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Ethics and Responsibility in ICT-Enterprises – Prospects and Challenges for Management and Leadership

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Abstract

In this article the author critically analyzes underlying discursive statements on managerial and leadership issues in relation to ethics and responsibility in information and communication technology enterprises – the firms and people involved in the case have a Finnish and/or Nordic background. The topic of the study is remarkably broad, and so this fact indicates the existence of limited, subjectively constructed views on multiple theoretical, methodological and empirical insights and dimensions. The issues of context, discourse and text are important in these kinds of qualitative interpretations. The triangle formed by technology, business and organization has some essence in contemporary society. According to this study, the size, hierarchy and scale of companies cause differing ethical dilemmas, actual leadership and management practices raise other problems and the specific managerial and leadership actions in turn bring about new discourses. The governance and control of an enterprise's performance, decision-making procedures, activities, moments of truths and other illustrative elements are often intertwined.

Keywords

Enterprises, Ethics, Information and Communication Technology, Management and Leadership, Responsibility

Abbreviations:
ICT – Information and Communication Technology
Firm A, B, C etc. – Enterprises in enclosed quotations (or in original empirical data)
NN, MM etc. – Leaders, managers or others in enclosed quotations (or in original empirical data)

Introduction

Although transparency is not a keyword in this paper, this study has the same sort of original intent – to show how firms acting in the field of ICT are to be comprehensively perceived. Discourses that illustrate the managerial and leadership aspects of firms are crucial. This deeper understanding then creates a good basis for future ethics and responsibility developments in business and technology. The multi-filament conceptualization of the firm and its activities are advantageous for general planning as well as information systems planning.

The primary common scope of this article involves disclosing how the chosen sources typically represent the management and leadership in relation to the prevailing issues in regard to ethics and responsibility in ICT enterprises. This paper has two different research problems. Firstly, to analyse what kinds of suggestions the source materials offer for potential ethical leadership, and secondly, to unfold what sort of proposals they have for responsible management. The author will therefore explore discursive statements and written texts, and describe the manner in which written sources suggest possible managerial and leadership actions.

These themes are rather seldom studied nowadays in the context of ICT enterprises, at least in domestic and Scandinavian academic and practical fields. The perspectives of this study are based on current public interests and trends in society, and this paper could be seen as part of the continuing growth in studies about ethics and responsibility in information science, management and leadership. Diverse social and societal themes that combine technological and business-oriented views of the marketplace are the focus of a growing volume of studies.

The reader ought to see this paper as a limited study on how management and leadership are viewed in the literature, and how ethics and responsibility are depicted and tied to these discourses. The emphasis in this article is somewhat pragmatic and so further epistemological or ontological questioning is left out due to limited space and the time span of the research. These aspects will be covered in further studies.

The current ICT context in terms of ethical and responsible decisions is challenging, but also offers considerable potential. ICT business or businesses have correlations with other industrial fields as well.

"The IT [information technology]-bubble...as a word is misleading. When the ordinary bubble splashes only a wet splotch remains. The IT-bubble has burst and the most anxious IT-boom has ended, but it gave birth to and transcended a lot of good things [in economic life]...The IT-bubble was a collective illusion...Raising stock exchange rates was the main attention of that thrill, but at the same time there were absurd amounts of investments in hardware, software and development tasks...Although virtual prosperity is gone, no-one is tearing optical cables from the ground or carrying [all of] the servers to the dump." (Rainisto, 2003)

This study consists of two main separate discussion chapters as well as introductory and concluding chapters. The first of the discussion chapters includes an overview of the literature, and the actual topic is defined and investigated through academic literature and statements from empirical research and corporate activities in the field. This chapter provides us with glimpses of actual business situations according to the ideas of real business people. This empirically treated evidence is based on economic journals, company-based statements, discourses and web-based sources. The second chapter illustrates some methodological ideas,

dimensions and research data. Methodologically, this paper is qualitative in origin, and the research is conducted using content and discourse analysis. The research also has some features of a traditional case study due to the fact that the main focus involves firms, leaders and/or managers. The concluding chapter reveals that both of the research questions could have multiple answers or that a multi-level interdisciplinary approach is suitable as a single functional formula. Preliminary results show some discursively constructed views in ethical leadership and responsible management issues. One suggestion for a potential overall framework is also offered.

Theoretical and Empirical Findings

When we examine the literature about the prospects and challenges for management and leadership in relation to ethics and responsibility, we ought to discover how abstract concepts and theories face real-world dilemmas and decisions. In this kind of research it is worth practicing two-way review methods – from theory to context and from context to theory (Johnson, 2001). Academic, professional and societal contexts must be interpreted side by side (Forester & Morrison, 2001). In this chapter, we will skim through both theoretical and empirical standpoints on the research themes, which include indications about technology, business, the environment, society, size, hierarchy and scale, managerial and leadership issues and actual actions.

One remark that is worth making already at this point is that information and communication technology is nowadays present in a variety of business environments, not only in firms specifically operating in the field of ICT. These are companies offering telecommunications and mobile operator services and other networking aids for private and institutional customers or firms, which are known more as information technology service or software maintenance providers. Thus, ethical and responsible management and leadership in ICT are crucial for many kinds of enterprises. The empirical research units and data are more thoroughly described in the sub-chapter, Research Units and Data under the main-chapter Research Methodology, Dimensions, Units and Data.

Business, Technology and Environment – Societal Issues

Among the literature there are many discourses, where upper level dimensions exist that have ethical and social impacts or effects on ICT enterprises and/or that interface with the management and leadership of firms. These dimensions can be identified as organization, technology, and general assumptions of morality, values and norms, and there may be some overlap between these. Openness towards the surrounding environment and society has an impact on business life. In the prevailing information society the following is needed: continuous ethical analysis, applicable and updated ethical principles and responsible business practices. This is particularly true when these societal and environmental aspects effect our control over universal ethical and responsibility implications: human rights, deception and fraud, the systematic undermining of some party in society etc. We have to realize that designing new technology always involves the component of human-computer interaction, and solutions often enhance or diminish active participation (Laudon & Laudon, 2000; Wilkes 1990; Robertson, 2006).

Individuals – including the managers and leaders of ICT firms – must be able to respond to overall ethical and social issues, which are emerging in information systems themselves and in the nature of business. This means that the information systems themselves create new kinds of ethical and social issues and that business as such are creating them as well. These issues may be unique for this field of business and thus they create new situations and even completely new holes in the current value system. This poses ethical, social and political questions. The moral dimensions that prevail in the information society may be described in five ways: 1) information rights and obligations 2) property rights, 3) accountability and control, 4) system quality and 5) quality of life. Typical basic concepts in this discussion may also be responsibility, accountability, liability and due process or manners. In business there are many important questions to be handled, information rights, privacy, freedom in the information society, trade secrets, copyrights, trademarks, patents etc. It is also worth noting that technology usually develops faster than legislation and ethical quandaries occur. This often happens especially in electronic commerce, where there are ongoing struggles at the moment (Laudon & Laudon, 2000 p. 124; Carr & Williams, 1994; McNurlin & Sprague, 2002).

It is integral to see the "bigger picture" of company operations and take care of the other people inside the firm and in the surrounding business environment. The "product-oriented" view does not count any more. Managers and leaders ought to be aware of current key technological trends. Development and planning where the leader or manager does not understand either technically or in business terms is harmful and dangerous for the whole business unit. Leaders and managers are working in a turbulent environment in which the predominant concepts are global, uncertain, complex and interconnected. The task for corporate executives is to reduce uncertainty and complexity for people and provide a suitable picture of the days to come and the foreseeable future. The special nature of business shall be recognized, profits are to be viewed as a means to better serve customers not as the main purpose (Bowyer, 2001; Maak & Pless, 2006).

The concerns of globalization in the ICT sector are many. One adequate quotation explains how the dilemmas emerge from the removal of barriers to the mobility of knowledge, technology, services, goods and capital. This is bringing about a growing interdependence between nations (Argandoña, 2003).

"Outsourcing in the ICT sector is threatening the preparedness for crisis…When back office services are transferred to down-market areas, anyone of us can't be totally sure of functioning networks or how things are with electricity. Firm B told us that it is concentrating its production more and more abroad in cheap markets, countries and suppliers. The same goes with the other service providers, operators and networking firms, too…This trend is frightening the authorities, who are financially bracing themselves for the future: every transfer and service that concatenates and links, for example, increases the vulnerability of Finnish information systems in exceptional situations." (Korhonen, 2007)

Size, Hierarchy and Scale – Enterprise Level Issues

When we focus on the statements in the literature we find that they also reveal many illustrations that highlight the size, hierarchy and scale of doing business in the ICT field as well as in other areas. Different kinds of risks in ethical leadership and responsible business arise in diverse firms. Small firms or firms in the early stages of their life-cycle are sensitive to financial pressures and may still have unspecified, shared business tasks, inadequate or lacking written policies in computer use among other things. At the next level, companies typically have spe-

cial personnel for computer maintenance and some elementary job descriptions and task definitions. Commercial software are widely in use, locally generated software may have difficulties in complying the industrial software standards or actually meeting obligatory legislation. There may also be some coordination dilemmas, particularly in fast growing companies. At the third level, companies normally have designated computer specialists, but their tasks are defined solely in practical terms. Senior managers fail to understand these specialists as strategic actors (Langford, 1999).

Managers and leaders in the most developed companies have solved the general organizational and administrative problems by forming a special team for computer specialists. The leader of this unit ideally has a visible position in the general management hierarchy, and this ensures the permeability of ethical computer use policies. Ethics and responsibility issues are actively on the agenda; specific courses, directions and an enforceable company policy are in use. There may still be some concerns about each individual's behaviour and some troubled thoughts about the possible consequences of their actions. It is obvious that demands evolve as the number of terminals and computing dependency grows. "Information entrepreneurs" – more independent consultants and contractors and large, global corporations with corporate acquisitions between giant firms raise multiple, and even overlapping concerns, such as the potential for information inequities in the future. Verbal and written agreements are general, but the filing or promoting of orders shall be actively managed and led (pp. 15-16; Long, 1983; Baase, 2003; Buchanan, 1999).

Governance, leadership and the characteristics of entire management systems are emphasized in multiple ways at least in large-scale ICT enterprises. Avoiding further business scandals has forced companies to create formal standards and statements for every action. Internal directors are most likely seen as people that are responsible for tactical and operational decisions, and external directors have broader responsibilities, including strategic and directional changes. These split roles ought to be in touch with each other because there is a lot of potential for things to go wrong (See also Dorweiler & Yaknou, 2006).

Often the question of governance, management and leadership is seen in terms of the transparency or visibility of corporate conduct. Managers and leaders are concerned with avoiding the shame and humiliation or damaged reputation associated with perceptions of inappropriate performance (Roberts, 2001). The requirements for management and leadership have also risen due to many previous corporate scandals and speculation on the stock markets. These have also threatened the position of senior corporate managers and harmed the financial well being of the companies over which they preside (Knights & O'Leary, 2006). This can be seen in the following, where a firm with more than 16 000 employees lost hundreds of millions of euros in less than a year with its new chief executive officer.

"Leader NN dissolved half of Firm B…The development of the market prices for Firm B shares reveals the reasons why leader NN has to resign…'The recent development of results indicators have been such that there are now more chances for him to continue', explains council chair, MM, who was recruiting him as successor to his position.'The company has no other reason than to create value. If we fail in that, the owners and the council need to act.' Leader NN made the mistake of doing too little too slowly. The problems have had the space to stay alive…The search for a decorator or an axe man that is willing to change the structure of the enterprise in a big way has started" (Rainisto, 2007).

Here we see statements that emphasize a current tendency toward more democratic technological governance. The inner and outer worlds of the company are seen as important for governing the firms. The essential analysis may consist of power, participation and responsibility. An integrative perspective allows firms and managers/leaders to make more critical moral reflections and behave accordingly, and this improves individual and collective moral capacity. This then develops people's ethical orientations and helps to structure technological systems in a new environment of social and political challenges (Zimmerman, 1995). This can also be seen in larger information and communication technology enterprises. The next sample illustrates the situation in one firm, where the members of the board have recently been changed because of the needs of stakeholders.

"Ethics is really being adopted by the board of directors… Ethics, procedures and suspected illegalities are being raised in enterprises widely across Europe. In Sweden the most paraded has been the rapidly changing political arena of Firm C. The chair of the board is director OO." (Holtari, 2007)

The buyer-seller relationship in its widest sense is one critical point where ethics and responsibility issues occur in decision-making procedures at the industry level. The perceptions of ethical behaviour differ on the buyer and supplier side of the business deal. Although the field of business may differ, the main idea of these interactions has the same characteristics and comparisons that have emerged in other studies (Carter, Kaufmann, Beall, Carter, Hendrick & Petersen, 2004). Lessons to be learned are stated in various transcripts, but the main message is that a supplier's dependency on one customer company may result in risks later on.

"Forget the New Nokia…News about Firm A closing down all of its production in Finland is unfortunate, but not surprising. It is a hard time for us to stop longing for the new Nokia to arise and protect the future of Finland. We can't base our future on the idea of hitting the jackpot next week…In light of the rapidly swelling gap between the sizes of companies, in small companies…money and skills tend to come to an end... Surely Firm A and other suppliers have known that depending on one customer is a huge risk..." (Lilius, 2007)

Other important "moments of truths" for the strategic decision-making in specific large-scale ICT corporations include global-local dependencies, which are seen in negotiations and also in client-consultancy relationships (Pozzebon & Pinsonneault, 2005). Both integrative management policies and larger business contextual arrangements can be seen in the following extract.

"CR management framework

The basis for Firm C's corporate responsibility work is our shared values, our Code of Ethics and our business vision – Simplicity makes everything possible. They complement each other to form the cornerstones of our corporate culture.

These standards apply to all wholly-owned operations. Our majority-owned businesses have locally defined policies. These policies are based on the same goals, values and standards as firm C's group policies, but also take into account the particular issues and challenges in the local market." (Firm C´s Corporate Responsibility Report 2007)

Actions, Decisions and Skills – Professional Level

Managers and leaders may be seen as moral agents because they cover three principles: 1) they have interactivity with their environment, 2) they have autonomy, which means they are able to change their states, and 3) they have adaptability, which means

they have the capability to change the transition rules by which these states are changed (Siponen, 2005). Firms and individual managers and leaders show their commitment to ethics and responsibility matters by "doing" not only by "debating" about these issues. According to Terry Winograd there are at least three key components in the "doing" side of actions: 1) recognizing responsibility/ethics issues, 2) starting serious discursive considerations about the opportunities, with him/herself and with others, and 3) taking real action. In this procedure, both an individual and social component exists (Johnson & Nissenbaum, 1995).

We are able to go even further in this frame-working of ethical and responsible decision-making in action. One of the most tempting ideas in the literature is called 'moments of truth'. These are everyday situations in which we confront ethics and responsibility issues of some kind. These are also sometimes known as ethical quandaries (Smith, 2002). Managers and leaders face these as well as others; these are of the moments for making decisions. We have our inner sense of normal behaviour and expected actions. We have assumptions about desirable and unwanted actions. Again we are able to categorize the behaviour in three classes: 1) actions that fall within acceptable norms and cause no special ethics or responsibility concerns, 2) actions that prove some exceptional merit and no "business as usual" cases, and 3) actions that have some bad, negative or harmful consequences (Mason, Mason & Culnan, 1995).

The difficulty of ethical skills arises when a manager or leader is facing conflict situations, "moments of truth", where critical thinking may be lost because of confusing individual goals, feelings, values or emotions (Kavathatzopoulos, 2003). Confusing situations may be associated with behaviours, where the enterprise's (immaterial) property is seen as neutral, ethical or unethical (Calluzzo & Cante, 2004). Managers and leaders show some weaknesses and do not use proper functional problem-solving strategies in some situations. In the following case, multiple unlawfulness occurred because some managers and people in leading positions wanted to earn personal profit and gain something extra out of the stock markets.

"District Attorney PP decided, according to the Helsingin Sanomat newspaper, to press charges against 16 people and three enterprises for various illegal actions, such as misuse of inside information, misinforming, gross negligence in skewing of stock exchange rates and false accounting etc. Leader QQ was one of the accused. The accused people denied any illegal behaviour. These instances happened between the end of 2000 and some time in 2001. Leader QQ worked as a vice president of corporation D, but was forced to resign in autumn 2001." (Rainisto, 2006)

In a "business as usual" or "call of duty" situation the managers or leaders face no decisive challenges and are pursuing their own self-interests in an ordinary manner. The individual is in a rather balanced state or is already increasing earnings. Situations reach a crucial point when leaders or managers must really act and respond to a situation and the results of their actions are to be seen as threats or opportunities. These activities may have an effect on a set of stakeholders: media, rivals, employees, suppliers, customers, municipalities etc. These are parties that are affected by the decision or have an interest in the outcome (Friedman, 1970; Freeman, 1984; Carroll, 1993; Donaldson & Preston, 1995; Näsi, 1995; Donaldson & Dunfee, 1999; Kujala & Kuvaja, 2002 et cetera).

In this kind of situation, ethics and responsibility issues are handled either consciously or unconsciously. Actions may be taken 1) in an impulsively and emotionally driven way, 2) by looking back at the past and acting out of habit, or 3) by really contemplating the issues and acting on the basis of reasoned considerations (Mason, Mason & Culnan, 1995 pp. 13-14). The managers and leaders in ICT enterprises also need courage to handle complex business situations such as political threats. There seems to be a willingness to make their behaviour conform to the required or appropriate level, even in cases when it is individually hazardous. People feel differently and behave differently in these kinds of situations (O'Boyle, 2002). This can also be seen in the following empirical extract:

"Finland's Firm C doesn't need gunmen. News of hired bodyguards for senior level managers in Firm C was surprising for the people of the Finnish side of the company. That's why, for example leader TT, may still walk without security staff. '-We have not raised our alarm levels' says the head of communications, Leader VV, explaining the situation in Finland…'It is [a] convivial [atmosphere] in Finland.' Leader VV continues… 'Swedish newspapers have told us that armed guards follow the CEO of Firm C, Leader WW, and besides that the head of operations in Sweden, Leader XX. The Swedish media believes that the reason for this is a fear of the Eastern mafia.'" (Vaalisto, 2007)

Sometimes managers and leaders are just not able to make the proper decisions because of conflicting information and a lack of ability to piece together the overall business context and direction of the firm. The leader fails to avail him/herself of certain information, is short of the skills necessary for creating or generating and this affects his/her organizational environment in confusing ways (See also Floridi, 2006).

Risky and painful "moments of truths" are pointed out in selected discourses as well. Some actions may waste resources and may also lead to undesirable implications for the whole organization. The ICT field is relatively young and constantly evolving and the meaning of "acceptable behaviour" is ambiguous as is establishing ethical attitudes (Paradice, 1990).

"The leader of Firm F is turning the place inside out…That time in July 2003 when leader RR started as CEO of the largest owned stock exchange company, Firm F had 7300 employees. Now after three and a half years of his practices, this consolidated corporation no longer has more than 3600 employees. In autumn 2003, leader RR had plenty of considerations about how to motivate the employees.'I came to the conclusion that people want to have successful experiences. If we planned to succeed in Firm F, we have to make decisions that may also be received with resentment. In fact we didn't have a lot of alternatives.'… According to Leader RR, the 'structural change [in the ICT industry] was no less than that what we saw in the paper industry later on'" (Mikkonen, 2007).

Research Methodology, Dimensions, Units and Data

Inter-textual is the right word for the research at hand. The main ideology of inter-textuality is that each text is surrounded and related to other statements and words. For instance, the managers' and leaders' own individually produced discourses and also those of others are based on other heard, read or written comments (Bazerman & Prior, 2004). The sources in this study: scientific literature, journal articles and company-based materials are to be seen as discourses produced and interpreted by people. In this study, these interpretations and production processes are also seen as concrete textual practices among the other daily activities of managers and leaders (Tiainen, 2002).

This notion is enriched then with the ideas of discourse and content analysis plus the case study formulations. All these have something to contribute to this investigation, or at least these

sides must be somehow explained for the reader to understand the various options for future developments. Clearly this study is qualitative by nature and the prevailing paradigm is interpretative (Burrell & Morgan, 1982) with the potential to make some hermeneutic assumptions and perceptions, such as conducting the research back and forth many times when necessary, the main aim being to unveil some remarkable discourses from among all the sources. In this study, the overall and previously studied holistic aim to scratch the surface is crucial (Vartiainen, 2005).

Discourse Analytical Dimension

The notion of context is critical for this kind of critical discourse analysis. The research phenomena here are to be seen as explicitly stated power relationships, which are typically hidden and under the surface. These theoretical assumptions are in relation to the empirical data and reconnect these sides of the investigation by permitting specific ways of interpretation (Meyer, 2001). Also, enterprises may be seen as institutions or social groupings that have particular meanings and values that are expressed in the discourses in systemic ways. Texts are essential units of language in communication. Readers are active recipients in their relationship with texts. Scientific use of language has the same sort of structures as do the language of institutions – in this case, other discourses from the information and communication technology era (Wodak, 2001).

The material which this investigation consists of includes actual "instances of discourse". These are usually referred to as "texts", and in this research these are not entirely based on non-empirical speculations. The ease of collecting and identifying the chosen discourses is taken into account. It is also worth mentioning the choices to be made; there is a counting dilemma – what to include and what to exclude, and so some boundaries and ramifications will be revealed (Johnstone, 2002).

The core of discourse analysis is to examine how language constructs phenomena, and the exploration of the relationships between text, discourse and context are typical. Discourses are seen as constitutive of the social world, they do not assume discourses as truths and the whole picture. They are subjective in nature and clues to reality (Phillips & Hardy, 2002; Wetherell, Taylor & Yates, 2001; van Dijk, 1997; Jokinen, Juhila & Suoninen, 2006).

Content Analytical Dimension

Content analysis may be entered from various starting points. This particular content analysis is approached on a more problem-driven basis than other alternatives also known as text- and method-driven observations. A problem-driven formula provides answers to epistemological questions about the phenomena, events or processes in focus. Analysts begin with research questions and attempt to find analytical ways of getting from the adequate texts to their answers (Krippendorff, 2004).

Content analysis may be used as a method in this study because the research question – Ethics and Responsibility in ICT-Enterprises – Prospects and Challenges for Management and Leadership – involves widely unobserved phenomena in the context of available texts. The research question also results in several possible answers. The analysts also have an opportunity to select from these answers at least in principle even though sometimes in practice it is not possible (p. 343).

In this study, content analysis is followed up in a qualitative or interpretative manner. A close reading is carried out for relatively small amounts of the textual matter, texts are re-articulated into new analytical or de-constructive narratives and the acknowledgements, and the culturally and socially conditioned understanding of the analyst are also admitted when working with the hermeneutic circles. This study illustrates one possible discursive insight into the phenomena to such a degree that social constructivist and discourse analytic characteristics, and especially individual and social components, (van Dijk, 1993) are present. It elaborates discourses that are above the level of sentences and the focus of interest is in the conceptualizations of the reality in which we are involved and interact (pp. 16-17; Tuomi & Sarajärvi, 2002; Carney, 1972; Weber, 1990 et cetera).

Case Analytical Dimension

The basis for using the case study method derives from the need to understand complex social phenomena. When we are exploring management and leadership issues relative to ethics and responsibility discourses in ICT enterprises, we are heading towards the holistic and meaningful characteristics of real-life events, such as organizational and managerial processes, the maturation and scale of the industry and stakeholder relations. The research question provides answers to "how" these discourses occur and the focus is on contemporary issues. Robert K Yin refers to the same sort of ideas and proposes the suitability of this research method for the research task in this article (Yin, 1990). Yin describes the essential nature of this kind of approach in a similar way to how it is applied in this article (pp. 22-23):

"A case study is an empirical inquiry that:

- investigates a contemporary phenomenon within its real-life context; when
- the boundaries between phenomenon and context are not clearly evident; and in which
- multiple sources of evidence are used"

It is particularly important to define the unit of analysis and later on compare the findings with previous research (pp. 32-33). The unit of this analysis is limited to managers or leaders, which have various roles in their organization. The actions they have taken, which have been publicly stated in the selected discourses, represent interesting phenomena. These discoveries then tell us something about common management and leadership discourses on ethical and responsible ways of carrying on business and interactions in the ICT sector. The general outline of the discourses on ethics and responsibility in these companies, or other discourses that reveal these issues are also of special interest. The cases are seen in a related way (Anderson, 2004), and are also capable of being divided under various themes as is the case in this article. A comprehensive overview of these kinds of studies also has some importance (Gerring, 2007).

Research Units and Data

In this part of the article the author provides space for the actual cases and other discursive notions found from economic journals and company-based statements. The citations are prepared so that the reference dates and the appropriate net addresses or sites are mentioned. A number of additional scientific materials is used to strengthen the discussion so far. The personal details of the managers and leaders and other similar information has also been omitted because it is not necessary for the purposes of interpretation, and also ensures anonymity for these individuals. In the following exploration Firm A, D and G are smaller suppliers or operational units, Firms B, C, F, H, I and K are market leaders or other dominant players in the ICT field, and the lead-

ers/managers are indicated as NN…XX. The people selected for the study are working or have worked in top positions in their organizations, and both discourses from female and male actors are included.

The reader also ought to be aware of the two levels of interpretation: the first determines the basic direction of the enterprises and the second fragments the enterprises into smaller units: functional, departmental, divisional or individual entities (see Minkes, Small & Chatterjee, 1999). There are also notions taken as examples from internet sources; evidence from websites is used because it also contains very informative extracts. Studies that are quite similarly oriented and primarily analyse the content of corporate performance using website information as a source have already been conducted (Jose & Lee, 2007), but these put more stress on the quantitative than this study. This paper does not count the number of different types of discursive statements whether theoretical, empirical or even methodological.

Concluding Thoughts

Framework for the Preliminary Review of the Research Themes

Increased transparency and making ethical and responsible management and leadership more visible and understandable for various audiences is actually the main aim of this research, and the author may claim that in that sense, this partial construction has succeeded. This kind of ethical thinking may be called disclosive ethics (Introna, 2007). The obvious discovery and conclusion of this investigation is that there are multiple opportunities for constructing such widespread phenomena. Considerations of the extent of the study shall also be made. Other valuable ways of conducting this study would have been to divide the theoretical and empirical explorations into two separate analyses, but some valuable and worthy detailed information would have been lost. On this occasion the available and selected discourses go hand in hand with each other in the context of the themes outlined.

In completing or presenting some interim notes about the research, we are able to illustrate the whole story by creating the following figure (Figure 1), which puts the main ideas of this article together. It shows us an overall framework for the discourses of this summary paper. The upper part describes the methodological choices, data and orientation of the paper as a single oval form, the main research theme is stated under that oval and then under the main research task it pulls together the main discursive statements identified from selected discourses, which are examined more closely in this study in the three separate ovals: Society Level Issues, Enterprise Level Issues and Professional Level Issues.

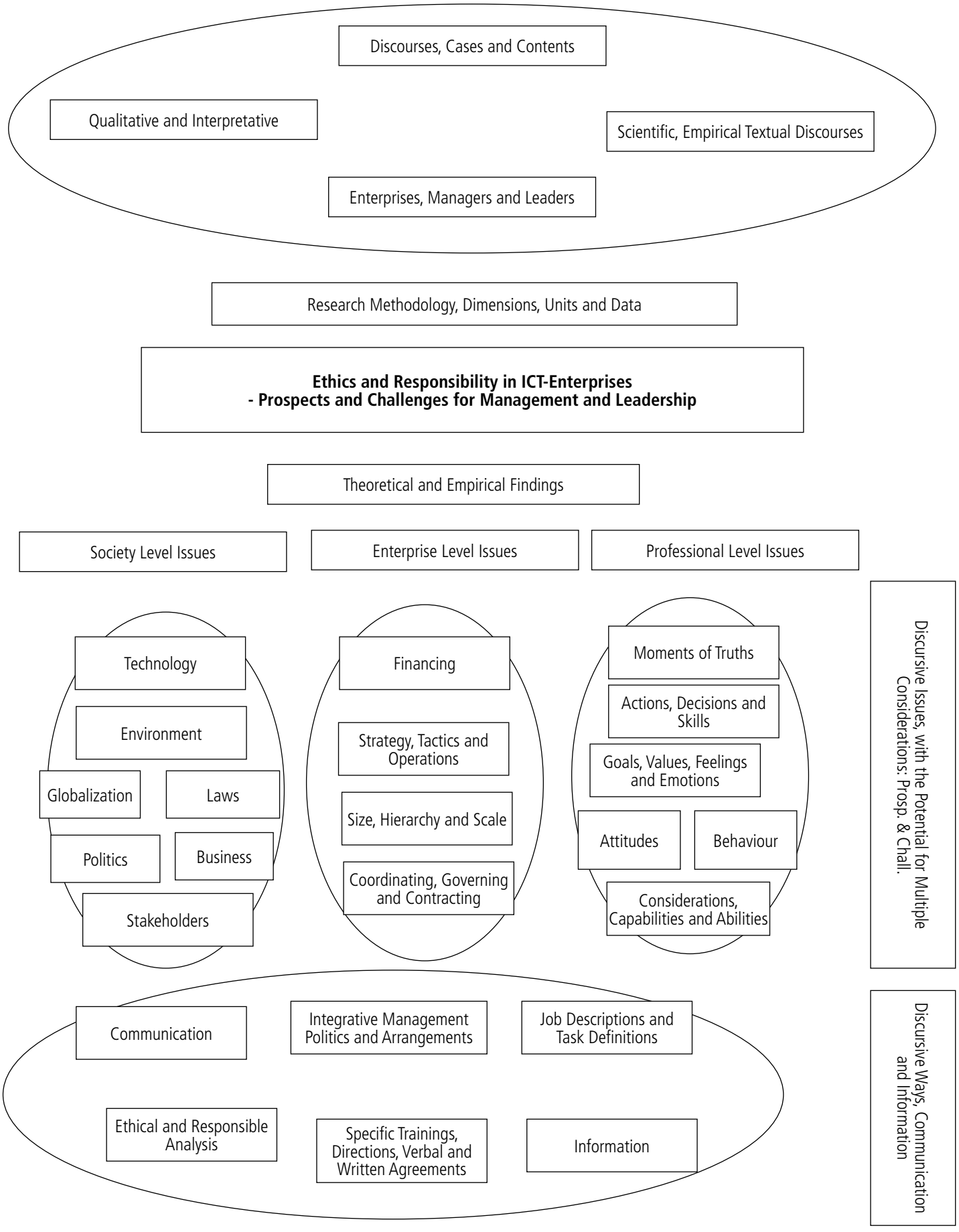


Figure 1 Framework for the Preliminary Review of the Research Themes

Below these, another oval shows the potential methods and solutions for management and leadership to cope with multiple ethics and responsibility concerns. Information and communication are added to this framework because at least according to this study they have some powerful impact on and a role to play among multiple activities, occurring when facing ethics and responsibility quandaries.

Research Process and Suggestions for Further Studies

As a research process and scientific continuum, this article has at least three levels at which it has contributed to the prevailing discourses. First, at the disclosure level, it illustrates the normative constructions in the issues of ethical and responsible management and leadership in ICT enterprises. Second, at the theoretical level, the suitable theoretical and methodological discourses are developed. Finally, at the application level, the previous chapters are evaluated. This methodological foundation is usually known as a multi-level interdisciplinary approach (Brey, 2000) and seems appropriate for the article in hand.

Our interpretation is based on various discourses and our assumptions constitute theoretical notions and a necessary conceptualization: the selection of theoretical concepts and relations, and assumptions. In addition, this conceptualization also requires operational procedures and instruments; in an ordinary case these would be discourses and texts (Meyer, 2001). The importance of pragmatic arguments is obvious in this sort of research project – they supplement the presuppositions, and overlapping issues are then perceived. We also have to debate (or critically consider) consensus creating and cross-disciplinary thoughts in this study (Søraker, 2006). Although there is a need for some considerations, the original aim of this study is not so much to reach consensus (about the main truths and falsehoods in the original discourses), but to indicate some discourses among the prevailing publicly presented discussions or debates.

One emerging point of view, which is also supported elsewhere (De George, 2006; Albrecthslund, 2007; Johnson, 2006), is endorsed: technology is itself not ethical or responsible by nature, rather it creates multiple implications and/or causalities.

"Ethical behaviour [British English version in original text] is ultimately a personal responsibility. Each employee, regardless of their position in the organization, is expected to follow these policies, report any misconduct and safeguard the company against unethical activities." (Firm K's Ethical and environmental Policy, 2008)

There are still some final statements to be expressed. One notion is that in this research the relevance and content of the language used in the written discourses studied show the firms and actors as being both active and passive in ethics and responsibility issues. Secondly, there are many potential ways to explore and construct the phenomena – Ethics and Responsibility in ICT Enterprises: Prospects and Challenges for Management and Leadership – which seems to be quite a broad idea. Thus, this ought to be considered as an attempt to gain some comprehensive insights into the theme as a whole through the glimpses afforded by the selected discourses. Heuristic interviews would have quite obviously enriched this picture, but those have been left out for the time being. This paper reveals one possible reading and explanatory process for the topic. The tone of the paper is indeed presented as a debate and it is intended to be taken as a piece for further discussion.

The themes, such as the overall ethical and responsible (moral) capacities of the firms and people (employees, managers, leaders, co-workers, colleagues, employers, subordinates etc.) involved, would also be fertile ground for further studies. To explore these themes properly it would be necessary to include discourses from both inside and outside the firms involved. The topic could also be explored more thoroughly from the perspective of either corporate or personal moral development. A closer look at ethical and responsible decision-making procedures among individual leaders or managers would also be of great interest. What are the "moments of truth" and how are they stated in the lives of individual people? What kind of integrative perspective exists in specific firms in the field of ICT?

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