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The Functions of Information System in The Management of Corporate Social Responsibility

Bachelor's thesis within Informatics

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Abstract

Background: Most organizations rely on their information system on a daily basis to generate opportunities and advantages. Meanwhile, with the increasing emphasize on corporate social responsibility (CSR), more directors and CEOs are shifting their sights to CSR by developing business models that underline responsible and ethical disciplines for running businesses. However, studies that combine the analysis of IS and CSR are few. Therefore, the potential benefits of utilizing IS from a more intangible view, which means CSR in our case, are less likely be discovered. Besides, senior managers have a hard time on shifting perceptions on CSR from being an add-on activity to be integrated in core operations of the organizations

Aim & Purpose: The aim of our research is to investigate the functions that IS has in CSR management from manager's perspectives. As mentioned above, the main reason for conduction this research is the existing knowledge gap through the subjects being investigated. The overall purpose for this study is to adopt EFQM Excellence Model and Work System Model to contribute to CSR value creation of the organization.

Method: The current research approach is qualitative and a case study is applied as research strategy. Data collection is carried out by means of documents and interviews. Documents include company annual reports and website information. Semi-structured interviews are conducted with managers from Länsförsäkringar Jönköping and PwC.

Conclusions: The functions of IS in the management of CSR can be concluded into four aspects, which are information management, customer relationship management, monitoring daily affairs and corporate governance. Information system have changed the way data is being sorted, spread, disseminated and have accelerated the information exchange frequency in business operation. Those changes in turn reflect on the performance of customer, employee and corporate governance of the organization.

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Thank you all very much!

Jonkoping

Sincerely,

Junchao Lu & Xuan Kan

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1. INTRODUCTION

The introduction provides general information of the main subjects contained in the thesis for the reader, where the concepts of IS, CSR and senior managers are discussed in terms of connections and integration. This is followed by a comprehensive problem analysis and the definition of purpose and research questions. Other sub-sections scale from research perspective and target audience to knowledge gap and delimitations, describing definitions as well as presenting the thesis outline.

1.1 BACKGROUND

The increasing reliance on information systems (IS) in today's organizations and enterprises has generated great opportunities, and most of the organizations in all sectors of industries are dependent on their information systems on a daily basis (Ward & Peppard, 2002). It is suggested that the more information relied on as the strategic resource within the company, the more profitable effects information has on the sustainability of the resources (Grant & Royle, 2011).

Meanwhile, the future world address the great importance of corporate social responsibility (CSR), due to the fact that CSR can be one of the solutions that will solve the problems encountered by many industries (Horrigan, 2010). With the increasing interactions between shareholders, employees and customers, more directors and CEOs are shifting their sights to CSR, a business model with disciplines and policies which ensures that companies coordinate the business in a responsible, ethical and standard way to satisfy the stakeholders.

Andersen, Hong and Zhang (2011) performed a descriptive study towards the relationships between IT, CSR and industry. The authors have suggested that, "From the resource-based perspective, corporate social responsibility (CSR) and investment in information technology (IT) are both associated with a firm's profitable performance" (p. 107). CSR ensures that firms adjust its operational strategy and business actions to embrace the responsibilities that will encourage shareholders, employees and customers, which conduce to the enhancement of the intangible assets within the company. In a similar fashion, IS has been seen as an intangible resource in delivering business efficiency and business values to firms. Both CSR and IS aim at the same goal fundamentally, that is to maximize the resources and increase the competitive advantages. (Anderson et al., 2011).

Their study took a holistic view on this issue at the industrial level that contains sectors including food, apparel, transportation, retail, etc. The findings indicate that there is no discernible relationship between these three terms. One possible reason is that the industry specification in this study is too broad to compare (Andersen et al. 2011). However, the study provides a clue for future researchers that if investigating in two or three industries, there may be new findings.

Another study conducted by Caldelli and Parmigiani in 2004, attempts to discuss that management information system can evaluate the degree to which a company's IS correspond to the needs of sustainable development. The researchers examined their hypothesis in three dimensions of sustainability and proved its consistency and usefulness,

which helps to have a better understanding towards what the level of integration among different information systems should be in the firm (Caldelli & Pamigiani 2004).

Caldelli and Parmigiani's study focuses on the evaluations of information level by gathering large amount of data and defining a series of KPI (Key Performance Indicator). However, the functions of information system are not discussed in the article, instead, the construction and management of data under each sustainability domain is investigated.

The introduction of IS to CSR will conduce to significant changes to the processes by which top managers govern the tasks. The information will be sorted, spread, disseminated, and stored in different ways. Duties will be re-allocated due to the potential IT that offers more effective and efficient work than manual resources. IT manager or CIO will be of greater importance than before. The existence of IT systems will also provide transparency both in management and in ordinary employees, and will lead to better accuracy and disclosure.

1.2 PROBLEM DISCUSSION AND RESEARCH QUESTION

First of all, studies that devote to combine and analyze IS and CSR at an enterprise operational level are few. A study conducted by Pedersen and Neergaard (2008) states that, CSR needs to shift from being subordinate add-on activities to become integrated in all core business operations of the enterprise. Whereas, in the cause of doing this, it is significant that CSR is absorbed in the mainstream management standards. However, based on our literature review, it is fair to say that there is no publication that contains studies about the functions an information system has on supporting senior management to perform their work better in terms of corporate social responsibility.

Secondly, top managers are usually not able to clearly identify the importance of IS, and the potential advantages and weaknesses that the combination of CSR and IS might bring to their companies (Bassellier, Benbasat & Reich, 2003). Reich and Benbasat (2000) claimed that shared knowledge between business managers and IT professionals ensures the alignment of business and IT objectives. That is, without a clear understanding of the IT potentials, the process of conducting business will be affected. Also, managers' views towards the benefits of IT are highly based on the technologies and equipments adopted by them in earlier stage (Corrocher & Fontana, 2008). Consequently, they are less likely to discover the potential benefits in terms of utilizing IS from more intangible perceptions.

Our research questions are:

What are the functions of IS in the management of CSR?

How does IS influence the CSR performance?

1.3 AIM AND PURPOSE

Corresponding to the problem analysis, the aim of this study is to investigate the functions IS have in CSR management from managers' perspectives. The purpose of this

research is to adopt EFQM Excellence Model and Work System Model to contribute to CSR value of the company.

1.4 PERSPECTIVE AND TARGET AUDIENCE

At the organizational level, CSR is often viewed from two perspectives, namely internal and external. These two aspects of CSR can be administered differently within the organization, even though similar goals are shared (Houghton, Gabel & Williams, 2009). In this study, we took the internal view of CSR; concerning issues occurring in-house, including employee's interests, resource mobilization, strategy setting, and risk management at management level.

The target readers for this thesis are primary the senior managers. However, this can also be expanded to groups of people who are at management positions and have already been dealing with CSR issues in the organization; those who are going to manage CSR issue since this is quite a new concept just introduced to the company; or those who are in need of more information concerning how such a collaboration between IS and CSR works and how this could add value to the existing operations. Moreover, the investigation of this issue could be of interest to the scientific community to draw inferences from and act as a basis for prospective research.

1.5 DEFINITIONS

INFORMATION SYSTEM(IS)

The UK Academy of Information Systems (UKAIS) defines information systems as "the means by which people and organizations, utilizing technology, gather, process, store, use and disseminate information" (cited in Ward & Peppard, 2002).

CORPORATE SOCIAL RESPONSIBILITY(CSR)

CSR can be interpreted in alternative ways according to which standpoints people choose to approach it. The phrases used to define CSR vary, including "meeting societal preconditions for business", "building essential social infrastructure", "giving back to host companies", "managing business drivers and risks", "creating business drivers and risks", "creating business value", "holding business accountable", "sharing collective responsibility" (Horrigan, 2010).

In this thesis, corporate social responsibility is defined as: a process of improving and addressing business activities to both internal and external stakeholders. Internal stakeholders include employees, shareholders and investors. External stakeholders contain customers and public governance (cited in Horrigan, 2010).

SENIOR MANAGERS

Senior managers are directive decision-making persons who fall above the middle managers in a hierarchy. They are involved in different business activities, such as planning and monitoring the day-to-day work and managing corporations on the executive level.

1.6 DELIMITATION OF THE STUDY

The study was restricted mainly by two issues. Geographically, the research is conducted in Sweden only. According to our previous literature review, meanings of CSR vary across nations, the evaluation of firms' activities in terms of social, employee, customer, strategy issues are influenced by culture norms, certain circumstances and expectations (Pelozo & Papania 2008). Thus, the findings of this research may not be applicable to countries that are historically, economically, culturally and socially distinguished from Sweden.

Lee and Lounsbury, (forthcoming; Lindgreen, Swaen and Johnston, 2009) stated that empirical evidence shows that corporate management strategy on CSR varies quite significantly from firm to firm. Some firms regard CSR as cost-disadvantage activities, whereas others have already gone beyond what is expected and proactively share CSR value of the firm publicly (Lee, 2011). The companies we choose in this research are the ones that have a high level of CSR orientation and IS standards. The study can be a valuable reference to firms that have similar CSR and IS maturity index, but may not draw inference to companies that have different backgrounds or have undeveloped CSR and IS.

1.7 THESIS DISPOSITION

Chapter 1 – Introduction. This chapter represents the reader a narrow down process on the formulation of the topic, namely the background, on why this thesis was written. Arising problems, purpose and research questions derived from the background that will lead the research are discussed as well in this chapter.

Chapter 2 – Methodology. This part provides arguments on our choice to be a qualitative research with a deductive approach as well as the data collection techniques that we used. Besides, a detailed case study design approach will be described. The aim is to provide the reader with a background to our research approach.

Chapter 3 – Frame of Reference. This chapter presents the models and theories that will be used in this thesis. The basis of theoretical frameworks is developed through large amount of literature reviewed in relation to IS and CSR management.

Chapter 4 – Empirical Study. A presentation of empirical findings collected through documents and semi-structured interviews that will act as a basis for further analysis.

Chapter 5 – Analysis. The analysis of empirical findings with respect to models and theories presented in theoretical framework.

Chapter 6 – Conclusion. Based on the findings and analysis, this chapter will basically answer the research questions and draw implications from the results.

Chapter 7 – Discussion. This part discusses the whole thesis working process. Additionally, a discussion regarding the proposition of future research will be addressed as well.

2. METHODOLOGY

The methodology chapter contains research method used in this study as well as the way of collecting data directed by the method. Besides, a detailed analysis and discussion will be given on reasoning the rationale for using case study as a research strategy. The chapter also describes different scientific theories in terms of research method in the form of arguments to contribute to the goal of this research.

2.1 QUALITATIVE RESEARCH

Qualitative research has a board approach to the study of social phenomena, with the characteristics of being practical, expositive and grounded in the daily life and live experience of people (Marshall & Rossman, 2006). Dey (1993) states that the more vague and abstract the concepts are, the less likely it is to navigate the data in a justifiable and meaningful way, which means that the emphasis of qualitative research is on the degree of abstraction of the issues that are being investigated. Besides, the data being collected in this research approach are characterized by their richness and fullness, and need to be explored as in a real manner as possible (Robson, 2002).

In this study, a qualitative research approach is chosen. The investigation of the function IS has in relation to CSR is like an interpretation of business operation phenomena from the perspective of the meanings employed by the senior managers that we study. Besides, some of our own reflections on this research will serve as a part of the process of knowledge production. Therefore, it is difficult to acquire meanings derived from numbers but rather through words explanation. From this point of view, qualitative information is essential in this research. Meanwhile, qualitative research has the ability to deliver an authoritative account of what are studied in this case.

2.2 RESEARCH STRATEGY: CASE STUDY

Case study is often used by researchers as a research strategy. Researchers often intend to investigate a research project based on their own workplace or to perform a comparison study within several organizations (Rowley, 2002). A distinctive demand for case study is arising because of the intention to have an in-depth understanding towards complex social phenomena (Yin, 2009). According to Remenyi, Money, Price and Bannister (2002), a case study seeks to provide meanings in context. It displays both an in-depth understanding towards the issue that is currently studied and a comprehensive view of related issues and context. Thus, case studies have the ability to focus a research into a phenomenon in its own context without comprehending broader and significative characteristics of daily events.

In many cases, case study acts as the default method for qualitative research even though there is an inadequate causal relationship between them (Remenyi et al. 2002). Gerring (2004) state that:

“Indeed the case study is probably best understood as an ideal type rather than a method with hard and fast rules. Yet the fact that the case study is fuzzy round the edges does not mean that it doesn't have distinctive characteristics” (p. 346)

That is, case study does not serve as a board research title that matches with many ‘other’ studies as mentioned above, but *‘refers to quite a particular approach for research. It is*

not only underpinned by a specific philosophical orientation, but also by a set of qualifying guidelines' (Remenyi et al. 2002, p.2). Yin proposed three conditions on deciding when to use case study is illustrated in the following table (Table 2-1).

Table 2-1: Yin's (2009) proposal of three conditions for case study.

Three Conditions on Utilizing Case Study		
Type of Research Questions	Extent of Control Over Behavioural Events	The Degree of Focus on Contemporary as Opposed to Historical Events

THE TYPE OF RESEARCH QUESTION POSED

According to Yin (2009), what, who and where questions can be investigated through the survey, documents or archival strategies etc. Whereas, case study is normally necessary to answer “how” and “why” questions, since it aims to explore the in-depth meaning of a phenomena rather than mere frequencies or amounts. The research question in this paper is a “what” question, which does not seem to fit with case study approach. However, there are two types of “what” question, one is about to develop pertinent propositions for further inquiry where any of the five research strategies can be used, the other one is a form of “how many” or “how much” line of inquiry (Yin, 2009). Our research question is to investigate the functions of IS in the management of CSR, which falls into the first type of “what” question. Since we intend to have a significant understanding and a comprehensive view on both the issue being studied and the context the issue operates in, therefore, case study strategy is the best approach from this point of view.

EXTENT OF CONTROL OVER BEHAVIORAL EVENTS & DEGREE OF FOCUS ON CONTEMPORARY AS OPPOSED TO HISTORICAL EVENTS

Typically, case study is preferred to use as a research strategy when the researcher do not have the ability to control the behavior directly, precisely and systematically. Case study is present-oriented and seeks to provide explanations on events happened in current society. In addition, case study contains two sources of evidence that are not usually included in historical research: observation and interviews (Yin, 2009). What is mentioned above actually match our case in this paper. First of all, the study of IS and CSR, especially from managers' perspectives, is quite a new research approach. Secondly, conducting interviews with managers from the organization as an extra source of evidence will be used as well.

2.2.1 DESCRIPTIVE CASE STUDY

There are mainly three categories of case studies used for research purpose: explanatory, exploratory and descriptive case studies (Yin, 2009). According to Yin, explanatory case studies are illustrated as the foundation for significant explanations and focus on

expanding the problem or phenomenon broadly and making generalizations depending on the characters and features.

The exploratory case study stresses on exploring phenomenon that are interested to the researcher based on the data gathered (Yin, 2009). It raises new dimensions to be discovered and attracts the new population of interests (Pinsonneault & Kraemer, 1993).

Yin (2009) states that descriptive case study intends to explain what happened and to describe natural phenomena. The goal of the descriptive case study is to investigate a group's characteristics in terms of their attitudes and viewpoints towards a certain phenomenon (Pinsonneault et al., 1993).

This is a descriptive case study. It is related to investigating the functions that IS have in CSR management, to put it in another angle, to generate an accurate description of what IS does in order to facilitate CSR in certain situations, to analyze those data we have collected, and to synthesize and portray them as a strategic map. That is, the final outcome is expected to be an overall description, when IS is characterized and integrated with CSR, which suits best with the descriptive case study.

2.2.2 MULTIPLE-HOLISTIC CASE STUDY

Researchers can design their studies as either single or multiple-case when applying case study as research strategy (Yin, 2009). Yin (2009) states that multiple-case studies do not follow sampling logic where a selection is made out of a population, but follow replication logic. In this thesis, the authors employed two cases from the Swedish market in order to answer the research questions and draw conclusions. In addition, the selected cases in this study are categorized as literal replication, where both the cases are in similar condition and should predict similar results. Yin (2009) pointed out that multiple-case study engenders more steadinesses of the results from the study through replicating pattern-matching.

Case studies can be further divided as being either holistic or embedded. A holistic case study is about reasoning about the global phenomenon and try to draw conclusions as a whole. Whereas, an embedded case study generates results through analyzing sub-units of the case being studied (Yin, 2009). In this thesis, the authors intend to investigate the functions of IS in the management of CSR from a holistic view point, with no specification on particular departments or industries. Hence, a holistic approach seems more suitable under this situation.

2.2.3 CASE STUDY DESIGN

Nachmias and Nachmias have defined case study design as “guides the investigator in the process of collecting, analyzing, and interpreting observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation” (1992, p 77-78). According to Yin (2009), a detailed research design is composed of five essential parts:

- 1) study questions;
- 2) propositions (if any);

- 3) units of analysis;
- 4) logic connects data and the propositions; and
- 5) the criteria explaining the research findings.

The first two elements have been discussed and presented in the previous two chapters. Therefore, we will focus on the other three components this time.

This part reveals and explains a basic problem, which is the definition of “case” (Ragin & Becker, 1992). Yin (2009) proposes different components that can be studied as the “case”, such as an individual, several individuals, an entity, a event, etc. However, it should be noticed that even with the help of the study questions and propositions, it is impossible to collect every piece of information about your “case” (Yin, 2009). According to Yin, “the more a case study contains specific questions and propositions, the more it will stay within feasible limits” (Yin, 2009, p. 29).

2.3 DATA COLLECTION

Yin (2009) states that there are six major sources of evidence that are most commonly used in doing case studies, which are, documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. These major sources have their own strengths and weaknesses and they are complementary to each other in most cases. A good case study should apply as many sources as possible (Yin, 2009).

In this research, we combine the usage of both documents and interview data sources. In terms of interview, semi-structured interviews will be carried out. Documentations such as company’s annual report available on the website previous researches being conducted in the case field will be studied as well. Such an approach to data source will benefit us with an explicit view towards the business operation assistant by information system within the organization. The details of these two sources of data will be discussed in the following sections.

2.3.1 DOCUMENTATION

Documentation is a frequently used as data collection technique in research. It covers a wide range of documents review: Communiques, written reports of events, administrative documents, formal studies or articles appearing in mass media (Yin, 2009).

Compared with other research techniques, documentation is proved to be stable and broad coverage. In many situations, data can be reviewed repeatedly, and cover events in even more than a decade. However, since there are documentation of manual efforts like newspapers and letters, it is difficult to assess whether the information is stated with or without any bias held by the author (Yin, 2009).

During the research process, we searched for our data by visiting the company’s websites to retrieve important information, such as the annual report published on the website. This approach provides us with a general background of the company and the ability to conduct an in-depth analysis towards the issue being studies. Besides, we also reviewed the related literature by previous research studies mainly through JULIA (Jönköping’s internal Library service). The articles being selected are all peer reviewed and published on authoritative journals. The key words used for searching data sources

were such as CSR, IS, EFQM, the work system framework, synergy and management. According to Saunders et al (2009), within organizations, managers in charge of the relevant fields are more likely to hold the significant secondary data resources. This person is also decisive in whether we could eventually have access to the information or not.

2.3.2 SEMI-STRUCTURED INTERVIEWS

Interviews are important resources to gather significant information. An interview could be highly formalized and therefore request the interviewees to answer pre-defined standardized questions, or it may be quite informal and loosely structured. Based on the level of formality, a interview can be distinguished into two categories, which are structured interviews and semi-structured interviews (Saunders et al. 2005).

Roughly speaking, structured interviews follow a strict standard and use predetermined questionnaire as an interview guide. The interviewer read out each question and records the responses correspondingly. Structured interviews also referred to ‘quantitative research interview’ since quantifiable data is collected in this approach (Saunders et al. 2005).

On the contrary, King (2004) states that semi-structured interviews are labeled as ‘qualitative research interview’ (cited in Saunders et al., 2009). Rubin and Rubin (1995) suggest that during an interview, even though the interviewers try to rigidly following the structured inquiry, it is more likely that the questions will be fluid as the conversation goes (cited in Yin, 2009). That is, interview designers, often prepare the questions in advance, but explore new questions halfway during the interview according to the respondents’ answers. Yin (2009) also poses his opinion that, in most situations, the interview should be open-ended.

Since we are conducting a qualitative research study with the intention to investigate the synergies between IS and CSR, we have decided to use semi-structured interviews for primary data collection method instead of other techniques, such as questionnaires. We keep the questions short, which will intrigue the interests of respondents and guide them to elaborate more information related to our research.

In the current research study, the interviews will be audio-recorded and transcribed verbatim in its entirety afterwards. The long interviews are later abbreviated into a more precise one according to the original meanings. In order to keep its originality and to ensure that we understand the meaning in the same way the interviewees understand it, we will send the abbreviated version back to the interviewees. Not until we receive his agreement that we use the abbreviated version of this interviews as our primary data.

2.3.2.1. INTERVIEW 1: LÄNSFÖRSÄKRINGAR JÖNKÖPING

The interview was conducted on 30th March, 2012 with Niclas Beermann, who is responsible for marketing, communications and public relations in Länsförsäkringar Jönköping. This was a face-to-face interview with duration of one hour from 9:00 to 10:00. A broad literature review on relevant topics had been performed and a general background towards the issue was obtained before the interview. Moreover, the theo-

retical frameworks had been selected and the interview questions were based on the study of those frameworks. Afterwards, an interview guide was designed with respect to the investigation on CSR and IS associated with daily working processes within the company. Example questions were such as: “How does IS assists your daily work?” “How do you communicate internally?”, and “How do you secure the critical information?”

2.3.2.2 INTERVIEW 2: PwC

Another face-to-face interview was carried out on 10th May, 2012 with Frida Wengbrand, who works as approved public accountant in PwC, Jönköping. The interview lasted one hour and 15 minutes from 8:30 to 9:45. The theoretical framework and pervious research were studied as stated above, so and the interview questions.

2.3.2.3 SUMMARY OF INTERVIEW APPROACH

The table (2-2) below is the summary of interviews conducted in this thesis.

Table 2-2: Summary of Interview Approach

	Länsförsäkringar Jönköping	PwC
# Interviews:	1	1
# Participants in the interview	1	1
# Interviewee title:	Niclas Beermann: marketing, communications and public relations	Frida Wengbrand: approved public accountant
# Interview duration:	1hour	1hour and 15 minutes
# Interview date:	30 th March, 2012	10 th May, 2012
# Interview pattern:	Face-to-face	Face-to-face
# preparation:	Literature review/ Theoretical framework/ Interview questions	Literature review/ Theoretical framework/ Interview questions
#Documentation:	Audio recorded/ Note taking/ Transcribed & Revised	Audio recorded/ Note taking/ Transcribed & Revised
# Interview guide:	See empirical study section	See empirical study section

2.4 DATA ANALYSIS

According to Yin (2009), there are three different types of strategies that are generally used in analyzing data, namely “Relying on theoretical propositions”, “Thinking about rival explanations” and “Developing a case description”. If the theoretical proposition acts in a research study as a leading frame, where the research objectives and research overall design are based on such propositions, the strategy is defined as “Relying on theoretical proposition”. Yin indicates that, “The proposition is an example of a theoretical orientation guiding the case study analysis.” (2009, p. 112). When applying this strategy, researchers’ way of prioritizing the data will adapt to the propositions, which in turn will facilitate the processes of sorting data, given the fact that some of the data will be rolled out based on the propositions while others will be kept. Also, Yin (2009) stressed that theoretical propositions answers “how” and “why” questions, and give a brief structure of organizing the whole case study.

“Thinking about rival explanations” share similarities with the strategy mentioned above to some extent. Both of them need the theoretical propositions as the basis for analyzing the data, but “Thinking about rival explanations” develops different hypotheses from the original context (Yin, 2009). Yin (2009) also suggests that “Being aware of this direct rival, your case study data collection should then have included attempts to collect evidence about the possible other influences” (2009, p. 112), which means that study of the data will be strongly influenced by other variables.

The third type of strategy is called “Developing a case description”. Being absolutely different from the previous two strategies, the “Developing a case description” refers to the strategy that the researchers generate its own framework for the case study (Yin, 2009). This approach is a preferable alternative when either of the other strategies is not applicable.

This thesis is theoretical-orientated. The whole analysis depends on the structures of the theoretical framework. Meanwhile, the data is interpreted following the patterns of the models that are chosen. Therefore, “Relying on theoretical propositions” is the most suitable approach in this case. The data we collected are sorted out according to the appointed frameworks, and then are analyzed with the causal relations.

2.5 RESEARCH CREDIBILITY

Construct validity requires to steps from the researchers, which are:

1. Choose the specific changes that will be studied;
2. Describe the measures of the specific changes which can reflect those changes (Yin, 2009)

In this part, we will justify the measures we use to plan the research, and prove them to be valid ones. There are two types of validity that should be concerned within a case study, internal validity and external validity. Internal validity concerns with explanatory case studies, which does not apply to this thesis (Yin, 2009).

According to Yin (2009), external validity “deals with the problem of knowing whether a study’s findings are generalizable beyond the immediate case study” (Yin, 2009, p43). Yin also stresses that, the problem mainly lies in the fact that as a single case, it is diffi-

cult to provide the basis for the generalization of your research, which is on the contrary of survey research (Yin, 2009).

In this research, we intend to investigate situations from two companies, and specify the companies by its IT and CSR levels. Therefore, as a multiple case study, the findings' validity will be ensured.

RELIABILITY

According to Easterby-Smith, reliability interprets as the extent to which the methods of collecting and analyzing data will produce the consistent results (cited in Saunders et al., 2009). In order to measure whether the data is reliable for the research, Easterby-Smith suggested that researchers can evaluate it by asking the question: "*Will the measures yield the same results on other occasions?*"

In order to ensure the reliability of the research, we followed the logical of replication. Since the nature of semi-structured interview allows new questions be proposed along the interview, there might be questions being asked in different ways in two companies. We deal with this by sending the same interview guide to both companies and try to stick on the guidance during the interviews. Besides, the selected interviewees were in similar positions as manager.

TRIANGULATION

Triangulation is defined by Yin (2009, p. 114) as the "rationale for using multiple sources of evidence". It is a strongly suggested approach for conducting case study. Patton (cited in Yin 2009, p. 116) represents four different triangulations for conducting the evaluation, which are: data triangulation, investigator triangulation, theory triangulation and methodological triangulation. By doing the triangulation, the case will be supported by more than one source of evidence (Yin, 2009). Therefore, it should be stressed that, data triangulation acts correspondently with the construct validity in the sense that it ensures the different measurements of the same case (Yin, 2009). This research study intends to triangulate the sources of two companies as primary data, literature review and documentation as secondary data and interviews as primary data collection technique.

3. FRAME OF REFERENCE

The theoretical framework aims to provide a basis for the analysis of the empirical data and background for the study. That is, the frameworks support the analysis of the data collected, and act as a foundation for the research. The EFQM Excellence Model and The Work System Framework are presented in this chapter. The EFQM Excellence Model is applied to assist the organization in acquiring a sustainable advantage, and the Work System Framework identifies weaknesses and opportunities by describing the key factors within an organization. More importantly, the work system framework shows the relations between information and business activities.

3.1 THE BALANCED SCORECARD (BSC) AND THE EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT (EFQM) EXCELLENCE MODEL

3.1.1 THE BALANCED SCORECARD (BSC)

“The Balanced Scorecard is a carefully selected set of quantifiable measures derived from an organization’s strategy. The measures selected for each organization’s scorecard represent a tool for its leaders to use in communicating to employees and external stakeholders the outcomes and performance drivers by which the organization achieves its mission and strategic objectives. Scorecard measures are contained in four distinct, yet related perspectives” (Nevin, 2007, p.199).

Nowadays, the balanced scorecard (BSC) has been used as a performance measurement and management system (Van Grembergen & De Haes, 2005). The fundamental concept behind BSC is that organizations should not be assessed only by their financial performance, but rather be viewed and evaluated in a broader perspective including customer management manifestation, internal process operation ability and employee development (Waterhouse, 2008). In addition, according to Van Grembergen and De Haes (2005), the three non-financial outcomes should assist and result in the financial criteria while driving the organization’s strategy and maintaining the scorecard in balance mode.

For each of the four perspectives, there is a three-layered structure, describing its mission, objectives and measures (Waterhouse, 2008). As shown in Figure 3.1:

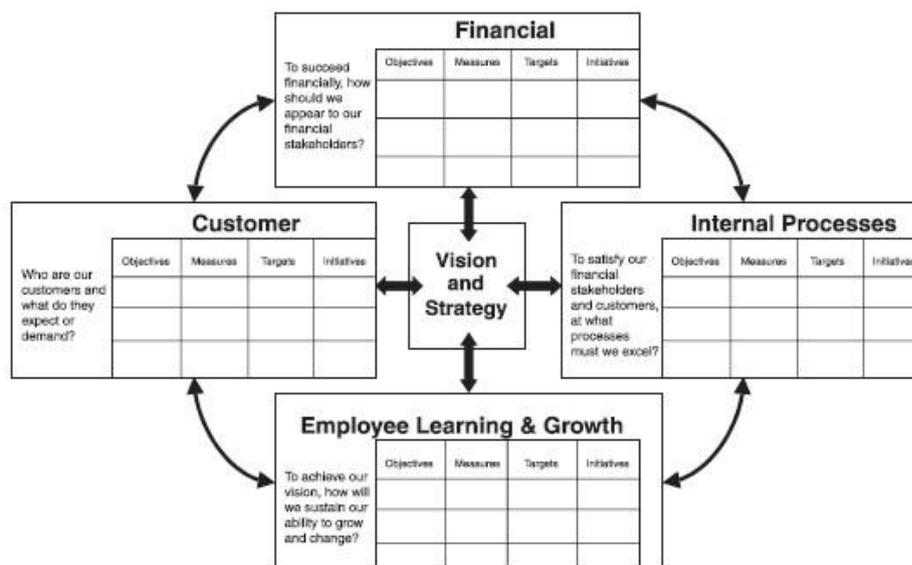


Figure 3.1: The Balanced Scorecard (Niven, 2007)

- *Financial Perspective*

The results of the financial perspective will indicate whether the execution of customer, internal processes and employee learning and growth improve the bottom-line performance or not (Niven 2007). Typical financial indicators are, for instance, cash flow, return on equity, market share, asset utilization and so on (Kaplan & Norton, 1992).

- *Customer Perspective*

Managers are requested to answer critical questions in relation to customer, for instance, who is the target group, how the value position is and how to meet customer expectation (Niven, 2007). At first glance, it looks pretty simple. However, in order to present good answers to those questions, an in-depth understanding towards the customer is a pre-requirement.

As declared by Treacy and Wiersema (1997), the three most frequently used value propositions by organizations, in order to differentiate themselves from competitors and gain competitive advantages in the market, are operational excellence, product leadership and customer intimacy. Despite the selected value discipline, customer criteria are normally measured in terms of for instance, customer loyalty, customer complaint and customer base (Niven, 2007). Therefore, organizations should develop performance initiatives that will eventually achieve customer success.

- *Internal Process Perspective*

After value proposition and a comprehensive analysis towards customer, organizations need to be clear on what processes they need to excel on in order to provide those values to customers (Kaplan & Norton, 1992). According to Niven, executives need to shift from focusing on improving existing process, to develop new processes that fit the value proposition and will meet high customer expectations.

- *Employee Learning and Growth Perspective*

This part acts as the basis for the operation of the other three perspectives and therefore, is the foundation for the whole balanced scorecard. Employee learning and growth process is the enabler of excellence in terms of customer and internal process results (Niven, 2007).

3.1.2 THE EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT (EFQM) EXCELLENCE MODEL

The EFQM excellence model has been continuously revised since its creation. One of the biggest changes occurred in 1999, which was a shift to approaches that affect customers, partnership and data management (Shahin, & Rourbahman, 2011). Besides, considerable changes were made on the EFQM excellence model between version 2003 and version 2010, by a team of over 200 individuals, representing large organizations, academics, EFQM Partners and so on. The main reason for those revisions on the model is to be in line with the changeable environment (Martinez-Lorente et al., 2011). Therefore, the study will adopt the lasted version of the model so as to provide the best knowledge for analyzing.

The EFQM Excellence Model encompasses nine major criteria in two categories (see figure 3.1). The first five criteria (leadership, strategy, people, partnership and resources) are regarded as ‘Enablers’ describing what an organization does and how it does it. The last four criteria (people results, customer results, society results and key results) are labeled as ‘Results’ covering what an organization achieve.

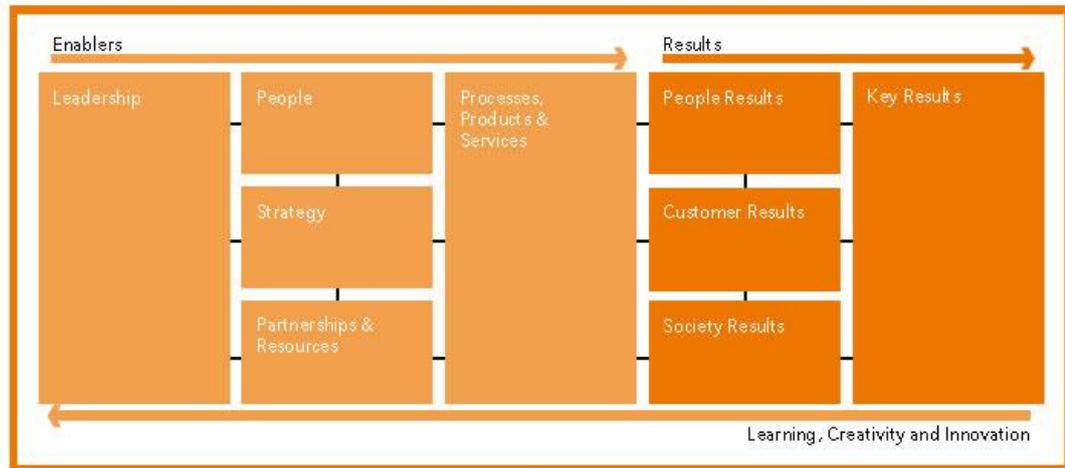


Figure 3.2: The EFQM Excellence Model (adapted from The EFQM, 2012)

The arrows in Figure 3.2 underline the changeable nature of the model. Learning, creativity and innovation can help enhance enablers that in turn reflect on improved results. Those criteria are act as assessment factors in terms of an organization’s progress towards excellency (Wuisman et al., 2004).

The primary information implied by grouping the criteria into two categories is that results are caused by enablers and enablers are improved by feedback from results. This circulatory process presents the basis for predictions of cause-effect relationships as well as provides guidance for converting attitudes to activities through structures of the organization (Ascigil, 2010).

3.1.2.1 FUNDAMENTAL CONCEPTS

The EFQM excellent model is nurtured by a series of fundamental concepts and values, including (see figure 3.3):

- Achieving Balanced Results
- Adding Value for Customers
- Leading with Vision, Inspiration & Integrity
- Managing by Processes
- Succeeding through People
- Nurturing Creativity & Innovation
- Building Partnerships
- Taking Responsibility for a Sustainable Future

(EFQM, 2012).

The fundamental concepts are essential for organization to achieve long term sustainable excellence development. They are wrapped in the EFQM excellence model, which provide the organization a platform of framework that can be utilized in terms of pursuing different aspects (Ascigil, 2010).

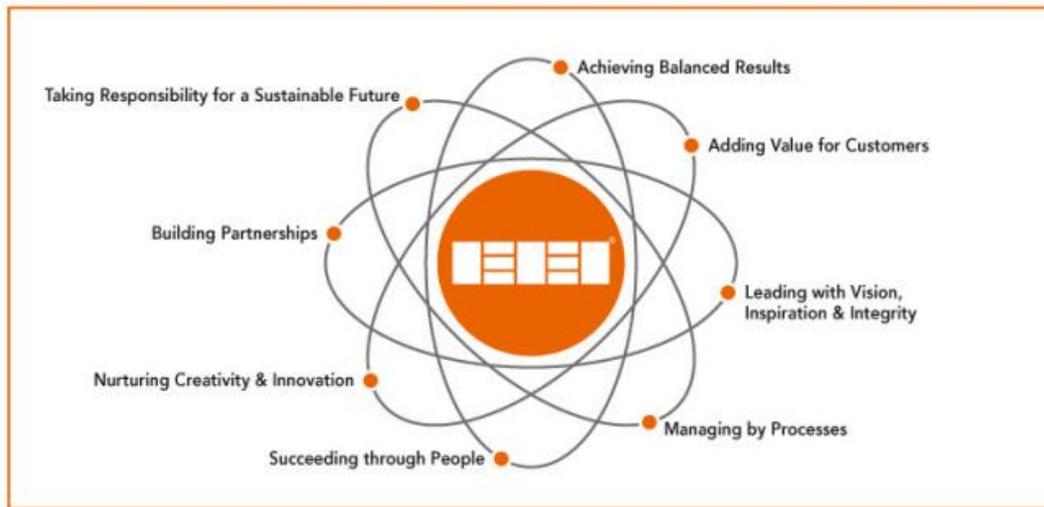


Figure 3.3: Fundamental Concepts (adopted from EFQM, 2012)

In essential, those fundamental values and concepts are regarded as the foundation of the model and those that need to be achieved by applied organizations (Shahin, & Rourbahman, 2011). They can also be used as the basis to describe the attributes of an excellent organizational culture as well as to serve as a common language for senior management (EFQM, 2012).

3.1.2.2 THE 9 CRITERIA

As discussed above, there are nine criteria consist of the EFQM excellent model and are divided into two major domains, namely ‘Enablers’ and ‘Results’. The following list is a compilation of the interpretations of all the criteria presented in the model.

Enablers:

- *Leadership*

Leaders play an essential role in creating a responsible tone to the organization through setting company mission, vision and value (Ascigil, 2010). Excellent leaders facilitate and maintain the achievement of the mission and vision. Leaders should act as drivers for performance and capability development. in order to be the driver force of the organization, leaders need to integrate ethics, flexibility and decision making capability in their business understanding (The European Foundation for Quality Management, 2009).

- *Strategy*

Excellent organizations take account of the market and sector in which it operates and implementing stakeholder focused strategy (Asigil, 2010).

Strategy setting is based on the present and future needs, the expectations of stakeholders and the information acquired from performance measurement, research and related activi-

ties (Martin-Castilla, 2002). Besides, a clear focus on building sustainability of external environment and adding capabilities on internal environment is essential here.

- *People*

Human resource plans should directly link into strategy and results performance within the organization. That is, engaging people and position people themselves as the communicators that facilitate such an alignment is crucial in organizational operation. A good organization should introduce work-life balance, provide mutual support and care, engage people in the wider society and take the initiatives to identify, reward and sustain people's competences (The European Foundation for Quality Management, 2009).

- *Partnerships & Resources*

A good organization should plan to manage its partnerships and resources well in order to support the strategy and achieve the expected results. An emphasis on the mutual benefit for maintaining long term relationship with suppliers should be achieved (EFQM 2009). Besides, the management of finance, technology, information and knowledge should be well planned and organized (Martin-Castilla, 2002).

- *Processes, Products and Services*

The organization should design, manage and improve its processes to support the strategy and by delivering excellent products and services to fully satisfy and generate increasing value for its customers and other stakeholders.

Results:

- *People Results*

This is about what the organization is achieving in relation to its people. A consideration on how people perceive the effectiveness of the strategy, especially the human part should be addressed (EFQM, 2012).

- *Customer Results*

This aspect concerns about the organization should comprehensively achieve outstanding results in relation to its external customers. Instead of measuring, the emphasis is on the impact of perceptions that an organization has.

- *Society Results*

Appropriate results should be achieved in terms of local, national and international society. The strategy should align with the environmental and social aspects in order to achieve superbly society results.

- *Key Results*

The key strategic outcomes that an organization is achieving and what the organization focus upon is enhanced (EFQM, 2012).

Among the nine criteria, leadership drives people, strategy, partnerships and resources, and these three elements influence the results through the delivering of processes, products and services. The same logic can be implied in the 'Results' domain as well.

3.1.3 THE OVERLAPPING BETWEEN BSC AND EFQM EXCELLENCE MODEL

As seen above, EFQM Excellence Model shares some similarities with BSC. The customer, internal process and employee learning and growth dimensions of BSC, corresponds to customer results, process enablers and people results of EFQM excellent model. Wongrassamee, Gardiner and Simmons (2003) states that each of these models “consists of a non-prescriptive template offering managers a relatively small number of categories of key performance metrics to focus on.” (p. 14)

Compared to BSC, EFQM excellence model contains more aspects in relation to CSR. In essence, many articles have discussed the use of EFQM excellent model in the analyzing of CSR issues (e.g., Shahin, & Rourbahman, 2011; Santos-Vijande & Alvarez-Gonzalez, 2007; Ascigil, 2010; Kleine & Von Hauff, 2009; Robson & Mitchell, 2007). Since a major part of our thesis is about CSR, we choose EFQM excellence model as the theoretical framework to analyze our empirical findings.

The purpose for utilizing the EFQM excellence model is to analyse the cause and effect relationship between enablers and results at Länsförsäkringar Jönköping and PwC. The enablers will be studied from an information system oriented perspective. Therefore, an in-depth understanding on the synergies between IS related enablers and CSR related outcomes can be achieved. This will provide us a basis towards the identifying of IS functions in the management of CSR.

3.2 THE WORK SYSTEM FRAMEWORK

The work system is developed by Steven Walter. In his book *The Work System Method* states that “The Work System Framework provides an outline for describing the system being studied, identifying problems and opportunities, describing possible changes, and tracing how those changes might affect other parts of the work system.” (Alter, 2006, p.13).

The work system framework is composed of nine fundamental elements, which provide a clear representation graphically about the detailed perspectives and operations (see figure 3.4) (Alter, 2006). Each of the elements should be coordinated consistently with each other, as identified by the arrows. In the infrastructure part, the four fundamental elements are represented, which are processes & activities, participants, information and technologies. They are the basic parts that perform the actual work within this organization. According to Alter (2006), the other five parts are essential for understanding a work system, as they clearly identify the products and services the work system delivers, the customers benefited from the products and services, the environmental conditions outside the work system, the strategies applied by this organization and the type of infrastructure shared by the whole system (Alter, 2006).

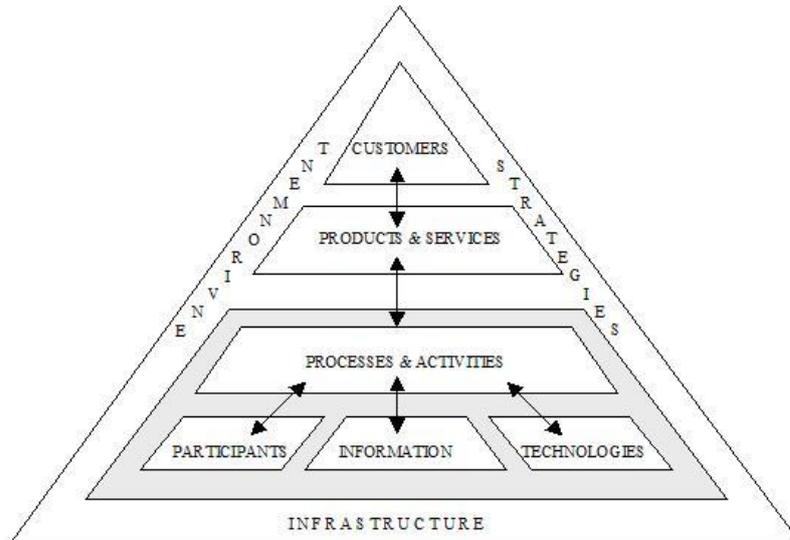


Figure 3.4: Work System Framework (Alter, 2006)

Regarding the framework itself, a few assumptions should be stated. Generally, products & services do not belong to a working system (Alter 2006). They are the outcomes instead of the scope and operation. However, Alter (2006) stressed that these two elements should exist in order to satisfy the customers both inside the organization and outside it. Also, environment and infrastructure's existences remind people that the achievement of a work system is highly dependent on the overall situation of the surroundings and the fundamental infrastructure that support the working flow inside the system. The strategy outside the core declares that in order to fulfill the common objective, the work system's strategy should be consistent with the organization's strategy (Alter, 2006).

Alter's assumptions are aligned with Churchman's conclusions regarding the meaning of a system in his book *The Systems Approach* (1979). In the book, he stated that when conveying the meaning of the system, there are several aspects that should be considered: the total system goal, the opportunities and constraints generated by the environment, the available resources, the performance and activities as well as the management perspective (Churchman, 1979). Although in another book written by Peter Checkland, he added that the system should be viewed as whole instead of taking a specific look at which and what types of information technology support the work system (Checkland, 1999).

3.2.1 THE COMPOSITE OF THE WORK SYSTEM FRAMEWORK

- **CUSTOMERS**

Customers are defined as “the people who receive, use, or benefit directly from products and services that a work system produces.” (Alter, 2006, p.14). Customers act as the evaluators of the quality of the products or services. There are two categories of customers: internal and external. Internal customers are employees and departments who receive the services from the company its own, and their job includes to respond both internal and external customers (Stauss, 1995), while the external customers are those related to economic products (Alter, 2006).

- **PRODUCTS & SERVICES**

This part is a composite of the actual outcomes the work system generates, which not only includes the tangible products, but also information and services (Alter, 2006).

- **WORK PRACTICES**

In this part, all the activities in the work system is involved. Alter (2006) mentions that the activities include several points, such as information processing procedures, communication flow in the company, decision making process, coordination between different work, and other physical actions.

- **PARTICIPANTS**

Participants are the people involved in the working performance (Alter, 2006). In a work system, there are participants intensively use information technology while others may be less related to computers, however, it does not imply that those who are not technology users are less important, for the fact that being a participant outweighs being a computer user (Lamb & Kling, 2003).

- **INFORMATION**

Information contains two types: codified and non-codified. Codified information is pre-defined with rules in a precise way, and a uncodified information is related to formal or informal documents, oral agreements or conversations (Alter, 2006).

- **TECHNOLOGIES**

As known to all, technologies facilitate the working processes of people. In a work system, technologies include both physical assets and softwares that are used in various business situations (Alter, 2006).

- **ENVIRONMENT**

Environment refers to all the organizational factors that the system operates (Alter, 2006). According to Alter (2006), organization's behavior, which forms the culture in organization's environment, is highly involved in work system.

- **STRATEGIES**

Strategies are the high leveled decisions played as a leading role in a work system. It is significant that the work system's strategy is consistent with the firm's. An example of this can be the high-cost products may not meet the standards set by the firm as being cost-minimizing (Alter, 2006).

Working process model builds the connections between information, technology and activities and business processes, which assists the analysis in the way to convey information system with CSR. The application of this model is to present how the information systems in the company collaborate with the daily working processes from the management perspective.

3.3 CORPORATE SOCIAL RESPONSIBILITY APPROACH

The definition of CSR can be quite confusing due to the debate about its content and coverage (Horrigan, 2010). Horrigan points out that "CSR has many different definitions,

grounded in many different standpoints from which it can be approached” (p. 34). That is to say, none of these debates has reached consensus, nevertheless, each of them is able to reason from their own perspectives.

According to Campbell (2007), CSR refers to the influences that it could have on society in corporations, either advantageous or hazardous. However, it should be apart from the other two concepts, “corporation philanthropy” and “corporate humanitarian”, because of the involvement of the business corporations (cited in Horrigan, 2010).

Sandel cited in Horrigan (2010) that in different contexts, CSR can be interpreted to various meanings. In the past, it is commonly associated with “corporate sustainability”, “corporate business”, etc. For example, the Corporate Social Responsibility Initiative at the John F Kennedy School of Government at Harvard University has stressed a common thread between those terms, and in turn, gave a definition to CSR (Horrigan, 2010) Also, CSR is divided into two limbs, “instrumental CSR” and “intrinsic CSR”, of which Horrigan believes that it has justified the corporate profitability by indicating the potential ethical usage while allowing the restrictions within the concepts.

Horrigan defines that in 21st century, “CSR and its related terms all reflect not just a broadening of criteria for business success to embrace social and environmental factors as well as economic ones, but also an attempt to relate all of these factors to how businesses individually and collectively can best develop business models and business value propositions in market economies to both business and societal advantage (2010, p. 36).” Being coherent to this, John Elkington, expert for sustainability, illustrated a “triple bottom line” to assist the assessment of the overall performance of business, which are “economic prosperity”, “environmental quality” and “social justice” (cited in Horrigan, 2010). This description set interfaces between social, environmental and economic factors, which can be classified as one-dimensional notion.

The understanding of CSR is crucial for every process within this report, from interviews for data analysis. The definition of CSR helps us categorize our empirical data into different types, and provide foundations for a better analysis structure.

Based on the analysis so far, it is fair to say the definition of CSR is multi-textured and case-sensitive. Therefore, in our report, we derived the definition of CSR as: A process of improving and addressing business activities to both internal and external stakeholders. Internal stakeholders include employees, shareholders and investors. External stakeholders contain customers and public governance (cited in Horrigan, 2010).

4. RESULTS

The results chapter provides the readers with information about CSR approaches together with information system used in Länsförsäkringar Jönköping and PwC gathered through secondary and primary data sources. The empirical findings are presented with company description in the first place, and then followed by interviews with managers from both cases. The results act as a basis for the further analysis based upon the theoretical framework.

4.1 CASE 1: LÄNSFÖRSÄKRINGAR JÖNKÖPING

4.1.1 COMPANY BACKGROUND

The Länsförsäkringar Alliance has 3.4 million customers in 23 local regional customer-owned insurance companies. They jointly held Länsförsäkringar AB, with branches within business, service, development and IT. Such an alliance is unique in the Swedish bank and insurance market and the corporation of the 23 regional insurance companies combines the ability of a small company with the strength of a large company.

Customer-owned

All of the companies have a strong local base in their individual home markets and have no ownership interests other than those of their own customers. Since customers are both the principal and owner, the fundamental concept to Länsförsäkringar is to have long-term respect for customer's money. Länsförsäkringar differentiates from other insurance companies through their locally important decision making mechanism. This means that Länsförsäkringar's local branches have their own working process instead of working under a head office with responsibility for the whole Sweden. Everything developed in the form of products, concepts and system support is based on the experience of local decision making authority with respect to increasing synergy and adding value to customers.

Employment

The 23 independent regional insurance companies handle their human resources issues locally by providing opportunities for development in a wide range of professions. Job seekers can view all the vacant positions through career guide on the website. With the help of the corporate structure of Länsförsäkringar alliance, employees have the access to internal labor market. Besides the facilities for career development, Länsförsäkringar allows invests a lot of time and money in terms of employee training and skill development, including activities such as diploma courses, e-learning and testing. Those training sessions are taken place both locally and through the corporate alliance at Länsförsäkringar AB. In addition, most of the local insurance companies are providing a favorable working conditions and health care to their employees. All these approaches result in making Länsförsäkringar into a strong brand.

Environmental consideration

Länsförsäkringar is working on reducing the effects of damages on environment that have already been taken place. Several means are adopted in order to achieve an environmental friendly image, which are the change of business traveling strategy, insurance products for renewable energy generation, supporting research and spreading knowledge to customers with information regarding the commitment to environmental issue of Länsförsäkringar.

4.1.2 INTERVIEW WITH LÄNSFÖRSÄKRINGAR JÖNKÖPING

This section presents the critical outcomes of the in-depth interview conducted in 30th March, 2012 with the marketing manager at Länsförsäkringar Jönköping. The purpose of the interview was to gain knowledge on business operation with the use of information system as well as CSR activities conducted by the company. The information below are revised and corrected by the respondent, Niclas Beermann.

The information system has been a great help to his daily working process, especially in marketing decisions when he wants to see different target groups. The target group information are collected and organized in a simple but standard format with data in relation to what kind of products they have and what extra products they are likely to purchase. The customer database used in Länsförsäkringar Jönköping is called 'En Kund', in English it means 'One customer'. Customer information is collected by the sellers. When they get a new customer, they put in the information in the database. Regular system updates are taken place every quarter. The aim for the updating is to make sure all the customer information, such as the telephone numbers and the addresses, are accurate. Also, the database is critical when sales people want to get in touch with customers, since the database provides excellent service as well as the most relevant things with every customer. Customers can use e-mail, phone or direct visit if they have any questions or opinions.

In terms of the communication within the company, e-mail is prioritized as the most common channel followed by some other means for instance, direct talking, physical meeting and intranet. *"We use Microsoft Outlook for sending e-mail and we are now introducing SharePoint, another Microsoft system for sharing documents"* said by Niclas. The headquarter in Stockholm send a lot of information via e-mail and they also update information on the intranet. The information on the intranet have a broad range and almost cover all the business aspects such as brand image, statistics about sales, products, business plans, different routines and competitors. As the respondent said: *"Intranet is the most important system for the employees in the group"*. Most of the information on the intranet is open to every employee. But there are parts that are closed to different groups since these are valued locally. The company also utilize some other communication channels, for instance Net-meeting through internet, video meeting with big LED screen and telephone meetings. According to Niclas, *"I think it works really well. If I am going to Stockholm for meeting, it is going to take the whole day but if I sit here it only takes 2 hours"*.

On the other hand, the communication between companies and customers are enhanced. Nowadays, the company communicates with its customers through letters, e-mails, different marketing materials and leaving messages to their personal bank account through the Internet. In addition, Länsförsäkringar Jönköping also collaborates with a research company which conducts research on what the customers' perceptions and attitudes towards the services provided by the firm.

Länsförsäkringar Jönköping has an orientation of relying on people. Employees do not use cards on notifying and supervision. Basically, at the end of the month, employees report on the computer about their working details, on which a system for all the employees and their managers. Besides, there is no job specification thing in the company. The employees schedule their daily work by themselves. *"... it always build on trust. Everyone takes their own responsibilities"*.

Staff training is provided at the beginning of the work, the employees must know how to use different systems that are related to their daily working processes. In addition, there is a labor union within the company where employees can report dissatisfaction.

Länsförsäkringar Jönköping has a relatively good system security level and corporate governance. There are a couple of controllers in the company with the responsibilities of tracking sales figures, cash flow and many other things by using Microsoft Excel. When a product is sold, it is registered in the system automatically. There is no need for manual recording, as people only need to retrieve the figures from the system. This helps preventing human errors and the changes of critical figures on purpose. Furthermore, not every employee has access to all the information. It depends on the role a employee has in the company. There is a controlling system as well. If there are people who should not be in the systems logs in, the system will track him or her.

As to the corporate governance of Länsförsäkringar Jönköping, Niclas illustrated as “... *for every 2000 customers, there is one representative. There are about 40 people in total and they meet a couple of times a year. Those people choose the board of the company and the boards choose the CEO*”.

4.2 CASE 2: PwC

4.2.1 COMPANY BACKGROUND

PricewaterhouseCoopers, known as the abbreviation PwC, is a global professional service company with its headquarter in London, United Kingdom. It was merged by two large enterprises called Price Waterhouse and Coopers & Lybrand in 1998. These two firms have a long history dating back to 19th century. Measured by the revenues in 2011, it is the largest “big four” accountancy- firm in the world. PwC is also a leading company in both conceptual and practical aspects regarding CSR issues. Every year the firm generates great efforts on the corporate social responsibility development and implementation.

Community

PwC views itself a learning-based enterprise, as it established a systematic educational platform for the employees to participate in different education programmers. These programmers are developed aiming to refresh their professional skills, enhance their personal competencies and increase their knowledge towards specific areas. Every year, more than thousands of PwC employees are sent the campuses like this, which encourages and ensures that the employees making positive contributions to their communities.

Also, realizing the importance of receiving education as human beings, PwC undertakes a program called Educating the Children of Darfur collaborated with United Nations High Commissioner for Refugees. This program allows thousands of homeless children in Darfur to gain the opportunities of attending a fully-functioning primary school.

Environment

PwC also prioritizes the environmental issues as the core guidance during the firm’s operation processes. The principles of their environmental concerns include:

- Measuring, reporting, and continuously lowering down the environmental influence during the business.
- Being efficient with natural resource and prevent waste as more as possible.

- Focusing on minimizing the use of energy by daily business.
- Encouraging the suppliers to use more environmentally friendly materials.

People

In order to enhance the performance and create a corporate culture, PwC engages to build a supportive and diverse working environment to facilitate its employees. As illustrated by PwC's website, "PwC's overall corporate responsibility strategy is the creation of a workplace in which our people treat one another with dignity, fairness, and respect" (PwC, 2012). In order to achieve the high-performance, the company keeps investing in personal training and development. Meanwhile, it encourages the diversity of culture and a flexible working practice. The working environment ensures the employees' health and safety, and by all means to make them be proud of the organization they stay in.

Market Place

As professional advisors, PwC strives to provide services that benefit the society. As PwC engages a large amount of sensitive information regarding markets and business, all the employees in PwC are required to respect and endeavor the highest ethical standards. Also, PwC is working with reducing the risks and protecting its stakeholders, which ensures the interests are addressed.

4.2.2 INTERVIEW WITH PwC

We performed an interview with Frida Wengbrand, who is the approved public accountant in PwC, Jönköping. The working portfolio of Frida is wide, as she works with different companies both within and outside Sweden. During the interview, we discovered that the communication between different business segments and companies are critical for her daily work. Information takes up a large percentage of her working processes. The implementation of information systems facilitates her work in various aspects.

First of all, the utilization of information system changes her working process. During her work, she uses e-mails as the main communication tool between her colleagues and customers. Also, there is an internal software called Same-Time, which allows her to send real-time messages to the co-workers as long as they are on-line.

In the past, when participating in meetings, she always flew all the way to Stockholm or had phone conference. Nowadays, however, phone conferences are still used, but most of the times she preferred video conferences and internet conferences which are more efficient and effective in terms of communication and understanding. It is obvious that those changes reduce costs, time, and energy-usage.

Another change occurs in the storage and manipulation of data. Recently, PwC Sverige begins to use the new platform called My Business, in which the employees can communicate with the clients. All the papers can be uploaded to this platform and shared with the workers and clients, whereas clients only need to login to their accounts. This platform also allows customers give the feedbacks and suggestions to PwC regarding their services. In PwC's intranet, all the personnel related information are collected, includes employment, benefits, salary and holidays.

As for the external information site that deals with information, PwC utilizes Infotorg, Soliditet and PAR. The three softwares together with Lotus Note cover the majority of the

business. From those services, the company is able to retrieve information regarding financial indexes, competitors' information, etc.

It should be noticed that not every client has the access, only the specific client who is in charge of the area is able to see the information, and it is strictly controlled. For example, on the software AURA, where requires access rights for different clients. As a manager, Frida decides which employee is able to see the information.

4.3 SUMMARY OF EMPIRICAL FINDINGS

The table (4-1) below is the summary of empirical findings from the two organizations.

Table 4-1: Summary of Empirical Findings

Company	Information System Utilization Level	Internal Communication	External Communication	Customer Management	Staff Management	System Security
Länsförsäkringar Jönköping	High	Most frequently used: E-mail (Microsoft Outlook) Docutment sharing: Microsoft Sharepoint Phone conference/ Video conference/ Internet conference. Intranet	E-mails, Letters, Internet Personal Bank Account.	Customer Database: 'Ett Kund' Third Party Audit.	Rely on people Labor Union	Controlers Automatic registered. Access Control System
PwC	High (Business Nature: Deals with large amount of paper work)	Main communication tool: E-mail 'Same-Time': real time messages. Phone conference/ Video conference/ Internet conference. Intranet	E-mails 'My Business': messages, documents sharing, feedbacks.	Infotorg , Soliditet & PAR: Lotus Note	Employees take their own responsibilities.	Access Control System: AURA Managers authorize information access power.

5. ANALYSIS

This section will present an analysis of empirical findings against the theoretical framework. The concrete situations in both enterprises will be integrated to the EFQM Excellent Model and work system model.

5.1 CASE 1: LÄNSFÖRSÄKRINGAR JÖNKÖPING

5.1.1 LÄNSFÖRSÄKRINGAR JÖNKÖPING IN WORK SYSTEM FRAMEWORK

The work system framework states that participants, information and technology should be grouped together and acts as a foundation for better achievements in terms of processes and activities carried out in the organization. With superior processes and activities, decent products and services will be provided and high customer satisfaction can be achieved. In addition, an integrated view on information system together with the operation processes within the company is presented as well.

In the case of Länsförsäkringar Jönköping, *participants* are mainly employees who worked in Länsförsäkringar Jönköping and some of the customers since it's a customer owned company. The employees are intensively using information technology for the fact that a lot of paper works are involved. E-mail is prioritized as the most commonly used communication tool. In addition to this, internet conference and video conference are becoming more and more popular nowadays. Nevertheless, the basic face to face communication is still highly adopted within the company. According to the interviewee, it is seen as a valuable way to share feelings, to establish a mood of sociability and to clear lines of communication of emotional blockage among employees. A training session is provided for every new employee in Länsförsäkringar Jönköping in relation to the information system he or she will come across during work. Therefore, employee loyalty and satisfaction are increased.

Länsförsäkringar Jönköping is building on the *environment* of trust and caring. In most of the time, there is no specific work description, but rather employees take their own responsibilities. Employees achieve a sense of belonging and this kind of feeling actually aids them with more efficient and productive working processes. Such a company environment is also a crucial factor in attracting more customers and business elites to contribute the further development of the company.

The *information* in Länsförsäkringar Jönköping contains two types: limited access and non-codified. For the limited access information, a control system is placed in order to make sure the security of critical data. Such a secure system can improve the reliable image of the company from both customer's and employee's viewpoints. Therefore, the overall level of corporate governance in the company can be promoted. Non-codified information is those published on the intranet, company's website and exists in customer database. The different access rights to that information avoid making unnecessary human mistakes by prioritizing the importance of information.

Other information *technology* includes intranet, customer database and on-line service platform. Intranet provides the employees with information in terms of *strategies*, new policies, and business routines and so on. The published strategies are not only focus on business operation, but rather on the alignment and consistent of business and IT. Customer database aids the daily work of salespeople with efficiency and accuracy, which also secure customer satisfaction in an indirect way. The on-line service platform enables the

customers with the ability to give feedbacks towards the services they received. Länsförsäkringar Jönköping also applies an objective way on assessing *customer* satisfaction, which is the introducing of third party.

According to the data we collected in the annual report of Länsförsäkringar Jönköping, customer satisfaction rate and CSR orientation of the company are relatively high in Sweden. Based on the analysis above, Länsförsäkringar Jönköping plays a great amount of emphasis on customer value, customer experience and customer's shared responsibilities, which are the ultimate goals in contributing a well performed work system framework. Information system allows the business operation processes it supports to operate in ways that integrate data, culture, strategy and business value that would have been difficult or impossible.

The figure 5.1 below is part of work system framework with the integration of Länsförsäkringar Jönköping.



Figure 5.1: Länsförsäkringar Jönköping work system model

5.1.2 LÄNSFÖRSÄKRINGAR JÖNKÖPING IN EFQM EXCELLENT MODEL

The *leadership* in Länsförsäkringar Jönköping is mainly reflected on the dissemination of information. As we mentioned above, the face-to-face direct talking still applied in Länsförsäkringar Jönköping as a major communication channel, in the mean time, a modern way of representing leadership happens with the help of information technology. The use of intranet provides the possibility to share latest news, short term goals, *strategies* (integrate information system with business operation processes) and policies with all the employees. Information is directly delivered from top management without unnecessary interpretations that may misconstruction the real meaning. The reliability of the information is achieved in a more effective way.

The *people* in Länsförsäkringar Jönköping are managed in a flexible and trustworthy way. Employees take their own responsibilities in terms of their daily work. In order to use different systems, employee training is provided at the beginning of the work. This is a process of engaging people and position people in the organization. The employees are proud

of being able to use different work systems within the organization. Besides, with the help of information system, complex data or working process can be simplified and superior work efficiency can be realized.

As a banking and insurance company, Länsförsäkringar Jönköping needs to secure their working *process* so as to deliver reliable *products* and *services* to its customers. The protection of critical information is crucial in this sense. The control system applied in Länsförsäkringar Jönköping takes the responsibility to ensure the validity of its processes, products and services.

Employees in Länsförsäkringar Jönköping have a sense of belonging and perceive the effectiveness of the strategy, working process and information delivery with the help of information system.

The secure of customer confidential information and the online feedback approach increase the *customer perceptions* of Länsförsäkringar Jönköping. In addition, the audit by external party is carried out in a regular basis, which assesses the customer experience from an objective perspective with more reliability.

5.1.3 CSR IN LÄNSFÖRSÄKRINGAR JÖNKÖPING

The internal CSR has penetrated into the whole organization at a level up to abstraction. The company strives to create a working environment with respect, trust and caring as well as to make both the employees and customers perceive the same CSR value expressed from the organization. Employees are willing to take initiatives and to take their own responsibilities in term of their daily work. The training session provided to the new staff and the extensive use of information system aid the employees with more efficient, accurate and productive working abilities. In addition to human resources, the use of information system avoids the consuming of paper to some extent, which is quite environmental friendly. Besides, the introduction of internet conference also avoids the travelling consuming in terms of CO₂ emission.

The external CSR is applied in a more practical way. For instance, the on-line service platform for customers, the corporation with local press so as to promote environmental issues, the introduce of third party for objective assessing.

All those activities and approaches contribute the company with a high CSR standard.

5.2 CASE 2: PWC

5.2.1 PWC IN WORK SYSTEM FRAMEWORK

PwC shares some similarities with Länsförsäkringar Jönköping. We found that management, employees and customers are strongly connected with information system, which conduced to the next part analysis (figure 5.2).



FIGURE 5.2: PwC WORK SYSTEM MODEL

As for **customers**, PwC developed the customer based platform called "My Business". It ensures the better communications between customers and the company. As stated earlier, the employees can communicate with the clients. Papers can be uploaded and shared with the workers and clients, whereas as clients, they only need to login to their accounts to acquire the access to the information. This platform also allows customers to give feedbacks and suggestions to PwC regarding their services. This system guarantees customers' confidentiality, and generates high customer satisfactions.

In respect of **processes and activities**, it should be noticed that the daily communications and daily working processes are mainly based on information system, since there is a computer in every employee's office, and they share information online or face to face. Also, they communicate with customers via those information technologies. Another thing that should be stressed on is that the information is strictly controlled. Managers create corporate governance over controlling and directing.

Employees rely highly on information systems as well. They received training the first day they arrive at PwC in respect of IT. By means information system, their working efficiency has dramatically increased. One example of this is that they have internet video meetings nowadays instead of phone meetings or making the flights directly to Stockholm. IS provides time saving, and subsequently generates satisfaction among employees.

The **information** is rigidly controlled in the company. Data, for instance, financial index and secrets stock information from other companies are well protected. Only certain managers or employees can have the access, and they are not allowed to share that information with neither their relatives nor friends. Another information that is important to this company regarding CSR is the feedback from the customers. Those information has great values to the company – it maintains the customers, since customers are one of the biggest assets to a company. Managers also share the instructions and news via information technologies. In PwC's case, it would be the intranet.

PwC is a company with a high standard of IT. The **technology** regarding information systems are well developed. It developed some of them by its own, and buy the IT services from other companies as well. Those technologies include 'Same-Time', 'My-business', windows outlook, Intranet

5.2.2 PwC IN EFQM EXCELLENT MODEL

PwC is working on CSR in different aspects, which includes the utilization of the most advanced technology, the enhancement of communications, customer management and employee management. According to the EFQM Excellence Model, PwC's situation could be concluded as following,

PwC's **leadership** is strongly influenced by information systems according to the data we assembled. The communication between the senior managers and their employees are supported by information systems. As managers, they could use Microsoft Outlook, Microsoft SharePoint and intranet, which dramatically save a lot of efforts compared with the traditional communicative tools such as letters and paper files. Managers only need to make a few clicks on the computers to accomplish their work.

As for **people**, there are many aspects included. Communication is enhanced between people in PwC. Managers needed to travel for a long distance to attend conferences in the past, which resulted in the waste of energy, time and resources. The other choice can be telephone conference, but there is a lack of face to face communication, which is less precise and clear. Misunderstanding and misleading can be generated, and the top managers' guidelines can be mis-interpreted by telephone conferences. Nowadays, internet meetings and video conferences replace the traditional large face to face meetings. Managers' commands are conveyed in a simple but less obscure way. The information flow has been well enhanced by information technology. It could be generalized that the frequent usage of E-mail and Internet increase the use of information systems. Those changes IS has brought to PwC contributes to the **people result**, which is more convenient communications than before, and better information flows between those people.

As stated in the empirical data, **process, products and service** are influenced by PwC as well. Although every client has the access to the intranet, only the specific client can see the information, which is rigidly controlled. Even after printing, only certain staff can collect the prints due to that some of the information is "secret". The **process, products and service result** can be that, since the managers decided the access rights, ensures that the information will not exposed to misuse or stolen. The levels information system corresponding to risks have been reduced to some extent.

5.2.3 CSR IN PwC

The internal CSR dealt with PwC's management with employees and stakeholders. In order to enhance the performance and create a corporate culture, PwC engages to build a supportive and diverse working environment to facilitate its employees. As illustrated by PwC's website, "PwC's overall corporate responsibility strategy is the creation of a workplace in which our people treat one another with dignity, fairness, and respect" (PwC,

2012). In order to achieve the high-performance, the company keeps investing in personal training and development. Meanwhile, it encourages the diversity of culture and flexible working practices. The working environment ensures the employees' health and safety, and by all means to make them be proud of the organization they stay in.

Also, stakeholders' decisions are strongly influenced in a company like PwC, which highly relies on IT, IS will potentially influence the decision-making process. The decisions range from the little ones like meeting plans to big ones like the implementation of a new system, which will affect the overall performance of the company.

The external CSR dealt with customers and public governance. PwC has utilized many measures to satisfy and maintain its customers. For example, they have applied "My Business" for better communications between customers and the company. Customers find it easier to share feedbacks compared with traditional ways. As for public concerns, PwC shows its high concerns to the society, not only environmentally, but also humanly. Those actions create a positive image of PwC, and attract more partners and customers in this case.

6. CONCLUSION

This chapter summarizes and addresses the answers to the research questions presented in the beginning of the thesis.

The conclusion rolls up previous analysis to answer research questions in relation to how does IS influence CSR performance and the functions of IS in managing CSR.

- ***How does IS influence the CSR performance?***

The conducted analysis of empirical data against theory revealed that IS influence the CSR performance in mainly three aspects. First of all, customer is a significant element in CSR concept. The use of IS in both companies assist with the improvement of customer satisfaction. For instance, the customer based communication platform ‘My Business’ in PwC and the personal internet bank page provided by Länsförsäkringar Jönköping ease the communication process and methodize customer documentation management, which dramatically promote the efficiency and effectiveness of customer management.

The use of information system also contributes to employee loyalty and satisfaction of work in both organizations. The introduction of ‘Same-Time’ in PwC makes it possible for employees to experience real time chatting and sharing documents during work. This is a fun way of working that makes employees feel the time spent in office is more enjoyable. Furthermore, internet conferences as a means of long term communication, also provides advantages to employees, such as time saving, effective work and is environmental friendly oriented.

Finally, IS assist the positive performance of corporate governance, which is a crucial aspect of CSR within the organization. Data are registered, stored or generated through information system instead of operation manually. The supervision of critical information through the control system and encryption process raises the corporate governance into a systematic level.

- ***What are the functions of IS in the management of CSR?***

The functions of IS can be concluded in the following ways,

- The assistance of customer relationship management
- The assistance of information management
- The assistance of monitoring daily affairs
- The assistance of corporate governance

First of all, information systems provide a base for the communication between the company and its clients. As concluded above, different softwares and platforms such as emails have accelerated the information exchange frequency between the two counterparts, which effectively prevent misunderstanding as well as reduce costs and time.

Not only customer’s information can be stored automatically in the database in case of retrieving and using, customer’s feedbacks can be assembled in a far more convenient way than before. This part will also relate to the second point, the assistance of information management. It effectively ensures the information accurately and up-to-date, and also pre-

vents it from being lost or misinterpreted. It includes customer information, financial index, performance indicators, etc. With the guarantee of the necessary information, fluent and timely communication can be ensured. Also, customers can give feedback, complaints and suggestions in real time by means of information system, which no doubt has improved customer satisfactions.

Another function that should be addressed is the monitoring of the daily affairs concerning the employees. Information system creates a platform not only for the communications between managers and employees, but for the managers to communicate with different managers from other branches of the company. This platform reduced the both financial burden of the traditional communication tools and time. Therefore, both the employees and the company itself gain benefits from IS, which enhance the working efficiency and effectiveness, as well as generate satisfaction in the work environment.

The last but not the least function that should be mentioned is the assistance of the corporate governance, since much information is managed by technology and machines. With the help of information system, computers are able to deal with a large amount of data in modern times, which contradict dramatically with the traditional paper-working ways in terms of efficiency and accuracy.

Meanwhile, information system creates the transparency and accuracy of information, since many of them are handled by computers and different softwares instead of doing it manually. It is not only the complement of the working speed, but also that the employees are well-prevented from misuse and stolen of important data and company secrets.

7. DISCUSSION

This section presents research criticism and contributions from the thesis as well as recommendations for further research.

7.1 RESEARCH CRITICISMS

There is a limitation on our empirical findings since only two interviews were performed. Initially, we contacted six companies but due to time and some other constrain, four of the companies dropped out. It would be much more representative if more empirical data are collected in both organizations. The suggested approach could be conducting more interviews with managers in different departments in order to acquire their experience, knowledge and insights towards business operations associated with information system, from which to draw conclusions and to answer our research questions in a better manner.

In addition, some criteria in EFQM excellent model are not taken into account for the analysis of the cases. The reason for this is that as we were investigating the synergies between CSR and IS from managers' perspectives, there are aspects that not could be applied to the specific situation being studied. Therefore, there might be a drawback in terms of the usage of the model.

The reliability of the empirical data is satisfactory since we recorded and transcribed the interviews and sent transcriptions to the interviewees for further correction and revision. Besides, we followed a standard process and replication logic when performing our research. We also utilized different sources of data in order to triangulate the results.

7.2 CONTRIBUTIONS FROM THIS THESIS

We have tried to fill the knowledge gap and we have concluded the functions of IS in the management of CSR based on our case study. This thesis helps to identify the potential benefits on utilizing IS from a more intangible view, which means CSR in this thesis. Besides, the generated results also present the managers a clear view on the synergies between IS and CSR, where IT and business is affecting each other simultaneously.

7.3 FUTURE RESEARCH

The further research regarding IS assisting CSR performance can be expanded in the following aspects:

- The synergies between IS and CSR in different companies within the same industry.
- Based upon the results presented in this thesis, studies towards measurements or improvements of how these two concepts can be further developed.

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APPENDIX

Appendix 1. Preliminary questions for the interviews.

1. Management process

- Could you describe your job responsibility in the company?
- How do you communicate with your colleagues in the company?
- Do you think the usage of information system help you with your daily work? If so, can you list some examples?
- Do you think that introduce of IS has changed the managers' working processes? (Working processes can be: Monitoring or supervising affairs, internet meeting, etc.)
- How does IS assist the disclosure within the company?

2. Overall situation of the information system

- Which business parts that information systems have covered in your company?
- Can you describe in general how information system assists those parts in terms of better business operations and communications?

3. Information management

- What type of software that is responsible for data being collected, stored and managed in the company? (E.g. Data includes customer lists, information about competitors, financial index, etc.)
- What type of software & hardware are supporting this information flow? (eg. The name of the system for Emails, etc.)
- How does the information flow between the external stakeholders and the company? (E.g. It could be the way you collect online feedback from customers, communications with the local community, etc.)
- How does your company prevent the information from misuse, stolen or accidentally deleted?

4. Personal opinions

- Are you satisfied with the current IT system in your company? Are there any risks or disadvantages that you think may exist in the usage of IT according to your company's situation?