Extrinsic or Intrinsic Motivation to Implement a Quality System and The Effect On Customer Satisfaction

- A study of ISO 9000 certified companies

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Abstract

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Introduction: In order to maintain strong relationships with customers, a lot of firms have invested in improving quality; this has led to an increase of quality programs. One of the most prominent quality standards is the ISO 9000 series, however prior research has different views whether or not the standards are beneficial. Two of the areas where disagreement exists regarding ISO 9000, are its effect on customer satisfaction and furthermore how the different motives behind the implementation can affect the outcome of ISO 9000. Hence this paper aimed to seek an explanation between these two matters and fill the research gap, where it was conducted on companies deployed in Sweden.

Purpose: The purpose with this research is to explain how the different motives behind the implementation of ISO 9000 effect customer satisfaction.

Methodology: A quantitative study was performed, with a cross-sectional research approach, where a questionnaire was used to collect the data. This resulted in 102 answers, where the questionnaire was sent out by e-mail to one representative for each firm.

Conclusion: The study concluded that it was no difference between extrinsic and intrinsic motivation to implement ISO 9000 and its effect on perceived quality, perceived value and customer expectations. It was also discovered that those who had the ISO 9000 series performed well with regards to their customer satisfaction.

Keywords: Extrinsic motivation, Intrinsic motivation, Customer satisfaction, Implementation and ISO 9000.
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Niklas Vernersson                        Oskar Stigsson
“No man ever steps in the same river twice, for it's not the same river and he's not the same man.” - Heraclitus, 500 BC
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1. Introduction

The introduction provides the reader with contextual information that is needed when proceeding with the reading of this study. Furthermore, a problem discussion is presented that justifies why this study is needed and what the purpose of the study is.

Due to the technology development and changes of demand, many markets that concern products and services are constantly changing. This has made it challenging for B2B businesses to maintain strong relationship with their suppliers and customers. In order to sustain the relationships, the companies have taken a series of actions, where one of the most prominent has been to adopt quality improvement (Piskar, 2007). A common line of action has been for companies to invest more into creating quality programs, in order to ensure high quality (Bond & Fink, 2003). Due to these developments, a strong increase of certifications of the ISO 9000 series has been seen worldwide, where around one million companies are ISO 9000 certified today (Ebrahimpour et al., 1997; ISO, 2015).

The ISO organization was introduced in 1947, and has since then become more and more internationally accepted among industries and companies. The reason for its introduction was to simplify the international management and integration of industrial benchmarks (Mo & Chan, 1997; ISO, 2015). The ISO certificates are composed into different series, depending on its purpose. These standards are used as guidelines in order for companies to certify that their goods and services provide and meet the customer’s request in terms of quality. Furthermore, the standards ensure that the companies can deliver to these requirements over a longer period of time, and that they continuously improve the current quality (ISO, 2015). This research will focus on the ISO 9000 series, which consists of ISO 9000, ISO 9001, ISO 9004 and ISO 19011 (from here on, ISO 9000 refers to all of these standards), since that series has as of the year 2003 recognized marketing as an important factor in the quality programs (Bond & Fink, 2003).

The development has involved customer satisfaction into the standards (Bond & Fink, 2003). This is of great importance for companies, due to the fact that it drives customer
loyalty, customer retention and gaining new customers from recommendations. Customer satisfaction is constituted by the three antecedents; perceived quality, perceived value and customer expectations (Fornell et al., 1996; Lariviere et al., 2016). In regards to this, there are different motives for why to implement ISO 9000, ranging from external pressure, to aspirations to improve internal processes (Terziovski et al., 1997; Huarng et al., 1999; Woan-Yuh & Ching-I, 2008). These motives can be derived into extrinsic motivation in order to satisfy customer demand or intrinsic motivation to satisfy an inner need (Ryan & Deci, 2000).

1.2 Problem discussion

Whether the ISO 9000 standards are beneficial or not has been frequently discussed, where there are different opinions of its value impact and contribution. The variations in beliefs concerns whether it can impact financial performance, product quality and operational performance (Martínez-Costa & Martínez-Lorente, 2007; Aba & Badar, 2013; Psomas, 2013; Baofeng et al., 2014). In this area it has also been a discussion regarding the motives behind the implementation, and that the motives affect the outcome of ISO 9000, in terms of firm performance and customer satisfaction (Meyer & Rowan, 1977; Briscoe et al., 2005). Thus it should be of interest for companies to understand the motives effect on implementing ISO 9000, since it may affect the firm's business, and furthermore their customer satisfaction (Briscoe et al., 2005; Piskar, 2007).

Research has shown that there is a difference between extrinsic and intrinsic motivated companies when it comes to the work of quality (Gotzamani & Tsiotras, 2002). Where extrinsic motivated companies focus on the value that one can get from an action whereas intrinsic motivated companies focus on the value of the activity (Ryan & Deci). Hence rendering in that companies who does it because of intrinsic motivation puts more effort into quality than extrinsic motivated companies (Gotzamani & Tsiotras, 2002). This also renders in that different motives should have an effect on customer satisfaction. Since perceived quality is a key issue when it comes to establish customer satisfaction but also due to that it can affect the perception of value and customers’ expectation (Anderson et al., 1994; Fornell, 1996; Cronin et al., 2000). This since the orientation of the motivation focuses on different values; depending on if it’s within or
Given the different outcomes seen in the research in this area, it is needed to investigate whether there is a difference in the way the motives behind the implementation can affect the outcome of certified companies’ customer satisfaction. Furthermore, according to Terziovski et al., (1997) it is costly and time consuming for the companies to implement the standards. Investigating this issue could therefore benefit the companies, in terms of clarifying whether or not they should pursue implementation of the standards. Furthermore, what motive that should be most beneficial in regards to customer satisfaction.

1.3 Purpose
The purpose with this research is to explain how the different motives behind the implementation of ISO 9000 effect customer satisfaction.
2. Theory

The theoretical chapter presents previous literature and research, which is examined in order to accumulate knowledge and an understanding of the subjects of customer satisfaction and extrinsic/intrinsic motivation. From the used sources hypotheses are deduced in the next chapter for each concept of the subject and their relation to the subject is presented in a conceptual model.

2.1 Extrinsic and intrinsic motivation

Motivation means to be encouraged to act or to perform an action, hence a person who does not feel a drive to do something is considered to be unmotivated. Thus everyone who is engaged in an interaction with others, or works towards a goal is considered to be motivated (Ryan & Deci, 2000). There are differences in the amount of motivation one has, but also in the orientation of that motivation. The orientation of the motivation derives from why there is a need of the task to be performed. For instance, the reasons to do homework can be due to interest, or to pass an exam. Hence the motivation may be the same, but the underlying focus and orientation of the motivation varies (Ryan & Deci, 2000). The orientation of motivation can be composed into two different groups; intrinsic and extrinsic motivation (Poch & Martin, 2015). These two sets of motivation will be further explained and described in the following part of the theoretical chapter.

There are different motives behind the implementation of ISO, where one motive discovered is market pressure (Terzirovski et al., 1997), which can be connected to the theory of extrinsic motivation. Extrinsic motivation can be defined as the motivation to attain a certain outcome of the needed performance (Poch & Martin, 2015). Hence extrinsic motivation considers the value attained from the activity performed, rather than intrinsic motivation, where it is the activity itself that provides the value. Consequently, extrinsic motivation focuses on goals that exist beyond the activity such as attaining monetary value (Poch & Martin, 2015). Such behaviour is done in order to fulfil an external request, or to gain a reward out of the action taken, which also is known as an externally regulated action. It can also take the shape of being introjected, where the motivation to take action comes from regulations one does not fully accept. Such actions are carried out in order to avoid feelings of guilt, or to achieve self-
enhancements, for instance pride. So the extrinsic motivation has different orientations itself, but nevertheless stems from external factors. In an ISO context, this means that a company will acquire the certification due to objectives outside the activities performed by the certification (Ryan & Deci, 2000).

Intrinsic motivation is explained as the behaviour that is executed out of own awareness; it is the motivation that encourages an actor to do something because of its own reasons, since it satisfies the inner need. It is further described that the intrinsic motivation is truly important in order to improve knowledge and abilities, where the behaviour derives from within the actor, and hence has an essential meaning (Ryan & Deci, 2000). Deci (1971) showed in his research that the intrinsic motivation might diminish if there is an external monetary incentive that is used to reach the wanted results. In an ISO 9000 context, intrinsic motivation can be described as when a firm wants to achieve higher quality because it satisfies the inner need within the organization (Llopis & Tari, 2003). Moreover, Woan-Yuh and Ching-I (2008) emphasizes that managers need to be motivated to be a part of the implementation and underline the reasons and importance for the employees, in order to create intrinsic motivation for them as well, hence contributing to a greater probability of a successful implementation. The intrinsic motivation also contributes to that companies in a greater extent connect the firm’s goals with the implementation, which provides a stronger probability to a successful implementation (Wiele et al., 2000).

From the information provided above, motivation can be divided into extrinsic motivation, which was measured through introjected regulations and externally regulated actions. Additionally, intrinsic motivation was measured through actions that satisfied the inner need, and improved the abilities of a company.
2.2 Perceived quality

Perceived quality is one of the three cornerstones that affect the overall customer satisfaction, and refers to the market's assessment of previous consumption. Perceived quality signifies two different parts, which is perceived product quality and perceived service quality. These two are of great importance when dealing with customers and their behavioral intentions, where it except from satisfaction also influences the perceived value (Fornell et al., 1996; Andreassen & Lindestad, 1998; Sweeney et al., 1999; Cronin et al., 2000; Bou-Llusar et al., 2001). Furthermore, Kumar and Grisaffe (2004) underline the importance of the customers’ perceptions of quality, since it affects the behavioral intentions regarding a company’s offering. Hence indicating that if customers possess a positive perception regarding total quality, it could imply greater probability to interaction.

Within perceived quality, there is as mentioned above two different dimensions to take into consideration when evaluating the perceived quality. The first dimension to take into account is the perceived product quality, which can be described as the how customers assess a product's brand equity in comparison to competitive substitutes (Aaker, 1991; Beneke et al., 2013). Furthermore, it is stated that customers will not only take product performance into account when evaluating product quality, but also how
well the product corresponds to the manufacturing benchmarks and the qualities recognized within the product (Agarwal & Teas, 2004).

Bei and Chiao (2001) and Yu et al., (2005) agrees with previous authors that perceived quality has a positive impact on customer satisfaction, which indicates that if the perceived quality rises, it has a positive influence on the overall customer satisfaction. However, if the perceived quality is low, this renders in a negative impact. Hence indicating that perceived quality is of great importance when aiming to achieve high customer satisfaction. Rust’s et al., (1999) research shows that companies also should put great effort into reducing risk in regards to errors in production. This was concluded since minimizing the diverging risk when it comes to performance, would also lead to a higher perceived quality and hence a higher customer satisfaction.

Perceived service quality is determined by the consumers’ evaluation of what they expect from a service and what they receive from a service. It is believed that the evaluation is more or less reassessed continuously, making it of great importance for a firm to incessantly work with the service quality in order to remain on top. The perceived service quality is assessed by a set of criterion that in summation are; competence and reliability (Parasuraman et al., 1985). Perceived service quality is known to be an attitude that works like an overall assessment, which takes the criterions mentioned above into consideration and hence influencing the customer satisfaction (Cronin et al., 1992). Lee et al., (2000) strengthens Cronin et al., (1992) study, and further implies that perceived service quality is an antecedent to the satisfaction of customers and that this then influences the purchase intentions of customers (Lee et al., 2000).

Rauyruen and Miller (2007) continues with a similar argument and highlights that a firm should put energy into improving perceived service quality, which then could affect the customer satisfaction positively and thereby also influence the intentions of customers to stay with a firm and their purchase intentions. In relation to this it is also important for a firm to focus on minimizing the risk regarding bad service experiences, due to that it is seemingly natural to generalize a bad experience and hence affect the
perceived service quality negatively, which renders in affecting the customer satisfaction damagingly (Ažman & Gomišček, 2015).

Within perceived quality, behavioural intentions were measured and furthermore perceived quality was divided into service and product quality. This further implied that service quality was measured through competence and reliability, whereas products quality through reduced risk and high quality.

![Perceived quality model](image)

**Figure 2, Perceived quality model, (Own development)**

### 2.3 Perceived Value

According to Landroguez et al., (2013) the perceived value is the subjective view of the value from the customer. Some researchers claim that the perceived value is the differences between price and the quality (Fornell et al., 1996), whereas others acknowledge that it is more complex than price and quality and use the terms of the trade-offs between sacrifices and benefits (Holbrook, 1994; Bolton, 1998; Landroguez et al., 2013).

There is little agreement on how the perceived value is created. The framework created by Holbrook et al., (1999) provides a firm view of the value being cognitive created, whereas other suggests that it is both cognition-based and affection-based (Parry et al., 2012; Chou, 2014). Since the latter suggestions is made in a B2B context, that model for perceiving value will be deployed.
Depending on what industry and type of business the company is engaged in, there are several different models of what constitutes perceived value. Lapierre (2000) suggested a 13 dimensional model of how customer perceived value is derived in the IT-Sector, which was later further elaborated of Parry et al., (2012), whereas Lam et al., (2004) offered another model for services companies. The models vary between context and industries, but it is attempted to outline the commonalities between them to assess the most influential factors. Their models outline two different sets of influential factors to perceived value; product and service quality, where the studies concurred the price, quality of product and service quality to be the most important factors in perceived value (Lapierre, 2000; Lam et al., 2004; Parry et al., 2012).

The definition of perceived value that was used in this paper is; the trade-offs between the benefits obtained and the sacrifices made (Holbrook, 1994; Bolton, 1998; Landroguex et al., 2013). That definition is used to categorize the findings of perceived value with the given factors of price, product quality and service quality (Lapierre, 2000; Lam et al., 2004; Parry et al., 2012). Price is included into sacrifices whereas quality and service into benefits. Such model is also emphasized in Wood and Sheer’s (1996) research regarding the perceived value, where they used obtained benefits and expected cost, as factors influencing perceived value. According to Wood and Sheer (1996) price has three influential factors; the monetary value one has to depart from, performance risk and financial risk. Performance and financial risk thereby refers to the potential failure of the product and the cost connected to that risk.

Given the theoretical contributions, the following factors are outlined to constitute perceived value; benefits and sacrifices in terms of price.

Figure 3, Perceived value model, (Own development)
2.4 Customer expectations

The third cornerstone, which constitutes customer satisfaction, is customer expectations. It is constructed by the whole experience a firm has from prior to the purchase, and the expectations of the supplier’s future ability to deliver to that same standard after a purchase. The prior knowledge is created by both experience of that firm’s prior performance, but also by non-experiential influences such as advertisements and word-of-mouth, which has an impact on how you believe that the firm will perform in the future. Since the expectation works both prior and post-purchase, it has an impact on the cumulative customer satisfaction (Fornell et al., 1996). The expectations concern the quality of the products supplied, where the buying firms creates these expectations of which quality standards that the firm will deliver to (Anderson et al., 1994). The expectations of quality is what the buying company wish for, since it indicates what the customer wants the supplier to offer, rather than what they would offer (Zeithaml et al., 1993).

Anderson and Sullivan (1993) states that there is a paradox concerning the quality where if the expectations are not attained, it influences satisfaction in a greater extent than it does if expectations are surpassed. Hence indicating that if the expectations are not attained, it has a superior impact in a negative way in contrast to if the expectations are exceeded. These expectations have direct impact on satisfaction since if not the anticipated quality is delivered, the buying firm will be dissatisfied (Anderson et al., 1994). The effect on satisfaction is also highlighted by Saklani et al., (2000) who argue that the customers’ expectations will be either positively or negatively disconfirmed.

Given the theoretical contributions the following factors are outlined to constitute customer expectations; prior knowledge of firm’s quality, future expected firm performance, disconfirmation of that expectation.

Figure 4, Customer expectations model, (Own development)
3. Hypotheses and Conceptual model

This chapter provides guidance regarding the three hypotheses of this paper. Furthermore, the conceptual model explains the potential relationship between extrinsic/intrinsic motivation and the three antecedents of customer satisfaction; perceived quality, perceived value and customer expectations.

As mentioned before, there are different motives that drive companies to implement ISO 9000 (Terziiovski et al., 1997). As described in the motivation chapter, the motives behind the implementation can be connected to intrinsic and extrinsic motivation. Examples of extrinsic motivations to implement ISO 9000 seen in research are gaining market advantages (Woan-Yuh & Ching-I, 2008), and market need and customer demand (Jarvis & MacNee, 2011). Where the motives to implement ISO 9000 stem from external factors and hence are driven by extrinsic motivation. Furthermore, intrinsic motivation to implement the standards concerns the company’s enthusiasm to improve internal abilities or improvement of quality (Woan – Yuuh & Ching-I, 2008). This indicates that depending on the orientation of the motivation, different types of motivation are derived. If the motivation is externally created, it is due to reasons outside the organization, and hence connected to extrinsic motivation. If it is created inside the organization, it is intrinsic motivated. Given that the different motives behind the implementation affect the outcome of the application, hypotheses have been deduced from the theories of perceived quality, perceived value and customer expectations. These hypotheses will be described further in this chapter.

**Perceived quality H1**

The perceived quality is the customer’s perception of the firm’s quality in terms of product and service quality. If the customer perceives the quality as low, the customer will be dissatisfied. The following hypothesis is deduced from the theoretical contributions, and given that the different motives behind the ISO 9000 implementation affect customer satisfaction:

- **H1. There is a difference in perceived quality among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.**
Perceived value $H_2$

Perceived value is the customer's obtained benefits minus the sacrifices they have to make in order to obtain that benefit. If the benefits are not equal to the sacrifices, the customer will be dissatisfied, and hence render in lower customer satisfaction. The following hypothesis is deduced from the theoretical contributions, and given that the different motives behind the ISO 9000 implementation affect customer satisfaction:

- $H_2$. There is a difference in perceived value among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

Customer expectations $H_3$

The literature shows that the customers’ expectations regarding the quality, the firm’s future performance and the disconfirmation of those expectations will render in customer satisfaction. Due to that if the expectations are not reached, the customers will be dissatisfied. The following hypothesis is deduced from the theoretical contributions, and given that the different motives behind the ISO 9000 implementation affect customer satisfaction:

- $H_3$. There is a difference in customer expectation among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

The figure below is the conceptual model of this paper, which shows the motives to implement ISO 9000 and its possible effect on the three antecedents. The model represents the three hypotheses and furthermore the three antecedents of customer satisfaction that the motivation can effect.
Figure 5, Conceptual model, (Own development)
4. Methodology

This chapter will guide the reader through the choices that has been made throughout this study, and which tools that has been used in order to carry out the data collection and data analysis.

4.1 Research approach

In research it is important to decide upon which research approach that the researchers will make use of. Since that choice will affect later outcomes of the methodology and its line of actions. The researchers must also take the purpose of the study into considerations and make sure that the chosen research approach is the most beneficial in terms of providing tools and data to fulfil the purpose (Bryman & Bell, 2011). Hence this methodology chapter provides information about different objectives and justifications of the line of actions.

4.1.1 Inductive vs. Deductive research

According to Adams (2007) there are two common types of thinking with regards to scientific studies, and they are deductivism and inductivism. The two approaches are not completely opposite, but rather tend to a complement one another. However, research has to choose or swap between the two approaches when it comes to conducting academic research.

The inductive research approach has its foundation in the verification of the universal conclusions drawn from observations made of the researcher. The researcher seeks to confirm this conclusion through the empirical data (Adams, 2007). Thus, inductive reasoning is an exploratory approach to research where theory is generated through research rather than having it as its foundation. Hence the theoretical implication is rather limited or unclear where inductive studies provide interesting empirical generalization. The inductive line of reasoning is usually linked with qualitative research where the strategy of that approach is to connect data to theory (Bryman & Bell, 2011). Furthermore, the observations made in the data collection can detect pattern or tendencies of the variable(s) at issue, where this then can be linked to theory and create an explanation of the nature of that variable(s) (Adams, 2007). Typically, an
Inductive research starts off with the identification of a problem. After that, the researcher creates research questions connected to the problem, which is used to collect data. Ultimately, this renders in a development of a theory of the issue at hand that is displayed in the chapter for findings (Bryman & Bell, 2011).

Inductive research is generally associated with qualitative research whereas quantitative research is more connected with the deductive line of reasoning (Bryman & Bell, 2011). Compared to inductive reasoning, a deductive has a more direct process of what to do and base the conclusion of a systematic system of logic (Shepherd & Sutcliff, 2011). The deductive research process starts with the formulating of hypotheses, which are constructed from theories. Thus, the hypotheses must be derived from theories that can be tested and also is appropriate to the hypotheses at hand. This is the process where the theory, which the hypotheses is made of, is used to create an operationalization, which then enables the researchers to test and measure the concepts (Bryman & Bell, 2011). The hypotheses are then tested through data enquiry where the hypotheses may be confirmed or rejected (Adams, 2007; Bryman & Bell, 2011). Therefore, the deductive reasoning can be seen as moving from a general case to case specific (Adams, 2007).

This study has made use of existing literature and theories to deduce hypotheses of the topic of interest. Furthermore, the theories were used to operationalize the concepts to enable the research to measure and test the concept at issue. Given the starting point of the research of existing theories, or what already is known, this research deployed a deductive approach of reasoning.

**4.1.2 Qualitative vs. Quantitative research**

In research, there are two main approaches, quantitative and qualitative research. The choice between these two will affect the research, and how researchers choose to perform and conduct data collection (Bryman & Bell, 2011). Moreover, since there are distinct differences between the two approaches, it is important on beforehand to choose which one to apply. As it will affect the depth and collection of data as well as the catchment area regarding the research (Bryman & Bell, 2011).
A qualitative research is focusing more on words and the rich and deep data, which aims to generate knowledge of how to understand the underlying meanings of the subject studied. Furthermore, the objective within qualitative research is to generate new theory and concepts that emerges from the observations made. To access and reach this knowledge it is preferable to use open-ended questions when conducting the data, since this enables researchers to dig deeper. The qualitative research is also known to be more flexible when conducting data than the quantitative research, where researchers have the possibility to adjust and add questions while they are conducting the data (Bryman & Bell, 2011; Creswell, 2013). Qualitative research has become more and more popular since the mid 20th century. Although it is accused of being too subjective when interpreting and analysing data and furthermore being too narrow, which makes it hard to generalize the results (Abusabha & Woelfel, 2003; Creswell, 2013).

Quantitative research is known for testing theories and trying to explain what is being investigated, where it is applied in a deductive way to examine the correlation and relationship between variables (Bryman & Bell, 2011; Creswell, 2013; McCusker & Gunaydin, 2015). It is focusing on numerical data and variables that can be measured and its aim is to generalize result on a bigger population and preferably on other samples. It is within quantitative research, a large focus on the validity and reliability of a research, referring to how the research has been conducted and if it possible to replicate the study and reach the same result. A high validity and reliability is always to strive after and hence implying that it is more likely to be generalizable (Abusabha & Woelfel, 2003; Bryman & Bell 2011; Creswell, 2013).

The numerical data in a raw format, before it has been elaborated and analysed, is rather abstract and furthermore incomprehensive. Therefore, it needs to be processed in order to be useable for the researchers. In order to analyse the data, one can make use of two different ways (Adams, 2007; Saunders et al., 2009). The first one is to analyse the data by hand, which is both time consuming and old fashioned, whereas the other way is to use analytical tools such as SPSS and Excel, which is highly accurate and less time consuming. The goal with quantitative data is to find relationships and patterns between variables, which then are presented through different charts or diagrams that make the data understandable (Adams, 2007; Saunders et al., 2009). Quantitative research is
known to have an objective approach to the research where the end result is recognized through hard and reliable data (Abusabha & Woelfel, 2003; Bryman & Bell, 2011). It is furthermore recognized as a method, which is less time consuming and cheap in opposite to the qualitative research, which as mentioned before focus on deep and rich data derived from words and understanding the underlying meaning (Bryman & Bell, 2011; McCusker & Gunaydin, 2015).

Since this research made use of hypotheses testing and aimed to see how different motives behind the implementation affected customer satisfaction, which refers to the connection between independent and dependent variables, a quantitative research was applied (Bryman & Bell, 2011).

4.2 Research design

When conducting a study, it is important to apply a research design, which functions as a general plan in order to connect the discussed theoretical problem with the practical problem. When choosing the research design, it is important to think through one’s alternatives and consider the limitations of the research. This is in regards to money, time and abilities of the researchers in order to maximize the research. There are three different research designs, which are known as descriptive, exploratory and causal/explanatory research design (Ghauri & Grønhaug, 2005). Descriptive research is explained as having a problem, which is well structured and tacit. Furthermore, the design is known to navigate the researchers with order, clear rules and techniques and aims to come up with a result, which clarifies the question of what is (DE Vaus 2001; DE Vaus 2002; Ghauri & Grønhaug, 2005).

When it comes to exploratory research, it is foremost used when there is a problem within research that is poorly comprehended. That is, there is a need to explore the problem. This is furthermore best applied in a qualitative research since exploratory research is more known for bringing new theory to the world of research, than examining already existing theory. Exploratory research is also known to be unstructured and also more flexible in contrast to the other research designs (Ghauri & Grønhaug, 2005; Bryman & Bell, 2011).
The last research design is known as explanatory or causal research, which refers to the problem and that it most often tackles a “cause and effect problem” (Ghauri & Grønhaug, 2005 p. 59). Within explanatory research the aim is to find patterns within the data and furthermore it focuses on why and to try to explain if one variable affects another and to what degree. When taking on the mission of tracking patterns and recognizing if the variables effect one another, it is of great importance that the researchers are confident in that it is the chosen independent variables that actually affect the dependent variable (DE Vaus, 2001; DE Vaus, 2002; Ghauri & Grønhaug, 2005; Saunders et al., 2009). In this research an explanatory research design was applied since the purpose was to see if the motives behind the implementation affect customer satisfaction, hence to see if independent variables affect the dependent variable or as stated in research terms, if X creates Y (DE Vaus, 2002).

Within these three categories of design, there are five different research designs that are most commonly used, and they are known as experimental, cross-sectional, longitudinal, case study and comparative research design (Bryman & Bell, 2011). Experimental design refers to when researchers conduct a research that is as the name implies, experimental. A field experiment is a rather unusual way to conduct one’s research. This since there are problems of reaching the control that is necessary when managing business research and the dynamic behaviour of companies. However, when researchers succeed with an experimental research, this often results in that the research work as a measure or ideal for research that are non-experimental. This is due to that the criterion regarding business research is considered strong and trustworthy (Ghauri & Grønhaug, 2005; Bryman & Bell, 2011; Creswell, 2013).

The longitudinal research is often employed in order to recognize change within research and organizations, where it scrutinizes data and information over time, which implies at least two times. Since data are collected over time, it is important that the sample is the same or similar to the one’s before in order to make the data valid and to be able to come up with a result that contributes to both theory and reality (Menard, 2002; Bryman & Bell, 2011).
The research design, which focuses on cases and on contemporary events, is known as case study. When conducting a case study researchers focus on digging deep into the event, which often is connected to real-life events that for example could focus on a location or an organization (Bryman & Bell, 2011; Yin, 2014;). When comparing different cases, it is called a comparative study since the purpose is to compare different events (Bryman & Bell, 2011). Comparative studies have increased in regards to interest the last decade and it may depend on that it is applicable on both quantitative as well as qualitative researches. Furthermore, it is often entitled cross-cultural and/or cross-national comparative design. This derives from that the design if often applied when researchers compare different countries, nationalities and cultures (Hakim, 2000; Bryman & Bell, 2011).

Cross-sectional research design is the fifth and last design and is often recognized when using questionnaires and moreover quantitative research. It enables researchers to conduct and measure variables on several events during one occasion, hence timesaving compared to longitudinal when it is conducted over a period of time. Most often when using this design, researchers are able to test several variables and then identify eventual patterns, which contributes to see relationships and how variables affect each other (Ghauri & Grønhaug, 2005; Bryman & Bell, 2011. This research made use of a cross-sectional research design, where a questionnaire was used and data were collected during one occasion and through several companies. Furthermore, a cross-sectional research design was used since there was an aspect of time-limitation to take into consideration, where a cross-sectional design simplified the data collection. This design also made it possible to detect patterns in regards to the motives effect on customer satisfaction.

4.3 Data sources
When collecting empirical data there are two approaches that could be used, either primary or secondary data. Depending on what type of research that will be deployed, the researchers has to consider which of the type that will be used. This since they differ in their characteristics, which will influence the research (Bryman & Bell, 2011). However, it is possible to combine the two approaches and sometimes also a necessity (Saunders et al., 2009).
Primary data can be explained as data that the research assembles at first hand; therefore, the researchers can control the collection of data (Rabianski, 2003; Saunders et al., 2009). The procedure of collecting primary data can differ where methods such as observation, questionnaires, focus groups and interviews can be deployed (Rabianski, 2003; Adams, 2007; Bryman & Bell, 2011). The advantage with primary data is that you can get access to information, which are not available in secondary sources. Moreover, it allows the researcher to assess information that is in line with the purpose of the study (Ghauri & Grønhaug, 2005). However, primary data collection does take long time, it is costly for the researcher and are dependent of the support of the participants (Ghauri & Grønhaug, 2005; Saunders et al., 2009).

Secondary data on the other hand can be defined as information that is not collected by the researcher. It can be found in existing sources, which is constituted of primary data compiled by someone else (Rabianski, 2003). Secondary data consists of published and unpublished works and can for example be existing research, articles and journals (Rabianski, 2003; Saunders et al., 2009). Even though that secondary data has been compiled by someone else for their own purposes it can be of use and relevance to one’s own study (Rabianski, 2003). Secondary data can be accessed through a variety of institutions and organizations, such as government owned institutions or organizations and companies. There is a great amount of secondary data that can be accessed through the use of Internet and specific databases (Saunders et al., 2009). The advantages with using secondary data are that it is time and resources saving. It can also suggest appropriate methods for how to collect the research primary data. Moreover, it gives the research a point of references to one’s collected primary data (Ghauri & Grønhaug, 2005). However, the researchers have to consider if the data fits with the study that will be conducted since the secondary data may be gathered for other purposes than one’s own (Suanders et al., 2009).

Since there is a lack of secondary data in the area that this research focus on, primary data has been used in order to collect the data needed to answer the purpose. It was done with the use of a questionnaire, a method mentioned by Rabianski, (2003); Adams (2007); Bryman and Bell (2011) to be a way to attain primary data. Nevertheless, secondary data was used in order to collect accurate theories and get an overview of the
research subject. Which is in line with what Rabianski (2003) mentions about secondary data and its relevance to other research. The information was mainly gathered from articles available on different Internet based data sources as well as some books. This allowed the researchers to establish a thorough theoretical chapter from which hypothesis was deduced and a conceptual model interlinking the concept was created.

4.4 Data collection method
According to Bryman and Bell (2011) one needs to assemble and analyse empirical data to be able to draw conclusions of the issue at hand. There are several different data collection methods that one can use. Where it is important to consider which of the methods that fits the type of study that will be conducted. The researchers must also consider what kind of data that is needed to ensure the answer to the problem (Ghauri & Grønhaug, 2005).

The chosen data collection method used is a self-completion questionnaire, which was sent by email to the sample at interest for the research. The usage of email is a common way for gathering data within the research field, seen in the studies of Huarng et al., (1999), Briscoe et al., (2005) and Yaya et al., (2014). The usage of emails is also to prefer when the sample is spread over a large area (Suanders et al., 2009). Which also was the case with this study. The use of a questionnaire and a cross-sectional design to gather the data moreover fitted the study since the purpose is of an explanatory nature. The use of a self-completion questionnaire can also render in a larger answer ratio since the respondents are anonymous (Saunders et al., 2009). The design of using a questionnaire at a single point of time enabled the research to gather data regarding the variables at that time. Given the time constraint, this approach allowed the study to gather enough data to detect patterns of how the motives behind ISO 9000 effect customer satisfaction.

4.5 Data collection instrument
A questionnaire or survey is an efficient way to collect data regarding attitudes, opinions and cause-and effect relationships (Ghauri & Grønhaug, 2005). A self-administered or self-completion questionnaire is a type of questionnaire where the
respondents answer the questionnaire themselves (Bryman & Bell, 2011). The questionnaires are generally distributed by post or email, where e-surveys have become more used since it is convenient and feasible (Adams, 2007). Due to that the respondents have to answer the questions themselves, the questions has to be easy to follow and easily interpreted in order for the respondents to answer. It is also important to consider the length of the questionnaire since there is a risk that the respondents get tired of too many questions (Dillman, 2007; Bryman & Bell, 2011). The questions should strive to be as accurate as possible, so the questions asked will receive the answers needed to measure the distribution of the population (Dillman, 2007). Moreover, the questions in a self-completion questionnaire should be closed with a set of alternatives for the respondent to choose from (Adams, 2007). The scale of the data collection instrument was a likert scale where one can measure the attitudes towards the subject at issue. The scale ranges from strongly disagree to strongly agree to the statement given. The type of scale is preferable for e-surveys since it is easy to interpret how the respondent should use the scale (Malhotra, 2003). Besides the questions with likert scale, the questionnaire was also designed with two control questions to make sure that the respondents were eligible to answer and provide relevant information.

4.5.1 Operationalization and measurement of variables
An operationalization is applied and used because it helps researchers to connect theory with measurements, hence clarifying how a concept can be measured. Moreover, it is important that researchers clearly motivate how theory is deduced and interpreted in order to make the operationalization valid (Bryman & Bell, 2011). Operationalization is also implemented in order to strengthen the reliability of the study and thus the replicability. The operationalization that was established in this thesis first reviews the theoretical concept, which then was subverted into measurement, measurement items, questions and measurement scale. This was done in order to clarify how the theoretical concepts were measured and deduced. Furthermore, to indicate what each question was measuring.
<table>
<thead>
<tr>
<th>Theoretical concept</th>
<th>Measurement</th>
<th>Measurement items</th>
<th>Questions on questionnaire</th>
<th>Measurement scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>• Intrinsic motivation</td>
<td>• Improve abilities</td>
<td>• Why did you implement ISO 9000?</td>
<td>1. Improvement of abilities 2. Need for improvement of quality</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>• Perceived service quality</td>
<td>Reliability</td>
<td>I believe that our customers perceive our firm as reliable.</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>• Perceived service quality</td>
<td>Competence</td>
<td>I believe that our customers perceive that we as a firm can offer higher competence</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>• Perceived product quality</td>
<td>Product quality</td>
<td>I believe that our customers perceive our products of high quality</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>• Perceived product quality</td>
<td>Product quality</td>
<td>I believe that our customers perceive that we have low risk in regards to errors in production</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>• Total quality</td>
<td>Behavioural intentions</td>
<td>Our customers purchase our products on a regular basis.</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived value</td>
<td>• Benefits obtained</td>
<td>Product quality</td>
<td>Our products are of high quality.</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived value</td>
<td>• Benefits obtained</td>
<td>Service quality</td>
<td>The additional services provided are of high value.</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived value</td>
<td>• Sacrifices</td>
<td>Price</td>
<td>The price paid for the overall benefits (products and</td>
<td>1= Strongly disagree 3= neutral 5= strongly agree</td>
</tr>
<tr>
<td>Perceived value</td>
<td>Sacrifices</td>
<td>Performance risk</td>
<td>Our customers have no doubts about our products performance</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------</td>
<td>------------------</td>
<td>------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Perceived value</td>
<td>Sacrifices</td>
<td>Financial risk</td>
<td>Our customers expect lower maintenance cost from purchasing our products.</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>Expectations</td>
<td>Prior knowledge</td>
<td>Our customers expect a certain standard of our products.</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>Expectations</td>
<td>Prior knowledge</td>
<td>Our customers know what quality they can expect from our products.</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>Expectations</td>
<td>Future performance</td>
<td>Our customers expect that we always deliver to the same standards.</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>Expectations</td>
<td>Future performance</td>
<td>Our customers expect that we have the ability to deliver to the same standard in the future.</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>Disconfirm of expectations</td>
<td>Negative/positive disconfirmation</td>
<td>We reach the expectations that our customers have about our products.</td>
<td>1= Strongly disagree 3= neutral 5=strongly agree</td>
</tr>
</tbody>
</table>

*Table 1, Operationalization*
4.5.2 Interview guide/ questionnaire design

There is a well-known risk when it comes to a self-completion questionnaire, which regards to few responses (Bryman & Bell, 2011). Action were taken in order to try to counteract this eventual problem, where appearance, language and interpretation where taken into consideration. Bryman & Bell (2011) states that a layout, which is perceived as attractive, is more likely to increase the response rate and hence bring more validity to the paper. In order to provide relevant data, it is furthermore important that the respondents of the questionnaire understand and interpret the questions right and also that they have the knowledge needed in order to provide significant data (Rog & Bickman, 2009). With regards to this and to increase the probability that the respondents understood the questions properly, the questionnaire was translated into Swedish, since the companies was deployed in Sweden. The researchers made the translation, where the goal was to translate the questions as accurate as possible to make sure that they still were able to connect to theory and fulfil their purpose. Furthermore, the researchers strived to formulate the questions in an easy way so there would not be any misunderstandings that would affect the result. To see if it was relevant questions and measures, the researchers took help from experts within ISO certifications – Jan Lenning, Henrik Anderberg and Joakim Stigsson where experts are known as “people who have worked or are currently working on the phenomenon that is being studied.” (Aaker et al., 2011, p. 265). Also in accordance with these experts, a proper amount of statements was applied in order to maximize the responses, where the respondents would not perceive the questionnaire as too long.

Another tool that was used in order to capture the thoughts of the respondents was the likert scale and five categories which was rated from strongly disagree to strongly agree, since it is the scale that is most easily interpreted by respondents (Aaker et al., 2011).

The researchers also chose to send out the questionnaire online, since it still allows high quality, is cheap and it is easy to reach many potential respondents. This furthermore contributes to an unbiased situation where the researchers cannot affect the respondents. However, there are some downsides with online questionnaires, for example that it may be hard to gather enough responses, which would affect the validity and reliability of
Although, since this was of the researchers’ knowledge, it was decided to send out a superior amount of questionnaires in comparison to the response needed (Aaker et al., 2011). The questionnaire can be seen as a whole in appendix 1.

4.5.3 Pre-testing

It is preferred that researchers’ pre-test a questionnaire before sending it to the potential respondents. This is desired in order to see if the questions are of good quality and interpreted in the right way, furthermore to see if the questionnaire as an instrument works as supposed (Bryman & Bell, 2011). It is also preferred to carry out a pre-test in order to reach more accurate results. This is argued since if the respondents interpret the questions in the right way, it is a greater possibility that they contribute with data that are of greater quality. Additionally, creating a questionnaire that is easy to understand, hence referring to that questions is asked in the right order and easy to understand, would increase the likeliness to amplify the response rate. A pre-test is also performed in order to appraise the validity and reliability of the questionnaire (Synodinos, 2003; Ghauri & Grønhaug, 2005).

To increase the validity and reliability of this thesis, pre-testing was utilized in order to see if the questions were interpreted and measured in the right way. Furthermore, it was used to construct a questionnaire that raised the probability of a high response rate. The pre-test was executed and tested on Michaela Sandell, university teacher and mentor to this thesis. Furthermore, Jan Lenning who is working for SONY Mobile Communications as global responsible for their external audit programs and moreover as doctoral student in Technology Management and Economics at Chalmers University of Technology. The third person that reviewed the questionnaire was Henrik Anderberg who works as a marketing manager at TÜV Nord Sweden and deals with certifications and especially ISO 9001 on a daily basis. Lastly Joakim Stigsson who works as a marketing manager at Ezze AB, and whose company is ISO 9000 certified, reviewed the questionnaire and provided feedback to the researchers.

The feedback that the researchers received, concerned the amount of questions that would be asked, language mistakes, and theoretical guidance. Furthermore, the structure of the questions was revised in order to provide a better flow and understanding.
4.6 Sampling

The main goal with marketing research is to gather information regarding certain characteristics of a population; this can be achieved through the use of a sample. A sample is a subdivision of the population that represent the population is terms of given characteristics (Malhotra, 2003). Therefore, the researchers choose a sample of the population that is of interest to the research (Suanders et al., 2009). It is also not uncommon to use a census, which is the sum of all the elements existing in a population. However, it is preferable to use a sample during certain conditions such as time and cost constraints, and whether one will give attention to individuals in the research. A sample also possesses lower risk of variances in their characteristics (Malhotra, 2003). Furthermore, it is of outmost importance and the researcher’s responsibility to use a sample that is compatible with the study conducted. If not, the conclusions drawn would not be applicable to the population (Bryman & Bell, 2011).

When sampling the population there are two techniques that can be used; probability and non-probability sampling (Ghauri & Grønhaug, 2005). A probability sample is characterized by that every unit in the population has a given chance to be included in the sample. This is contrary to non-probability sample where certain units in the population have a larger likelihood to be chosen than others. A probability sample allows the researchers to do a statistical conclusion of the population whereas in a non-probability sample the conclusion may not be representative to the population (Ghauri & Grønhaug, 2005). However, sometimes it is necessary to use a non-probability sample where there are difficulties to sample the population. It is also common to use a non-probability sample when investigating organizations/companies, where one individual of the organisation/company acts as a representative (Bryman & Bell, 2011). When using a probability sample, the sample can be chosen out of different aspects of the company such as industry, production process, size, sales and so forth (Forza, 2002). One way to make use of such classification aspects is through a quota sample, which is constructed by two different steps. Firstly, the researcher list specific characteristics, which are representative for the population, these characteristics are given by the judgement of the researcher. Secondly, the researchers set elements that match these characteristics. Which is the used to pick the sample, which will be used (Malhotra, 2003; Aaker et al., 2011).
Given the time and cost constraints, this research applied a sample instead of a census. Furthermore, the target population was all ISO 9000 certified companies. The population included all of the certificates in the ISO 9000 family, ISO 9000, ISO 9001, ISO 9004 and ISO 19011.

The research applied a quota sample where the following elements were outlined to create the quotas: ISO 9000 certified, active in a B2B industry and that the company should be deployed in Sweden. From those aspects, companies were found and selected by the judgment of the researchers. Whereas others were neglected due to that they did not fit the characteristics outlined.

4.6.1 Sampling frame

A sample frame is a range of people that are members of the population at interest, from that range of people a sample can be collected. It can be different lists of the members of the population, which enables the research to choose the participants. The sample frame shall consist of members that possess specific characteristics that are of interest for the research, such as age, gender, previous experiences etc. (Ghauri & Grønhaug, 2005; Suanders et al., 2009; Aaker et al., 2011). Furthermore, the sampling frame should concur with the research question or research objective at hand (Saunders et al., 2009). It is crucial for the research that the sample frame is representative for the population; otherwise the conclusions drawn will not be generalizable to the population (Bryman & Bell, 2011). So when using databases as one’s sampling frame, it is of importance to acknowledge that there might be inconsistencies in that database. It could be incomplete, inaccurate or out-dated information and hence exclude units from the population. Therefore, the researchers have to be aware of these problems if the sample frame is gathered from databases (Saunders et al., 2009). A way to counteract these problems, is that the data collection instruments can include control questions. Such questions can judge whether the respondents possess the right characteristics for the research carried through (Bryman & Bell, 2011).

This research made use of the database available at certifiering.nu where all companies deployed in Sweden that have any kind of certification are available. The website collaborates with all the certification institutes in Sweden to collect the information to
their database. Their database is updated every 24 hours to be as current as possible, which hinders the database to be inaccurate, inconsistent and out-dated (Certifiering.nu, 2016). From that database it was possible to access the specific sampling frame at issue, all ISO 9000 certified companies that are deployed in Sweden and active in a B2B context. From there the researchers got accesses to the people that can represent the companies in terms of knowledge of quality and their customer’s satisfaction. In Sweden there are 1591 companies that are certified with one or the whole ISO 9000 series in a B2B industry, which functions as the sample frame. The questionnaire was e-mailed to these individuals, where a total amount of 453 mails were sent out. A control question was deployed in the questionnaire, which asked the respondent to fill in whether they had any or the whole ISO 9000 certificate. This was to ensure that the respondents possessed the right characteristics and were able to represent the population of interest.

4.6.2 Sample selection and data collection procedure

There is no definite answer to how big the sample should be; it all depends on the research and a range of considerations. The researchers have to consider factors such as time, cost and accuracy of the study. However, the larger the sample is the higher the chance that the sample is precise and a lower risk of sampling errors (Bryman & Bell, 2011). Other considerations the researchers have to take into account are the confidence in the data, level of margin of error, analysis methods and the total amount of the population. Hence, the sample size is determined by a range of considerations but also by calculations (Saunders et al., 2009). Another way to estimate the minimum level of participants is by the formula N > 50 + 8M. Where N represents the minimum level of participants and M is the amount of independent variables in the study (Carmen et al., 2007). In the case of this study that means that N > 50 + 8*3 gives this research the minimum level of participants of 74 respondents.

Given the time and cost constraints that the research had and the need of accuracy, this study strived for a minimum of 74 respondents. However, the more respondents that answered the questionnaire, the more precise the study would be. Hence a total amount of 453 emails were sent out in order to establish at least 74 answers. This resulted in 102 answers and an answering ratio of 22,5 %.
Furthermore, since this research aimed to explain how motives behind the implementation of ISO 9000 affected perceived quality, perceived value and customer expectations, the questionnaire was sent out to managers to reflect upon their customer satisfaction. However, since companies are able to measure and appreciate their customer satisfaction, this was not regarded as a problem (Bond & fink, 2003; Goncharuk & Monat, 2009; Psomas & Kafetzopoulos; 2014).

4.7 Data analysis method
When analysing the data conducted from the questionnaire there are some different approaches that can be utilized, where this research made us of descriptive statistics, correlation analysis and ANOVA-test

4.7.1 Descriptive statistics
Descriptive statistics is utilized in order to simplify data, where data is briefed and presented in a logical way. It is possibly one of the easier ways to abridge data, where it can summarize a sizeable amount of data into information that is easy to grasp, which describes the essential characteristics (Zikmund et al., 2010). The researchers used descriptive statistics in order to simplify the process and hence it was a tool that simplified the analysis. It was furthermore used on the items regarding if the companies were ISO 9000 certified or not and the motive behind the implementation. Descriptive statistics furthermore provides benefits in terms of that it is possible to show central tendencies and the distribution, which then easily can be presented through for example graphs (Saunders et al., 2009; Zikmund et al., 2010). Moreover, descriptive statistics takes median, mode and mean into consideration. These measures provide value in terms of that it shows the item that is chosen the most, the item that signifies the intermediate value and average value (Saunders et al., 2009). Two other measures that descriptive statistics takes into consideration are skewness and kurtosis (Field, 2009; Hair et al., 2010). Skewness represents and measures the balance in the distribution of data, where one should aim to reach a normal distribution. This is referred to as being within the values of +/- 1, if the value is lower or higher than this the distribution is considered skewed (Field, 2009; Hair et al., 2010). With regard to kurtosis, this is also a
measure that one should seek a normal distribution. Kurtosis works as “measure of the peakedness or flatness of a distribution when compared with a normal distribution” (Hair et al., 2010, p.34). Where normal distribution is considered 0, with the lowest value of -3 and the highest value of +3. If the answers are below or above this they are considered abnormal (DeCarlo, 1997).

4.7.2 Correlation analysis
The use of correlation analysis is viewed as practical within research since it provides tools to detect associations and relations between variables. Correlation analysis does also provide information of how strong the relationship between variables is (Saunders et al., 2009; Zikmund et al., 2010; Bryman & Bell, 2011). Thus it was of importance in this study since researchers needed to see the correlation and how strong it was between the different concepts that were measured. Zikmund et al., (2010) points out that there is a scale from -1.0 to +1.0 to define the relationship. Where -1.0 is identified as a negative relationship, which further is described as perfect in the sense that, as one of the variables rises, the other one goes the other direction, hence a negative relationship. They further describe a positive relationship as when the relationship is +1.0, which also is seen as perfect. This since the variables follows each other’s, if one goes up, the other one follows, and this also indicates that a relationship is strong when it is as close to +1.0 or -1.0. Hence a weak correlation is 0 or close to it, which defines that the variables are close to unrelated (Zikmund et al., 2010). To be able to trust the results, it is emphasised that one should select a p-value, which stands for probability value and this refers to the significance level. The most frequently used p-value is 0.05; this was also used within this research in order to be able to trust the result (Zikmund et al., 2010; Bryman & Bell, 2011).

4.7.3 One-way ANOVA
One-way ANOVA is a statistical instrument that can be used when researchers only have one independent variable to test. This also means that the independent variable can consist of groups within it, i.e. women or men. It is an abbreviation for “analysis of variance” (Zikmund et al., 2010, p. 541) and is furthermore used when researchers want to test hypotheses. The tests purpose is to see whether or not the hypotheses can be
accepted, thus to find out if the variation in means are significant or not, where the p-value works as the target value. In relation to the p-value as was set to 0.05 one can also look at the F-value, which characterizes the differences in the data and between groups. Additionally, one-way ANOVA is used in order to see how an independent variable affects the dependent variables (Saunders et al., 2009; Zikmund et al., 2010).

With regard to this information, one-way ANOVA was applicable on this research since the researchers wanted to see how the independent variable i.e. the two groups extrinsic and intrinsic motivation, affected the dependent variables perceived quality, perceived value and customer expectations. The one-way ANOVA also made it possible to test and answer the hypotheses where the p-value of 0.05 worked as a target value in order to determine whether or not the hypotheses was accepted or not. Further the F-value was set to 3.92 due to the degree of freedom, which was 1 and 120. Another ANOVA test was run for the four different motives, where the critical f-value was 2.68 with 3 and 98 degrees of freedom (Zikmund et al., 2010, p. 643).

4.8 Quality criteria

In quantitative research there are a range of considerations that has to be taken into account in order to make sure a certain level of quality in the gathered empirical material and analysis (Bryman & Bell, 2011). Bryman and Bell (2011) outline three main criterions which can facilitate that the researchers reaches that level of quality and they are; Validity, Reliability and Replicability. All three of these criterions will be discussed, further elaborated and described in how they were ased in this study in order to ensure the level of quality needed for this research.

4.8.1 Validity

Validity concerns the measures accuracy where the accumulated score should represent the concept at hand. Hence the measure should be measuring what it is intended to measure (Zikmund et al., 2010). There are many ways to assess validity where the notion can be divided into three different categories to consider; Content validity, construct validity and criterion validity (Zikmund et al., 2010; Bryman & bell, 2011).
4.8.2 Content validity

Content validity, which is often referred to face validity concerns the opinions of other professionals in the field that the scale used to measure the concept, actually reflects that concept. It can be that the questions asked is logically connected to the concept at hand, or that the statements given are clear and understandable for the respondents as well as for the experts in the field. Therefore, face validity refers to the acceptance of the measurement amongst other experts in the field (Malhotra, 2003; Zikmund et al., 2010; Bryman & Bell, 2011). This research assessed face validity through having Jan Lenning reviewing the operationalization and furthermore the questions which were used in the survey. Given his knowledge in the field of certificates in general and ISO 9000 series specifically, he could see if the questions asked, matched the concepts that were measured. Furthermore, Michaela Sandell who is knowledgeable in the area of relationship marketing reviewed the measurement as well and given the study's B2B nature Henrik Anderberg and Joakim Stigsson also reviewed it.

4.8.3 Construct validity

Construct validity can be the most difficult category of validity to assess. It refers to what the scale/measurement is measuring. If the researchers are able to establish construct validity, the measurement should truly represent the concept of interest. It requires a solid theory chapter where the gathered theories are academic sound of which the measurements can be deduced. Construct validity can be divided into two subgroups; convergent validity and discriminant validity (Malhotra, 2003). Where convergent validity refers to the extent to which the measurements actually relates to the concept, when it is supposed to relate to one another. Whereas discriminant validity refers to the extent to which measurement that are not supposed to related, differ from one another (Malhotra, 2003; Zikmund et al., 2010; Bryman & Bell, 2011). Construct validity were assessed through a literature review of the topic of extrinsic/intrinsic motivation as well as a thorough investigation into what that constitutes customer satisfaction. From theories, hypotheses and questions was deduced. The questions were then operationalized in order to establish concepts, measurements and measurement items. This enabled the research to be certain that the measurement items and the questions were theoretical sound and hence having construct validity. Furthermore, it enables the research to differ from convergent and discriminant validity. Which were
underlined by the theories, which were used to gather the different notions within the concept. Moreover, by using correlation analysis also known as Pearsons R, one can assess how the concepts relate to one another. Which can facilitate to see that the relationship between the convergent/discriminant validity is within accurate length. The highest correlation accepted was 0.8, this due to that if it was higher it would measure the same concept.

4.8.4 Criterion validity
Criterion validity concerns if the measure deployed works as it was intended to. In other words, if the questionnaire used actually performed as it was intended to preform (Zikmund et al., 2010; Bryman & Bell, 2011). Criterion validity can be captured through relating the measurement of the concept at issue with concurrent theories about that same concept (Bryman & Bell, 2011). Criterion validity can be divided into two sets of validity depending on the timeframe; Concurrent and predictive validity. If the measure is taken simultaneously as the criterion variables, it is concurrent validity, whereas if it is used to predict future event it is called predictive validity (Malhotra, 2003; Zikmund et al., 2010). This research acknowledged criterion validity through having measures of the concepts that concurred to already established theories of the concepts. Given the measures theoretical solidity, it can predict how the measure will perform and hence predictive validity was deployed.

4.8.5 Reliability
Reliability refers to the strength of the measurement instrument over time. It indicates the consistency of the measures used, the data gathered and to what extent that the study can be redone or replicated by others (Zikmund et al., 2010; Bryman & Bell, 2011). There are a series of threats to the reliability of the study. Such threats stem from different kinds of errors or biases in the study, which hurts the reliability. It can be participant errors or observer errors, where inconsistencies in the way of answering or in the fashion that the study is conducted will hurt the study’s reliability. Moreover, there can be problems with the participants or observers being bias. Therefore, it is of outmost importance to consider the technique of how to collect data but also by offering the participants to be anonymous (Saunders et al., 2009). One of the most common
ways to test the reliability of the study is by conducting a Cronbach alpha test (Zikmund et al., 2010; Bryman & Bell 2011). In such test the coefficient alpha signifies the internal consistency amongst all the items. It represents if the various items converge or not. The coefficient ranges from 0 to 1 in value, where a 0 signifies that there is no consistency whereas 1 signifies that there is a total consistency. Generally, a value that is below 0.6 is considered as having low consistency (Zikmund et al., 2010). If the individual items are not scaled the same, it is appropriate to use the standardized item alpha instead of the scaled item alpha (Gillem & Gillem, 2003). Reliability was affirmed through having a solid theoretical chapter in which questions that measured the concepts were deduced. In order to avoid biases, the questions were the same to all participants and all of the respondents are anonymous. To ensure the stability of the measurement instrument it was pre-tested by both academics and practitioners to exclude any inconsistencies in the measure. Finally, a Cronbach alpha was carried out in order to establish the reliability of the study.

4.8.6 Replicability

Replicability concerns to which extent that the research can be reproduced, whether others can use the measures in different research (Bryman & Bell, 2011). Hence, if a different research uses the same measure and perform the research in an identical way that should render in the same findings. Thus, the researchers have to disclose how the research process was conducted, the circumstances for the decisions taken and the thinking behind them. Furthermore, all the steps taken from the approach of the research to how the concepts were operationalized has to be apparent in the research (Bryman & Bell, 2011). In order to assess the replicability, all of the steps taken in order to create the study are evident in the methodology chapter. All information that can be of importance in order to reproduce the study, such as the design of the questionnaire, is evident in the text or in the appendix.

4.9 Ethical considerations

When conducting research, one should always be aware of the ethical issues that flourish around business research or any research at all. Awareness of the ethical issues regards to; harm to participants, consent of the participants, privacy, data handling and
The ethical considerations have been established in research in order to secure that research is operated in a moral way. Hence this includes that those participants, who approves to be a part of studies does not get harmed in any way, either physically or mentally. Furthermore, that there is a consent regarding the use of data, and that the participants agreed upon usage of the shared information. This also refers to the part of privacy where researchers should protect both participants and data. Since if there were sensitive data, it would not leak to external actors that may harm participants in one-way or another. Deception denotes that researchers are not fully truthful towards participants when conducting the data, which leads to that that they are not fully aware of their attendance and hence there may be a harm to participants (Berg, 2009; Zikmund et al., 2010; Bryman & Bell, 2011).

The ethical issues have been taken into serious consideration when this research was conducted. Where the researchers made clear what the intensions was, which supports that there was no deception involved. Furthermore, participants of the questionnaire were fully anonymous, where either company or name of the participants was concerned; hence harm to participants in any way was out of the equation. This research also took Tryckfrihetsförordningen (1949:105) rules into regard, which concerns that all participants are anonymous and no names will be presented in the study (Riksdagen, 2016). Also privacy and data management have been carefully managed, where the researchers were the only actor that has reviewed the information gathered.

Regarding consent of the usage of data, the questionnaires were sent out by email, where if the respondents answered the questionnaire, it was reviewed as consent by the researchers. Hence the researchers did not force the participants in any way. Rather it was fully optional and the information were clear regarding what the questionnaire was about and how it would be used in this research. If there were to be any questions regarding the research or the questions asked, e-mail addresses to both of the responsible researchers were provided. This was done in order to secure and deliver awareness to the respondents regarding the purpose with the questionnaire. The questionnaire as a whole can be seen in appendix 1.
Within the ethical considerations, there is not only the factors mentioned above that are important to review. It is also essential to look at the societal issues and how the result of the study is presented and its effect on others. Where it is important that the results cannot be misinterpreted in any way or that potential errors of the research are hidden from the reader (Zikmund et al., 2010). This since misinterpretation or hidden results may cause that the managerial staff of companies base their decisions on false or inaccurate information that could damage the company. Thus it is of importance to indicate and present eventual errors in the limitation of the research (Zikmund et al., 2010).

The societal issues were also important to take into consideration in regard to this research and hence errors that were mad are presented in the limitations and directions for further research.
5. Results

Within this chapter suitable tables are presented in order to describe the results from the studied population, which was calculated through the statistical programme SPSS. Thus the results are presented in terms of descriptive statistics, validity test, reliability test and the ANOVA-test.

5.1 Descriptive statistics

**Why did you choose to implement ISO 9000?**

- Extrinsic: 81 respondents
- Intrinsic: 21 respondents
- Customer demand 61%
- Competitive advantage 20%
- Improvement of abilities 13%
- Need for improvement of quality 6%

*Table 2. Reasons for implementing ISO 9000*

The questionnaire of this research was sent out to 453 managers, who worked at companies that was ISO 9000 certified. Furthermore, the criteria were that those who answered the questionnaire possessed knowledge about ISO 9000, quality and their customers’ satisfaction. This resulted in 102 answers where 81 of the respondents had implemented ISO 9000 because of extrinsic motivation and 21 respondents due to intrinsic motivation. This rendered in a response ratio on 22.5%, where table 2 shows that 45% of the respondents had implemented ISO 9000 because of customer demand and hence external motivation. This was followed by 25% who implemented it since it was perceived as a competitive advantage, which also refers to extrinsic motivation. When it comes to intrinsic motivation and need for improvement of quality and improvement of abilities, the remaining 30% were divided equally into 15% each.
Table 15, which can be found in appendix 2 shows the 15 questions that were asked upon the three concepts; perceived quality, perceived value and customer expectations. Furthermore, it shows what each question measured in relation to theory. The table also present the number of respondents, which as mentioned above was reduced to 102. As the questionnaire was based on a likert scale with the ratio 1 – 5, minimum and maximum represents the lowest/ highest answers on each question of the 102 respondents. The next column is the mean, which represent the average in the answers and this were of advantage when the ANOVA-test was carried out later on. Looking at the last column, it shows the standard deviation for each question, which refers to the degree that each answer diverges from one another.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived quality</td>
<td>3,00</td>
<td>5,00</td>
<td>4,2784</td>
<td>0,45044</td>
<td>-0,232</td>
<td>-0,260</td>
</tr>
<tr>
<td>Perceived value</td>
<td>3,00</td>
<td>5,00</td>
<td>4,1451</td>
<td>0,47023</td>
<td>-0,148</td>
<td>-0,316</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>2,60</td>
<td>5,00</td>
<td>4,5863</td>
<td>0,40026</td>
<td>-1,922</td>
<td>5,436</td>
</tr>
</tbody>
</table>

Table 3, Descriptive table of concepts

N=102

Table 3 showed information for each question, whereas table 3 shows information regarding the concepts as an entirety, hence all questions within each concept. From here on, the computed answers or the entirety was regarded and handle as one single variable for each concept. The variable’s that table 3 are showing are the perceived quality mean, perceived value mean and customer expectations mean. Where minimum and maximum refers to the minimum and maximum mean to each variable and where the mean shows the average answer within each variable. The next column is as about the standard deviation and implies the diversion within each concept and the answers. The last two columns represent the skewness and kurtosis of the distribution that denotes the answers. In order for the answers to be normally distributed the skewness should be between the values of +/- 1.00 and the kurtosis should be between the values of +/- 3.00. As seen in the table all variables except customer expectations is accepted by the target values. The variables are kept due to that the authors tried to lower the skewness and kurtosis by taking away the question that were the most affected by the
high and skewed scores. As well as trying to use a logarithm to get the answers normally distributed. However, the changes did not affect the overall kurtosis and skewness in a large extent and was therefore kept in order to display that the answers for that specific variable is skewed. It can also provide valuable information for the outcome for the ANOVA-test for that variable.

5.2 Reliability test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach alpha</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived quality</td>
<td>0.664</td>
<td>5</td>
</tr>
<tr>
<td>Perceived value</td>
<td>0.599</td>
<td>5</td>
</tr>
<tr>
<td>Customer expectation</td>
<td>0.831</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 4, Cronbach test of the concepts

In order to assess the reliability, a Cronbach alpha was used on the measures, where Cronbach alpha calculates whether the questions measure the same concept or not. All of the alphas displayed in this table are derived from the standardized alpha. This study has made use of a minimum measure of 0.6 for the alpha. As seen in the table both perceived quality and customer expectations surpassed that minimum. However, perceived value yield an alpha that was below the minimum. Nevertheless, since the difference is so small between the minimum level and the accumulated alpha it was accepted by the researchers. The right hand column shows how many items that were included into the different concept.
5.3 Validity test

<table>
<thead>
<tr>
<th>Concept</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived quality 1</td>
<td>1</td>
<td>0.550**</td>
<td>0.276**</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td></td>
<td>0.005</td>
<td>0.005</td>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>Perceived value 2</td>
<td>0.550**</td>
<td>1</td>
<td>0.480**</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>Customer expectations</td>
<td>0.276**</td>
<td>0.480**</td>
<td>1</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td></td>
<td>0.005</td>
<td>0.00</td>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

*Table 5, Pearson R correlation*

The table above shows the result of the correlation test, which were performed on the variables of perceived quality, perceived value, and customer expectations. The test checks the validity of the concept and moreover if they measure the same concept. The test is called Pearson’s correlation, and all of the values are significant at a 0.01 level. The measures of interest is all marked with a **. The maximum acceptable level of correlation was set to 0.8 since otherwise the concepts measured are almost the same. When correlated with itself it yields a full correlation, which can be seen in the diagonal squares of one, which then is not disregarded of the minimum acceptable value. Otherwise all value’s given is accepted. However, all of the concepts are connected to each other and especially perceived quality and perceived value are two interrelated concepts and thus should show some correlation. Which can be seen in the table of 0.550 correlation at the significance level of 0.01. Which indicates that the concepts were measured correctly and none of the measures were measuring the same concept. This in turn rendered in good construct validity for the concept used in this study. The significance level, which is also displayed in the table shows that all of the concept are significant at a 0.01 significance level and hence can be used in the one-way ANOVA test.
5.4 Hypothesis testing

5.4.1 Hypothesis 1

<table>
<thead>
<tr>
<th>Perceived quality</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td>21</td>
<td>4,2381</td>
<td>0,42717</td>
<td>3,60</td>
<td>5,00</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>81</td>
<td>4,2889</td>
<td>0,45826</td>
<td>3,00</td>
<td>5,00</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>4,2784</td>
<td>0,45044</td>
<td>3,00</td>
<td>5,00</td>
</tr>
</tbody>
</table>

Table 6, Descriptive H1

<table>
<thead>
<tr>
<th>Perceived quality</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F- statistics</th>
<th>Significance</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0,043</td>
<td>0,043</td>
<td>0,210</td>
<td>0,647</td>
<td>0,05</td>
</tr>
</tbody>
</table>

Table 7, One-way ANOVA H1

- H1. There is a difference in perceived quality among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

The two tables above represent the results of the one-way ANOVA test that were run for the variable perceived quality. Table 6 is a descriptive table that shows the mean difference between the two groups; intrinsic and extrinsic motivation. It discloses the number of respondents in the two group under N. The table makes a difference between the two groups and the accumulated values and furthermore shows the total score of the variable. Looking at the table shows that there is a small difference between the two groups mean score. Which also can be seen in the table 7, the ANOVA-test. In the table 7 one can see that there is not a significant difference between the two groups at a 0.05 significance level. The yielded significance value is at 0.647 and thus not significant at 0.005 as mentioned. Hence there is not a significant difference in the mean between the extrinsic and intrinsic motivation when it comes to perceived quality. The f-statistic for this variable is at 0.210 where the critical f-value is 3.92. Implying that the test failed to reject the null-hypotheses that there is no difference between the two motives. The means are, however, not exactly equal. Where there is a difference of 0.0508 in mean between the motivations in extrinsic favour. Nevertheless, the difference is in significant. Given the insignificant difference between the two groups H1 is rejected.
5.4.2 Hypothesis 2

<table>
<thead>
<tr>
<th>Perceived value</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td>21</td>
<td>4,1333</td>
<td>0,41150</td>
<td>3,60</td>
<td>4,80</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>81</td>
<td>4,1481</td>
<td>0,48660</td>
<td>3,00</td>
<td>5,00</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>4,7023</td>
<td>0,47023</td>
<td>3,00</td>
<td>5,00</td>
</tr>
</tbody>
</table>

*Table 8, Descriptive H2*

<table>
<thead>
<tr>
<th>Perceived value</th>
<th>Sum of squares</th>
<th>Mean squares</th>
<th>F-statistics</th>
<th>Significance</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0,004</td>
<td>0,004</td>
<td>0,16</td>
<td>0,898</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*Table 9, One-way ANOVA H2*

- H2. There is a difference in perceived value among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

The two tables represent the results of the one-way ANOVA test that were run for the variable perceived value. Table 8 is a descriptive table that shows the mean difference between the two groups; intrinsic and extrinsic motivation. It discloses that the number of respondents in the two group under N. The table makes a difference between the two groups and the accumulated values and furthermore shows the total score of the variable. The mean score shows that there is a small difference between the two motives to implement ISO 9000 in regard to perceived value. Which also is supported in the ANOVA-test where there is no significant difference in mean between the two groups at the given significance level 0.05. The significance at this level for the variable is 0,898, which is above the 0.05 level which hence is not significant. This implies that there is not a statistically difference in the accumulated mean score for extrinsic and intrinsic motivation with regards to perceived value. The f-statistic for this variable is at 0.16 where the critical f-value is 3.92. Implying that the test failed to reject the null-hypotheses that there is no difference between the two motives. With this variable as well there is a small difference in mean score 0.0148 in extrinsic motivations favour. The difference is nonetheless insignificant at the given level of confidence and hence *H2 is rejected*. 
5.4.3 Hypothesis 3

<table>
<thead>
<tr>
<th>Customer expectations</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td>21</td>
<td>4,6095</td>
<td>0,35483</td>
<td>3,80</td>
<td>5,00</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>81</td>
<td>4,5802</td>
<td>0,41304</td>
<td>2,60</td>
<td>5,00</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>4,5863</td>
<td>0,40026</td>
<td>2,60</td>
<td>5,00</td>
</tr>
</tbody>
</table>

Table 10, Descriptive H3

<table>
<thead>
<tr>
<th>One-way ANOVA</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F-statistics</th>
<th>Significance</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0,14</td>
<td>0,14</td>
<td>0,088</td>
<td>0,767</td>
<td>0,005</td>
</tr>
</tbody>
</table>

Table 11, One-way ANOVA H3

- H3. There is a difference in customer expectation among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

The two tables represent the results of the one-way ANOVA test that were run for the variable customer expectation. Table 10 is a descriptive table that shows the mean difference between the two groups; intrinsic and extrinsic motivation. It discloses that the number of respondents in the two group under N. The table makes a difference between the two groups and the accumulated values and furthermore shows the total score of the variable. The mean score shows that there is a small difference between the two motives to implement ISO 9000 in regard to customer expectations. The small difference in mean length is also supported in the ANOVA-test, which shows that there is no significant difference in mean between the two groups at the given significance level at 0.05. The accumulated significance value for the variable is 0.767, which is above the 0.05 level of confidence and is hence not significant. This implies that there is not a statically difference in mean score for extrinsic and intrinsic motivation with regards to customer expectations. The f-statistic for this variable is at 0.088 where the critical f-value is 3.92. Implying that the test failed to reject the null-hypotheses that there is no difference between the two motives. The difference seen in table 10 between
the two groups is 0.0293 in intrinsic favour. The difference is nevertheless insignificant at the given level of confidence and hence $H_3$ is rejected.

5.4.4 Hypotheses results

<table>
<thead>
<tr>
<th>HYPOTHESIS 1</th>
<th>REJECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYPOTHESIS 2</td>
<td>REJECTED</td>
</tr>
<tr>
<td>HYPOTHESIS 3</td>
<td>REJECTED</td>
</tr>
</tbody>
</table>

Table 12, Hypotheses result

Table 12 gives an overview of the three hypotheses that were tested in this study. As discussed and as the table shows all of the hypotheses were rejected after the one-way ANOVA-test at the significance level of 0.05.

The hypotheses were:

$H_1$. There is a difference in perceived quality among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

$H_2$. There is a difference in perceived value among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

$H_3$. There is a difference in customer expectation among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.
### 5.5 Additional findings

<table>
<thead>
<tr>
<th>Concept</th>
<th>Motives</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived quality mean</td>
<td>Customer demand</td>
<td>61</td>
<td>4.2754</td>
<td>0.43843</td>
<td>0.05613</td>
</tr>
<tr>
<td></td>
<td>Competitive advantages</td>
<td>20</td>
<td>4.3200</td>
<td>0.52875</td>
<td>0.11823</td>
</tr>
<tr>
<td></td>
<td>Improvement of abilities</td>
<td>14</td>
<td>4.3000</td>
<td>0.34862</td>
<td>0.09317</td>
</tr>
<tr>
<td></td>
<td>Need for improvement of quality</td>
<td>7</td>
<td>4.1429</td>
<td>0.56231</td>
<td>0.21253</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>102</td>
<td>4.2784</td>
<td>0.45044</td>
<td>0.04460</td>
</tr>
<tr>
<td>Perceived value mean</td>
<td>Customer demand</td>
<td>61</td>
<td>4.1869</td>
<td>0.44999</td>
<td>0.05613</td>
</tr>
<tr>
<td></td>
<td>Competitive advantages</td>
<td>20</td>
<td>4.0100</td>
<td>0.57482</td>
<td>0.12853</td>
</tr>
<tr>
<td></td>
<td>Improvement of abilities</td>
<td>14</td>
<td>4.1571</td>
<td>0.39363</td>
<td>0.10520</td>
</tr>
<tr>
<td></td>
<td>Need for improvement of quality</td>
<td>7</td>
<td>4.1429</td>
<td>0.48599</td>
<td>0.18369</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>102</td>
<td>4.1451</td>
<td>0.47023</td>
<td>0.04656</td>
</tr>
<tr>
<td>Customer expectation mean</td>
<td>Customer demand</td>
<td>61</td>
<td>4.6098</td>
<td>0.33352</td>
<td>0.04270</td>
</tr>
<tr>
<td></td>
<td>Competitive advantages</td>
<td>20</td>
<td>4.4700</td>
<td>0.59921</td>
<td>0.13399</td>
</tr>
<tr>
<td></td>
<td>Improvement of abilities</td>
<td>14</td>
<td>4.6143</td>
<td>0.31831</td>
<td>0.08507</td>
</tr>
<tr>
<td></td>
<td>Need for improvement of quality</td>
<td>7</td>
<td>4.6571</td>
<td>0.41173</td>
<td>0.15562</td>
</tr>
</tbody>
</table>

Table 13, Additional findings motives
<table>
<thead>
<tr>
<th>Variable</th>
<th>Groups</th>
<th>DF</th>
<th>Mean square</th>
<th>F-statistics</th>
<th>Significance</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived quality</strong></td>
<td>Between groups</td>
<td>3</td>
<td>0.057</td>
<td>0.274</td>
<td>0.844</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>98</td>
<td>0.207</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived value</strong></td>
<td>Between groups</td>
<td>3</td>
<td>0.158</td>
<td>0.708</td>
<td>0.550</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>98</td>
<td>0.223</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customer expectations</strong></td>
<td>Between groups</td>
<td>3</td>
<td>0.117</td>
<td>0.723</td>
<td>0.541</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>98</td>
<td>0.162</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>101</td>
<td>0.162</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 14, Additional findings one-way ANOVA*

The two tables represent the descriptive statistics and the ANOVA-test that was run for the four different motives within the extrinsic and intrinsic motivation. The four groups are customer demand, competitive advantages, improvement of abilities and need for improvement of quality (Woan-Yuh & Ching-I 2008; Jarvis & MacNee 2011). Table 13 is a descriptive overview of the mean differences between the four groups. It describes how the companies have answered given their motive for implementation. As the table entails there are small differences in the accumulated mean score on the variables between the four motives. Which also was underlined by the ANOVA-test that were carried out in order to see whether the result was significant or not. Under the row of significance in table 14, it is shown that differences were not statistical significant at the significance level of 0.05. Furthermore, the ANOVA-test failed to reject the null hypotheses that there is no difference between the groups. This since all of the F-
Statistics are lower than the given f-value of 2.68. Additionally, there are substantially different numbers of respondents in the different groups. Where need for improvement of quality has 7 respondents and customer demand has 61 which indicates an unbalance between the groups. The mean score is as mentioned small and not statistically significant. However, the mean score for the groups are not equal for all the variables.
6. Discussion

This chapter presents a discussion regarding the results from the previous section. Where theory is connected to the results, in order to try to explain the outcome of the statistical analysis.

6.1 Hypothesis 1 - Perceived quality

- Hypothesis 1: There is a difference in perceived quality among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

The first hypothesis was rejected since there was not a statistical difference between the two groups of motivation. However, there was a small difference in the respondent’s perceptions of how their customers perceived the variables. As seen in table 6 the firms who had implemented the standards of extrinsic motives scored a little higher mean average on perceived quality. The result is peculiar since it contradicted what Poch and Martin (2015) states regarding extrinsic motivation considering the value attained from the activity rather than the activity itself being the motivation. Since the value attained from increasing quality would be firstly internal, i.e. intrinsic motivated. Hence, it would be expected that intrinsic motivated companies would score higher on the variable of perceived quality. This since intrinsic motivation has it base in satisfying an inner need or by improving one’s abilities (Ryan and Deci, 2000). Furthermore, according to the theory used to explain perceived quality, most work done to establish higher perceived quality is derived from intrinsic motivation. For example, Rust et al., (1999) concludes that companies have to decrease errors in production to achieve higher perceived quality. Such notion can be connected to intrinsic motivation and hence the respondents with extrinsic motives would, according to theory, regard these notions lower and the intrinsic companies higher. Something that was seen in the findings of Gotzamani and Tsiotras (2002), who claims that external motives to acquire the standard does not affect the company’s quality and work with quality. So, the mean difference, which is calculated to 0.0508 in extrinsic motivated companies favour, was not expected. Additionally, a part of perceived quality is service quality, which can be divided into reliability and competence (Parasuraman et al., 1985). Which can be
connected to satisfying an inner need or strengthen the internal abilities. Hence, intrinsic motivated companies, should according to theory, score higher on that variable than extrinsically motivated companies. However, the extrinsic motivated scored a little higher on the perceived quality variable. Nevertheless, the differences were not statistical significant and hence it was failed to rejected the null hypothesis. Indicating that there is no difference between the two motives effect on perceived value.

The result of this variable may be explained due to that the respondents were asked to estimate how their customers perceived these variables. Given that some respondents were extrinsically motivated they would affirm the value attained from the activity, as explained by Poch and Martin (2015). Hence, that would affect how they estimated their customer’s perceptions of these variables. Since then they would regard the value, in this case, the customer’s perceived quality as the value attained from implementing the standards. Which in turn would render in higher customer satisfaction since there is a direct correlation between quality and customer satisfaction (Bei & Chiao, 2001; Yu et al., 2005). This concur with what Ryan and Deci (2000) mentions about extrinsic motivation where one performs a task to gain a reward out of the action taken, in this case customer satisfaction. Furthermore, the high scores on the variable of perceived quality can also be explained by that total quality can render in continuous repurchases of the customer (Lee et al., 2000; Rauyruen & Miller, 2007). Which can as well be connected to the reward that an extrinsic motivated company can attain by implementing the standards. It is worth noting that both sets of motivation scored high on average on this variable, where extrinsic had 4,2889 and intrinsic had 4,2381. Which indicates that intrinsic motivated companies did as well score high on that variable given the minimum and maximum ratio. Hence, their score is according to theory even though extrinsic scored higher than expected.
Hypothesis 2 – Perceived value

> **Hypothesis 2:** There is a difference in perceived value among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation

With regards to H2 and that there is a difference in perceived value among extrinsic and intrinsic motivation to implement ISO 9000 that hypothesis was rejected as well. Hence the test failed to reject the null hypothesis. This was an abnormal finding of this research. This since if one looks to theory offering a higher value would render in satisfying an inner need or improve abilities as given by Ryan and Deci (2000). Therefore, intrinsic motivation should lead to a stronger willingness to get higher perceived value than of extrinsic motivation. Moreover, one of the outlined factors in perceived value is price that were broken down into monetary value, performance- and financial risk (Wood & Sheer, 1996). Rust et al., (1999) states regarding perceived quality, which is part of perceived value, that one should decrease production errors and increase performance. Which also can be connected to what Wood and Sheer (1996) mentions about price and the three factors. Which in turn should be that one should decrease the potential performance and financial risk with the products to increase the perceived value. For an intrinsically motivated company that should be of interest since their urge to improve the abilities or quality would include to decrease the production errors. Furthermore, that would decrease the financial and performance risk of the products. Thus, the company gets the certification to satisfy the inner need or to improve abilities, which renders in a higher perceived value. Nonetheless, the companies that had extrinsic motives had a higher mean score on the subject of perceived value. Where extrinsic motivated companies had 4.1481 compared to intrinsic motivated companies who scored 4.1333.

The explanation for the results may once again be that the extrinsic motivated companies affirmed the value attained from the activity, since that is what motivates them (Poch & Martin, 2015). Due to that and according to theory of extrinsic motivation, those companies consider the reward that is gained by the action taken, in this case the increased value due to the acquirement of the certificate (Ryan & Deci, 2000). That may imply that the extrinsic companies view the reward as the increased value that they can offer the customer, which could affect the price. Since price is
included in perceived value and is relative to the how the customer perceives the value of the offering (Lapierre, 2000; Lam et al., 2004; Parry et al., 2012). Given that the respondent were asked to estimate their customer’s perception of this variable, it is possible that the extrinsic respondent asserted that gained reward into their assessment of the questions. Hence leading to that they may have overestimated their customer perception of this variable. In addition to this, it is worth noting that the Cronbach reliability test that were run for this variable yielded a coefficient of 0.599 which were 0.001 short of the accepted minimum of 0.6 which can be seen in table 4. Moreover, that result was the lowest coefficient for all the variables tested. Which indicate that the reliability of the answers to this variable is accepted but nevertheless low.

**Hypothesis 3 – Customer expectations**

- **Hypothesis 3:** There is a difference in customer expectation among those who had extrinsic motivation to implement ISO 9000 in comparison to intrinsic motivation.

The hypothesis regarding customer expectations, H3, was also rejected by the ANOVA-test. Hence there is not a statistical difference between extrinsic and intrinsic motivation and its effect on customer expectations. In the case of customer expectation, the descriptive statistics showed that there was a mean difference of 0.0293 between the two groups to intrinsic favour. Nevertheless, the difference in mean was not significant even though that customer expectation would be a value attained by implementing ISO 9000 series. This is something that could be of value for an extrinsic motivated firm (Poch & Martin, 2015). Compared to extrinsically motivated companies, intrinsic scored a little higher on the variable customer expectations. Since intrinsic motivation is derived by satisfying an inner need or to improve internal abilities (Ryan and Deci, 2000), the higher mean in customer expectation is peculiar. If a company want to improve the company’s abilities, it would be expected that the company scored higher on perceived quality, H1. Since that, as mentioned above, put emphasis on increasing performance and minimize risk in production in order to strengthen the quality delivered to the customers (Rust et al., 1999). Both motives showed high scores on the variable with extrinsic having a mean score of 4.5802 and intrinsic with 4.6095. So the difference between the two groups is small with a 0.0293 difference in intrinsic favour.
Hence, the motives high scores on this variable indicate that both motives perceive that they can reach and continue deliver to their customers’ expectations.

However, in the descriptive table 3 one can see that the answers given for this variable is not normally distributed, it shows how the skewness is -1.922 and the kurtosis 5.436. The authors tried to log the variable but were unable to get the values within the accepted levels. This indicates that either the sample is not representative for the population or the skewness is too high to be of a coincidence and the population is skewed with regards to customer expectations. This can affect the variances and the hypothesis testing since the data for this variable is not normally distributed (DeCarlo, 1997). Which could be an explanation for why the ANOVA-test did not signify a statistical significant difference between the two groups. Comparing with the Cronbach test seen in table 4 which yielded a value of 0.831, which beats the target value of 0.6 and is hence accepted. Which indicates that it may not be a reliability problem with the answers to this variable. Furthermore, Pearson’s R correlation in table 5 gives the values of 0.276 and 0.480 compared to the other questions. Which indicates that the construct validity is passable since the maximum accepted value was 0.8. Hence the reason for the skewness and kurtosis may not be due to an operationalized error. Even though, it can also be argued that the questions asked was not satisfactory for this variable in order to run an accurate hypothesis test. So, this has to be taken into account in the continuance of this section.

However, if one disregards the potential effect of the skewness and kurtosis the explanation for the results may be found in other factors. One explanation can be that there is no difference between the two motives due to that customer expectation is of interest of both motivations. For extrinsic motivation it can be the reward that is gained by the implementation of the certificate. Which is what drives extrinsic motivation according to Ryan and Deci (2000). Whereas in extrinsic motivation theory it is emphasized that an actor performs the activity due to its essential meaning for the actor. Which can be connected to an inner need or an urge to improve ability and knowledge (Ryan & Deci, 2000). For intrinsic motivation it may be an urge to improve the internal abilities, which can render in reaching the customer’s expectations. Furthermore, Deci (1971) claims that the intrinsic motivation can diminish where an external motive can
be gained by the action and hence becoming an extrinsic motivation. In the case of the insignificant difference between the two groups, this may explain the similarities in mean score between the two groups. Since the motivation may be the same in the case of this variable, even though the initial motivation to get ISO 9000 were different. Lastly, for this variable the respondents were asked to estimate their customer’s perception of customer expectations. Which may imply that the respondents overestimated their customer perception of the variable.

6.2 Discussion of the additional findings
The additional findings for this study were that an ANOVA-test was run for the specific reasons within extrinsic and intrinsic motivation. The reasons for extrinsic were: customer demand and competitive advantage, reasons given by Woan-Yuh and Ching-I (2008), and Jarvis and MacNee (2011) to be primary external motives to acquire ISO 9000. Whereas the intrinsic reasons were: improve abilities and need for improvement of quality, reasons given by Woan-Yuh & Ching-I (2008) to be internal reasons to acquire ISO 9000. These reasons are connected to different orientations with extrinsic and intrinsic motivation. Customer demand is connected to introjected regulation and competitive advantage is connected to external regulations, as described by Ryan and Deci (2000) and Poch and Martin (2015). Whereas improvement of abilities is connected to the urge to improve internal abilities and improvement of quality is connected to satisfy an inner need, as explained by Ryan and Deci (2000). The ANOVA-test did not show that there was a statistical difference between the four reasons to implement the standards as seen in table 14. Hence there is no difference between the four reasons with regards to customer satisfaction as well. However, the descriptive table 13 shows some interesting information. One interesting note is that the extrinsic motivated companies with regards to externally regulated actions, i.e. competitive advantage had the lowest mean score on perceived value. Since the externally regulated company only focus the reward gained by the implementation it was expected that they would score higher on that variable. This was also the case for external regulation when it came to customer expectation which also would be a reward gained. Whereas the companies who had competitive advantage as reason scored the highest mean on perceive quality as seen in table 13. Hence, indicating that the reward given out of customer expectation and perceived value may not be as meaningful as
continuous repurchasing. Another thing worth noting is that the companies that had improvement of quality as reason scored the lowest on perceived quality. Thus, contradicting what Gotzamani and Tsiotras (2002) states regarding companies with internal reasons to have high quality and work with quality. They claim that such companies already have a quality awareness compared to externally motivated companies, something that the data collection for this study does not give support of.
This chapter presents the final outcome and the result of the discussion, where both purpose and research question of this study are answered. Furthermore, theoretical and managerial implications are provided as well as limitations of the study and directions for future research.

It can be concluded that the result did not support the hypotheses regarding that there is a difference between the motives behind the implementation of ISO 9000 and its impact on customer satisfaction. With regards to the purpose, this implies that there is no support from the used sample that the different motives behind the implementation affect customer satisfaction. The explanation of the results can be found in that the companies were asked to estimate their customer’s perception of the tested variables. Nevertheless, given their intrinsic or extrinsic motivation to acquire the standards a different result was expected. Due to that the motivation to implement the ISO certification would render in that they valued the antecedents differently. Which implies that the theories used in this study may not be applicable on the sample used or that the motives affect the antecedents in a similar way with small differences. However, the differences is not statistical significant.

Furthermore, the Pearson’s R and Cronbach test did not show that there was a problem with the construct validity and the reliability of the answers. Except for perceived value that was slightly under what was accepted for the Cronbach test. Hence, there might be another issue that creates the variation of outcomes of the implementation. The explanation may be due to how the underlying motivation to seek the certification affects how the standards were implemented. Given the various results of other studies and the result of this indicate that there might be differences in the manner that the implementation is made. Hence the various outcomes with regards to customer satisfaction seen in the studies by Piskar (2007) and Yaya et al., (2014) can be explained by how the motivation effect the implementation process. Moreover, both motives to implement ISO 9000 scored high on all the variables. None of the motives had a mean score that was lower than 4.0 on a 1-5 scale. This implies that independently of the motive, ISO 9000 seem to render in customer satisfaction. Lastly, small differences between the reasons to implement ISO 9000 could be found in the additional findings.
They suggest that the most important value gained for an externally regulated action is perceived quality, which can be connected to the reward of continuous repurchases of the customers. As well as for the companies that acquired the certificate due to need for improvement of quality that scored the lowest on the variable of perceived quality. Hence, the sample used contradicts that such motivation would render in better quality.

7.1 Theoretical implications
The purpose with this study was to explain how the different motives behind the implementation of ISO 9000 affect customer satisfaction. The reason for conducting this research was established in the introduction chapter where it was concluded that there was a research gap in regards to the motives behind the implementation of ISO 9000 and its effects on customer satisfaction. Hence this study has made a contribution to existing theory within a B2B context of that there are no significant difference between extrinsic and intrinsic motivation behind the implementation and it effects on customer satisfaction on companies deployed in Sweden. Thus, excluding that the motives behind the implementation have different effect on the outcome of customer satisfaction. Indicating that there might be other areas where the motives can affect the ISO 9000. This result was established based on the 102 companies that participated in this study and provided information regarding their motivation for implementation. Furthermore, this study strengthens the claims of Piskar (2007) that ISO 9000 can lead to customer satisfaction. This since all of the companies, both extrinsic and intrinsic motivated, scored high on all the variables of customer satisfaction.

7.2 Managerial implications
The managerial implications of this study based on the gathered data and results are most relevant for companies that are interested in implementing the ISO 9000 standards. Furthermore, since this study was carried out on companies in a B2B context, it should be noted that the result of the study is most relevant for companies that operate in such context.

Based on the results of this study, companies that are thinking of implementing ISO 9000 should be aware of that independently of the reasoning behind the implementation
there are no significant difference in regards to the outcome of customer satisfaction. Hence this means that either if the company is extrinsic or intrinsic motivated to implement the ISO 9000 standards that will not affect the customer satisfaction significantly different. The results indicate that all of the certified companies viewed that their customer were satisfied. Therefore, independently of the motive driving the urge of the certificate one should pursue the certificate if the company wants to strengthen customer satisfaction.

It is worth noting that regarding the variable customer expectations; there was a problem with the skewness and kurtosis. It could have had an effect on the one-way ANOVA test and hence the rejection of the hypothesis is not certain, which one must bear in mind before considering the managerial implications in this section.

7.3 Limitations and directions for further research

There are some limitations with this study that may have affected the results. Firstly, the sample that was included in this study was quite small, unbalanced and only on companies deployed in Sweden. Given the time constraint the study was able to gather 102 respondents, which was included in the statistical analysis. The study only got 21 companies that were intrinsic motivated compared to 81 extrinsic motivated companies. Secondly, this study only focused on the ISO 9000 series. ISO also offers another certificate, which focuses on environmental issues, where a lot of companies possess both certifications. To what extent they affect each other were left out due to the time constraint of the study. Thirdly, this study asked the companies to estimate their customer’s perception of the three antecedents of customer satisfaction. This was done since the main focus was on the manufacturing companies motives to get the certificate and its impact on customer satisfaction. This could explain why there is no statistical difference between the two orientations of motivation. Since the respondents could overestimate their customer’s perception of the tested variables as well as underestimate them, which could lead to biases in the answers. Lastly, there was also a problem with the skewness and kurtosis regarding the third antecedent; customer expectations. There were some attempts made by the researchers to fix this, however the changes did not affect the overall kurtosis and skewness in a large extent and was therefore kept in order to display that the answers for that specific variable was not normally distributed. This
may have affected the result of this study since it can have an impact on the ANOVA-test that were run for that variable.

This study concluded that with the sample that was used, there was not a difference between extrinsic and intrinsic motivations impact on customer satisfaction and its three antecedents. The study adds more information regarding the various outcomes seen in the studies regarding the relationship between ISO 9000 and customer satisfaction. This is by excluding that the underlying motivation to implement the standards renders in different outcomes. Future research should seek if there can be cultural differences between the result and see if the results of this study is applicable on other contexts. This study focused on the ISO 9000 series of quality certifications. New studies can look into if the same motives can explain whether ISO 14000 can render in customer satisfaction in order to broaden the field. As Florida (1996) states in their study environmental issues are becoming a central part of industrial business manufacturing and to their customers. Hence, future research should attempt to see if the motives behind the ISO 14000 implementation can affect customer satisfaction in order to broaden the research field.

The major implication of this study was as mentioned that there was no support for the hypotheses that there is a difference between extrinsic and intrinsic motivated companies. Since this study gave indication on that the motivation does not affect customer satisfaction, other research should focus on the implementation process. The different results can be connected to how the certificate requirements is practiced and implemented. Hence, future research could look into how the extrinsic and intrinsic motivated companies implement the standards. Furthermore, how that affect customer satisfaction, where there might be a difference. Lastly, the additional findings showed that there were small differences between the four different reasons used in this study. Future research could attempt to conduct a more thorough investigation to these matters than what has been done in this research. That could give more clarity into what of the specific motivations within extrinsic and intrinsic motivation theory that has the biggest impact on ISO 9000 and its outcomes.


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1. Appendices

Appendix 1
As mentioned in the section 4.5.2 interview guide/ questionnaire design, the questionnaire was translated and carried out in Swedish, since all of the respondents were Swedish. This could enhance the probability that the respondents understood the questions properly and provided more valuable data, (Rog & Bickman, 2009; Bryman & Bell, 2011).

ISO 9000

Den här enkäten handlar om ISO 9000 familjen av certifikat och är riktad till företag som har någon eller alla delar av serien. Den berör hur företaget har förändrats eller hur det har påverkats efter implementationen av certifieringen/certifikatet. De delar som den här enkäten specifikt riktar sig mot är ISO certifieringens påverkan på kvalité av produkter, kringliggande service samt kundernas förväntningar.


Tack på förhand för er tid!

Oskar Stigsson, os222dc@student.lnu.se
Niklas Vernersson, nv222aw@student.lnu.se

*Obligatorisk
1. Är du ISO certifierad av någon av serierna: 9001, 9000, 9004, 19011? *
   □ Ja
   □ Nej
   □ Vet ej

2. Varför valde ni att implementera samt anskaffa certifieringen?
   *
   Välj

Frågor om företaget

Dessa frågor gäller hur era kunder uppfattar ert företag när det kommer till olika instanser av produkter som erbjuds, service och köpbeteende hos er kunder. Frågorna refererar till efter implementationen av ISO.

   *
   Stämmer inte alls  □  □  □  □  □  Stämmer helt
4. Jag tror att våra kunder tycker att vi kan erbjuda högre kompetens (sedan implementeringen). *

   1  2  3  4  5  
Stämmer inte alls  ○  ○  ○  ○  ○  Stämmer helt

5. Jag tror att våra kunder tycker att vi erbjuder produkter av hög kvalité. *

   1  2  3  4  5  
Stämmer inte alls  ○  ○  ○  ○  ○  Stämmer helt

6. Jag tror att våra kunder tycker att vi som företag har en låg risk för fel i produktionen. *

   1  2  3  4  5  
Stämmer inte alls  ○  ○  ○  ○  ○  Stämmer helt

7. Våra kunder köper regelbundet våra produkter. *

   1  2  3  4  5  
Stämmer inte alls  ○  ○  ○  ○  ○  Stämmer helt

Erbjudandet

Denna sektion av frågor behandlar frågeställningar om hur dina kunder ställer sig till det totala erbjudandet som ert företag erbjuder. Frågorna gäller eras produkters kvalité, kringliggande service och priset kopplat till erbjudandet. Frågorna refererar till efter implementeringen av ISO.

8. Våra produkter är av hög kvalité. *
<table>
<thead>
<tr>
<th>Nr.</th>
<th>Frågan och beskrivning</th>
<th>Skala</th>
<th>Stämmer inte alls</th>
<th>Stämmer helt</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Våra produkter är av hög kvalitet.</td>
<td>1-5</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐</td>
</tr>
<tr>
<td>9</td>
<td>Den kringliggande service vi erbjuder är av högt värde för våra kunder.</td>
<td>1-5</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐</td>
</tr>
<tr>
<td>10</td>
<td>Priset på våra erbjudanden (produkten samt den kringliggande servicen) är lägre än värden kunden erhåller.</td>
<td>1-5</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐</td>
</tr>
<tr>
<td>11</td>
<td>Vår kunder har inga tvivel om våra produkters prestanda.</td>
<td>1-5</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐</td>
</tr>
<tr>
<td>12</td>
<td>Våra kunder förväntar sig låga omkostnader när de köper våra produkter.</td>
<td>1-5</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
I denna sektion av enkäten ställs frågor som gäller kunders förväntningar på ert företag angående produkten/produkterna som ni erbjuder. Frågorna refererar till efter implementationen av ISO.

13. Våra kunder förväntar sig en viss standard av våra produkter. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Stämmer helt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stämmer inte alls</td>
</tr>
</tbody>
</table>

14. Våra kunder vet vad de kan förvänta sig av våra produkter. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Stämmer helt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stämmer inte alls</td>
</tr>
</tbody>
</table>

15. Våra kunder förväntar sig att vi alltid levererar till samma standard. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Stämmer helt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stämmer inte alls</td>
</tr>
</tbody>
</table>

16. Våra kunder förväntar sig att vi har förmågan att leverera till samma standard i framtiden. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Stämmer helt</th>
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17. Våra produkter uppnår alltid till våra kunders förväntningar. *

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## Questions and measurement item

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<th>Minimum</th>
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<th>Mean</th>
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Table 15, Questions and measurement items

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