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Innovation and corporate social responsibility in Estonian organizations

Abstract

Estonia has been considered as one of the most advanced transition economies with high foreign investment rates and free-market reforms stimulating entrepreneurship. Representing the orthodox Friedmanian ideology in the 1990s, the recent years have called for more novel business and societal thinking. Innovations and corporate social responsibility are topics of this new thinking increasingly adopted also by Estonian companies and public organizations. The purpose of this paper is to investigate the state-of-the-art in innovation activities and the connection between innovation and corporate social responsibility in Estonian organizations. The results of interviews conducted in 86 Estonian organizations indicate that innovation and corporate social responsibility are closely related constructs. According to the study, the main focus of Estonian organizations evaluated by managers and experts was on generating innovations. The most prevalent innovations were marketing and sales, product and process innovations. The main motive for innovations was to increase efficiency and to offer a better service.

Keywords: innovation, corporate social responsibility, Estonia.

JEL Classification: M1.

Introduction

Today, the pioneering enterprises integrate social entrepreneurship into their core activities by actively funneling their R&D capabilities in the direction of socially innovative products and services (Schwab, 2008). Research has called for organizations to be more entrepreneurial, flexible, adaptive and innovative to effectively meet the changing demands of today's environment (Orchard, 1998; Valle, 1999; Parker & Bradley, 2000). According to Asongu (2007), the companies that have sustainable policies tend to be technological leaders, as they seek new methods for, e.g., reducing pollution and increasing efficiency. These companies are in many cases able to come out with new, innovative products that outpace most of their competitors.

Many social innovations involve the creation of new business models that can meet the needs of underserved populations more efficiently, effectively, and sustainably (Phills et al., 2008). Borger and Kruglianskas (2006) found that there was evidence of a strong relationship between the adoption of a corporate social responsibility (CSR) strategy and an effective environmental and innovative performance by the company. Also prior strategic management researchers have asserted the link between innovation and CSR: CSR can provide opportunities for innovation (Sharma & Vredenburg, 1998).

Innovation and social responsibility strategies have recently come ashore in Estonia and other Baltic countries (Högselius, 2005; Alas & Tafel, 2008; Eriksson et al., 2008; Masso & Vahter, 2008). The short history as a free market economy, the status among the EU's best-performing

economies in recent years (Anderson, 2008), together with highly liberal market economy orientation make Estonia an especially interesting case to study innovations and CSR.

This paper focuses on innovation and the relationship between innovation and corporate social responsibility (CSR) in Estonian private and public organizations. The aim of the study is to describe the state-of-the-art of innovations in Estonian organizations and to identify connections between innovation and corporate social responsibility. The study applies semi-structured interviews about innovation and corporate social responsibility from 86 Estonian private and public sector organizations. The current paper starts with a brief overview of the institutional context of the study, and reviews then the prior literature on corporate social responsibility and innovation. Six propositions based on prior literature are presented to guide the empirical analysis.

1. Institutional context

Estonia regained its independence in 1991 – after being annexed by the Soviet Union in 1940. Under the Soviet rule, Estonia enjoyed a higher standard of living and a more developed economy than most other parts of the Soviet Union (Hoag and Kasoff, 1999). After the collapse of the Soviet Union, Estonia adopted a quick start in free enterprise, privatization, export-oriented production and services, development of information technology applications and telecommunication, and influx of foreign investments (Misiunas & Taagepera, 1989; Mygind, 1998; Liuhto, 1999). Estonia is widely seen as one of the most successful Eastern European and the former Soviet countries in making the transition from a command economy to a modern liberal democracy and free market economy.

It is logical that the first years of transition in Estonia have focused on a rapid economic development. Högselius (2005) calls this period as “a period of imitation and experimentation”. While the 1990s represented the orthodox Friedmanian ideology in Estonia, the recent years have called for more novel business and societal thinking. Innovations and corporate social responsibility are topics of this new thinking increasingly adopted also by Estonian companies and public organizations.

2. Theoretical framework

The theoretical framework of this paper consists of prior literature on the concepts and studies of innovation and corporate social responsibility.

2.2. Innovation. The Schumpeterian definition (Schumpeter, 1934) of innovation states that the commercialization of all new combinations is based upon the application of any of the following: new materials and components, the introduction of new processes, the opening of new markets, and the introduction of new organizational forms. Only when a change in technology is involved it is termed an “invention”, but as soon as the business becomes involved, it becomes an “innovation” (Janszen, 2000). Innovation involves the creation of a new product, service or process. “New” products can be viewed in terms of their degree of newness, ranging from a totally new, or discontinuous, innovation to a product involving simple line extensions or minor adaptations/adjustments that are of an evolutionary, or incremental, nature (Brentani, 2001).

The researchers agree that an individual innovation helps to attain organizational success (Van de Ven, 1986; Amabile, 1988; Smith, 2000; Unsworth & Parker, 2003). Employees’ innovative behavior depends greatly on their interaction with others in the workplace (Anderson et al., 2004; Zhou & Shalley, 2003). According to Damanpour and Schneider (2006), the climate for innovation is a direct result of top managers’ personal and positional characteristics. Climate for innovation is studied as an indicator of the capacity of organizations to become innovative. That is, the degree of support and encouragement an organization provides to its employees to take initiative and explore innovative approaches is predicted to influence the degree of actual innovation in that organization (Martins & Terblanche, 2003; Mumford & Gustafson, 1988).

Previous studies treated employees’ innovative behavior as a one-dimensional construct that encompasses both the idea generation and the application behavior (Scott & Bruce, 1994; Janssen, 2000). It means that differences in relevant leader behavior between the two phases remain invisible, which is why recent literature recommends keeping these

phases of the innovation process separate (Mumford & Licuanan, 2004). Innovation theorists often describe the innovation process as being composed of two main phases: initiation and implementation (Zaltman et al., 1973; Axtell et al., 2000).

According to Buckler & Zien (1996), innovation is the purpose of the whole organization, a broad activity. In this kind of culture, new ideas come forward into an atmosphere of enthusiastic support and a desire to contribute to them, even though everyone knows that the majority of these ideas will not make it to the market. Innovative companies are on watch to continually refresh this climate, because it can be undermined. It is essential to become somewhat comfortable with the idea that at times the “unreasonable” solution is exactly what is called for (Buckler & Zien, 1996).

2.3. Types of innovations. According to OECD (2006), a product innovation is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended use. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics. A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. A marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

A confirmatory analysis of the data from 85 public libraries in six northeast states in the US showed that, over consecutive time periods, changes in the social structure portrayed by the adoption of administrative innovations lead to changes in the technical system, portrayed by the adoption of technical innovations (Damanpour et al., 1989). Specifically, process innovation may result in higher productivity performance than product innovation in the short run. This result stems from the difference in efficiency growth when productivity growth is decomposed into two components: efficiency growth and technical growth. That is, product innovation by definition involves product development and radical innovation. Consequently, it can deteriorate efficiency growth relative to other types of innovation due to the process of product development and the adjustments that are needed to new innovations whereas process innovation is implemented to reduce defects, lead time, costs and other factors, and as such is primarily efficiency orientated, helping thus improve efficiency growth (Lee & Kang, 2007).

2.4. Process of innovation. Considering the wide variety of possible innovation forms and application domains, generalizations are difficult. The innovation process encompasses several systematic steps, beginning from problem/requirement analysis to idea generation, idea evaluation, project planning, product development and testing to finally product marketing. These steps may be categorized into three broad phases – conception, implementation and marketing. Conception phase involves requirement analysis, idea generation, idea evaluation and project planning. Implementation phase involves development/construction, prototype development, pilot application and testing. Marketing phase involves production, market launch and penetration (Tiwari & Buse, 2007). According to Coffin and Allen (2008), managing new product development effectively is a trade-off between process and innovation. Companies want to develop new products quickly and efficiently, which determines them to be process-oriented. According to Perez-Bustamente (1999), it is possible to identify six basic phases in the innovation process model (IPM) common to most innovation processes: problem identification phase, ideation phase, approach development phase, operationalization phase, evaluation phase, and exploitation phase.

2.5. Corporate social responsibility (CSR). Today corporate leaders face a dynamic and challenging task in attempting to apply societal ethical standards to responsible business practice (Morimoto et al., 2005). There is no general agreement about the definition of corporate social responsibility; instead, different organizations have framed different definitions of CSR – although there is a considerable unanimity between them. Historically, the definition of CSR has changed a little: In 1960, Frederick defined social responsibility to imply a public posture toward society's economic and human resources and a willingness to see that those resources are used for broad social ends and not simply for the narrowly circumscribed interests of private persons and firms. Sethi (1975) stated that whereas social obligation is proscriptive in nature, social responsibility is prescriptive. Jones (1980) defined the corporate social responsibility as the notion that corporations have an obligation to constituent groups in society other than stockholders and beyond that prescribed by law and union contract. Epstein (1987) provided a definition of CSR in his quest to relate social responsibility, responsiveness, and business ethics. The proper social responsibility of business is to tame the dragon, that is to turn a social problem into economic opportunity and economic benefit, into productive capacity, into human competence, into well-paid jobs, and into wealth (Drucker, 1984).

In the 1990s, the concept of corporate social performance emerged in the literature (Wood, 1991). Carroll (1999) CSR model identifies four components: economic, legal, ethical and voluntary (discretionary). The economic aspect is concerned with the economic performance of the company; while the other three categories – legal, ethical, and discretionary – address the societal aspects of CSR. The corporate social responsibility is today an integral part of the business vocabulary and is regarded as a crucially important issue in management (Cornelius et al., 2008; Humphreys & Brown, 2008).

Waddock and Graves (1997) found a positive relationship between a firm's social performance and its financial performance, whereas Wright and Ferris (1997) found a negative relationship. However, Orlitzky et al. (2003) claim that there is strong empirical evidence supporting the existence of a positive link between social and financial performance.

Marcel van Marrewijk (2003) has narrowed down the concept of corporate social responsibility so that it covers three dimensions of corporate action: economic, social and environmental management. Garriga & Mele' (2004) grouped the theories of corporate social responsibility into four categories: instrumental, political, integral and ethical theories, while Hillman and Keim (2001) suggested that, when assessing the returns to CSR, it was critical to discriminate between stakeholder management CSR and social CSR. This is consistent with Baron's (2001) distinction between altruistic and strategic CSR. More specifically, the authors concluded that whereas stakeholder-oriented CSR was positively correlated with financial performance, social CSR was not.

Corporate social responsibility is a concept whereby companies fulfill accountability to their stakeholders by integrating social and environmental concerns in their business operations (Tanimoto & Suzuki, 2005). Companies will necessarily have to take into account cultural differences when defining their CSR policies and communicating to stakeholders in different countries (Bird & Smucker, 2007). The tendency to invest in companies that practice and report CSR is increasing (Sleeper et al., 2006). Corporate social responsibility forces repositioning of strategies from profit-driven organizations to organizations with attention to the company influence on social and environmental aspects (Quaak et al., 2007).

2.6. Connections between innovation and corporate social responsibility. Today, pioneering companies integrate social entrepreneurship into their core activities by actively funneling their R&D capabilities towards socially innovative products and services (Schwab, 2008). Borger and Kruglian-

skas (2006) found evidence of a strong relationship between the adoption of a CSR strategy by the firm and an effective environmental and innovative performance.

According to Asongu (2007), the key to success in using any type of innovation to a company's advantage from the CSR perspective is to communicate with local municipal authorities, the press and, the most importantly, the general public that stands to benefit from such initiatives.

Companies that have sustainable policies tend to be technological leaders, as they seek imaginative new methods for increasing efficiency, e.g., by reducing pollution. In many cases, these companies are able to come out with new, innovative products that outpace most of their competitors.

According to Phills et al. (2008), many social innovations involve the creation of new business models that can meet the needs of underserved populations more efficiently, effectively, and if not profitably, at least sustainably. Many innovations tackle social problems or meet social needs, but there is only for social innovations the distribution of financial and social value spilled over the society as a whole. A social innovation can be a product, production process, or technology (much like innovation in general); it can also be a principle, an idea, a piece of legislation, a social movement, an intervention, or some combination of them.

Based on prior literature we developed the following general **propositions**:

P1: Marketing and sales innovations are mostly applied innovation types in Estonian organizations.

P2: Generating and realizing are mostly used processes of innovation in Estonian organizations.

P3: To increase efficiency and to offer better service are the most important reasons for innovations in Estonian organizations.

P4: Corporate strategy and strategic implementation are positively related to the success of the implemented innovations.

P5: Innovations are successful in organizations where managers support innovation.

P6: Innovations are successful in organizations where CSR influences innovation positively.

3. Empirical part

3.1. Methodology. The aim of this study was to examine the relationship between innovation and corporate social responsibility in Estonian organizations. Data were collected by survey interviews in 86 Estonian organizations in the end of 2008. The organizations covered various industries and sectors.

The sample consisted of 36 top managers (42%), 30 middle-higher managers (35%) and 20 specialists (23%). 23 respondents (27%) were employed by public organizations and 63 respondents (73%) by private companies. The authors conducted the survey in following branches – tourism (4%), financing sector (16%), consultation services (4%), textile industry (16%), food and catering (8%), marketing (14%), building (3%), information technology (4%), metal industry (2%), security services (4%), logistics (3%), health care (3%), media (8%), local government (8%), ministry (3%). The total number of interviews was 86.

Altogether 86 face-to-face semi-structured interviews were conducted with representatives of target organizations (managers and experts). The interview questions focused on innovation, corporate social responsibility and the relations between these constructs.

Although most questions were open-ended, in some cases closed-ended questions were used, for example, in order to find out what kind of innovations has been implemented or what part of the innovation process is considered most important in Estonian organizations.

The authors read the transcripts and coded information using emergent thematic coding. The theme areas were grouped into categories. The final coding labels were created based upon the actual wording the research participants used. The measures applied in this article are the following: The respondents were asked to evaluate the types of innovations (yes/no), the process of innovation applying a 4-point scale (4 = high, 1 = low), indicators characterizing reasons for innovation (yes/no), organizational functions (yes/no), and organizational indicators on a 10-point scale (10 = highest, 1 = lowest). Respondents also evaluated the success of the implemented innovations on a 7-point scale (7 = highest, 1 = lowest) (See appendix A).

The article focuses on a limited number of variables and analyzes them quantitatively. Correlation analyses were carried out in order to show relevant and statistically significant connections between innovation and corporate social responsibility.

4. Results

4.1. Types of innovations. First, we wanted to look at the distribution of innovations in Estonian organizations, because implementing innovations is a new issue in Estonia. The results indicate that marketing and sales (27%), product (25%) and process (22%) innovations were the most common in data. Instead, support group innovations and incremental innovations were rare (Table 1).

Technical innovations ($r = .383$, $p < 0.01$) and marketing and sales innovations ($r = .328$, $p < 0.01$) were significantly correlated with the success of the implemented innovations (Table 1).

Table 1. Types of innovations in Estonian organizations

Types of innovations	% of answers	Correlation with evaluation about success of the implemented innovations
Incremental innovation	3%	.15
Breakthrough innovation	11%	.08
Process innovation	22%	.15
Product innovation	25%	.13
Marketing and sales innovation	27%	.33**
Support group innovation	1%	.14
Technical invention	11%	.38**

Note: ** Correlations are significant at the 0.01 level.

4.2. The process of innovation. The main focus of Estonian managers and employees seemed to be on generating innovations (33%). Respondents rated high also two other parts of the process of innovation: completing (26%) and implementing (25%). Respondents rated low the part of the process of innovation: exploring (Table 2). The following processes of innovations: exploring ($r = .254$, $p < 0.01$), generating ($r = .265$, $p < 0.01$) and implementing ($r = .309$, $p < 0.01$) are significantly correlated with the success of the implemented innovations (Table 2).

Table 2. Processes of innovation in Estonian organizations

Processes of innovations	% of answers	Mean	Std. dev.	Correlation with evaluation about success of the implemented innovations
Exploring	16%	1.85	1.01	.25**
Generating	33%	3.19	.92	.27**
Realizing	25%	2.47	.87	.31**
Completing	26%	2.61	1.20	.17

Note: ** Correlations are significant at the 0.01 level.

4.3. Reasons for innovations. The most important reasons for innovations in Estonian organizations are: to increase efficiency (28%) and to offer a better service (28%). The reasons less often mentioned by the interviewees were: to encourage wider participation, to start to use other resources, and to improve effectiveness (Table 3). The success of the implemented innovations is significantly correlated with following reasons for innovations: to increase efficiency ($r = .327$, $p < 0.01$), to offer a better service ($r = .478$, $p < 0.01$), to enhance expertise ($r = .293$, $p < 0.01$) and to improve effectiveness ($r = .221$, $p < 0.05$) (Table 3).

Table 3. Reasons for innovations in Estonian organizations

Reasons for innovations	% of answers	Correlation with evaluation about success of the implemented innovations
To make a difference	8%	-.09
To increase efficiency	28%	.33**
To be creative	10%	.04
To offer a better service	28%	.48**
To enhance expertise	8%	.29**
To make practical improvements	12%	.07
To improve effectiveness	4%	.22*
To encourage wider participation	1%	.13
Other – to start to use other resources	1%	-.15

Note: ** Correlations are significant at the 0.01 level. * Correlations are significant at the 0.05 level.

4.4. Organizational functions involved in innovating. All the relevant functions of organizations were mentioned as involved in innovation activities. However, none of them was above the others. Customer service (15%), process improvement (13%), corporate strategy (12%), new product development (12%) and recruitment (12%) are organizational functions that are most often involved in innovating in Estonian organizations. Cross functional teams, product features, administration, resourcing and strategic implementation were somewhat less involved in innovating (Table 4). The following organizational functions: administration ($r = .203$, $p < 0.05$), corporate strategy ($r = .212$, $p < 0.05$), resourcing ($r = .319$, $p < 0.01$) and strategic implementation ($r = .336$, $p < 0.01$) were significantly correlated with the success of the implemented innovations (Table 4).

Table 4. Organizational functions that are involved in innovating in Estonian organizations

Organizational functions	% of answers	Correlation with evaluation about success of the implemented innovations
Administration	8%	.20*
Corporate strategy	12%	.21*
Cross functional teams	4%	.11
Customer service	15%	-.06
New product development	12%	.14
Process improvement	13%	.09
Product features	7%	-.02
Recruitment	12%	.10
Resourcing	8%	.32**
Strategic implementation	9%	.34**

Note: ** Correlations are significant at the 0.01 level. * Correlations are significant at the 0.05 level.

4.5. Organizational indicators that influence innovation. Clarity of vision and strategies ($m = 9.25$, $sd = .85$), managers who support innovation ($m =$

9.25, sd = .44), strong organizational community (m = 8.75, sd = .85), transparency and truth (m = 9.00, sd = 1.03), good treatment of people (m = 8.75, sd = .85) and focus on customers (m = 8.75, sd = .85) are the most valued organizational indicators that influence innovating in Estonian organizations. Self selection (m = 5.25, sd = 1.37), avoiding the “home run” philosophy (m = 4.25, sd = 1.40), tolerance of risk, mistakes and failure (m = 5.00, sd = 1.34) and no hand-offs (m = 4.75, sd = 1.91) were less valued organizational indicators that influence innovating in Estonian organizations (Table 5). The following organizational indicators: discretionary time (r = .590, p < 0.01), self-selection (r = .547, p < 0.01) and avoiding the “home run” philosophy (r = .559, p < 0.01) are highly positively correlated with the success of the implemented innovations. Following organizational indicators: decision making by the doers (r = -.260, p < 0.01) and transparency and truth (r = -.251, p < 0.01) were significantly negatively correlated with the success of the implemented innovations (Table 5).

Table 5. Organizational indicators that influence innovating in Estonian organizations

Organizational indicators	Mean	Std. dev.	Correlation with evaluation about success of the implemented innovations
Clarity of vision and strategies	9.25	.85	.05
Tolerance of risk, mistakes, and failure	5.00	1.34	.04
Support for entrepreneurs	5.75	1.60	.50**
Managers who support innovation	9.25	.44	.50**
Empowered cross-functional teams	6.00	1.65	.46**
Decision making by the doers	7.50	1.54	-.26**
Discretionary time	6.00	1.57	.59**
Attention on the future	8.50	1.15	.50**
Self-selection	5.25	1.37	.55**
No hand-offs	4.75	1.91	.43**
Boundary crossing	6.00	1.65	.42**
Strong organizational community	8.75	.85	.28**
Focus on customers	8.75	.85	-.04
Choice of internal suppliers	8.00	1.03	.29**
Measurement of innovation	7.75	.85	.20*
Transparency and truth	9.00	1.03	-.25**
Good treatment of people	8.75	.85	.13
Social, environmental, and ethical responsibility	8.00	1.26	.13
Avoiding the "home run" philosophy	4.25	1.40	.56**

Note: ** Correlations are significant at the 0.01 level. * Correlations are significant at the 0.05 level.

4.6. Connections between CSR and innovation.

According to Table 6, the success of the implemented innovations is significantly correlated with an indicator – CSR influences innovation (r = .524, p < 0.01).

Table 6. Connections between correlation and CSR

Indicators	Mean	Std. dev.	Correlation with evaluation about success of the implemented innovations
CSR influences innovation	3.46	1.57	.52**

Note: ** Correlations are significant at the 0.01 level.

Conclusions

The empirical study in Estonian organizations indicates that innovations are successfully implemented in organizations where managers support them and where CSR influences innovations positively.

The propositions presented at the end of the literature review of the paper will now be re-evaluated.

P1 postulated that marketing and sales innovations are mostly applied innovation types in Estonian organizations. This postulate was supported by the findings. Marketing and sales innovations are mostly applied innovations in Estonian organizations.

P2 postulated that generating and realizing are mostly used processes of innovation in Estonian organizations. This postulate was also supported by the empirical findings. Realizing and generating are indeed important parts of the process of innovations in Estonian organizations. In addition to this, completing was also rated highly and is therefore an important part of the process of innovations.

P3 postulated that the most important reasons for innovations in Estonian organizations are to increase efficiency and to offer better service. This postulate was also supported by the findings. To increase efficiency and to offer better service are the most important reasons for innovations in Estonian organizations.

P4 postulated that corporate strategy and strategic implementation are positively related to the success of the implemented innovations. This postulate was supported by findings. Corporate strategy and strategic implementation are significantly correlated with the success of the implemented innovations. In addition to this, administration was also significantly correlated with the success of the implemented innovations.

P5 postulated that innovations are successful in organizations where managers support innovation. This postulate was supported by findings. Innovations that are supported by managers are successfully implemented.

P6 postulated that innovations are successful in organizations where CSR influences innovation positively. This postulate was supported by findings. The implemented innovations are successful in organizations where it is considered that CSR influences innovation positively.

According to this study, marketing and sales, product and process innovations took place most often in Estonian organizations. Technical innovations and marketing and sales innovations are significantly correlated with the success of the implemented innovations. Nowadays it is common to put a lot of effort into marketing and sales innovations in Estonian organizations and as the study revealed it is also related to evaluated success.

According to the study, the main focus of the Estonian organizations is on generating innovations and also completing and implementing innovations. The following processes of innovations: exploring, generating and implementing are significantly correlated with the success of the implemented innovations. Therefore, generating and implementing are important processes of innovations, which are also related to the success of the innovations in Estonian organizations. The most important reasons for innovations in Estonian organizations are: to increase efficiency and to offer better service. The success of the implemented innovations is significantly correlated with the following reasons for innovations: to increase efficiency, to offer a better service, to enhance expertise and to improve effectiveness. Estonian organizations innovate in order to increase efficiency and to offer a better service and it is related to the success of the implemented innovations.

Customer service, process improvement, corporate strategy, new product development and recruitment are organizational functions that are mostly involved in innovating in Estonian organizations. Following organizational functions: administration, corporate strategy, resourcing and strategic implementation are significantly correlated with the success of the implemented innovations. Therefore, organizational function: 'corporate strategy' is involved in innovating in Estonian organizations and is also related to the success of the implemented innovations. Clarity of vision and strategies, managers who support innovation, strong organizational community, transparency and truth and good treatment of people are mostly valued organizational indicators that influence innovating in Estonian organizations. The following organizational indicators: support for intrapreneurs, managers who support innovation, empowered cross-functional teams, discretionary time, attention on the future, self-selection, no hand-offs, boundary crossing, strong organizational community, choice of internal suppliers, measurement of innovation and avoiding the "home run" philosophy are significantly positively correlated with the success of the implemented innovations. Therefore, managers who support innovation form an important indicator that influences innovating in Estonian organizations. This indicator is also related to the success of the implemented innovations. Finally, the

success of the implemented innovations is significantly correlated with an indicator: 'CSR influences innovation'.

Our findings are consistent with prior studies. Today, pioneering enterprises integrate social entrepreneurship into their core activities by actively funneling their R&D capabilities towards socially innovative products and services (Schwab, 2008). According to Asongu (2007), companies that have sustainable policies tend to be technological leaders. These companies often overcome their competitors with new, innovative products. The results support also Phills et al.'s (2008) ideas about the role of social innovations as well as Borger and Kruglianskas' (2006) evidences of a strong relationship between the adoption of a CSR strategy by the company and an effective environmental and innovative performance.

To summarize, innovation and corporate social responsibility are related constructs in Estonian organizations. Estonian organizations put a lot of effort into marketing and sales innovations which are related to the success of the implemented innovations. Generating and implementing are important processes of innovations in Estonian organizations and these processes are related to the success of the implemented innovations. Estonian organizations innovate in order to increase efficiency and to offer better service; therefore, innovations are successful. Corporate strategy is involved in innovating and it is also related to the success. Innovations that are supported by managers are successfully implemented. Implemented innovations are successful in organizations where it is considered that CSR influences innovation positively.

There are also some implications for managers: There is a connection between corporate social responsibility and innovation. Innovations that are supported by managers are successfully implemented. Implemented innovations are successful in organizations where it is considered that CSR has a positive influence on innovation. Corporate strategy is involved in innovating and it is also related to the success.

Limitations of the study. There are also limitations in this study connected with its general framework. The authors explored concrete connections between a limited number of factors; the other influences have been left for future research. The research was conducted in Estonian private and public organizations, and the results, as such, cannot be generalized to other countries and cultures. Due to the limited number of participating organizations the results remain at a rough level, the impact of the type of organization, or the position of respondents could not be analyzed in a reliable way.

Further research proposal. The connection between corporate social responsibility and innovation could be studied in more detail by using the results of this research. Organizational culture changes over time and its impact on corporate social responsibility and innovation should be studied. Organizational

leadership and business ethics should be measured and connections concerning corporate social responsibility and innovation should be analyzed. In order to get more information about the influence of institutional stage, comparative studies should be done in other countries.

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Appendix A

Interview questions.

Company name:

Number of employees:

Industry:

Year of establishment:

Your position:

1. What is thought by "innovation" in your organization?
2. Describe the most significant or creative presentation/idea that was developed/implemented in your organization.
3. Describe a time when a creative solution/idea/project/report came up to a problem in your organization.
4. Tell me about a time when a new process or program was created that was considered risky. What was the situation and what was done?
5. Can you think of a situation where innovation was required at work? What was done in this situation in your work?
6. When were the main innovations implemented in your organization? Which factors caused these innovations?
7. In what areas do the current measurement systems of your organization do more to encourage than to discourage innovation? Please mark with ‘+’ in the following table:

Table A1

Factor
Incremental innovation
Breakthrough innovation
Process innovation
Product innovation
Marketing and sales innovation
Support group innovation
Technical invention

8. Why would your organization innovate? Please mark those that apply to you.

Table A2

Factor
To make a difference
To increase efficiency
To be creative
To offer a better service
To enhance expertise
To make practical improvements
To improve effectiveness
To encourage wider participation

9. On what sort of issues would you get involved in innovating? Please rank in order of frequency your top four, with 1 being most frequent, 2 next most frequent, etc.

Table A3

Issues
Administration
Corporate strategy
Cross functional teams
Customer service

New product development
Process improvement
Product features
Recruitment
Resourcing
Strategic implementation
Other (please describe)

10. Innovation contains four different processes – exploring, generating, realizing and completing. Please evaluate these processes according to time you spent on them. I spend most of the time – 4 points, then next – 3 points, then next – 2 points and next – 1 point.

Exploring –
 Generating –
 Realizing –
 Completing –

11. How did the implementation of organizational innovation take place? Which steps were taken in the process of implementation of organizational innovation?

12. Did you meet resistance to innovation? How this resistance appeared? Please describe it.

13. What did your company do to overcome resistance to innovation?

14. How do you evaluate success of the implemented innovations in your company on a 7 point scale (7 is the highest mark and 1 the lowest).

15. Which were the most difficult issues during the implementation of innovations?

16. What did you learn from implementation of these innovations? What would you do differently in the future?

17. How do you define corporate social responsibility in your organization?

18. What kind of organizational culture supports corporate social responsibility?

19. What kind of organizational culture supports innovations in organization?

20. How does corporate social responsibility influence innovations discovery and implementation?

21. Please evaluate the indicators in the following table in your organization as a whole. Think about all employees. Please use a 10 point scale (10 is the highest mark and 1 the lowest).

Table A4

Indicator	Grade from 1 to 10
Clarity of vision and strategies	
Tolerance of risk, mistakes and failure	
Support for intrapreneurs	
Managers who support innovation	
Empowered cross-functional teams	
Decision making by the doers	
Discretionary time	
Attention on the future	
Self selection	
No hand-offs	
Boundary crossing	
Strong organizational community	
Focus on customers	
Choice of internal suppliers	
Measurement of innovation	
Transparency and truth	
Good treatment of people	
Social, environmental and ethical responsibility	
Avoiding the "home run" philosophy	