52)	22 (of 33) / 24 (of 29)	15 (of 28) / 25 (of 29)
Average	25 (14.7 %) / 13 (8.4%)	6 (of 17) / 0 (of 14)	11 (of 92) / 5 (of 65)	8 (of 62) / 8 (of 76)	9 (of 78) / 5 (of 80)	16 (of 93) / 8 (of 75)	10 (of 90) / 5 (of 60)	5 (of 22) / 2 (of 14)	4 (of 33) / 0 (of 16)	7 (of 66) / 7 (of 52)	6 (of 33) / 2 (of 29)	5 (of 28) / 0 (of 29)
Uncertain	31 (18.2 %) / 20 (12.9 %)	3 (of 17) / 5 (of 14)	16 (of 92) / 9 (of 65)	12 (of 62) / 6 (of 76)	17 (of 78) / 12 (of 80)	14 (of 93) / 8 (of 75)	11 (of 90) / 6 (of 60)	4 (of 22) / 2 (of 14)	2 (of 33) / 1 (of 16)	11 (of 66) / 6 (of 52)	4 (of 33) / 2 (of 29)	6 (of 28) / 3 (of 29)

Table 6.22: Future evaluation

Social respons.	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after	Top man-ager
Staff integration, internal relations	106 (62.5%) / 100 (64.5%)	10 (of 17) /	57 (of 92) /	39 (of 62) /	44 (of 78) /55 (of 80)	62 (of 93) / 45 (of 75)	60 (of 90) / 41 (of 60)	14 (of 22) / 7 (of 14)	20 (of 33) /10 (of 16)	44 (of 66) /33 (of 52)	22 (of 33) /16 (of 29)	20 (of 28) / 22 (of 29)
Local community, sponsoring, customers	56 (32.9%) / 50 (32.5%)	3 (of 17) / 4 (of 14)	21 (of 92) / 13 (of 65)	32 (of 62) / 32 (of 76)	42 (of 78) / 33 (of 80)	14 (of 93) / 16 (of 75)	19 (of 90) /14 (of 60)	12 (of 22) / 6 (of 14)	7 (of 33) / 5 (of 16)	13 (of 66) / 13 (of 52)	14 (of 33) /12 (of 29)	15 (of 28) / 17 (of 29)
Staff education, offering jobs	46 (27.1%) / 44 (28.4%)	9 (of 17) / 3 (of 14)	25 (of 92) / 23 (of 65)	12 (of 62) / 18 (of 76)	18 (of 78) /15 (of 80)	28 (of 93) / 29 (of 75)	26 (of 90) / 16 (of 60)	6 (of 22) / 5 (of 14)	13 (of 33) / 6 (of 16)	19 (of 66) / 11 (of 52)	9 (of 33) /10 (of 29)	16 (of 28) / 16 (of 29)
Wages, social security	22 (12.9%) / 27 (17.4%)	2 (of 17) / 2 (of 14)	16 (of 92) / 16 (of 65)	4 (of 62) / 9 (of 76)	10 (of 78) /13 (of 80)	12 (of 93) / 14 (of 75)	14 (of 90) / 10 (of 60)	1 (of 22) / 1 (of 14)	5 (of 33) / 5 (of 16)	8 (of 66) / 9 (of 52)	2 (of 33) / 3 (of 29)	6 (of 28) / 10 (of 29)

Table 6.23: Social responsibility: issues

Social respons.	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gratio n	Envir-on-ment	Cert. before	Cert. after	Top man-ager
Influence: none	34 (20.0%) / 24 (15.1%)	3 (of 17) / 1 (of 14)	23 (of 92) / 14 (of 65)	8 (of 62) / 9 (of 76)	7 (of 78) / 5 (of 80)	27 (of 93) / 19 (of 75)	28 (of 90) / 14 (of 60)	3 (of 22) / 1 (of 14)	11 (of 33) / 5 (of 16)	23 (of 66) / 13 (of 52)	5 (of 33) / 2 (of 29)	0 (of 28) / 0 (of 29)
Influence: minimal	22 (12.9%) / 13 (8.2%)	1 (of 17) / 0 (of 14)	14 (of 92) / 6 (of 65)	7 (of 62) / 7 (of 76)	8 (of 78) /8 (of 80)	14 (of 93) / 5 (of 75)	6 (of 90) /1 (of 60)	2 (of 22) / 2 (of 14)	4 (of 33) / 1 (of 16)	6 (of 66) / 3 (of 52)	2 (of 33) / 4 (of 29)	0 (of 28) / 0 (of 29)
Influence: daily activities	53 (31.2%) / 34 (21.4%)	7 (of 17) / 1 (of 14)	27 (of 92) / 8 (of 65)	19 (of 62) / 24 (of 76)	35 (of 78) /54 (of 80)	18 (of 93) / 12 (of 75)	20 (of 90) / 14 (of 60)	8 (of 22) / 3 (of 14)	6 (of 33) / 2 (of 16)	10 (of 66) / 13 (of 52)	13 (of 33) / 8 (of 29)	12 (of 28) / 1 (of 29)
Influence: main respons.	11 (6.5%) / 29 (18.2%)	1 (of 17) / 5 (of 14)	5 (of 92) / 13 (of 65)	5 (of 62) / 11 (of 76)	7 (of 78) / 21 (of 80)	4 (of 93) / 12 (of 75)	5 (of 90) / 11 (of 60)	2 (of 22) / 3 (of 14)	3 (of 33) / 4 (of 16)	2 (of 66) / 7 (of 52)	3 (of 33) / 7 (of 29)	10 (of 28) / 26 (of 29)
Influence : staff integration, supporting	64 (37.6%) / 65 (41.9%)	4 (of 17) / 6 (of 14)	32 (of 92) /26 (of 65)	28 (of 62) / 33 (of 76)	26 (of 78) /17 (of 80)	34 (of 93) / 60 (of 75)	38 (of 90) / 24 (of 60)	9 (of 22) / 5 (of 14)	10 (of 33) / 4 (of 16)	31 (of 66) / 22 (of 52)	13 (of 33) / 11 (of 29)	10 (of 28) / 2 (of 29)

Table 6.24: Social responsibility: influence on activities

Value	R1 / R2	Micro	Small	Medium	Service	Production	No cert.	Cert. before	Cert. after	Switzerland	Germany	Male	Female	Top manager
a) example	2.86 / 2.83	2.6 / 2.4	2.9 / 2.8	2.9 / 2.9	3.1 / 2.7	2.7 / 3.0	3.1 / 2.7	2.8 / 3.1	2.5 / 2.6	2.7 / 2.8	3.4 / 2.9	2.9 / 3.0	2.8 / 2.6	3.6 / 3.6
f) time	2.45 / 2.31	2.9 / 2.4	2.5 / 2.4	2.3 / 2.3	2.5 / 2.3	2.4 / 2.3	2.5 / 2.3	2.4 / 2.4	2.7 / 2.2	2.5 / 2.4	2.2 / 2.1	2.4 / 2.2	2.5 / 2.5	2.5 / 2.4
g) justice	2.45 / 2.16	2.2 / 2.3	2.5 / 2.3	2.4 / 2.0	2.5 / 2.3	2.4 / 2.0	2.6 / 2.1	2.4 / 2.2	2.2 / 2.3	2.3 / 2.2	2.9 / 2.1	2.3 / 2.0	2.7 / 2.5	3.0 / 2.5
m) open	2.08 / 2.11	1.3 / 2.1	2.0 / 2.2	2.2 / 2.1	2.5 / 2.4	1.8 / 1.8	2.1 / 2.3	1.8 / 1.8	2.7 / 2.3	2.0 / 2.0	2.5 / 2.3	1.8 / 1.9	2.6 / 2.5	2.3 / 2.5
b) integrate	1.80 / 1.50	1.7 / 1.7	1.6 / 1.5	2.1 / 1.4	1.9 / 1.7	1.7 / 1.3	1.7 / 1.6	1.9 / 1.5	1.9 / 1.2	1.8 / 1.5	2.0 / 1.4	1.8 / 1.4	1.8 / 1,6	1.5 / 1.2
q) flexible	1.64 / 1.62	1.9 / 2.1	1.6 / 1.4	1.6 / 1.7	1.7 / 1.7	1.6 / 1.6	1.5 / 1.6	1.6 / 1.8	1.9 / 1.4	1.7 / 1.7	1.4 / 1.4	1.6 / 1.7	1.7 / 1.6	1.4 / 1.5
j) health	1.54 / 1.48	1.4 / 1.6	1.6 / 1.4	1.5 / 1.5	1.6 / 1.5	1.5 / 1.4	1.5 / 1.4	1.4 / 1.4	1.9 / 1.8	1.5 / 1.5	1.7 / 1.5	1.4 / 1.3	1.9 / 1.7	1.2 / 1.6
k) learning	1.47 / 1.63	1.8 / 1.3	1.4 / 1.3	1.5 / 2.0	1.6 / 1.8	1.4 / 1.5	1.5 / 1.6	1.3 / 1.5	1.9 / 2.1	1.5 / 1.4	1.6 / 2.3	1.4 / 1.6	1.7 / 1.8	1.4 / 1.5
h) responsible	1.26 / 1.06	1.6 / 1.3	1.2 / 1.1	1.2 / 1.0	1.5 / 1.2	1.1 / 0.9	1.4 / 1.0	1.2 / 1.0	1.1 / 1.2	1.2 / 1.1	1.5 / 0.9	1.3 / 1.1	1.3 / 0.9	1.4 / 1.8
l) loyal	1.17 / 1.33	0.8 / 1.6	1.3 / 1.1	1.1 / 1.5	1.0 / 1.5	1.3 / 1.2	1.1 / 1.4	1.2 / 1.3	1.2 / 1.3	1.2 / 1.2	1.2 / 1.7	1.3 / 1.3	0.9 / 1.4	1.1 / 1.3
e) image	1.17 / 1.30	1.1 / 0.9	1.2 / 1.3	1.1 / 1.3	1.1 / 1.2	1.3 / 1.3	1.3 / 1.4	1.1 / 1.3	1.0 / 1.1	1.2 / 1.3	1.1 / 1.3	1.2 / 1.3	1.1 / 1.3	0.9 / 0.9
o) alternatives	1.14 / 1.18	1.5 / 1.9	1.1 / 1.0	1.0 / 1.2	1.2 / 1.1	1.1 / 1.2	1.1 / 1.2	1.0 / 1.1	1.5 / 1.2	1.2 / 1.2	1.1 / 1.2	1.1 / 1.2	1.3 / 1.2	0.7 / 0.5
c) compliant	1.05 / 1.09	0.4 / 0.6	1.1 / 1.0	1.2 / 1.2	1.1 / 1.1	1.0 / 1.0	1.1 / 1.0	1.2 / 1.2	0.8 / 1.1	1.0 / 1.0	1.9 / 1.4	1.0 / 1.0	1.2 / 1.2	1.1 / 0.9
n) long term	0.98 / 1.07	1.0 / 0.8	1.0 / 1.1	1.0 / 1.1	1.0 / 1.2	1.0 / 1.0	1.0 / 1.1	1.0 / 1.0	0.9 / 1.3	1.0 / 1.0	0.9 / 1.3	1.0 / 1.1	1.0 / 1.0	1.4 / 1.6
p) planning	0.85 / 0.84	0.6 / 0.6	0.9 / 0.9	0.8 / 0.8	0.7 / 0.9	0.9 / 0.8	0.8 / 0.9	1.0 / 0.8	0.7 / 0.8	0.8 / 0.8	0.9 / 1.0	0.9 / 0.8	0.8 / 1.0	1.1 / 1.0
d) fun	0.76 / 0.83	0.8 / 1.4	0.8 / 0.8	0.6 / 0.8	0.6 / 0.8	0,9 / 0.9	0.7 / 0.9	0.9 / 0.8	0.7 / 0.8	0.7 / 0.8	0.4 / 0.8	0.8 / 0.8	0.6 / 0.8	0.3 / 0.3
i) profit	0.44 / 0.63	0.3 / 0.3	0.5 / 0.8	0.3 / 0.6	0.3 / 0.6	0.5 / 0.7	0.4 / 0.6	0.5 / 0.8	0.3 / 0.5	0.5 / 0.7	0.4 / 0.5	0.5 / 0.7	0.3 / 0.4	0.5 / 0.5

Table 6.25: Rating of values (Questionnaire List B)

Value – background	R1 / R2	Micro	Small	Medium	Service	Production	No cert.	Cert. before	Cert. after	Switzerland	Germany	Male	Female	Top manager
Mix of issues	111 (65.3 %) / 80 (51.6 %)	10 (of 17) / 10 (of 14)	60 (of 92) / 34 (of 65)	41 (of 62) / 35 (of 76)	55 (of 78) / 45 (of 80)	56 (of 93) / 34 (of 75)	47 (of 90) / 36 (of 60)	39 (of 66) / 25 (of 52)	25 (of 33) / 19 (of 29)	84 (of 132) / 63 (of 75)	27 (of 38) / 17 (of 40)	73 (of 115) / 48 (of 99)	38 (of 55) / 32 (of 56)	18 (of 28) / 17 (of 29)
Experience	108 (63.5 %) / 95 (61.3 %)	11 (of 17) / 11 (of 14)	59 (of 92) / 39 (of 65)	38 (of 62) / 44 (of 76)	52 (of 78) / 47 (of 80)	56 (of 93) / 47 (of 75)	41 (of 90) / 44 (of 60)	44 (of 66) / 34 (of 52)	23 (of 33) / 17 (of 29)	85 (of 132) / 75 (of 115)	23 (of 38) / 20 (of 40)	71 (of 115) / 63 (of 99)	37 (of 55) / 32 (of 56)	17 (of 28) / 18 (of 29)
Family, school, youth	103 (60.6 %) / 77 (49.7 %)	8 (of 17) / 9 (of 14)	57 (of 92) / 32 (of 65)	38 (of 62) / 35 (of 76)	45 (of 78) / 44 (of 80)	58 (of 93) / 32 (of 75)	39 (of 90) / 35 (of 60)	43 (of 66) / 22 (of 52)	21 (of 33) / 20 (of 29)	79 (of 132) / 57 (of 115)	24 (of 38) / 20 (of 40)	68 (of 115) / 47 (of 99)	35 (of 55) / 30 (of 56)	17 (of 28) / 20 (of 29)
Religion	40 (23.5 %) / 24 (15.5 %)	3 (of 17) / 1 (of 14)	23 (of 92) / 10 (of 65)	14 (of 62) / 6 (of 76)	18 (of 78) / 14 (of 80)	22 (of 93) / 10 (of 75)	18 (of 90) / 12 (of 60)	15 (of 66) / 7 (of 52)	7 (of 33) / 5 (of 29)	24 (of 132) / 12 (of 115)	16 (of 38) / 12 (of 40)	26 (of 115) / 15 (of 99)	14 (of 55) / 9 (of 56)	12 (of 28) / 10 (of 29)
Education, job	35 (20.6 %) / 27 (17.4 %)	2 (of 17) / 4 (of 14)	16 (of 92) / 6 (of 65)	17 (of 62) / 17 (of 76)	22 (of 78) / 22 (of 80)	13 (of 93) / 5 (of 75)	17 (of 90) / 15 (of 60)	11 (of 66) / 4 (of 52)	7 (of 33) / 8 (of 29)	23 (of 132) / 15 (of 115)	12 (of 38) / 12 (of 40)	20 (of 115) / 16 (of 99)	15 (of 55) / 11 (of 56)	8 (of 28) / 8 (of 29)
Personal development, character building	25 (14.7 %) / 30 (19.4 %)	5 (of 17) / 4 (of 14)	13 (of 92) / 8 (of 65)	7 (of 62) / 18 (of 76)	14 (of 78) / 18 (of 80)	11 (of 93) / 12 (of 75)	13 (of 90) / 13 (of 60)	7 (of 66) / 9 (of 52)	5 (of 33) / 8 (of 29)	20 (of 132) / 20 (of 115)	5 (of 38) / 10 (of 40)	22 (of 115) / 22 (of 99)	3 (of 55) / 8 (of 56)	9 (of 28) / 9 (of 29)

Table 6.26: Values: backgrounds

Private problem	R1 / R2	Micro	Small	Medium	Service	Production	No cert.	Cert. before	Cert. after	Switzerland	Germany	Male	Female	Top manager
Individualisation, egoism	54 (31.8 %) / 42 (27.2 %)	6 (of 17) / 3 (of 14)	30 (of 92) / 20 (of 65)	18 (of 62) / 19 (of 76)	27 (of 78) / 24 (of 80)	27 (of 93) / 18 (of 75)	26 (of 90) / 23 (of 60)	12 (of 66) / 8 (of 52)	16 (of 33) / 11 (of 29)	47 (of 132) / 32 (of 115)	7 (of 38) / 10 (of 40)	40 (of 115) / 27 (of 99)	14 (of 55) / 15 (of 56)	13 (of 28) / 15 (of 29)
Politics: Europe, globalisation, bureaucracy	48 (28.2 %) / 37 (24.2 %)	7 (of 17) / 5 (of 14)	24 (of 92) / 13 (of 65)	17 (of 62) / 19 (of 76)	21 (of 78) / 25 (of 80)	27 (of 93) / 12 (of 75)	18 (of 90) / 21 (of 60)	19 (of 66) / 11 (of 52)	11 (of 33) / 5 (of 29)	35 (of 132) / 24 (of 75)	13 (of 38) / 13 (of 40)	35 (of 115) / 23 (of 99)	13 (of 55) / 14 (of 56)	11 (of 28) / 11 (of 29)
Living: finance, generations, job	47 (27.6 %) / 35 (22.9 %)	4 (of 17) / 6 (of 14)	24 (of 92) / 8 (of 65)	19 (of 62) / 20 (of 76)	27 (of 78) / 23 (of 80)	20 (of 93) / 11 (of 75)	22 (of 90) / 19 (of 60)	16 (of 66) / 11 (of 52)	9 (of 33) / 5 (of 29)	35 (of 132) / 19 (of 115)	12 (of 38) / 16 (of 40)	27 (of 115) / 15 (of 99)	20 (of 55) / 20 (of 56)	8 (of 28) / 4 (of 29)
Economy: dependence, mono-poly	22 (12.9 %) / 28 (18.3 %)	8 (of 17) / 3 (of 14)	10 (of 92) / 17 (of 65)	4 (of 62) / 8 (of 76)	12 (of 78) / 14 (of 80)	10 (of 93) / 14 (of 75)	10 (of 90) / 13 (of 60)	7 (of 66) / 9 (of 52)	5 (of 33) / 6 (of 29)	20 (of 132) / 25 (of 115)	2 (of 38) / 3 (of 40)	18 (of 115) / 21 (of 99)	4 (of 55) / 7 (of 56)	8 (of 28) / 9 (of 29)
Not enough private time	10 (5.9%) / 20 (13.1 %)	1 (of 17) / 4 (of 14)	8 (of 92) / 7 (of 65)	1 (of 62) / 9 (of 76)	5 (of 78) / 12 (of 80)	5 (of 93) / 8 (of 75)	6 (of 90) / 10 (of 60)	4 (of 66) / 8 (of 52)	0 (of 33) / 2 (of 29)	8 (of 132) / 15 (of 115)	2 (of 38) / 5 (of 40)	7 (of 115) / 15 (of 99)	3 (of 55) / 5 (of 56)	4 (of 28) / 8 (of 29)

Table 6.27: Personal/private problems

Religion – distribution	R1 / R2	Switzerland	Germany
Roman Catholic	106 (62.4%) / 94 (60.6%)	90 (of 132) / 75 (of 115)	16 (of 38) / 19 (of 40)
Protestant	22 (12.9%) / 19 (12.3%)	7 (of 132) / 6 (of 115)	15 (of 38) / 13 (of 40)
Orthodox	5 (2.9%) / 4 (2.6%)	3 (of 132) / 3 (of 115)	2 (of 38) / 1 (of 40)
Christian – others	9 (5.4%) / 10 (6.5%)	8 (of 132) / 8 (of 115)	1 (of 38) / 2 (of 40)
Muslim	7 (4.1%) / 2 (1.3%)	5 (of 132) / 2 (of 115)	2 (of 38) / 0 (of 40)
No specific – philosophy of life	6 (3.5%) / 6 (3.9%)	6 (of 132) / 4 (of 115)	0 (of 38) / 2 (of 40)
No answer	15 (8.4%) / 20 (12.9%)	13 (of 132) / 17 (of 115)	2 (of 38) / 3 (of 40)

Table 6.28: Religion – distribution

Religion – influences	Within company	Private / individual
Yes	63 (37.1%) / 84 (54.2%)	70 (41.2%) / 91 (58.7)
Minimal / some	17 (21.8%) / 42 (19.8%)	49 (28.8%) / 39 (25.2%)
Philosophy of life	12 (7.1%) / 5 (3.2%)	11 (6.5%) / 7 (4.5%)
None	56 (32.9%) / 23 (14.8%)	39 (22.9%) / 17 (11.0%)

Table 6.29: Religion – influences

Politics – distribution	R1 / R2	Switzerland	Germany
Left	14 (8.2%) / 16 (10.3%)	10 (of 132) / 11 (of 115)	4 (of 38) / 5 (of 40)
Middle	22 (12.9%) / 25 (16.1%)	13 (of 132) / 11 (of 115)	9 (of 38) / 14 (of 40)
Right	34 (20.0%) / 32 (20.7%)	28 (of 132) / 27 (of 115)	6 (of 38) / 5 (of 40)
Theme orientated – No party preference	25 (14.7%) / 31 (20.0%)	21 (of 132) / 27 (of 115)	4 (of 38) / 4 (of 40)
None	73 (42.9%) / 50 (32.3%)	58 (of 132) / 38 (of 115)	15 (of 38) / 12 (of 40)

Table 6.30: Politics – distribution

Statement	Round 1	Round 2	Top m. 1	Top m. 2	St. Gallen
a) Market decides the direction of activities. I agree with this argument because there is no moral or immoral management, there is only good or bad management.	2.71	2.52	1.81	1.48	54% of all
b) The moral quality of a company is as good as the moral quality of the people working in. In this sense ethics are taken for granted.	3.17	3.34	3.27	3.44	29% of all
c) A company / person following moral values in business will lose on long terms its / his / her competitiveness. The dilemma to live with is part of management.	1.38	1.47	1.73	1.63	2% of all
d) The system of market economy does not automatically lead to the desired results. A behaviour based on moral values is therefore a managerial challenge.	2.74	2.55	3.19	3.41	41% of all

Table 6.31: Rating of statements - (Most corresponding 4, then 3, 2, 1 – arithmetic mean) – List according to Ulrich et al. (1998)
Statement a) is correlated with 'economist' attitudes, b) with 'conventionalist', c) with 'idealist' and d) with reformist.

Mission, strategies	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. be-fore	Cert. after	Top man-ager
Customer satisfaction: quality, price, info	108 (63.5%) / 75 (48.4%)	9 (of 17) / 9 (of 14)	60 (of 92) / 23 (of 65)	39 (of 62) / 42 (of 76)	62 (of 78) / 53 (of 80)	46 (of 93) / 21 (of 75)	49 (of 90) / 24 (of 60)	14 (of 22) / 9 (of 14)	17 (of 33) / 3 (of 16)	34 (of 66) / 15 (of 52)	20 (of 33) / 16 (of 29)	16 (of 28) / 15 (of 29)
Future orientated, innovative	46 (27.1%) / 48 (31.0%)	1 (of 17) / 6 (of 14)	31 (of 92) / 30 (of 65)	14 (of 62) / 12 (of 76)	24 (of 78) / 22 (of 80)	32 (of 93) / 26 (of 75)	33 (of 90) / 22 (of 60)	4 (of 22) / 2 (of 14)	15 (of 33) / 3 (of 16)	23 (of 66) / 17 (of 52)	10 (of 33) / 7 (of 29)	14 (of 28) / 14 (of 29)
Optimal internal conditions	38 (22.4%) / 36 (23.2%)	3 (of 17) / 1 (of 14)	16 (of 92) / 4 (of 65)	19 (of 62) / 31 (of 76)	18 (of 78) / 18 (of 80)	20 (of 93) / 18 (of 75)	15 (of 90) / 13 (of 60)	7 (of 22) / 2 (of 14)	5 (of 33) / 6 (of 16)	14 (of 66) / 15 (of 52)	8 (of 33) / 7 (of 29)	5 (of 28) / 4 (of 29)
Optimal market position	24 (14.1%) / 23 (14.8%)	5 (of 17) / 1 (of 14)	14 (of 92) / 20 (of 65)	5 (of 62) / 2 (of 76)	8 (of 78) / 5 (of 80)	18 (of 93) / 18 (of 75)	17 (of 90) / 13 (of 60)	4 (of 22) / 8 (of 14)	5 (of 33) / 2 (of 16)	11 (of 66) / 12 (of 52)	7 (of 33) / 2 (of 29)	4 (of 28) / 5 (of 29)
Achieve-ment of objectives, profit	17 (10.0%) / 10 (6.5%)	3 (of 17) / 2 (of 14)	10 (of 92) / 5 (of 65)	4 (of 62) / 3 (of 76)	8 (of 78) / 4 (of 80)	9 (of 93) / 6 (of 75)	11 (of 90) / 5 (of 60)	1 (of 22) / 1 (of 14)	4 (of 33) / 1 (of 16)	6 (of 66) / 4 (of 52)	4 (of 33) / 1 (of 29)	8 (of 28) / 5 (of 29)
Offering jobs, education	17 (10.0%) / 10 (6.5%)	0 (of 17) / 0 (of 14)	12 (of 92) /4 (of 65)	5 (of 62) / 6 (of 76)	7 (of 78) / 6 (of 80)	10 (of 93) / 4 (of 75)	10 (of 90) / 6 (of 60)	2 (of 22) / 1 (of 14)	2 (of 33) / 2 (of 16)	7 (of 66) / 3 (of 52)	2 (of 33) / 2 (of 29)	4 (of 28) / 3 (of 29)
Flexibility, indepen-dence	7 (4.1%) / 14 (9.0%)	1 (of 17) / 3 (of 14)	3 (of 92) / 7 (of 65)	3 (of 62) / 4 (of 76)	4 (of 78) / 10 (of 80)	3 (of 93) / 4 (of 75)	2 (of 90) / 6 (of 60)	2 (of 22) / 3 (of 14)	4 (of 33) / 2 (of 16)	1 (of 66) / 2 (of 52)	3 (of 33) / 5 (of 29)	0 (of 28) / 4 (of 29)
Transfer: optimising mgmt system	130 (76.5%) / 109 (70.3%)	13 (of 17) / 11 (of 14)	68 (of 92) / 45 (of 65)	49 (of 62) / 53 (of 76)	61 (of 78) /63 (of 80)	69 (of 93) / 47 (of 75)	68 (of 90) / 41 (of 60)	19 (of 22) / 11 (of 14)	22 (of 33) / 11 (of 16)	49 (of 66) / 30 (of 52)	25 (of 33) / 22 (of 29)	22 (of 28) / 21 (of 29)
Transfer: staffs integration, supporting	48 (28.2%) / 58 (37.4%)	6 (of 17) / 5 (of 14)	26 (of 92) /24 (of 65)	16 (of 62) / 29 (of 76)	24 (of 78) / 28 (of 80)	24 (of 93) / 30 (of 75)	27 (of 90) / 23 (of 60)	5 (of 22) / 4 (of 14)	11 (of 33) / 6 (of 16)	18 (of 66) / 22 (of 52)	10 (of 33) / 9 (of 29)	6 (of 28) / 6 (of 29)
Transfer: innovation, expansion	32 (18.8%) / 26 (18.8%)	0 (of 17) / 2 (of 14)	20 (of 92) / 16 (of 65)	12 (of 62) / 8 (of 76)	12 (of 78) /10 (of 80)	20 (of 93) / 16 (of 75)	21 (of 90) / 11 (of 60)	2 (of 22) / 1 (of 14)	12 (of 33) / 1 (of 16)	15 (of 66) / 9 (of 52)	5 (of 33) / 6 (of 29)	8 (of 28) / 12 (of 29)

Table 6.32: Mission and strategies: issues and transfer

Objectives – transfer	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. be-fore	Cert. after	Top man-ager
Effectiveness	70 (41.2%) / 78 (50.3%)	6 (of 17) /	43 (of 92) /	21 (of 62) /	27 (of 78) / 34 (of 80)	43 (of 93) / 44 (of 75)	39 (of 90) / 32 (of 60)	9 (of 22) / 4 (of 14)	18 (of 33) / 14 (of 16)	25 (of 66) / 29 (of 52)	16 (of 33) / 10 (of 29)	19 (of 28) / 21 (of 29)
Quality optimisation	63 (37.1%) / 72 (46.5%)	5 (of 17) / 4 (of 14)	37 (of 92) / 31 (of 65)	21 (of 62) / 37 (of 76)	34 (of 78) / 44 (of 80)	29 (of 93) / 28 (of 75)	25 (of 90) / 28 (of 60)	7 (of 22) / 4 (of 14)	7 (of 33) / 4 (of 16)	27 (of 66) / 23 (of 52)	11 (of 33) / 13 (of 29)	14 (of 28) / 12 (of 29)
Innovation (customers, marketing, installation)	51 (30.0%) / 35 (22.6%)	3 (of 17) / 4 (of 14)	22 (of 92) / 9 (of 65)	26 (of 62) / 22 (of 76)	35 (of 78) /25 (of 80)	26 (of 93) / 10 (of 75)	30 (of 90) / 15 (of 60)	9 (of 22) / 7 (of 14)	17 (of 33) / 2 (of 16)	25 (of 66) / 10 (of 52)	12 (of 33) / 12 (of 29)	10 (of 28) / 8 (of 29)
People integration, offering jobs	14 (8.2%) / 17 (11.0%)	2 (of 17) / 3 (of 14)	7 (of 92) / 5 (of 65)	5 (of 62) / 9 (of 76)	4 (of 78) / 9 (of 80)	10 (of 93) / 8 (of 75)	7 (of 90) / 6 (of 60)	1 (of 22) / 3 (of 14)	1 (of 33) / 2 (of 16)	7 (of 66) / 5 (of 52)	1 (of 33) / 4 (of 29)	5 (of 28) / 6 (of 29)
None, unknown	22 (12.9%) / 12 (7.7%)	6 (of 17) / 1 (of 14)	9 (of 92) / 6 (of 65)	7 (of 62) / 4 (of 76)	6 (of 78) / 3 (of 80)	7 (of 93) / 8 (of 75)	9 (of 90) / 2 (of 60)	3 (of 22) / 0 (of 14)	0 (of 33) / 0 (of 16)	6 (of 66) / 3 (of 52)	4 (of 33) / 0 (of 29)	1 (of 28) / 0 (of 29)
Transfer: quality optimisation	93 (54.7%) / 66 (42.6%)	10 (of 17) / 6 (of 14)	50 (of 92) / 28 (of 65)	33 (of 62) / 32 (of 76)	38 (of 78) / 28 (of 80)	55 (of 93) / 38 (of 75)	54 (of 90) / 29 (of 60)	17 (of 22) / 7 (of 14)	25 (of 33) / 9 (of 16)	41 (of 66) / 26 (of 52)	23 (of 33) / 19 (of 29)	18 (of 28) / 16 (of 29)
Transfer: people integration	58 (34.1%) / 63 (40.6%)	2 (of 17) / 4 (of 14)	35 (of 92) / 21 (of 65)	21 (of 62) / 38 (of 76)	26 (of 78) / 30 (of 80)	32 (of 93) / 33 (of 75)	35 (of 90) / 23 (of 60)	5 (of 22) / 6 (of 14)	8 (of 33) / 6 (of 16)	25 (of 66) / 27 (of 52)	10 (of 33) / 12 (of 29)	12 (of 28) / 11 (of 29)
Transfer: customer relations	50 (29.4%) / 61 (39.4%)	(of 17) / 6 (of 14)	(of 92) / 29 (of 65)	(of 62) / 26 (of 76)	20 (of 78) / 42 (of 80)	30 (of 93) / 19 (of 75)	22 (of 90) / 23 (of 60)	7 (of 22) / 4 (of 14)	11 (of 33) / 7 (of 16)	17 (of 66) / 12 (of 52)	9 (of 33) / 11 (of 29)	9 (of 28) / 19 (of 29)
Transfer: none, unknown	17 (10.0%) / 18 (11.6%)	3 (of 17) / 2 (of 14)	10 (of 92) / 8 (of 65)	4 (of 62) / 7 (of 76)	6 (of 78) / 8 (of 80)	11 (of 93) / 9 (of 75)	5 (of 90) / 3 (of 60)	1 (of 22) / 1 (of 14)	1 (of 33) / 1 (of 16)	5 (of 66) / 4 (of 52)	1 (of 33) / 1 (of 29)	2 (of 28) / 0 (of 29)

Table 6.33: Actual objectives: issues and transfer

Management system – actual	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after	Top manager
Quality (ISO 9001, Tourism)	90 (52.9%) / 70 (45.2%)	4 (of 17) / 0 (of 14)	55 (of 92) / 43 (of 65)	31 (of 62) / 27 (of 76)	24 (of 78) / 24 (of 80)	66 (of 93) / 46 (of 75)	90 (of 90) / 48 (of 60)	4 (of 22) / 3 (of 14)	26 (of 33) / 8 (of 16)	66 (of 66) / 34 (of 52)	15 (of 33) / 13 (of 29)	12 (of 28) / 12 (of 29)
Integration (BSC, EFQM)	22 (12.9%) / 5 (3.2%)	4 (of 17) / 4 (of 14)	0 (of 92) / 0 (of 65)	18 (of 62) / 1 (of 76)	15 (of 78) / 4 (of 80)	7 (of 93) / 1 (of 75)	4 (of 90) / 4 (of 60)	22 (of 22) / 5 (of 14)	7 (of 33) / 1 (of 16)	0 (of 66) / 0 (of 52)	22 (of 33) / 5 (of 29)	3 (of 28) / 2 (of 29)
Industry	28 (16.5%) / 18 (11.6%)	0 (of 17) / 0 (of 14)	17 (of 92) / 18 (of 65)	11 (of 62) / 0 (of 76)	15 (of 78) /4 (of 80)	13 (of 93) / 14 (of 75)	14 (of 90) / 13 (of 60)	11 (of 22) / 0 (of 14)	5 (of 33) / 5 (of 16)	10 (of 66) / 11 (of 52)	15 (of 33) / 14 (of 29)	4 (of 28) / 3 (of 29)
Environment	33 (19.4%) / 13 (8.4%)	0 (of 17) / 0 (of 14)	14 (of 92) / 5 (of 65)	19 (of 62) / 8 (of 76)	4 (of 78) / 4 (of 80)	29 (of 93) / 9 (of 75)	26 (of 90) / 5 (of 60)	7 (of 22) / 3 (of 14)	33 (of 33) / 8 (of 16)	22 (of 66) / 11 (of 52)	11 (of 33) / 12 (of 29)	5 (of 28) / 3 (of 29)
OHS	49 (28.8%) / 10 (6.5%)	5 (of 17) / 3 (of 14)	31 (of 92) / 7 (of 65)	13 (of 62) / 0 (of 76)	10 (of 78) / 6 (of 80)	39 (of 93) / 4 (of 75)	29 (of 90) / 1 (of 60)	0 (of 22) / 0 (of 14)	1 (of 33) / 0 (of 16)	22 (of 66) / 0 (of 52)	7 (of 33) / 1 (of 29)	8 (of 28) / 4 (of 29)
Company	29 (17.1%) / 58 (34.7%)	7 (of 17) / 7 (of 14)	17 (of 92) / 19 (of 65)	5 (of 62) / 31 (of 76)	23 (of 78) / 41 (of 80)	6 (of 93) / 16 (of 75)	0 (of 90) / 0 (of 60)	0 (of 22) / 7 (of 14)	0 (of 33) / 0 (of 16)	0 (of 66) / 26 (of 52)	0 (of 33) / 12 (of 29)	7 (of 28) / 12 (of 29)

Table 6.34: Management systems: actual

Reason Implem.	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after
External (customers, market, regulations)	13 / 13	3 / 2	7 / 7	3 / 3	1 / 5	6 / 7	7 / 7	2 / 1	2 / 2	4 / 5	3 / 3
Internal (effectiveness, Procedures)	3 / 3	1 / 1	2 /	0 / 0	7 / 1	2 / 2	1 / 1	0 / 0	0 / 0	1 / 1	0 / 0
Mix: external, internal	9 / 9	1 / 0	3 /3	4 / 5	6 / 7	2 / 1	4 / 3	1 / 1	3 / 2	2 / 1	2 / 2

Table 6.35: Reason for management system implementation

Management system – experiences	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. be-fore	Cert. after	Top man-ager
Staffs sensitisation, information, training, lists	82 (48.2%) / 103 (65.6%)	8 (of 17) / 10 (of 14)	43 (of 92) / 44 (of 65)	31 (of 62) / 47 (of 76)	43 (of 78) / 60 (of 80)	39 (of 93) / 42 (of 75)	42 (of 90) / 37 (of 60)	11 (of 22) / 4 (of 14)	17 (of 33) / 10 (of 16)	28 (of 66) / 33 (of 52)	17 (of 33) / 13 (of 29)	21 (of 28) / 23 (of 29)
Problems with start, stress, opposition	18 (10.6%) / 5 (3.2%)	0 (of 17) / 4 (of 14)	7 (of 92) / 0 (of 65)	11 (of 62) / 1 (of 76)	6 (of 78) / 4 (of 80)	12 (of 93) / 1 (of 75)	12 (of 90) / 4 (of 60)	5 (of 22) / 5 (of 14)	4 (of 33) / 1 (of 16)	11 (of 66) / 0 (of 52)	6 (of 33) / 5 (of 29)	1 (of 28) / 2 (of 29)
Positive, system operates	18 (10.6%) / 24 (15.5%)	1 (of 17) / 2 (of 14)	9 (of 92) / 11 (of 65)	8 (of 62) / 11 (of 76)	6 (of 78) / 7 (of 80)	12 (of 93) / 17 (of 75)	12 (of 90) / 13 (of 60)	6 (of 22) / 4 (of 14)	4 (of 33) / 4 (of 16)	10 (of 66) / 9 (of 52)	7 (of 33) / 11 (of 29)	0 (of 28) / 6 (of 29)
Minimal, no training, unknown	47 (27.6%) / 20 (12.9%)	7 (of 17) / 1 (of 14)	29 (of 92) / 9 (of 65)	11 (of 62) / 10 (of 76)	19 (of 78) / 7 (of 80)	28 (of 93) / 13 (of 75)	22 (of 90) / 6 (of 60)	5 (of 22) / 4 (of 14)	8 (of 33) / 2 (of 16)	19 (of 66) / 7 (of 52)	5 (of 33) / 4 (of 29)	4 (of 28) / 0 (of 29)

Table 6.36: Management systems implementation: experiences

Management system – influences	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. be-fore	Cert. after	Top man-ager
Minimal	20 (11.8%) / 12 (7.7%)	0 (of 17) / 1 (of 14)	15 (of 92) / 7 (of 65)	5 (of 62) / 4 (of 76)	8 (of 78) / 5 (of 80)	12 (of 93) / 7 (of 75)	12 (of 90) / 3 (of 60)	1 (of 22) / 4 (of 14)	3 (of 33) / 0 (of 16)	9 (of 66) / 5 (of 52)	2 (of 33) / 0 (of 29)	1 (of 28) / 1 (of 29)
Quite a lot, daily work	20 (11.8%) / 8 (5.2%)	2 (of 17) / 1 (of 14)	9 (of 92) / 2 (of 65)	9 (of 62) / 5 (of 76)	5 (of 78) / 5 (of 80)	15 (of 93) / 3 (of 75)	17 (of 90) / 1 (of 60)	2 (of 22) / 0 (of 14)	4 (of 33) / 1 (of 16)	12 (of 66) / 1 (of 52)	5 (of 33) / 5 (of 29)	3 (of 28) / 1 (of 29)
Main responsibility	16 (9.4%) / 26 (16.8%)	2 (of 17) / 3 (of 14)	9 (of 92) / 13 (of 65)	5 (of 62) / 10 (of 76)	10 (of 78) / 14 (of 80)	6 (of 93) / 17 (of 75)	8 (of 90) / 11 (of 60)	3 (of 22) / 3 (of 14)	4 (of 33) / 4 (of 16)	4 (of 66) / 7 (of 52)	4 (of 33) / 6 (of 29)	15 (of 28) / 26 (of 29)
None	38 (22.4%) / 5 (3.2%)	7 (of 17) / 0 (of 14)	21 (of 92) / 2 (of 65)	10 (of 62) / 3 (of 76)	18 (of 78) / 1 (of 80)	20 (of 93) / 4 (of 75)	12 (of 90) / 3 (of 60)	4 (of 22) / 0 (of 14)	8 (of 33) / 1 (of 16)	10 (of 66) / 4 (of 52)	5 (of 33) / 0 (of 29)	4 (of 28) / 0 (of 29)
Optimising: procedures, meetings, know-ledge	69 (40.6%) / 86 (55.5%)	5 (of 17) / 8 (of 14)	34 (of 92) / 33 (of 65)	30 (of 62) / 44 (of 76)	27 (of 78) / 49 (of 80)	42 (of 93) / 36 (of 75)	43 (of 90) / 38 (of 60)	9 (of 22) / 7 (of 14)	16 (of 33) / 10 (of 16)	34 (of 66) / 31 (of 52)	15 (of 33) / 15 (of 29)	13 (of 28) / 5 (of 29)
Behaviour (customers, intern), effectiveness	29 (27.1%) / 38 (24.5%)	4 (of 17) / 4 (of 14)	14 (of 92) / 15 (of 65)	11 (of 62) / 19 (of 76)	16 (of 78) / 20 (of 80)	13 (of 93) / 18 (of 75)	14 (of 90) / 17 (of 60)	6 (of 22) / 4 (of 14)	3 (of 33) / 4 (of 16)	9 (of 66) / 12 (of 52)	9 (of 33) / 9 (of 29)	1 (of 28) / 4 (of 29)

Table 6.37: Management systems: possibilities of influence/interaction

Management system – planned	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after	Top manager
Quality (ISO 9001, Tourism)	18 (10.6%) / 20 (12.9%)	0 (of 17) / 0 (of 14)	11 (of 92) / 13 (of 65)	7 (of 62) / 7 (of 76)	11 (of 78) / 13 (of 80)	7 (of 93) / 7 (of 75)	13 (of 90) / 10 (of 60)	3 (of 22) / 1 (of 14)	3 (of 33) / 1 (of 16)	7 (of 66) / 7 (of 52)	3 (of 33) / 1 (of 29)	6 (of 28) / 2 (of 29)
Integration (BSC, EFQM)	10 (5.9%) / 14 (9.0%)	1 (of 17) / 4 (of 14)	9 (of 92) / 8 (of 65)	0 (of 62) / 2 (of 76)	1 (of 78) / 6 (of 80)	9 (of 93) / 8 (of 75)	10 (of 90) / 11 (of 60)	1 (of 22) / 4 (of 14)	1 (of 33) / 1 (of 16)	9 (of 66) / 9 (of 52)	1 (of 33) / 4 (of 29)	2 (of 28) / 7 (of 29)
Industry	0 / 12 (7.7%)	/ 0 (of 14)	/ 11 (of 65)	/ 1 (of 76)	/ 2 (of 80)	/ 10 (of 75)	/ 9 (of 60)	/ 0 (of 14)	/ 1 (of 16)	/ 10 (of 52)	/ 1 (of 29)	0 (of 28) / 2 (of 29)
Environment	4 (2.4%) / 0	0 (of 17) /	4 (of 92) /	0 (of 62) /	0 (of 78) /	4 (of 93) /	4 (of 90) /	0 (of 22) /	0 (of 33) /	4 (of 66) /	0 (of 33) /	0 (of 28) / 0 (of 29)
Unknown, none	137 (81.0%) / 109 (70.7%)	15 (of 17) / 10 (of 14).	67 (of 92) / 27 (of 65)	55 (of 62) / 64 (of 76)	63 (of 78) / 58 (of 80)	74 (of 93) / 50 (of 75)	62 (of 90) / 30 (of 60)	18 (of 22) / 9 (of 14)	29 (of 33) / 13 (of 16)	47 (of 66) / 26 (of 52)	29 (of 33) / 23 (of 29)	20 (of 28) / 18 (of 29)

Table 6.38: Management systems: planned

Management system – planned – activity	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after	Top manager
Strategy / objectives, integration, processes	14 (8.2%) / 27 (17.3%)	1 (of 17) / 1 (of 14)	11 (of 92) / 21 (of 65)	2 (of 62) / 6 (of 76)	3 (of 78) / 10 (of 80)	1 (of 93) / 17 (of 75)	13 (of 90) / 18 (of 60)	2 (of 22) / 9 (of 14)	2 (of 33) / 3 (of 16)	11 (of 66) / 18 (of 52)	2 (of 33) / 4 (of 29)	3 (of 28) / 10 (of 29)
Unknown	150 (88.2%) / 125 (80.6%)	15 (of 17) / 13 (of 14)	76 (of 92) / 43 (of 65)	59 (of 62) / 68 (of 76)	69 (of 78) / 67 (of 80)	81 (of 93) / 57 (of 75)	74 (of 90) / 39 (of 60)	19 (of 22) / 12 (of 14)	30 (of 33) / 12 (of 16)	54 (of 66) / 33 (of 52)	30 (of 33) / 24 (of 29)	20 (of 28) / 18 (of 29)

Table 6.39: Management systems: planned/already implemented activities

Quality	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after	Top manager
Customer orientation (product, performance)	110 (64.7%) / 97 (62.2%)	8 (of 17) / 8 (of 14)	61 (of 92) / 46 (of 65)	41 (of 62) / 43 (of 76)	53 (of 78) / 50 (of 80)	57 (of 93) / 47 (of 75)	51 (of 90) / 41 (of 60)	16 (of 22) / 9 (of 14)	20 (of 33) / 9 (of 16)	37 (of 66) / 34 (of 52)	22 (of 33) / 19 (of 29)	22 (of 28) / 24 (of 29)
Behaviour (professional, communicative)	78 (45.9%) / 67 (43.2%)	13 (of 17) / 9 (of 14)	39 (of 92) / 29 (of 65)	26 (of 62) / 28 (of 76)	31 (of 78) / 36 (of 80)	47 (of 93) / 30 (of 75)	52 (of 90) / 18 (of 60)	10 (of 22) / 6 (of 14)	18 (of 33) / 6 (of 16)	35 (of 66) / 17 (of 52)	18 (of 33) / 11 (of 29)	11 (of 28) / 8 (of 29)
Identification (with product)	8 (4.7%) / 21 (13.5%)	0 (of 17) / 3 (of 14)	4 (of 92) / 9 (of 65)	4 (of 62) / 9 (of 76)	4 (of 78) / 15 (of 80)	4 (of 93) / 6 (of 75)	3 (of 90) / 6 (of 60)	2 (of 22) / 3 (of 14)	0 (of 33) / 1 (of 16)	1 (of 66) / 2 (of 52)	4 (of 33) / 7 (of 29)	3 (of 28) / 5 (of 29)
Influence: behaviour, equipment, material	122 (71.8%) / 144 (73.5%)	13 (of 17) / 10 (of 14)	96 (of 92) / 50 (of 65)	40 (of 62) / 53 (of 76)	50 (of 78) / 51 (of 80)	72 (of 93) / 62 (of 75)	71 (of 90) / 47 (of 60)	14 (of 22) / 10 (of 14)	25 (of 33) / 13 (of 16)	52 (of 66) / 42 (of 52)	23 (of 33) / 21 (of 29)	13 (of 28) / 16 (of 29)
Influence: staffs integration, motivation	47 (27.6%) / 29 (25.2%)	4 (of 17) / 3 (of 14)	23 (of 92) / 13 (of 65)	20 (of 62) / 23 (of 76)	30 (of 78) / 24 (of 80)	17 (of 93) / 15 (of 75)	17 (of 90) / 12 (of 60)	8 (of 22) / 3 (of 14)	3 (of 33) / 2 (of 16)	13 (of 66) / 11 (of 52)	9 (of 33) / 7 (of 29)	14 (of 28) / 11 (of 29)
Influence: customer orientation	37 (21.8%) / 25 (16.1%)	5 (of 17) / 3 (of 14)	18 (of 92) / 10 (of 65)	14 (of 62) / 12 (of 76)	20 (of 78) / 19 (of 80)	17 (of 93) / 6 (of 75)	20 (of 90) / 9 (of 60)	6 (of 22) / 3 (of 14)	6 (of 33) / 1 (of 16)	15 (of 66) / 6 (of 52)	8 (of 33) / 4 (of 29)	13 (of 28) / 7 (of 29)

Table 6.40: Quality: definition and influence

Risk management	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after
Comprehensive	7 (of 26) / 8 (of 26)	1 (of 7) / 1 (of 7)	4 (of 10) / 3 (of 11)	2 (of 9) / 3 (of 8)	6 (of 14) / 4 (of 14)	1 (of 12) / 3 (of 12)	4 (of 12) / 4 (of 12)	2 (of 5) / 2 (of 5)	1 (of 5) / 2 (of 5)	1 (of 7) / 3 (of 8)	2 (of 5) / 2 (of 5)
Partly	15 (of 26) / 18 (of 26)	2 (of 7) / 2 (of 7)	6 (of 10) / 8 (of 11)	5 (of 9) / 6 (of 8)	6 (of 14) / 9 (of 14)	7 (of 12) / 7 (of 12)	8 (of 12) / 6 (of 12)	1 (of 5) / 0 (of 5)	4 (of 5) / 2 (of 5)	6 (of 7) / 4 (of 8)	3 (of 5) / 2 (of 5)

Table 6.41: Risk management – company data

Requirements	R1 / R2	Micro	Small	Medium	Service	Production	Quality	Integration	Environment	Cert. before	Cert. after
Regulatory	13 / 13	3 / 2	7 / 7	3 / 3	1 / 1	6 / 7	7 / 7	2 / 1	2 / 2	4 / 5	3 / 3
Industry	3 / 3	1 / 1	2 /	0 / 0	1 / 1	2 / 2	1 / 1	0 / 0	0 / 0	1 / 1	0 / 0
Mix: public / industry	9 / 9	1 / 0	3 /3	4 / 5	6 / 7	2 / 1	4 / 3	1 / 1	3 / 2	2 / 1	2 / 2

Table 6.42: Requirements

Public relations	R1 / R2	Micro	Small	Mediu m	Ser- vice	Pro- ductio n	Qualit y	Inte- gratio n	Envir- onme nt	Cert. before	Cert. after
Advertisements, expositions	21 / 24	2 / 3	11 / 9	7 / 9	9 / 11	11 / 10	10 / 9	2 / 2	4 / 3	7 / 6	3 / 4
Personal contacts, events	21 / 14	5 / 3	9 / 6	5 / 4	11 / 9	9 / 4	9 / 7	3 / 1	3 / 1	5 / 4	5 / 4
Mailings	16 / 14	3 / 3	9 / 6	3 / 3	7 / 7	8 / 5	7 / 4	2 / 1	3 / 1	4 / 3	4 / 3
Customer call	13 / 5	1 / 0	8 / 2	3 / 3	4 / 3	8 / 2	6 / 3	1 / 1	2 / 0	4 / 3	2 / 1
Sponsoring	5 / 3	2 / 0	2 / 2	1 / 1	3 / 2	1 / 1	1 / 1	0 / 0	1 / 1	1 / 1	0

Table 6.43: Public relations

Competitors	R1 / R2	Micro	Small	Me- dium	Ser- vice	Pro- duc- tion	Quali- ty	Inte- gra- tion	Envir- on- ment	Cert. before	Cert. after
Good relation / partnership	10 / 10	3 / 3	3 / 4	3 / 2	7 / 6	11 / 10	4 / 4	2 / 1	1 / 1	1 / 2	3 / 1
Competition	16 / 16	1 / 1	9 / 8	4 / 6	7 / 8	8 / 7	6 / 5	1 / 1	3 / 2	4 / 3	2 / 4
Mix: relation / competition	2 / 2	0 / 0	2 / 1	0 / 1	0 / 0	2 / 2	2 / 2	0 / 0	1 / 1	2 / 2	0

Table 6.44: Competitors

Customers	R1 / R2	Micro	Small	Me- dium	Ser- vice	Pro- duc- tion	Quali- ty	Inte- gra- tion	Envir- on- ment	Cert. before	Cert. after
Private	10 / 10	1 / 2	5 / 3	4 / 5	7 / 8	3 / 2	5 / 4	1 / 0	1 / 1	3 / 2	1 / 1
Companies	5 / 6	1 / 1	3 / 3	1 / 1	2 / 2	3 / 3	4 / 4	2 / 2	3 / 3	2 / 2	3 / 3
Mix: private /companies / public	13 / 11	3 / 1	6 / 6	2 / 3	5 / 4	6 / 6	3 / 2	0 / 0	1 / 0	2 / 2	1

Table 6.45: Customers

Market position	R1 / R2	Micro	Small	Me- dium	Ser- vice	Pro- duc- tion	Quali- ty	Inte- gra- tion	Envir- on- ment	Cert. before	Cert. after
Niche	11 (of 26) / 12 (of 26)	4 (of 7) / 3 (of 7)	6 (of 10) / 7(of 11)	1 (of 9) / 3 (of 8)	9 (of 14) / 9 (of 14)	2 (of 12) / 4 (of 12)	3 (of 12) / 3 (of 11)	2 (of 5) / 2 (of 5)	0 (of 5) / 0 (of 5)	1 (of 7) / 2 (of 8)	0 (of 5) / 0 (of 5)
Leader	15 (of 26) / 14 (of 26)	1 (of 7) / 1 (of 7)	8 (of 10) / 6 (of 11)	6 (of 9) / 6 (of 8)	5 (of 14) / 5 (of 14)	10 (of 12) / 8 (of 12)	9 (of 12) / 8 (of 11)	1 (of 5) / 1 (of 5)	5 (of 5) / 4 (of 5)	6 (of 7) / 5 (of 8)	5 (of 5) / 5 (of 5)

Table 6.46: Market position – company data

Suppliers, partners	R1 / R2	Micro	Small	Me-dium	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after
Price decisive	3 / 2	1 / 0	2 / 1	0 / 1	1 / 1	2 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 1
Partnership	24 / 23	4 / 3	10 / 11	7 / 7	13 / 12	9 / 9	12 / 11	3 / 3	5 / 4	7 / 6	5 / 3
Mix: price/ partnership	1 / 1	0 / 0	1 / 0	0 / 1	0 / 0	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

Table 6.47: Suppliers, partners

Physical environm.	R1 / R2	Micro	Small	Mediu m	Ser-vice	Pro-ductio n	Qualit y	Inte-gratio n	Envir-onme nt	Cert. before	Cert. after	Top ma-nager
Aspects: material use, recycling	142 (83.5%) / 129 (83.2%)	13 (of 17) / 12 (of 14)	76 (of 92) / 54 (of 65)	53 (of 62) / 62 (of 76)	60 (of 78) /60 (of 80)	82 (of 93) / 68 (of 75)	76 (of 90) / 53 (of 60)	19 (of 22) / 12 (of 14)	26 (of 33) /13 (of 16)	57 (of 66) / 47 (of 52)	28 (of 33) /23 (of 29)	26 (of 28) / 26 (of 29)
Aspects: economise (energy, water)	49 (28.8%) / 43 (27.2%)	6 (of 17) / 6 (of 14)	18 (of 92) / 19 (of 65)	25 (of 62) / 18 (of 76)	25 (of 78) /26 (of 80)	28 (of 93) / 17 (of 75)	27 (of 90) /17 (of 60)	9 (of 22) / 4 (of 14)	15 (of 33) / 6 (of 16)	17 (of 66) / 13 (of 52)	14 (of 33) /11 (of 29)	17 (of 28) / 18 (of 29)
Aspects: minimal, none	15 (9.0%) / 16 (10.3%)	2 (of 17) / 0 (of 14)	10 (of 92) / 7 (of 65)	3 (of 62) / 9 (of 76)	7 (of 78) /11 (of 80)	8 (of 93) / 5 (of 75)	8 (of 90) / 3 (of 60)	1 (of 22) / 2 (of 14)	2 (of 33) / 0 (of 16)	6 (of 66) / 4 (of 52)	1 (of 33) / 2 (of 29)	0 (of 28) / 0 (of 29)

Table 6.48: Physical environment: aspects

Physical environm.	R1 / R2	Micro	Small	Mediu m	Ser-vice	Pro-duc-tion	Quali-ty	Inte-gra-tion	Envir-on-ment	Cert. before	Cert. after	Top ma-nager
Influence: none	17 (10.0%) / 4 (2.6%)	2 (of 17) / 0 (of 14)	11 (of 92) / 2 (of 65)	4 (of 62) / 2 (of 76)	5 (of 78) / 0 (of 80)	12 (of 93) / 4 (of 75)	8 (of 90) / 2 (of 60)	1 (of 22) / 0 (of 14)	1 (of 33) / 0 (of 16)	7 (of 66) / 3 (of 52)	1 (of 33) / 0 (of 29)	1 (of 28) / 0 (of 29)
Influence: minimal	28 (16.5%) / 34 (21.9%)	4 (of 17) / 6 (of 14)	15 (of 92) / 9 (of 65)	9 (of 62) / 19 (of 76)	12 (of 78) /24 (of 80)	16 (of 93) / 10 (of 75)	19 (of 90) /13 (of 60)	4 (of 22) / 11 (of 14)	7 (of 33) / 5 (of 16)	12 (of 66) / 5 (of 52)	5 (of 33) /14 (of 29)	4 (of 28) / 4 (of 29)
Influence: daily activities	124 (72.9%) / 115 (74.2%)	10 (of 17) / 8 (of 14)	65 (of 92) / 53 (of 65)	49 (of 62) / 53 (of 76)	69 (of 78) /54 (of 80)	65 (of 93) / 60 (of 75)	63 (of 90) / 44 (of 60)	17 (of 22) / 3 (of 14)	25 (of 33) / 11 (of 16)	47 (of 66) / 42 (of 52)	27 (of 33) / 15 (of 29)	23 (of 28) / 25 (of 29)

Table 6.49: Physical environment: influence on activities

No Concept 1 – Shop floor 2 – External pressure 3 – Circularity 4

Form of management system: w = without / _ = no recertification / Q = quality / QE = quality and enviroment

Company Number	**8**		**9**		**10**		**11**		**12**	
SME - general data										
Ownership	4	4	4	4	2	2	4	4	4	4
Leadership – decisions making	2	2	4	4	2	2	4	4	2	2
People	2	2	4	4	2	2	2	2	2	2
Patterns of organisation	2	2	4	4	4	4	4	4	2	2
Culture / traditions	2	2	4	4	2	2	4	4	2	2
Values: ideal boss / employee	2	2	4	4	4	4	4	4	2	2
Communication	2	2	4	4	2	2	2	2	2	4
Finance: Turnover – cash flow - profit	2	2	4	4	4	4	4	4	4	4
Resources: people, finance, time	2	2	4	4	2	2	4	4	2	2
Environment										
Society: Public – sponsoring	2	2	4	4	2	2	4	4	2	2
Society: Legislation	2	2	4	4	4	4	4	4	2	2
Society: Associations	4	4	4	4	4	4	4	4	2	2
Economy: Innovation / agility / PR	4	4	4	4	4	4	4	4	4	4
Economy: Market position / geographical range	4	4	4	4	4	4	4	4	4	4
Economy: Customers – competitors	4	4	4	4	4	4	4	4	4	4
Economy: Suppliers / partners	4	4	4	4	4	4	4	4	4	4
Economy: Financing	4	4	4	4	4	4	4	4	4	4
Physical Environment: Sustainability	2	2	4	4	4	4	4	4	4	4
Morality										
Morality: Motivation	2	2	4	4	2	2	4	4	1	1
Morality: Specifications	2	2	4	4	2	2	4	4	2	2
Morality: Sustainability – codification	2	2	2	4	4	4	2	2	4	4
Management system										
Mgmt-System: Mission / strategies – statement	4	4	4	4	4	4	4	4	4	4
Mgmt-System: Range - formality	1	1	4	4	4	4	4	4	2	2
Mgmt-System: Q: definition, - methods - praxis	4	4	4	4	2	2	4	4	2	2
Mgmt-System: Controlling, risk mgmt	4	4	4	4	4	4	4	4	2	2
Mgmt-System: Knowledge mgmt	4	4	4	4	2	2	4	4	2	2
Mgmt-System: Comprehensiveness	2	2	4	4	2	2	2	2	2	2
Final characterisation										
No Concept 1	1	1							1	1
Shop floor 2	15	15	1		12	12	4	4	16	15
External pressure 3										
Circularity 4	11	11	26	27	15	15	23	23	10	11
Evaluation	2_4	2_4	4**	4**	4_2	4_2	4*	4*	2_4	2_4
Form of Managementsystem	w	w	QE	QE	Q	Q	QE	QE	w	w
	8		**9**		**10**		**11**		**12**	

Table 6.50: Basic matrix: evaluation of companies (extract)

6.4 Questionnaire – English version

The Open University, GB-Milton Keynes
PhD - Project - Jörg Bürgi, CH-Ennetbürgen - Questionnaire – July 03

Management systems – ways to the implementation of company ethics?

Responsible
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Original: English version
German translation was examined by Prof. J. Fischer

QUESTIONNAIRE - **No 00 - 000**

Company Individual

Questionnaire for the top management

Background/history of the company

- Year of foundation
- Reasons for foundation: history, specific changes
- Main products/services: history, specific changes
- Main procedures/processes: history, specific changes
- Ownership: history, specific changes
- Company culture: traditions, rites, values, corporate identity
- Locations, agents: own, hired
- Main customers: history, specific changes
- Co-operations with partners and suppliers: history, specific changes
- Main competitors: history, specific changes, relations
- Methodology of publicity
- Membership in organisations
- Financing, access to capital
- Main events

Question No	Interview I – Date:	Interview II – Date:
To which industry belongs your company (Definition according to the EAC-codes – if several possible: Definition according to the main activity)?		
Which actually are the main products/services of your company?		
Which position do these products/services have within the market (cost, technology, know-how leadership/differentiation)?		
To whom belongs your company (private, Ltd., public, merely national, international etc.)?		
How many employees have your company (number of persons – in full-time jobs)?		
Which are aims of your company?		
Which are the main elements of the mission and strategies of your company?		
Have you specific company ethics formulated? If YES, which are they?		
How is your company organised (diagram of organisation – according to departments [mainly function orientated], along the main processes [merely process orientated], matrix)?		
Which is the annual turnover of your company? Is it in- or decreasing? Are there specific deviations per department?		
Which is the annual cash flow of your company? Is it in- or decreasing? Are		

there specific deviations per department?		
How big is the annual profit of your company? Is it in- or decreasing? Are there specific deviations per department?		
What for does use your profits?		
Describe the style of leadership within your company. Do owners have a specific function? Which system of decisions making and controlling do you use?		
How would you describe the ideal superior?		
How would you describe the ideal employee?		
Which are the most important procedures within your company?		
Do your employees need specific education for? Which?		
Does your company use management models/systems (which sort/s – year/s of implementation)?		
Which were the reasons for the implementations?		
How did you proceed with the implementation? How did you integrate your employees?		
Do you plan to introduce an additional management model/system? If YES: Which, why and when?		
Are there individual procedures you already follow? Which?		
Which are the main environmental aspects in connection with the design, production, use and disposal of your products/services?		
How do you measure these environmental aspects? Which are the specific results? Could you effectively reduce material, energy, waste?		
Which is the social responsibility of your company (towards the individual, the society)?		
How do you measure these social aspects? Which are the specific results?		
Which sort are the main partners/suppliers of the company (importance, key competencies, parts)? Describe your relations with. Do you control these relations? With which success?		
Which sort are the main customers of the company? Describe your relations with. Do you control these relations? With which success?		
Which sort are the main competitors of the company? Describe your relations with. Do you control these relations? With which success?		

Which are the main problems of your company?		
Do you have a specific proceeding/procedure to plan the future of the company (risk management)? With which success?		
Are there national or regional specialities your company has to observe (legislation, education, quality/environmental culture …)?		
Has your company to follow specific ethical standards (i.e. professional, industry)? Which are your experiences with?		
How do you estimate the frequencies of economical, social and ecological aspects within your company (by percents)?		

QUESTIONNAIRE - **No 00 – 000**

Company Individual

Questions for staff / collaborators

Question No	Interview I – date:	Interview II – date:
Since when have you been working in your company?		
Which was your original duty in your company?		
Did you need a specific education/training for?		
Which is your actual duty in your company?		
Did you need a specific education/training for?		
Which are the aims of your company? Which are the main elements of the mission and strategies of your company?		
How are they brought into action? How are they controlled?		
Are there specific traditions, signs, regular activities within your company?		
Which are the actual objectives of your company?		
How are they brought into action? How are they controlled?		
How do you see/evaluate the future of your company?		
How would you describe the style of leadership within the company? Are there differences? Why?		
How do you get your needed information?		
What does quality mean for you?		
Have the quality activities of your company any influences on your daily work? Which?		
With which environmental aspects your company is confronted?		
How do these environmental aspects influence your daily work?		
Which sort is the social responsibility of your company (towards individuals and society)?		
Does this social responsibility influence your daily life?		
Which management models/systems are in use?		
How have you been informed about these models/systems? How have you been introduced?		
How do they influence your daily work? Do you have related procedures or job descriptions, diagrams, procedures?		

Do you know whether there will be additional models/systems introduced in your company?		
If YES: what do you wait from them? Are you involved in the planning?		
How would you rate your relations to your superiors (according to this list A)?		
How would you rate your relations to your subordinates (according to this list A)?		
How would you rate your relations to your peers (according to this list A)?		
Which are according to you the main problems regionally, nationally, world-wide? For your company, privately?		
How would you rate the values on this list B?		
Do you see differences between your private and the company's values? If YES: How do you handle/manage them?		
Which are your main sources of your moral attitudes and behaviours?		
Which is your year of birth?		
Where do you live (town, near town, countryside - house, flat)?		
Are you living with a partner?		
Are you living together with children?		
Which is your last education?		
Which is your religion/philosophy of life?		
Do you practise it?		
How does your religion/your philosophy of life influence your activities within the company? If not: Why?		
How does your religion/philosophy of life influence your private life?		
Which is your party preference?		
To finish: Please rate the following answers? (list C)		

A - Rating of relations (You have to rate the following descriptions of relations. 10 points are available. To your most important value you are allowed to give 3 points; to those which are not at all important to you, you can give 0 points)

a) Good communication, friendly atmosphere
b) Everybody is looking for his own advantage.
c) If a member of the staff/a colleague has good arguments, his/her ideas are welcome.
d) Plans are discussed and decisions are taken in co-operative, partnership.
e) People have to work and not to bring in new ideas - that is the job of the management.
f) Besides the working activities there is also time for personal relations.
g) Decisions are only taken by the management / the superiors.

B - Rating of values (You have to rate the following descriptions of values. 25 points are available. To your most important value you are allowed to give 5 points; to those which are not at all relevant to you, you can give 0 points.)

a) To be an example, to implement ideals and to keep commitments - to be true, integer and reliable
b) To be integrated in decisions - important are autonomy and personal initiative
c) To be strictly compliant with standards and laws
d) Fun is the most important element of my life
e) To produce a good impression, image
f) To have enough time for private relations, family, leisure
g) To put justice, community, solidarity, participation and tolerance in front - to be responsible for him-/herself, others, tasks, the society, the natural environment, future generations
h) To be behave responsible - even if there is resistance within the company - if needed: to be a maverick
i) To avoid all cost which are not directly productive, to maximise profit
j) To aim mental, psychic and physical health - no products or procedures with threat health
k) To have the possibility for lifelong learning, to be enabled and challenged
l) To be loyal - to have primarily an engagement for tasks and the company
m) To be open to others, to respect one another - to be ready to give and to get feedback (positive and negative)
n) To think in long terms, to value and integrate consequences
o) To have alternatives in work and private life
p) To have enough time for planning and reflecting
q) To be flexible, spontaneous

C Rating of answers (Most corresponding 4, then 3, 2, 1) – List according to University of St. Gallen - Institute of Business Ethics - 1.9.1995

a) Market decides the direction of activities. I agree with this argument because there is no moral or immoral management, there is only good or bad management.
b) The moral quality of a company is as good as the moral quality of the people working in. In this sense ethics are taken for granted.
c) A company/person following moral values in business will lose on long terms its/his/her competitiveness. The dilemma to live with is part of management.
d) The system of market economy does not automatically lead to the desired results. A behaviour based on moral values is therefore a managerial challenge.

6.5 Information of companies – interview procedure

Companies which have been interested for participation got a letter and additional detailed information. Because I interviewed only German speaking companies, the documents only exist in German.

6.5.1 Introducing letter

Herr Xx, in 6xxx xx

Ennetbürgen, 29. April 2004

Unternehmenswirklichkeit und moralische Haltungen

Sehr geehrter Herr xx

Auf Grund meines Gesprächs mit Herr Karl Muggli sen. gelange ich an Sie.

Seit dem Sommer 2002 bin ich Leiter der Kath. Arbeitsstelle Nidwalden KAN in Stans. Vorher war ich während fast zehn Jahren hauptsächlich als Berater und Auditor mit dem Aufbau und der Zertifizierung von Managementsystemen beschäftigt.

In meiner Freizeit bearbeite ich bei der Open University (GB-Milton Keynes) ein Forschungsprojekt 'Einflüsse der Umsetzung von Managementsystemen / -modellen auf Wertüberzeugungen und moralische Haltungen in Klein- und Mittelunternehmen'.

Mit einer zweimaligen Befragung innerhalb von zwei Jahren von Kadern und Mitarbeitern aus allen Bereichen und Hierarchiestufen zu ihren Erfahrungen mit dem Unternehmen, seiner Führung und seiner Kultur sowie zu ihren Überzeugungen, Haltungen und Tätigkeiten möchte ich aktuelle Probleme sowie allfällige Verhaltensänderungen feststellen. Die Erfahrung in den bisher befragten Unternehmen zeigt, dass oft Themen aufgegriffen werden, die für das Unternehmen wichtig sind, aber wenig zur Sprache kommen.

Ich strebe an, KMUs aus der Schweiz, Deutschland und England in meine Befragung einzubeziehen, was auch ein internationales Benchmarking möglich macht. In der Schweiz konzentriere ich mich hauptsächlich auf Nidwalden – einerseits weil ich beruflich im Kanton tätig bin, anderseits aber, weil die lokale Nähe eine hohe zeitliche Flexibilität bei der Befragung erlaubt.

Ihrem Unternehmen entsteht ausser der Befragungszeit kein Aufwand (zweimal 1-2 Stunden für die Geschäftsleitung und 30 Minuten pro befragten Mitarbeiter – je nach Unternehmensgrösse: 3 bis 10 Personen).

Ich freue mich mit Ihnen ein vertiefendes Gespräch zu führen und melde mich gerne telefonisch im Verlauf der nächsten Woche.

Vielen Dank und freundliche Grüsse

Jörg Bürgi

Beilagen: Projektbeschrieb, Lebenslauf

6.5.2 Detailed information concerning the project

Forschungsprojekt 'Einflüsse der Umsetzung von Managementsystemen / -modellen auf Wertüberzeugungen und moralische Haltungen in Klein- und Mittelunternehmen'

Im Unterschied zu grossen Unternehmen verfügt **Klein- und Mittelunternehmen (KMUs)** kaum über Spezialisten, die sich mit Wertüberzeugungen und moralischen Haltungen beschäftigen. Es ist anzunehmen, dass diese **Überzeugungen und Haltungen sehr oft mit dem persönlichen Werdegang der Besitzer und Führungskräfte verbunden sind** - manchmal auch kombiniert mit einer **Unternehmenskultur**, die auf die **Integration der Mitarbeiter** zielt.

Um konkurrenzfähig zu bleiben, den Marktanteil zu vergrössern oder sogar um eine führende Stellung zu erreichen, verwenden auch KMUs international anerkannte Managementsysteme oder -modelle (z.B. für Qualität ISO 9001 und EFQM, für Umwelt ISO 14001, Q für Tourismus). Diese Modelle versprechen zunehmende Wirksamkeit und Effizienz - oder in andern Worten: Sie versuchen den Unternehmen zu helfen **'Die richtigen Dinge richtig zu tun!'**.

Und damit stellen sich **Fragen**: Was sind nun diese richtigen Dinge? Für wen sind sie richtig und für wen nicht? Was heisst, etwas richtig tun? Die Mehrheit der Modelle gibt darauf nur implizite Antworten; explizit verlangen sie meistens nur die Anwendung von gesetzlichen Forderungen und anerkannten Standards.

Es kann vermutet werden, dass sich mit der **Umsetzung der Systeme längerfristig die Wertüberzeugungen und moralischen Haltungen im Unternehmen generell verändern in Richtung Mitarbeiterintegration und Stakeholderorientierung** (Beachtung der Anliegen von Mit- und Umwelt) - unter Berücksichtigung weiterer Faktoren wie Firmentradition, bisherige Vorstellungen und Kulturen im Unternehmen, Mitarbeiter, Marktlage etc.

Diese Hypothese will in einem **mehrjährigen internationalen Forschungsprojekt** überprüft werden. In voraussichtlich 30 KMUs aus der Schweiz, Deutschland und England, die die Zukunft ihres Unternehmens nicht dem Zufall überlassen wollen und evtl. auch ein Managementmodell / -system (z.B. nach ISO 9001) aufgebaut und eingeführt haben (oder planen ein solches anzuwenden), werden **innerhalb von zwei Jahren zweimal** Mitarbeitern aus verschieden hierarchischen Ebenen und Bereichen zu ihren Erfahrungen mit dem Unternehmen, seiner Führung und seiner Kultur sowie zu ihren Überzeugungen, Haltungen und Tätigkeiten befragt. Die Befragung in der **Schweiz** konzentriert sich auf Unternehmen verschiedener Branchen im Kanton Nidwalden.

Selbstverständlich wird **höchste Diskretion** zugesagt. Die beteiligten Unternehmen erhalten nur regelmässige Informationen zu ihren eigenen Durchschnitts- und zu Vergleichsdaten zu den andern beteiligten Unternehmen, nie aber Hinweise, die auf einzelne Befragte schliessen lassen. Am Ende des Projektes werden die Unternehmen zu einem gemeinsamen Seminar eingeladen; sie erhalten auch den umfassenden Forschungsbericht.

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- Universität Zürich, Philosophisches Seminar, Institut für Sozialethik, CH-Zürich (Co-supervisor: Prof. Dr. Johannes Fischer)

7. References

AccountAbility (2003), *AA1000 Assurance Standard,* London, AccountAbility – Institute of Social and Ethical Accountability.

Aguilera, R., Rupp, D., Williams, C. and Ganapathi, J. (2007) 'Putting the 'S' back in corporate social responsibility: a multi-level theory of social change in organizations', *Academy of Management Review*, vol. 32, no. 3, pp. 836-863.

Ahmed, P.K. and Machold, S. (2004) 'The quality and ethics connection: toward virtuous organizations', *Total Quality Management*, vol. 52, no. 4, pp. 527-545.

Alexandria (2005) *Rencontres de St. Gall* [online], Alexandria, Die digitale Forschungsplattform, http://www.alexandria.unisg.ch (Accessed 20 August 2005).

Andersen, B. (2004) *Bringing Business Ethics to Life: Achieving Corporate Social Responsibility,* Milwaukee, ASQ Quality Press.

Andersen, B. (2008) 'A Frame work for Business Ethics: Social responsibility not at odds with profitability', *Quality Progress*, March 2008, pp. 22-28.

Andersen A., Harrison, G.W., Lau, M.I. and Rutström, E.E. (2004) 'Preference Heterogeneity in Experiments: Comparing the Field and Lab' in Carpenter, J. et al. (eds.), *Field Experiments in Economics*, Greenwich, CT, JAI Press.

Anttila, J. and Vakkuri, J. (2001), *ISO 9000 for the Creative Leader*, Helsinki, Sonera Corporation.

Arter, D.R. (2000), *Management Auditing: A result-oriented audit can provide the impetus for positive change* [online], QCI International, http://www.qualitydigest.com/april00/html/ management.html (Accessed 15 May 2003)

Arter, D. and Russel, J.P. (2001), *ISO Lesson Guide 2000: Pocket Guide to Q9001-2000,* Milwaukee, ASQ Quality Press.

Arter, D. and Russel, J.P. (2003), 'Ethics, Auditing and Enron', *Quality Progress,* October 2003, pp. 34-40.

ASQ (2007), 'Quality Glossary', *Quality Progress,* June 2007, pp. 39-59.

Atteslander, P. (2003), *Methoden der empirischen Sozialforschung,* Berlin, Schmidt.

Austrian Standards (2011) *ONR 192500: Social responsibility of organizations (CSR),* Vienna, Austrian Standards.

Bader, N., Bauernfeind, R. and Giese, C. (2007) *Corporate Social Responsibility (CSR) in kleinen und mittelständischen Unternehmen in Berlin,* Berlin, TÜV Rheinland – Outermedia.

Baldrige National Quality Program (2006) *Criteria for Performance Excellence,* Gaithersburg, National Institute of Standards and Technology.

Balzarova, A.M., Castka, P., Bamber, C.J. and Sharp, J.M. (2006) 'How organisational culture impacts on the implementation of ISO 14001:1996 – a UK multiple-case view', *Journal of Manufacturing Technology Management,* vol. 17, no. 1, pp. 89-103.

Balzarova, A.M. and Castka, P. (2008) 'Underlying mechanisms in the maintenance of ISO 14001 environmental management system', *Journal of Cleaner Production*, vol. 16, no. 18, pp. 1949-1957.

Basu K. and Palazzo, G. (2005), 'An Inductive Typology of Corporate Social Responsibility', *Academy of Management Best Conference Paper 2005,* Bingley, Emerald Group Publishing.

Basu K. and Palazzo, G. (2008) 'Corporate Social Responsibility: Process Model of Sensemaking', *Academy of Management Review 2008,* vol. 33, no. 1, pp. 122-136.

Baucus, M.S. and Cochran, P.L. (2010) 'USA: An Overview of Empirical Research on Ethics in Entrepreneurial Firms Within the United States', in Spence, L. and Painter-Morland, M. (eds), *Ethics in Small and Medium Sized Enterprises: A Global Commentary,* Dordrecht, Springer.

Beer, S. (1972) *Brain of the Firm: The Managerial Cybernetics of Organization,* London, Allen Lane The Penguin Press.

Beer, M. (1980) *Organization Change and Development: A Systems View,* Glenview, IL, Scott, Foresman and Company.

Beer, S. (1981) *Brain of the firm,* Chichester, Wiley.

Benninghaus, H. (2002) *Deskriptive Statistik: Eine Einführung für Sozialwissenschaftler,* Wiesbaden, Westdeutscher Verlag.

Bernardini Seiffert, M.E. (2007) 'Environmental impact evaluation using a cooperative model for implementing EMS (ISO 14001) in small and medium-sized enterprises', *Journal of Cleaner Production,* vol. 16, no. 14, pp. 1447-1461.

Block, M.R. and Marsh, I.R. (2002) *Integrating ISO 14001 into a Quality Management System,* Milwaukee, ASQ Quality Press.

Blundel, R.K., Spence, L. and Zerbinati, S. (2010), 'Entrepreneurial Social Responsibility: Scoping the Territory' ,in Spence, L., and Painter-Morland, M. (eds), *Ethics in Small and Medium Sized Enterprises: A Global Commentary,* Dordrecht, Springer.

Boff, L. (1995) *Ecology & Liberation: A New Paradigm,* New York, Orbis.

Boiral, O. and Amara, N. (2009) 'Paradoxes of ISO 9000 Performance: A Configurational Approach', *Quality Management Journal,* vol. 16, no. 3, pp. 36-60.

Bommer, F. (2007) *Hirnforschung und Schuldstrafrecht* [online], Festvortrag zum dies academicus am 24. Oktober 2007, Luzerner Universitätsreden Nr. 18, http://www.unilu.ch/files/luzerner_unireden_18.pdf (Accessed 20 January 2012).

Borawski, P. E. (2007) 'Vision and Strategy: Quality Basics', *Quality Progress*, June 2007, p. 31.

Borawski, P. (2008) 'Quality and SR: Help ASQ Map the Connection', *Quality Progress*, March 2008, p. 34.

Brändle, N. (2009) *Megatrends – Chancen und Risiken für KMU: Forum Zukunft KMU 2009,* Zurich, Credit Suisse Economic Research.

Briggs, S.L.K. (2005) 'ISO 14001 and Regulatory Compliance', *Quality Progress,* February 2005, pp. 80-82.

Briggs, S. (2006) 'Do Environmental Management Systems Improve Performance?', *Quality Progress,* September 2006, pp. 78-80.

Briggs, S.L.K. (2007) 'ISO 14001 Hits 10-Year Mark', *Quality Progress,* August 2007, pp. 67-68.

Brown, M.T. (2005) *Corporate Integrity: Rethinking Organizational Ethics and Leadership,* Cambridge, University Press.

Brown, A., van der Wiele T. and Loughten, K. (1998) ''Smaller enterprises' experiences with ISO 9000', *International Journal of Quality & Reliability Management,* vol. 15, no. 3, pp. 273-285.

Bruntland Commission, World commission on environment and development (1987) *Our common future*, OxfordOxford University Press.

Bühler, P. (2004) *Schweizer Familienunternehmen an der Börse*, Zurich, Ernst & Young AG.

Burell, G. and Morgan, G. (1979) *Sociological Paradigms and Organizational Analysis,* London, Heinemann.

Bürgi, J. (1995) *Auswirkungen von ISO EN SN 9000ff auf Handlungs- und Gestaltungsspielräume in Unternehmen: Evolution von Qualitätssystemen*, Unpublished, Zurich, Institute of Psychology of Work, Swiss Federal Institute of Technology.

Bürgi, J. (1999) *Quality certification bodies – partners to their customers on the way to Total Quality Management? The case of Switzerland,* Unpublished Msc dissertation, Milton-Keynes, Open University.

Bürgi, J., Brunner, F. and Allgäuer, X. (2001) 'Balanced Scorecard in KMU: Neue Dynamik', *MQ Management und Qualität*, 2001, no. 3, pp. 12-15.

Bürgi, J. (2002) 'Managementsysteme und Unternehmensethik: Mit ISO reifen Werte', *MQ Management und Qualität,* 2002, no. 1, pp. 15-16.

Cabrera, D., Colosi, L. and Lobdell, C. (2008) 'Systems Thinking', *Journal of Evaluation and Program Planning,* vol. 31, no. 3, pp. 317–321.

Callibot, P.F. (2001) 'ISO 9000:2000 - the challenges of the new version', *ISO Management System,* October 2001, pp. 7-9.

Campbell, I. (2008) 'Neue ISO 9000er kommen in 2008 and 2009: Zwei Kernnormen vor der Revision', *MQ Management und Qualität,* 2008, no. 3, pp. 15-16.

Capelossi Filho, S. (2007) 'Creating and Preserving a Business Culture', *Quality Progress,* August 2007, pp. 36-41.

Carrol, A. (2007) 'Corporate Social Responsibility', in Visser, W. et al. (eds), *The A to Z of Corporate Social Responsibility: A Complete Reference Guide to Concepts, Codes and Organisations,* Chichester, Wiley.

Carpenter J., Harrison, G.W. and List, J. (2004) 'Field Experiments in Economics: An Introduction', in Carpenter, J. et al. (eds), *Field Experiments in Economics*, Greenwich, CT, JAI Press.

Casadesus, M. and Karapetrovic, S. (2005) 'The erosion of ISO 9000 benefits: a temporal study', *International Journal of Quality & Reliability Management*, vol. 22, no. 2, pp. 120-136.

Castka, P., Balzarova, M.A., Bamber, C. and Sharp, J. (2004) 'How can SMEs Effectively Implement the CSR Agenda? A UK Case Study Perspective', *Corporate Social Responsibility and Environmental Management,* vol. 11, no. 3, pp. 140–149.

Castka, P. and Balzarova, M.A. (2007) 'A critical look on quality through CSR lenses: Key challenges stemming from the development of ISO 26000', *International Journal of Quality & Reliability Management,* vol. 24, no. 7, pp. 738-752.

CERFE Group - European Commission Leonardo Programme (2001) *Action-Research on Corporate Citizenship among European Small and Medium Enterprises, FINAL REPORT,* Rome, Cerfe.

Checkland, P. (1996) 'Soft systems methodology', in The Open University T306_2 *Managing complexity: a systems approach,* Milton Keynes, The Open University, Annex D, pp. 192-204.

Checkland, P.B., and Holwell, S. (1998), *Information, Systems and Information Systems,* Chichester, Wiley.

Checkland, P. and Poulter, J. (2006) *Learning for Action: A Short Definitive Account of Soft Systems Methodology and its use for Practitioners, Teachers and Students,* Chichester, Wiley.

Choueke, R. and Armstrong, R. (2000) 'Culture: a missing perspective on small- and medium-sized enterprise development?', *International Journal of Entrepreneurial Behaviour & Research,* vol. 6, no. 4, pp. 227-238.

Ciliberti, F., Pontrandolfo, P. and Scozzi, B. (2008) Investigating corporate social responsibility in supply chains: a SME perspective, *Journal of Cleaner Production*, vol. 16, no. 15, pp. 1579-1588.

CMU Central Michigan University (2011) *The Qualitative Research Clearinghouse: Resources for Methods, Analysis, and the Future - Types of Qualitative Approaches* [online], http://www.ehs.cmich.edu/qualitative/types.htm (Accessed 20 December 2011).

Collins, E. (2008) 'New Zealand Overview: Ethics and Sustainability in SMEs', *The Fourth ISBEE World Congress "Global Fairness – Local Integrity",* Cape Town, South Africa, July 15-18 2008.

Coutinho de Arruda, M.C. (2010) 'Latin America: Ethics and Corporate Social Responsibility in Latin American Small and Medium-Sized Enterprises: Challenging Development', in: Spence, L. and Painter-Morland, M. (eds) *Ethics in Small and Medium Sized Enterprises: A Global Commentary,* Dordrecht, Springer.

CQE (Centre of Quality Excellence, the University of Leicester) (2005) *Organisational excellence strategies & improved financial performance*, Brussels, EFQM.

Crane, A. and Matten, D. (2004) *Business Ethics: A European Perspective,* Oxford, Oxford University Press.

Crane, A. and Matten, D. (2007) 'Business Ethics', in Visser, W. et al. (eds), *The A to Z of Corporate Social Responsibility: A Complete Reference Guide to Concepts, Codes and Organisations,* Chichester, Wiley.

Credit Suisse (2004) *Standort Schweiz: Auf den ersten Blick teuer, Zurich, Credit Suisse,* Spotlight, 10. September 2004.

Dahlgaard-Park, S.M. and Dahlgaard, J.J. (2006) *Management Control Theories and the EFQM Excellence Model* [online], Brussels, EFQM, www.efqm.org (Accessed 20 October 2008).

Darnall, N. and Edwards, D. (2006) 'The Cost of Environmental Management System Adoption: The Role of Capabilities, Resources and Ownership Structure', *Strategic Management Journal*, vol. 27, pp. 301–320.

Dearing, J. (2007) 'ISO 9001: Could it Be Better?', *Quality Progress*, February 2007, pp. 23-27.

DeFeo, J. A. (1998) 'Strategic Deployment', in Juran, J.M. and Godfrey, A. B. (eds) (1998), *Juran's Quality Handbook*, New York, McGraw-Hill.

Department of Defence. (2001) *Systems Engineering Fundamentals,* Fort Belvoir, Virginia, Defence Acquisition University Press.

Des Jardin, J.R. (1997) *Environmental Ethics: An Introduction to Environmental Philosophy,* London, Wadsworth.

Deutschland auf einen Blick (2009) *Statistik* [online], http://www.deutschland-auf-einen-blick.de/statistik/index.php (Accessed 3 February 2009).

Dick. G., Gallimore, K. and Brown, J. (2001) 'Does ISO 9000 Give a Quality Emphasis Advantage? A Comparison of Large Service and Manufacturing Organisations'*, Quality Management Journal*, vol. 8, no. 1, pp. 52-61.

Landkreis Donau-Ries (2009) *Herzlich Willkommen auf den Internet-Seiten des Landkreises Donau-Ries!* [online], http://www.donau-ries.de/cms/ (Accessed 2 February 2009).

DTI – Department of Trade and Industry (2002) *Engaging SMEs in Community and Social Issues,* London, Research Report DTI.

Duchrow, U., Bianchi, R., Krüger, R. and Petracca, V. (2006) *Solidarisch Mensch werden: Psychische und soziale Destruktion im Neoliberalismus – Wege zu ihrer Überwindung,* Hamburg, VSA-Verlag.

*Duffy, G.L. (2007) '*Quality Basics: Principles and Methods', *Quality Progress,* June 2007, pp. 26-27.

EFQM (2001) *Commited to Excellence, Information Brochure: Helping with your decision to apply*, Brussels, EFQM.

EFQM (2001) *Fundamental Concepts of Excellence,* Brussels, EFQM, (quoted: EFQM 2001a).

EFQM (2003) *The EFQM Excellence Model,* Brussels, EFQM.

EFQM (2008) *EFQM: Shares that works* [online], Brussels, EFQM, http://excellenceone.efqm.org/uploads/recognitionbook2008.pdf (Accessed 5 January 2010).

EFQM (2009) *Introducing the EFQM Excellence Model 2010,* Brussels, EFQM.

EFQM (2009), *EFQM Transition Guide: How to upgrade to the EFQM Excellence Model 2010, Brussels, EFQM* (quoted: EFQM 2009a).

Eisenhut, E., Fueglistaller, U., Bergmann, H., Forrer, F. and Schmid, H. (2004) *KMU-Umfrage: Wo drückt die KMU der Schuh?*, St. Gallen, Industrie- und Handelskammer St. Gallen-Appenzell.

EKAS (2007) *Richtlinie über den Beizug von Arbeitsärzten und anderen Spezialisten der Arbeitssicherheit (ASA-Richtlinie),* Lucerne, EKAS, Richtlinie Nr. 6508.

Elkington, J. (1999) *Cannibals with Forks: The Triple Bottom Line of 21st Century Business,* Oxford, Capstone.

Encyclopaedia Britannica (2008) *Encyclopaedia Britannica: Academic Edition* [online], Access: The Open University http://www8.open.ac.uk/library/library-resources/books/library-catalogue (Accessed different dates – since 2008).

Enderle, G. (2004) 'Global competition and corporate responsibilities of small and medium-sized companies', *Business Ethics, A European Review,* vol. 13, no. 1, pp. 51-63.

Endo, R. (2008) 'Sustainability and Ethics in Nihonbashi Shinise SMEs', *The Fourth ISBEE World Congress "Global Fairness – Local Integrity",* Cape Town, South Africa, July 15-18 2008.

EOS Gallup Europe (2002*) Entrepreneurship: Results and Comments,* the European Commission (Directorate General «Enterprises»), Flash Eurobarometer 134.

European Commission (2001) *Was ist EMAS?* [online], http://ec.europa.eu/environment/emas (Accessed 20 March 2008).

European Commission (2002) *SMEs in focus: Main results from the 2002 Observatory of European SMEs,* Brussels, European Communities.

European Commission (2003) *European Commission in 2003/361/EU* [online], http://europa.eu.int/comm/enterprise/enterprise_policy/sme_definition/index_en.htm, (Accessed 20 May 2005).

European Commission (2005) *SME definition: User guide and model declaration,* Brussels, European Communities, Publication Office.

European Communities (2002) *European SMEs and Social and Environmental Responsibility,* Observatory of European SMEs 2002, no. 4.

European Communities (2003) *Highlights of the 2003 Observatory,* Observatory of European SMEs 2003, no. 8, (quoted: European Communities 2003a).

European Communities (2003) *Green Paper: Entrepreneurship in Europe*, Brussels, European Communities, (quoted: European Communities 2003b).

Flemming, C. (2002) *Understanding the Process Approach of ISO 9000:2000* [online], MDDI, http://www.mddionline.com/article/understanding-process-approach-iso-90002000 (Accessed 20 March 2004).

Frey, U., Halter F. and Zellweger, Th. (2004) *Bedeutung und Struktur von Familienunternehmen in der Schweiz*, St. Gallen, Schweizerisches Institut für Klein- und Mittelunternehmen an der Universität St. Gallen (KMU-HSG).

Frey, U. (2009) ‘Meilensteine der Unternehmensentwicklung’, *ku Führung von Kleinunternehmen (Entwicklungsschritte)*, 2009, no. 2, pp. 4-9.

Frey, U. (2011) ‘Strategie – Kompass der Unternehmensführung’, *ku Führung von Kleinunternehmen (Strategie),* 2011, no. 7, pp. 4-10.

Friedman, A.L., Miles, S. and Adams, C. (2000) ‘Small and medium-sized enterprises and the environment: Evaluation of a specific initiative aimed at all small and medium-sized enterprise’, *Journal of Small Business and Enterprise Development,* vol. 7, no. 4, pp. 325-342.

Fueglistaller, U. (2002) *Tertiarisierung und Dienstleistungskompetenz in schweizerischen Klein und Mittelunternehmen (KMU): Konzeptionale Näherung und empirische Fakten,* St. Gallen, KMU-HSG.

Fueglistaller, U. (ed) (2003) *Klein- und Mittelunternehmen (KMU) in Forschung, Lehre und Praxis, Jahresbericht 2002*, St Gallen, Schweizerisches Institut für gewerbliche Wirtschaft an der Universität St. Gallen, (quoted: Fueglistaller 2003a).

Fueglistaller, U. (2003) ‘Finanzierung von KMU in garstigem Umfeld’, *Synergy03*, 6 October 2003, Conference Handout, (quoted: Fueglistaller 2003b).

Fueglistaller, U. (ed) (2004) *Jahresbericht 2003 des KMU-HSG,* St. Gallen, Schweizerisches Institut für Klein- und Mittelunternehmen, (quoted: Fueglistaller 2004a).

Fueglistaller, U. (2004) *Charakteristik und Entwicklung von Klein- und Mittelunternehmen*, St. Gallen, KMU HSG, (quoted: Fueglistaller 2004b).

Fueglistaller, U. and Halter, F. (2004) *Erfolg von Klein- und Mittelunternehmen durch Netzwerke: Empirische Erkenntnisse über das Verhalten von KMU im Oberwallis,* St. Gallen / Brig, KMU-HSG, (quoted: Fueglistaller 2004c).

Fueglistaller, U., Halter, F. and Müller C. (2004) ‘Increasing the value of small and medium-sized enterprises by means of employee loyalty – an action-oriented model’, *Rencontres de St-Gall 2004* [online], St. Gallen, KMU-HSG, http://www1.kmu.unisg.ch/rencontres/RENC2004/Topics/Fueglistaller_Renc_04_Topic_D.pdf (Accessed 05 March 2006), (quoted: Fueglistaller 2004d).

Fueglistaller, U. and Fust A. (2006), *KMU – Innovativ and traditionell zugleich. Ein unternehmerischer Ansatz,* St. Gallen, KMU HSG.

Fueglistaller, U. (ed) (2007) *Jahresbericht 2006 des KMU-HSG,* St. Gallen, Schweizerisches Institut für Klein- und Mittelunternehmen.

Fueglistaller, U. (ed) (2008) *Jahresbericht 2007 des KMU-HSG,* St. Gallen, Schweizerisches Institut für Klein- und Mittelunternehmen.

Fueglistaller, U. (ed) (2011) *Jahresbericht 2010 des KMU-HSG,* St. Gallen, Schweizerisches Institut für Klein- und Mittelunternehmen.

Gay, L. R. (1996) *Educational research: Competencies for analysis and application*, Upper Saddle River, NJ, Merrill.

Georgellis, Y. Joyce, P. and Woods, E. (2000) ‘Entrepreneurial action, innovation and business performance: The small independent business’, *Journal of Small Business and Enterprise Development*, vol. 7, no. 1, pp. 7-17.

Gerber, R. (2005) '88 Prozent der Schweizer Unternehmen sind Familienbetriebe. Schweizer Clan-Wirtschaft', *KMU Manager,* 2005, no. 11, pp. 12-14.

Geyer, Ch. (2004), *Hirnforschung und Willensfreiheit: Zur Deutung der neuesten Experimente*, Frankfurt a.M., Suhrkamp.

Ghobadian, A., Gallear, D. and Hopkins, M. (2007) 'TQM and CSR nexus', *International Journal of Quality & Reliability Management,* vol. 24, no. 7, pp. 704-721.

Global Reporting Initiative (2004) *High 5. Communicating your Business Success through Sustainability Reporting. A Guide for Small and Not-So-Small Businesses,* Amsterdam, GRI.

Goel, R. (2005) *Guide to Instruments of Corporate Responsibility: An overview of 16 key tools for labour fund trustees,* Toronto, Pensions at Work.

Goldberg, E. (2001) *Profit, People, Planet. Policy Issues & Options Around Triple Bottom Line Reporting,* Wellington NZ, Ministry for the Environment.

Gordon, D. K. (2002) 'Quality Management System vs. Quality Improvement', *Quality Progress,* November 2002, pp. 86-88.

Graebig, K. (2002). *ISO 9001:2000 Revisions Highlights. A Comparative Guide,* Milwaukee, ASQ Quality Press.

Gupta, A. (2006) 'Best Practices in Auditing', *Quality Progress*, May 2006, p. 88.

Gutowski, T., Murphy, C., Allen, D., Bauer, D., Bras, B., Piwonka, T., Sheng, P., Sutherland, J., Thurston, D. and Wolff, E. (2005) 'Environmentally benign manufacturing: Observations from Japan, Europe and the United States', *Journal of Cleaner Production,* vol. 13, no. 1, pp. 1–17.

Gyani, G. J. (2007) 'QMS Certification down with Disillusionment', *Quality Progress, December 2007,* pp. 52-58.

Haberfellner, R., Nagel, P., Becker, M., Büchel, A. and von Massow, H. (1994) *Systems Engineering: Methodik und Praxis,* Zurich, Verlag Industrielle Organisation.

Hanks, J. (2009) 'ISO 26000 Social Responsibility' [online], *Singapore Mirror Committee,* Cape Town*, 5 October 2009,* http://www.standards.org.sg/files/ISO26000_Hanks_ Singapore.pdf (Accessed 31 January 2011).

Hauser, H.E. and Wolter, H.J. (2007) *Die volkswirtschaftliche Bedeutung der Familienunternehmen,* Studie des Institut für Mittelstandsforschung Bonn im Auftrag der Stiftung Familienunternehmen, IfM-Materialien Nr. 172.

Hazlett, S.A., McAdam, R. and Murray, L. (2007) 'From quality management to socially responsible organisations: the case for CSR', *International Journal of Quality & Reliability Management,* vol. 24, no. 7, pp. 669-682.

Herzberg, F., Mauser, B. and Bloch, B. (1959) *The Motivation to Work,* New York, Wiley.

Hillary, R. (1999) *Evaluation of Study Reports on the Barriers, Opportunities and Drivers for Small and Medium Sized Enterprises in the Adoption of Environmental Management Systems,* London, Network for Environmental Management and Auditing.

Hinkelammert, F. (2011) *Der Fluch, der auf dem Gesetz lastet: Paulus von Tarsus und das kritische Denken,* Lucerne, Exodus.

Hisrich, R.D. and Drnovsek, M. (2002) 'Entrepreneurship and small business research – a European perspective', *Journal of Small Business and Enterprise Development,* vol. 2, no. 2, pp. 172-222.

Hofmann, A. (2005), 'Two Controls, One Result. Signing The Bill: The Sarbanes-Oxley Act of 2002', *Quality Progress,* July 2005, pp. 68-71.

Hoper, J. (2002) 'The Process Approach to Quality Management Systems', in Cianfrani, C.A., Tsiakals, J.J. and West, J.E. (eds), *The ASQ ISO 9000:2000 Handbook,* Milwaukee, ASQ Quality Press.

Houser, W.F. and Bloom, R. (2002) 'Why use the ISO 9000 Family?', in Cianfrani, C.A., Tsiakals, J.J. and West, J.E. (eds), *The ASQ ISO 9000:2000 Handbook,* Milwaukee, ASQ Quality Press.

Howorth, C., Tempest, S. and Coupland, C. (2005) 'Rethinking entrepreneurship methodology and definitions of the entrepreneur', *Journal of Small Business and Enterprise Development,* vol. 12, no. 1, pp. 24-40.

Hug, C., Bähni, A. and Seiler, A. (2006) 'Das grösste Kapital für KMU: Vertrauen'*, Ikm-kmu business*, 2006, no. 11, pp. 30-35.

Hunt, J. R. (1997) 'The Quality Auditor: Helping Beans Take Root', *Quality Progress,* December 1997, p. 27.

H.R. 3763. (2002) *The Sarbanes-Oxley Act of 2002*, Washington DC, 107th Congress of the United States of America, 23 January 2002.

IfM Bonn (2002) *Unternehmensgrößenstatistik 2001/2002: Daten und Fakten* [online], Institut für Mittelstandsforschung Bonn, IfM-Materialen Nr. 157, http://www.IfM-bonn.org/dienste/kap-1.pdf (Accessed 15 January 2007).

Industry Canada (2007) *Canada: Key Small Business Statistics,* Ottawa, Industry Canada.

IOE (2006) *The ILO Declaration on Fundamental Principles and Rights at Work,* IOE Position Paper, Geneva, IOE.

Initiative Neue Soziale Marktwirtschaft (2006) *INSM-Regionlaranking* [online], http://www.insm-regionalranking.de/ki_217.html (Accessed 2 February 2009).

ISO (2000) *Quality management systems – Fundamentals and vocabulary (ISO 9000:2000),* Geneva, (quoted: ISO 2000a).

ISO (2000) *Quality management systems – Requirements (ISO 9001:2000),* Geneva, (quoted: ISO 2000b).

ISO (2000) *Quality management systems – Guidelines for performance improvements (ISO 9004:2000),* Geneva, (quoted: ISO 2000c).

ISO (2002) *Guidelines for quality and/or environmental management systems auditing (ISO 19001),* Geneva, (quoted: ISO 2002a).

ISO (2002) *The ISO 14000 family of standards, guides and technical reports – including drafts, Environmental Management,* Geneva. (quoted: ISO 2002b).

ISO (2004) *ISO 14001 Environmental management systems – Requirements with guidance for use,* Geneva, (quoted: ISO 2004a).

ISO (2004) *ISO 14004 Environmental management systems – General guidelines on principles, systems and support techniques,* Geneva, (quoted: ISO 2004b).

ISO (2004) *Quality Management Principles* [online], ISO 9000, http://www.iso.org/iso/qmp (Accessed 19 November 2004), (quoted: ISO 2004c).

ISO (2005) *The ISO Survey 2004,* Geneva, (quoted: ISO 2005a).

ISO (2005) *ISO 22000:2005 – Food Safety Management Systems – Requirements for Any Organization in the Food Chain*, Geneva, (quoted: ISO 2005b).

ISO (2006) *Quality management systems – Fundamentals and vocabulary (ISO 9000:2005),* Geneva, (quoted: ISO 2006a).

ISO (2006) *Conformity assessment – Requirements for bodies providing audit and certification of management systems (ISO 17021:2006),* Geneva, *(quoted*: ISO 2006b).

ISO (2007) *TS 22003:2007*: *Food Safety Management Systems—Requirements for Bodies Providing Audit and Certification of FSMS*, Geneva, (quoted: ISO 2007a).

ISO (2007) *ISO/CD 9001*, Geneva, (quoted: ISO 2007b).

ISO (2007) *The ISO Survey 2006,* Geneva, (quoted: ISO 2007d).

ISO (2008) *Quality management systems – Requirements (ISO 9001:2008),* Geneva.

ISO (2009) *Managing for the sustained success of an organization – A quality management approach (ISO 9004:2009)*, Geneva.

ISO (2009) *Risk management – Principles and guidelines (ISO 31000),* Geneva (quoted: ISO 2009a).

ISO (2010) *ISO 26000. Guidance on Social Responsibility,* Geneva, (quoted: ISO 2010a).

ISO. (2010) *The ISO Survey of certifications 2009,* Geneva, (quoted: ISO 2010b).

ISO (2011) *ISO 19011 – Guidelines for auditing management systems,* Geneva.

ISO Central Secretariat (2004) 'New work item proposal – Social responsibility', Geneva, Letter to the ISO Member Bodies.

ISO/TC 176/SC1/N246 (2004) *Compilation of Terms and Definitions*, Geneva.

ISO/TC 176/SC 2 (2005) *Design Specification for a Revision to ISO 9004:2000,* Geneva.

ISO/TC 176/SC 3 (2006) *N221R. Systematic review ISO 19011,* Geneva.

ISO/TC 176 /SC2 (2008) *N233-2 (ISO/CD 19011),* Geneva.

ISO/TC 176 (2009) *N940. ISO 9001 For Small Businesses: What to do. Advice from ISO/TC 176,* Geneva.

ISO/TC 207/SC 1 (2008) *Environmental management systems — Guidelines for the phased implementation of an environmental management system, including the use of environmental performance evaluation (ISO/DIS 14005),* Geneva.

ISO/TC 176/SC 2 (2011*) ISO 9000 User Survey Report,* Geneva.

Jabnoun, N. and Abdullah, H. (2005) 'Leadership Styles Supporting ISO 9000:2000', *Quality Management Journal,* vol. 12, no. 1, pp. 21-29.

Jaccard, M. (2010) *Objectif qualité. Introduction aux systèmes de management de performance et de durabilité,* Lausanne, PPUR.

Jackson, M.C. (2000) *System approaches to management,* New York, Kluwer Academic.

Jaecklin, A. (2008) 'Qualitätsmanagement ISO 9001 und Risikomanagement ISO 31000: Zwei Führungssysteme oder Integration?', *SNV-Workshop ISO 9001:2008 (several workshops in summer 2008 – 1: 4 April 2008)*, Winterthur.

Jones, D. (2003) 'Analysis: Creating social capital in UK small business', *EC Newsdesk (online)*, 17 July 2003, (Accessed 10 April 2004).

Kaplan R.S. and Norton, D.P. (1996) *The Balanced Scorecard. Translating Strategy into Action*, Boston, Harvard Business Press.

Kelly, L. (2011) 'Refresh and Revitalize', *Quality Progress*, February 2011, pp. 18-23.

Kolka, J.W. (1998) *ISO 9000... A Legal Perspective*, Montclair, American Society for Quality.

Korten, D. (2000) *The Post-Corporate World: Life after Capitalism,* San Francisco, Berret-Koehler.

Krippendorf, K. (2004) *Content Analysis: An Introduction to Its Methodology,* Thousand Oaks, CA, Sage.

Kumar, R. (2005) *Research methodology: a step-by-step guide for beginners*, London, Sage.

Laeis, C.E. (2005) *Corporate Citizenship. Unternehmerische Bürgerkompetenz im Dienste einer Erneuerung der Sozialen Marktwirtschaft. Ein Mittelstandskonzept,* Münster, LIT.

Lai, Q. (2006) *Corporate Social Responsibility of SMEs in China: Challenges and Outlooks*, Institut für Weltwirtschaft und Internationales Management der Universität Bremen und Internationaler Studiengang Volkswirtschaft, Hochschule Bremen, Berichte des Arbeitsbereichs Chinaforschung Nr. 18, Juni 2006.

Landkreis Wunsiedel im Fichtelgebirge (2009), *Herzlich Willkommen im Landkreis Wunsiedel i. Fichtelgebirge* [online], http://www.landkreis-wunsiedel.de/stdscripts/dp (Accessed 2 February 2009).

Lehmann, R. (2002) 'Die Zeichen der Zeit erkannt. Zunehmende Internationalisierung der KMU', *Neue Zürcher Zeitung,* 15 October*, p. 76.*

Leonard, D. and McAdam, R. (2003) 'Corporate Social Responsibility', *Quality Progress,* October 2003, pp. 27-32.

Leonard, D. (2008) 'Strong Foundation – Solid Future. Social Responsibility drives forward', *Quality Progress*, March 2008, pp. 31-35.

Leonhart, R. (2004) *Lehrbuch Statistik: Einstieg und Vertiefung,* Bern, Hans Huber.

Lewin, K. (1946) 'Action research and minority problems', *Journal of Social Issues,* vol. 2, no. 4, pp. 34-46.

Liebermann, F. (2003) 'Zusammenfassung', in Liebermann, F. (ed), *Unternehmensnachfolge. Eine betriebswirtschaftliche Herausforderung mit volkswirtschaftlicher Bedeutung. Bestandesaufnahme für den Kanton Zürich,* Zurich, AWA-Schriftreihe, pp. 4-6.

Liebesman, S. (2007) 'Sarbanes-Oxley Act. ASQ Team Says QMS and EMS Standards Support SOX', *Quality Progress,* October 2007, pp. 34-39.

Liebesman, S. (2008) 'How to Manage Risk in a Global Economy. Management tools and ISO Standards Support Key Processes', *Quality Progress*, March 2008, pp. 58-60.

Longchamp, C. (2008) 'Brauchen KMUs Managementsysteme? Ergebnisse der durchgeführten Mitgliederbefragung', *Qualität und Führung, Tag der Schweizer Qualität,* Berne, 18 June 2008, Conference Presentation.

Luhmann, N. (1990) *Die Wissenschaft der Gesellschaft,* Frankfurt a.M, Suhrkamp.

Luhmann, N. (1991) 'Politik und Moral: Zum Beitrag von Otfried Höffe', *Politische Vierteljahreszeitschrift,* vol. 32, no. 3, pp. 497-500.

Luhmann, N. (1998) *Die Gesellschaft der Gesellschaft,* Frankfurt a.M., Suhrkamp.

Luria, G. (2008) 'Controlling for Quality: Climate, Leadership, and Behavior', Quality Management Journal, vol. 15, no. 1, pp. 28-40

Mahmood, S. (2008) 'Corporate Governance and Business Ethics for SMEs in Developing Countries: Challenges and Way Forward', *The Fourth ISBEE World Congress "Global Fairness – Local Integrity",* Cape Town, South Africa, July 15-18 2008.

Malik, F. (2003) *Strategie des Managements komplexer Systeme*, Bern, Haupt.

Martinez Costa, M. and Martinez Lorente, A.R. (2004) 'ISO 9000 as a Tool for TQM: A Spanish Case Study', *Quality Management Journal,* vol. 11, issue 4, pp. 20-30.

Martinez Costa, M. and Martinez Lorente, A.R. (2007) 'ISO 9000:2000: The Key to Quality? An Exploratory Study', *Quality Management Journal,* vol. 14, issue 1, pp. 7-18.

Masanet-Llodra, M. J. (2006) 'Environmental Management Accounting: A Case Study Research on Innovative Strategy', *Journal of Business Ethics*, vol. 68, no. 4, pp. 393-408.

Maslow, A. (1954) *Motivation and Personality,* New York, Harper&Row.

Masurel, E. (2007) 'Why SMEs Invest in Environmental Measures: Sustainability Evidence from Small and Medium-Sized Printing Firms'*, Business, Strategy and the Environment*, vol. 16, pp. 190–201.

Maturana, R.H. (1988) 'The Ontology of Observing. The Biological Foundations of Self Consciousness and the Physical Domain of Existence'*, American Society For Cybernetics Conference*, Felton, CA, 18-23 October 1988, Conference Workbook: Texts in Cybernetics.

Maturana, R.H. (1997) *Metadesign,* Santiago de Chile, Instituto de Terapia Cognitiva.

Maturana, R.H. (2004) *From Being to Doing: The Origins of the Biology of Cognition,* Heidelberg, Carl Auer.

Mayring, P. (1996) *Einführung in die qualitative Sozialforschung: Eine Anleitung zu qualitativem Denken,* Weinheim, Psychologie Verlags Union.

Mayring, P. (2000) 'Qualitative Inhaltsanalyse' [online], *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, vol. 1, no. 2, Art. 20,* http://www.qualitative-research.net/fqs-texte/2-00/2-00mayring-d.htm (Accessed 20 September 2007).

Mayring, P. (2000) *Qualitative Inhaltsanalyse: Grundlagen und Techniken*, Weinheim, Deutscher Studien Verlag.

McGregor, D. (1960) *The Human Side of Enterprise,* New York, McGraw-Hill.

McMillan, E. (2004) *Complexity, Organizations and Change,* London, Routlege.

McMillan, E. (30 April 2007) 'Complexity and SMEs', email to J. Bürgi.

Medhurst, D. and Richards, D. (2006) *How Many Reasons for Not Using the EFQM Excellence Model Are Just Excuses?* [online], D&D Excellence, http://www.ddexcellence.com/Downloads/archive_old_papers/Reasons_or_excuses_2006.pdf (Accessed 3 October 2007).

Merchant, K.A. and R. Simons (1986) 'Research and Control in Complex Organizations: An Overview'*, Journal of Accounting Literature*, vol. 5, pp. 183-203.

Meredith, J. (1998) 'Building Operations Management trough Case and Field Research', *Journal of Operations Management*, vol. 16, pp. 441-451.

Micklewright, M. (2004) 'Easy Audits – the Downfall of ISO 9001', *The Quality Forum*, Fall 2004, pp. 12-13.

Mohan, A. (2007) 'Cultural Issues', in Visser, W. et al. (eds), *The A to Z of Corporate Social Responsibility: A Complete Reference Guide to Concepts, Codes and Organisations,* Chichester, Wiley.

Mohn, R. (2003) 'Die Sicherung der Unternehmensnachfolge ist die grösste unternehmerische Herausforderung', in Liebermann, F. (ed), *Unternehmensnachfolge. Eine betriebswirtschaftliche Herausforderung mit volkswirtschaftlicher Bedeutung. Bestandesaufnahme für den Kanton Zürich,* Zurich, AWA-Schriftreihe, pp. 7-12.

Monnich, H.C. (2001) *ISO 9001:2000 for Small and Medium Sized Businesses*, Milwaukee, ASQ Quality Press.

Mostyn, B. (1985) 'The content analysis of qualitative research data: A dynamic approach', in Brenner, M. et al. (eds), *The research interview*, London, Academic Press, pp. 115-145.

Mrasek, V. (2007) 'Un Report Exclusive. Climate Change Impact More Extensive than Thought', *Spiegel Online International*, 2 March 2007, [online] http://www.spiegel.de/international/0,1518,469608,00.html (Accessed 22 February 2008).

Mühlebach, C. (2004) *Familyness als Wettbewerbsvorteil: Ein integrierter Strategieansatz für Familienunternehmen,* Bern, Haupt.

NatWest Media Relations (2004), *Red Tape Number One Problem for Small Businesses Again* [online]**,** London, News Release 02/04, 26 January 2004, (Accessed 10 March 2005), (quoted: NatWest 2004).

Nichols, S. (2008) *Free Will versus the Programmed Brain* [online], Scientific American,

http://www.scientificamerican.com/article.cfm?id=free-will-vs-programmed-brain (Accessed 27 January 2012).

Nidwalden Contact (2005), *Nidwalden – ein Schlüssel, der passt,* Stans, Kantonale Verwaltung.

National Institute of Standards and Technology (2008) *Malcolm Baldrige National Quality Award MBNQA* [online], National Institute of Standards and Technology, http://nist.gov/public_affairs/factsheet/mbnqa.htm (Accessed 20 March 2008), (quoted: MBNQA).

Nidwalden (2009) *Der Kanton Nidwalden – im Herzen der Schweiz* [online], http://www.nw.ch/de/portrait/ (Accessed 03 February 2009).

Nidwalden (2009) *Wirtschaft 1970-2005* [online], Kanton Nidwalden, http://www.nw.ch/dl.php/de/0ckgx-uzfbbq/Wirtschaft_1970-2005.pdf (Accessed 03 February 2009).

Obršálová, I. and Kožená M. (2005) 'Environmental Accounting and Competitiveness of Small and medium Enterprises' [online], *Economic and Social Aspect of Sustainable Development, Environmental Accounting on Micro and Macro Level, International Workshop,* Brno, 5-6 September 2005, http://www.enviweb.cz/download/ea/20050905_sbornik_en.pdf (Accessed 20 June 2006), pp.72-78.

OECD (2000) 'Small and Medium-sized Enterprises: Local Strength, Global Reach'*, OECD Policy Brief,* June 2000.

OECD (2005) *SME and Entrepreneurship Outlook,* Paris, OECD.

OECD DAC Network on Development Evaluation (2010) *Evaluating Development Co-operation: Summary of Key Norms and Standards,* Paris, OECD, (quoted: OECD 2010).

OECD SME unit (2004) 'Promoting Entrepreneurship and Innovative SMEs in a Global Economy' [online], *The Bologna Process The 2nd OECD Ministerial Conference on Small and Medium-Sized Enterprises (SMEs),* Istanbul, Turkey, 3-5 JUNE 2004*,* Paris, OECD, http://www.oecd.org/dataoecd/6/7/31919278.pdf (Accessed 2 September 2006).

OECD (2007) *About the Organisation for Economic Co-operation and Development (OECD)* [online], http://www.oecd.org/pages/0,3417,en_36734052_36734103_1_1_1_1_1,00.html (Accessed 31 July 2007).

OHSAS (2008) *OHSAS18002 Occupational health and safety management systems – Guidelines for the implementation of OHSAS 18001:2007*, Macclesfield, OHSAS, Working Draft 2.

Oppenheim, B.W. and Przasnyski, Z.H. (1999) 'Total quality requires serious training', *Quality Progress*, October 1999, pp. 63-73.

OPSI (1990) *Environmental Protection Act 1990*, *1990 Chapter 43,* London, UK Government.

Osterwalder, A., Pigneur, Y. and Tucci, C. (2005) 'Clarifying Business Models: Origins, Present, and Future of the Concept', *Communications of the Associations for Information Systems,* vol. 15, May 2005, pp. 1-38.

Open University (2002) T308 *Evironmental Monitoring, Modelling and Control,* Milton Keynes, The Open University.

Oxford English Dictionary (second edition 1989 and revisions, new edition 2007) *Oxford English Dictionary* [online], Access: The Open University http://www8.open.ac.uk/library/library-resources/books/library-catalogue (Accessed since 2008).

Painter-Morland, M. and Dobie, K. (2010) 'Ethics and sustainability Within SMEs in Sub-Saharan Africa: Enabling, Constraining and Contaminating Relationships', in Spence, L. and Painter-Morland, M. (eds), *Ethics in Small and Medium Sized Enterprises: A Global Commentary,* Dordrecht, Springer.

Parsons, T. and Smelser, N.I. (1956) *Economy and Society,* London, Routledge and Paul.

Pedersen, E. (2007) 'Perceptions of Performance: How European Organizations Experience EMAS Registration', *Corporate Social Responsibility and Environmental Management,* vol. 14, pp. 61–73.

Peirce, J.S. (1940) 'Abduction and Induction', in Buchler, J. (ed), *The Philosophy of Pierce: Selected Writings,* London, Routlege & Kegan Paul (republished as *Philosophical Writings of Pierce,* New York, Dover, 1955).

Perunicic, D. and Alexandrova, A. (2007) *Do Well by Doing Good – Engagement of Smålands SME's in CSR,* Jönköping, International Business School.

Petrick, K. (2002). 'The ISO 9000 family', in Cianfrani, C.A., Tsiakals, J.J. and West, J.E. (eds), *The ASQ ISO 9000:2000 Handbook,* Milwaukee, ASQ Quality Press, pp. 17-26.

Pinar, M. and Ozgur, C. (2007) 'The Long-Term Impact of ISO 9000 Certification on Business Performance: A Longitudinal Study Using Turkish Stock Market Returns', *Quality Management Journal,* vol. 14, no. 4, pp. 21-40.

Pivka, M. and Zmulej, M. (2004) 'Requisitely Holistic ISO 9000 Audit Leads to Continuous Innovation Improvement', *Cybernetics and Systems: An International Journal*, vol. 35, pp. 363-378.

Pohl, M. (2007) 'Corporate Culture', in Visser, W. et al. (eds), *The A to Z of Corporate Social Responsibility: A Complete Reference Guide to Concepts, Codes and Organisations*, Chichester, Wiley.

Popper, K.R. (1959) *The Logic of Scientific Discovery,* New York, Basic Books.

QP (2007) 'Quality Basics', *Quality Progress,* June 2007, pp. 25-37.

QP (2007) 'Healthcare: Malaysian Hospitals Told to Stop Chasing ISO 9000', *Quality Progress,* September 2007, p. 13.

Rachels, J. (2005) *The Elements of Moral Philosophy*, Boston, McGraw Hill.

Reynolds, M. and Holwell, S. (2010) 'Introducing systems approaches', in Reynolds, M. and Holwell, S. (eds.), *Systems Approaches to Managing Change: A Practical Guide*, London, Springer, pp. 1-23.

Ritchie, B. and Brindley, C. (2005) 'Cultural determinants of competitiveness within SMEs', *Journal of Small Business and Enterprise Development*, vol. 12, no. 1, pp. 104-119.

Rüegg-Stürm, J. (2002) *Das neue St. Galler Management-Modell: Grundkategorien einer integrierten Managementlehre,* Bern, Haupt.

Russel, J.P. (2003) 'Use ISO 9004 To Improve Performance: It's a powerful business management tool', *Quality Progress,* May 2003, pp. 99-101.

Russel, J.P. (2004) '*ISO 9004 Assessment Criteria. Checklist for Performance Improvement'*, Milwaukee, ASQ Quality Press, (quoted: Russel 2004a).

Russel, J.P. (2004) '12 Ways To Add Value to Audits', *Quality Progress,* June 2004, pp. 78-84, (quoted: Russel 2004b).

Russel, J.P. (2005) 'Where's the Money?', *Quality Progress,* June 2005, pp. 87-89.

Russel, J.P. (2006) 'Generating Audit Findings and Conclusions', *Quality Progress*, December 2006, pp. 76-78.

Russel, J.P. (2007) 'Know and Follow ISO 19011's Audition Principles', *Quality Progress*, February 2007, pp. 29-34.

SAAS (2007) *Certified Facilities List* [online], Social Accountability Accreditation Services, *http://www.saasaccreditation.org/certfacilitieslist.htm* (Accessed 21 February 2008).

Sadri, G. and Lees, B. (2001) 'Developing corporate culture as a competitive advantage', *The Journal of Management Development,* vol. 20, no. 10, pp. 853-859.

Sacconi, L., de Colle, S., Baldin, E., Wieland, J., Oakley, R., Zadek, S. and Cohen, J. (2003) *Developing a CSR framework to integrate Q-RES and other ethical and social standards, Final Report,* Unversità Cattenao Castallanza, CELE.

SAI (2008) *Social Accountability 8000. International Standard,* New York, SAI Social Accountability International, (quoted: SAI 2008a).

SAI (2008), *10th Anniversary Report,* New York, SAI Social Accountability International, (quoted: SAI 2008b).

Sanders, S. (2008) 'Defining Social Responsibility: Standard helps clarify a nebulous term', *Quality Progress*, March 2008, p. 6.

Sayle, A. J. (1997) *Management Audits*, Brighton, Allan Sayle Associates.

Schein, E.H. (1985) *Organizational Culture and Leadership: A Dynamic View,* San Francisco, Jossey-Bass.

Schiegg, O.H. (2005) *TripelBudgetierung: Sustainable Integral Risk Management,* Rapperswil, Hochschule für Technik HSR.

Schillig, B. (2003) 'Aktuelle Internetbefragung: Wo drückt der Schuh die KMU wirklich?', *Die Volkswirtschaft, Das Magazin für Wirtschaftspolitik*, 2003, no. 6, pp. 8-12.

Schwaninger, M. (2000) *Das Modell Lebensfähiger Systeme. Ein Strukturmodell für organisationale Intelligenz, Lebensfähigkeit und Entwicklung,* St. Gallen, University of St. Gallen, Institute for Management.

Schweizer Tourismus-Verband STV (2002) *Qualitäts-Gütesiegel für den Schweizer Tourismus* [online], Berne, www.swisstourfed.ch (Accessed 27 September 2008).

Seaver, M. (2002) 'ISO 9000 focus moves from compliance to achieving results', *ISO Management Systems,* March-April 2002, pp. 27-31.

Seddon, J. (2000) *The Case Against ISO 9000,* Cork, Oak Tree Press.

Seghezzi, H.D., Fahrni, F. and Herrmann, F. (2007), *Integriertes Qualitätsmanagement: Der St. Galler Ansatz,* München, Carl Hanser.

Seifert, M. and Loch, C. (2005) 'System Thinking in Environmental Management: Support for Sustainable Development', *Journal of Cleaner Production,* vol. 13, no. 12, pp. 1197-1202.

Seipel, C. and Rieker, P. (2003) *Integrative Sozialforschung: Konzepte und Methoden der qualitativen und quantitativen empirischen Forschung*, Weinheim, Juventa.

Shipley, D. (2003) 'ISO 9000 Makes Integrated Systems User Friendly', *Quality Progress,* July 2003, pp. 26-28.

Simons, R. (1995) *Levers of control: How managers use innovative control systems to drive strategic renewal*, Boston, Harvard Business School Press.

Singh, P.J., Feng, M. and Smith A. (2006) 'ISO 9000 series of standards: comparison of manufacturing and service organisations', *International Journal of Quality & Reliability Management,* vol. 23, no. 2, pp. 122-142.

Small Enterprise Research Team (1995) *NatWest Quarterly Survey of Small Business in Britain,* vol. 11, no 2, Milton Keynes, The Open University Business School.

Smekey.org (2003) *The business case for social responsibility in small and medium-sized enterprises* [online], http://www.ibe.org.uk/userfiles/smekey_business_case_smes.pdf *(Accessed 20 January 2003).*

Smith, A. (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations,* London.

Smith, K. (2011) 'Thinking Aim at Free Will', *Nature,* September 2011, no. 477, pp. 23-25.

Smith, T. (2002) 'The Future of Management System Standards', *ISO Management Systems,* November-December 2002, pp. 21-25.

Sneep (2007) *Corporate Social Responsibility bei kleinen und mittleren Unternehmen in der Metropolregion Hamburg*, Ein Forschungsprojekt der Studenteninitiative sneep Lokalgruppe Hamburg, Hamburg, Dnwe – Wertvolle Zukunft Stiftung für ethisches Handeln.

Sørensen, O. H., Hasle, P. and Bach, E. (2007) 'Working in small enterprises – Is there a special risk?', *Safety Science,* vol. 45:pp. 1044–1059.

Sower, V.E. and Fair, F.K. (2005) 'There is More to Quality than Continuous Improvement: Listening to Plato', *Quality Management Journal,* vol. 12, no. 1, pp. 8-20.

Spence, L. (1999) 'Does size matter? The state of the art in small business ethics', *Business Ethics, A European Review,* vol. 8, no. 2, pp. 163-174.

Spence, L.J. and Rutherfoord, R. (2001) 'Social responsibility, profit maximisation and the small firm owner-manager', *Journal of Small Business and Enterprise Development*, vol. 8, no. 2, pp. 126-139.

Spence, L.J. and Rutherfoord, R. (2003) 'Small Business and Empirical Perspectives in Business Ethics: Editorial', *Journal of Business Ethics,* vol. 47, no. 1, pp. 1-5.

Spence, L.J., Schmidpeter, R. and Habisch, A. (2003) 'Assessing Social Capital: Small and Medium Sized Enterprises in Germany and the UK', *Journal of Business Ethics,* vol. 47, no. 1, pp. 17-29, (quoted: Spence 2003b).

Spence, L.J. (2007) 'Small and Medium Sized Enterprises (SMEs)', in Visser, W. et al. (eds), *The A to Z of Corporate Social Responsibility: A Complete Reference Guide to Concepts, Codes and Organisations,* Chichester, Wiley.

Spence, L. and Painter-Morland, M. (2010) 'Introduction – Conclusions', in Spence, L. and Painter-Morland, M. (eds), *Ethics in Small and Medium Sized Enterprises. A Global Commentary,* Dordrecht, Springer.

Spence, L., and Perrini, F. (2010) 'Europe: Practice and Politics: Ethics and Social Responsibility in SMEs in the European Union', in Spence, L. and Painter-Morland, M. (eds), *Ethics in Small and Medium Sized Enterprises. A Global Commentary,* Dordrecht, Springer.

Srinivasan, V. (2010) 'India: CSR and Ethics in MSMEs in India', in Spence, L. and Painter-Morland, M. (eds), *Ethics in Small and Medium Sized Enterprises. A Global Commentary,* Dordrecht, Springer.

Stainton, W. (2006) 'Logics of Enquiry', in Potter, St. (ed), *Doing Postgraduate Research*, London, The Open University in association with SAGE.

Statistics Canada (2001) *Survey of Financing Small and Medium Sized Companies,* Ottawa.

Statistics Canada (2006) *Labour Force Survey,* April 2006, Ottawa.

Statsoft (2007) *Electronic Statistics Textbook* [online], www.statsoft.com/textbook/basic-statistics (Accessed since 2007).

Stimson, W.A. (2005) 'A Deming Inspired Management Code of Ethics', *Quality Progress,* February 2005, p. 69, (quoted: Stimson 2005a).

Stimson, W.A. (2005) 'Sarbanes-Oxley and ISO 9000', *Quality Progress,* March 2005, pp. 24-29, (quoted: Stimson 2005b).

Stratton, J.H. (2002) 'Internal Audit', in Cianfrani, C.A., Tsiakals, J.J. and West, J.E. (eds), *The ASQ ISO 9000:2000 Handbook,* Milwaukee, ASQ Quality Press, pp. 391-405.

Strauss, A. and Corbin, J. (1994) 'Grounded Theory Methodology: An Overview', in N. K. Denzin and Y. S. Lincoln (eds), *Handbook of Qualitative Research*, London, Sage, pp. 273-285.

Studer S., Welford, R. and Hills, P. (2005) *Drivers and Barriers to Engaging Small and Medium-Sized Companies in Voluntary Environmental Initiatives,* Hong Kong, The Centre of Urban Planning and Environmental Management, The University of Hong Kong. Working Paper.

Surak, J. G. (2007) 'Food Safety. A Recipe for Safe Food: ISO 22000 and HACCP', *Quality Progress,* October 2007, pp. 21-27.

Surveyspro, Premium survey services (2012) *Questionnaire Development* [online], http://www.esurveyspro.com/article-questionnaire-development.aspx (Accessed 27 January 2012).

Taylor, F.W. (1911) *The principles of scientific management*, New York, Norton.

Tencati, A., Perrini, F. and Pogutz, S. (2004) 'New Tools to Foster Corporate Socially Responsible Behaviour', *Journal of Business Ethics,* vol. 53, pp. 173–190.

The Swiss Portal (2009) *Über die Schweiz* [online], www.ch.ch (Accessed 3 February 2009).

Treviño, L.K., Butterfield, K. and McCabe, D. (1998) 'The ethical context in organizations: Influences on employee attitudes and behaviors', *Business Ethics Quarterly,* vol. 8, pp. 447-476.

Tricker, R. (2001) *ISO 9001:2000 for Small Businesses,* Oxford, Butterworth-Heinemann.

Tsiaklas, J.J. (2002) 'The Hierachy of Quality', in Cianfrani, C.A., Tsiakals, J.J. and West, J.E. (eds), *The ASQ ISO 9000:2000 Handbook,* Milwaukee, ASQ Quality Press, pp. 27-33.

UK Environment Protection Act (1990), London, UK Government.

Ulrich, P., Lunau, Y. and Weber, T. (1998) 'Ethikmassnahmen in der Unternehmenspraxis. Zum Stand der Wahrnehmung und Institutionalisierung von Unternehmensethik in deutschen und schweizerischen Firmen. Ergebnisse einer Befragung', in Ulrich, P. and Wieland, J. (eds), *Unternehmensethik in der Praxis. Impulse aus den USA, Deutschland und der Schweiz,* Bern, Haupt, pp. 121-194.

Ulrich, P. (2008) *Integrative Economic Ethics: Foundations of a Civilized Market Economy,* Cambridge, University Press.

Ulrich, W. and Reynolds, M. (2010) 'Critical systems heuristics', in Reynolds, M. and Holwell, S. (eds), *Systems Approaches to Managing Change: A Practical Guide,* London, Springer, pp. 243–292.

UN Global Compact (2008) *Corporate Citizenship in the World Economy, United Nations Global Compact,* New York, United Nations Global Compact Office.

United Nations Economic Commission for Europe (2004) *Business Ethics for Start-up Entrepreneurs and SMEs. The Principles of Responsible Entrepreneurship,* New York and Geneva, United Nations, Series: Entrepreneurship and SMEs (quoted: UN 2004)

UN Sub-Commission on the Promotion and Protection of Human Rights (2003) *United Nations Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights,* UN Doc. E/CN.4/Sub.2/2003/12/Rev.2 (quoted: UN 2003)

van der Wiele, T., van Iwaarden, J., Williams, R. and Dale, B. (2005) 'Perceptions about the ISO 9000 (2000) quality system standard revision and its value: the Dutch experience', *International Journal of Quality & Reliability Management,* vol. 22, no. 2, pp. 101-119.

van Iwaarden, J. and van der Wiele, T. (2007) *What quality managers should know about management control* [online], Brussels*,* EFQM, www.efqm.org (Accessed 7 October 2008).

van Luijk, H. and Vlaming, L. (2008) 'Fostering corporate social responsibility in small and medium size enterprises. Recent experiences in The Netherlands', *The Fourth ISBEE World Congress "Global Fairness – Local Integrity",* Cape Town, South Africa, July 15-18 2008.

Volery, Th., Bermann, H., Haour, G. and Leleux, B. (2005) *GEM. Bericht 2005 zum Unternehmertum in der Schweiz und weltweit. 2005 Swiss Executive Report,* St. Gallen, IGW-HSG.

Volery, Th. (2008) 'The Strategic Management of Innovation in SMEs: A Multiple Case Study Approach in Switzerland' [online], *Recontres de St. Gall 2008,* St. Gallen, KMU-Verlag HSG, http://www1.kmu.unisg.ch/rencontres/Renc2008/Topics_2008/D/Rencontres_2008_Volery_f.pdf. (Accessed 3 February 2010).

Volery, Th. and Gundlof, K. (2008) 'Entwicklungen in der Entrepreneurship- und KMU-Forschung: Eine Artikelanalyse von 1997 bis 2006' [online], *Recontres de St. Gall 2008,* St. Gallen, KMU-Verlag HSG, http://www1.kmu.unisg.ch/rencontres/Renc2008/Topics_2008/B/Rencontres_2008_Volery_Gundolf_f.pdf (Accessed 3 February 2010).

von Bertalanffy, L. (1949) 'Zu einer allgemeinen Systemlehre', *Biologia Generalis*, vol. 19, pp. 114-129.

von Bertalanffy, L. (1968) *General System Theory,* New York, George Braziller.

von Foerster, H. (1991) 'Ethics and Second-order Cybernetics'*, International Conference: Systems & Family Therapy, Ethics, Epistemology, New Methods*, Paris, 4 October 1990.

von Glasersfeld, E. (1995) *Radical Constructivism: A Way of Knowing and Learning,* London & Washington, The Falmer Press.

von Glasersfeld, E. (2007) 'The Constructionist View of Communication', in Müller A. and Müller K. (eds), *An unfinished revolution?,* Vienna, Echoraum, pp. 351-360.

von Moos, A. (2003) *Familienunternehmen erfolgreich führen, Corporate Governance als Herausforderung,* Zürich, Neue Zürcher Zeitung.

Voss, C. Tsikriktis, N. and Frohlich, M. (2002) 'Case research in operations management', *International Journal of Operations & Production Management,* vol. 22, no. 2, pp. 195-219.

Wade, J. (2002) 'Is ISO 9000 really a standard', *ISO Management System,* May-June 2002, pp. 17-20.

Wagenbach, P. (2001) 'The Production of Distrust by Means of Producing Trust', *Organization Studies*, vol. 22, pp. 693-714.

Wallace, J., Hunt, J. and Richards, C. (1999) 'The relationship between organisational culture, organisational climate and managerial values', *The International Journal of Public Sector Management*, vol. 12, no. 7, pp. 548-564.

Watkins, D.K. (2007) 'Conformity or Sustainability? That is the Question', *Quality Progress,* July 2007, pp. 39-44.

Weaver, G.R. and Treviño, L. (1999) 'Compliance and Values Oriented Ethics Programs: Influences on Employees' Attitudes and Behavior', *Business Ethics Quarterly,* vol. 9, no. 2, pp. 315-335.

Welter, F. and Havnes, P.A. (2000) 'SMEs and environmental turbulence', in Pleitner, H.J. and Weber W. (eds), *SMEs in the 21st century – impulses, perspectives, concepts, Rencontres de St-Gall 2000,* St. Gallen, IGW-HSG, pp. 41-50.

Werner, A. (2006) *An investigation into SME owner-managers' conceptualisations of practice,* Doctoral Dissertation, Brunell Business School, Brunel University, Uxbridge.

Werner, J. (2007) ‘Baldrige National Quality Program. Avoid Random Acts of Improvement with Baldrige’, *Quality Progress,* September 2007, pp. 33-41.

West, J.E. (2002) ‘Quality Management Principles’, in Cianfrani, C.A., Tsiakals, J.J. and West, J.E. (eds), *The ASQ ISO 9000:2000 Handbook,* Milwaukee, ASQ Quality Press, pp. 33-46.

West, J.E. (2007) ‘Why a New ISO 9004?’, *Quality Progress*, April 2007, pp. 75-77, (quoted: West 2007a).

West, J.E. (2007) ‘Quality Basics: Standards’, *Quality Progress,* June 2007, pp. 30-31, (quoted: West 2007b).

Wiener, N. (1948) ‘*Cybernetics: or 'Control and Communication'*, Paris, Herrmann.

Wikipedia (2009) *Alb-Donau-Kreis* [online], http://de.wikipedia.org/wiki/Alb-Donau-Kreis (Accessed 2 February 2009).

Wikipedia (2009) *Baden-Württemberg* [online], http://de.wikipedia.org/wiki/Baden-Württemberg (Accessed 4 February 2009).

Wikipedia (2009) *Bayern* [online], http://de.wikipedia.org/wiki/Bayern (Accessed 4 February 2009).

Williams, B. (2005) *Soft Systems Modified* [online], Wellington, The Kellog Foundation. http://www.kapiti.co.nz/bobwill/ssm.pdf (Accessed 20 December 2011).

Williamson, D., Lynch, G. and Ramsay, J. (2006) ‘Drivers of Environmental Behaviour in Manufacturing SMEs and the Implications for CSR’, *Journal of Business Ethics*, vol. 67, no. 3, pp. 317-330.

Yin, R.K. (1994) *Case study research: Design and methods,* Thousand Oaks, Sage Publications.

Zackrisson, M., Enroth, M and Widing, A. (2000) *Environmental management systems – paper tiger or powerful tool. Assessment of the environmental and economic effectiveness of ISO 14001 and EMAS. A survey based on questionnaires and interviews with a total of 200 Swedish environment-certified companies in 1999,* Stockholm, Iris.

Zairi, M. and Baidoun, S. (2003) *Understanding the Essentials of Total Quality Management: A Best Practice Approach – Part 2,* Bradford, University School of Management: Working Paper No 03/05.

ZfW (2001) *WerteManagementSystem. Prinzipien und Bausteine für Nachhaltigkeit in der Unternehmensführung,* Konstanz, ZfW – Zentrum für Wirtschaftsethik GmbH.