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Abstract

This thesis studies the effects of market orientation on business performance in an Icelandic financial organization, with a specific focus on the shape of organizational culture. The research subject is one of Iceland’s commercial banks. The study objectives were to measure the shape of this bank’s organizational culture; the level of its market orientation; and to test the relationships between the cultural dimensions defined in the measurement instrument which is the Denison Model of Organizational Culture Survey (DOCS) and business performance.

The DOCS measures characteristics of organizational culture with sixty statements categorized into four dimensions that are "mission", "adaptability", "involvement" and "consistency". The adaptability dimension includes fifteen statements that are comparable to those found in the MARKOR questionnaire that was specifically designed to measure the level of market orientation of a firm. Therefore, this study lays emphasis on the adaptability dimension because the statements that belong to that dimension are believed to have a positive relationship with market orientation.

One group of academics defines market orientation as a form of company culture whereas the other defines it as a sequence of market activities that lead to better performance. In this thesis, market orientation is defined as a form of organizational culture where employees throughout the organization are systematically and entirely committed to the continuous creation of superior customer value. To achieve a high level of market orientation, companies are concerned with coordinated business intelligence generation, intelligence dissemination and responsiveness to market data and information for efficient and effective marketing management decisions. Scholars are not altogether agreeing on what market oriented culture entails, but it is generally viewed as a set of shared beliefs and values that are reflected in habits and traditions as well as in more tangible manifestations—stories, symbols, or even buildings, brands and products.

The DOCS was send to 300 front-line employees and middle managers in 32 Icelandic branches of the bank and 153 responses were received back.

According to the results, the level of the banks organizational culture scores a 3.62 on a 5-point scale where 1 means “weak” and 5 means “strong”. The bank’s shape of organizational culture is strong in the sub-dimension “strategic direction and intent” but weak in the sub-dimension “coordination and integration”. The bank has a strong external focus combined with a focus on stability. The “adaptability” dimension (the measure of market orientation) scores a 3.57 on a 5-point scale and has a weak positive relation with five out of six performance indicators, and a moderately strong relation with employee satisfaction. The results further show that the bank is very profit-oriented, which might explain its low score on some dimensions. The results from this study are in line with the results from other Icelandic studies that have used DOCS to measure the shape of organizational culture.
Contents

1 Introduction ....................................................................................................................7
  1.1 Market orientation – the concept.................................................................7
  1.2 Origins of the research ..............................................................................8
  1.3 Research objectives ..............................................................................8
  1.4 Importance of the research topic .............................................................9
  1.5 Structure of the thesis........................................................................11

2 Literature review ......................................................................................................... 12
  2.1 Definitions of market orientation ................................................................. 12
  2.2 The history of market orientation ................................................................. 15
  2.3 Kohli´s and Jaworski´s view on market orientation................................. 17
    2.3.1 Antecedents....................................................................................... 19
    2.3.2 Consequences ................................................................................ 20
  2.4 Narver and Slater´s view on market orientation ......................................... 22
    2.4.1 Three behavioral dimensions ............................................................ 22
    2.4.2 Long term focus and performance .................................................... 24
  2.5 Similarities and differences – Kohli & Jaworski vs. Narver & Slater .......... 26
  2.6 Enhanced model of market orientation .......................................................... 27
  2.7 Antecedents of market orientation ............................................................... 28
  2.8 Two dimensional approach to market orientation ......................................... 31
  2.9 Moderators and barriers of market orientation ............................................. 32
  2.10 Consequences of market orientation .......................................................... 34
  2.11 Status and scope of market orientation ....................................................... 38
  2.12 Implementing a market orientation ............................................................. 40

3 Organizational culture and market orientation ..................................................... 43
  3.1 Defining organizational culture ................................................................. 43
  3.2 Market orientation and organizational culture ............................................ 45
  3.3 The effects of organizational culture on performance ............................... 46
  3.4 Measuring organizational culture ................................................................. 48
    3.4.1 Denison model to measure organizational culture ............................... 50

4 Research questions and hypotheses........................................................................ 55
  4.1 Research questions ....................................................................................... 55
Index of figures

Figure 2.1 – Kohli and Jaworski’s view on market orientation. Source: Kohli and Jaworski (1990). ............................................................................................................... 21

Figure 2.2 – Narver and Slater’s view on market orientation. Source: Narver and Slater, (1990). ............................................................................................................................... 26

Figure 2.3 – the enhanced model of market orientation. Source: Kohli and Jaworski, 1990; Narver and Slater, 1990). .......................................................................................... 28

Figure 2.4 – a two-dimensional approach to market orientation. Source: Kohli and Jaworski, 1990; Narver and Slater, 1990. .................................................................................. 31

Figure 2.5 – Scope of marketing and its focus over time. Source: Hunt (1976) .......... 39

Figure 3.1 – Schein’s (2004) three levels of organizational culture. Source: Schein (2004) ........................................................................................................................................... 50

Figure 3.2 – The Denison model to measure organizational culture. Source: Denison (1984, 1990) ........................................................................................................................................... 51

Figure 4.1 – The research framework ........................................................................... 59

Figure 5.1 – The Denison Adaptability dimension and Market Orientation. Source: Denison (1990) ........................................................................................................................................... 64

Figure 6.1 – Bank’s shape of organizational culture in a radar chart ....................... 75

Figure 6.2 – The bank’s organizational culture by location ....................................... 83

Figure 6.3 - Scree plot for the factor analysis of the Denison dimension “Adaptability”. 86

Figure 6.4 – The correlations between market orientation and performance indicators... 94
Index of tables

Table 5.1 – Respondents and their demographics ............................................................... 69
Table 6.1 – Mean scores in Denison statements ................................................................. 73
Table 6.2 – Mean scores in Denison dimensions and sub-dimensions ......................... 74
Table 6.3 – Summary of results of the paired t-tests ............................................................ 79
Table 6.4 – Results of paired t-test ....................................................................................... 80
Table 6.5 – Summary of results from paired t-tests by sub-dimensions ......................... 81
Table 6.6 – Average scores by branch location ................................................................. 82
Table 6.7 – Results from factor analysis for the adaptability dimension ....................... 87
Table 6.8 – Results of performance indicators ................................................................. 89
Table 6.9 – Performance by branch location ................................................................. 89
Table 6.10 – Correlations for the dimension “adaptability” and its sub-dimensions with performance indicators ................................................................. 92
Table 6.11 – Correlations of the MO level with three sub-dimensions ......................... 92
Table 6.12 – Correlations for all Denison statements with performance indicators ......... 93
Table 6.13 – Correlation between three dimensions, their sub-dimensions and performance ................................................................. 95
Table 6.14 – Correlation between the four traits in the Denison model ....................... 96
Table 7.1 – Benchmark scores from DOCS compared with bank`s scores ....................... 98
1 Introduction

The purpose of this chapter is to put forward an overview of the thesis and its contents. It starts with a short text explaining the concept of market orientation and a discussion of the origins of the research, followed by the objectives and concluding with the importance of the research topic and the structure of chapters.

1.1 Market orientation – the concept

Market orientation can be defined as a form of organizational culture where employees throughout the organization are committed to continuously create superior customer value, or as a sequence of marketing activities that lead to better performance.

Years of business research have concluded that market oriented companies perform better than companies that are less market oriented. They focus on adapting their products and services to the needs and expectations of their customers, as opposed to product oriented businesses that focus on developing a product or service that is then marketed and hopefully sold (Grönroos, 2006). To achieve this customer focus, a firm with a high degree of market orientation cultivates a set of shared values and beliefs about putting the customer first in business planning, and reaps results in form of a defendable competitive advantage, decreased costs and increased profits (Desphandé, 1999). So, the market orientation concept is concerned with coordinated business intelligence generation, intelligence dissemination and responsiveness to market data and information for efficient and effective marketing management decisions. (Sundqvist, Puumalainen and Salminen, 2000; Kohli and Jaworski, 1990). The concept is also concerned with other issues including organizational culture, innovation, human resource planning and organizational learning (Narver and Slater, 1990; Baker and Sinkula, 1999; Ruekert, 1992; Keskin, 2006). Not surprisingly, research interest in the market orientation concept has grown substantially (Hooley, Greenley, Cadogan and Fahy, 2005).
1.2 Origins of the research

Marketing theorists such as Kohli and Jaworski (1990), Narver and Slater (1990), Ruekert (1992), Gainer and Pandanyi (2005), Carr and Lopez (2007) have argued that market orientation traces its origins from the market concept (also labeled marketing concept) and has noteworthy consequences to overall business strategy. The *market concept* is concerned with customer-orientation, innovation and profit as an inducement for creating satisfied customers (cf. Narver and Slater, 1990, 1994; Kohli and Jaworski, 1990; Hunt and Morgan, 1995). Theories on market orientation have been widely accepted by scholars and academics either as the implementation of the market(ing) concept, as an organizational culture, or as a mix of those two (Greenley, 1995; Han, Kom and Srivastave, 1998). To simplify, “market concept” and “marketing concept” are used interchangeably in this thesis. Per definition, a *market* is a physical or non-physical place where goods are offered for sale and *marketing* the act or process of buying and selling in a market by means of commercial functions involved in transferring goods from producer to consumer. But for the purpose of this study the demarcation is believed to keep the focus on market orientation.

Through the years, numerous scholars have found that market oriented behavior in marketing new products or services leads to better performance, has positive effects on customer satisfaction and loyalty as well as innovation, employee satisfaction and cooperation (Deshpandé, Farley and Webster, 1993; Gatignon and Xuereb, 1997; Rapp, Schillewaert and Wei Hao, 2008; Twaites and Lynch, 1992).

1.3 Research objectives

The main goal of this thesis is to investigate the practice of market orientation in an Icelandic bank, with a specific focus on the shape of organizational culture. The research subject is one of Iceland’s commercial banks. The term “shape of organizational culture” derives from the results that come out of the Denison survey. The scores are plotted in a radar chart and form a shape on the 12 grid-lines that reflect the dimensions
of the model. The used data sample consists of 153 responses from top managers, middle managers and front-line staff employed in 32 Icelandic branches. Study objectives are threefold:

1) To define the cultural shape (profile) of this bank;
2) To describe the characteristics of market orientation that derive from the organizational culture;
3) To test if there is a relation between its degree of market orientation and performance measures.

The study uses the Denison Organizational Culture Survey (DOCS), as well as the theoretical frameworks defined by Kohli and Jaworski (1990) and Narver and Slater (1990). The four hypotheses are:

- H 1 – The adaptability dimension of the Denison model has a stronger correlation with the six performance measures than all sixty statements together do.
- H 2 - The three components of the adaptability dimension (level of the banks market orientation) link positively to the performance indicator.
- H 3 - The level of coordination & integration increases when the degree of market orientation increases.
- H 4 - The level of strategic direction & intent decreases when the degree of market orientation increases.

The second hypothesis has several corollary hypotheses to it that are defined and discussed in the fourth chapter.

#### 1.4 Importance of the research topic

According to Gray, Matea, Boshoff and Matheson (1998), further testing of the Kohli and Jaworski (1990) and Narver and Slater (1990) instruments in wider business environments and cultures will help in developing more robust and trustworthy measures of the market orientation concept. Businesses and scholars alike are interested in its
effects on daily operations and in the costs of introducing market oriented behavior (Anderson, Fok and Scott, 2004; Rust, Amber, Carpenter and Kumar, 2004).

In today’s turbulent market environment, economists around the world are interested in research data from Iceland, especially information on Iceland’s financial sector that has expanded tremendously during the last years through daring investments, often with borrowed money. It is worth mentioning that this thesis contributes to the INTICE research project that was instigated by the University of Iceland, School of Business, in 2006 and has the objective to describe and research the internationalization of Icelandic organizations in detail. Results are anticipated winter 2008. Several INTICE related studies have used DOCS, and the results of this one will be entered into the database that will eventually be large enough to generalize on what the shape of Icelandic international companies looks like. At the micro-level, many marketing issues have not been fully discussed in Iceland. It is unknown how Icelandic managers implement and practice American marketing theories such as market orientation. This study might shed some light on whether Icelandic managers and staff understand (and consequently practice) marketing theories differently from their counterparts in other economies.

Most literature on market orientation is American, but at first sight the pattern of antecedents and consequences seems to be similar in Scandinavia (Selnes, Jaworski and Kohli, 1996). It may be argued that the market orientation construct is more suitable to describe crucial information processing in big centralized American companies than in Scandinavian companies that may rely more on empowered front-line units (Nielsen, Host, Jaensson, Kock and Selnes, 2002). This study might also add to this discussion. Recently, market orientation has been subject to research in the Nordic countries as well. The scholars Haugland, Myrtevåg and Nygaard (2007) published an article about the relationship between the degree of market orientation and performance of Nordic service companies. Based on data from the hotel industry, their results indicate that market orientation has only modest effect on productivity, but also that it can be a useful instrument in the process of designing products and services. Nielsen et al (2002) found that nationality matters when they compared the level of market orientation of banks in four Nordic countries. Icelandic academics have researched market orientation of Icelandic companies from different perspectives (Hermannsdottir, 2006; Jonsdottir, 2006;
Adalsteinsson and Gudlaugsson, 2004; Heimisdottir, 2008). Icelandic companies have the tendency to proclaim the Nordic countries as their home market and although it is out of scope in this thesis, it would be interesting to compare results on the market orientation of Icelandic companies to their counterparts in the Nordic region.

Finally, what makes the Icelandic financial industry a research field of special interest are the ongoing changes reflected in privatization, mergers, acquisitions, technological developments and development of the Icelandic & world economy.

1.5 Structure of the thesis

First, this thesis reviews and discusses the literature dealing with the market concept from which the market orientation concept is derived. Definitions of market orientation found in literature are put forward and evaluated.

Secondly, two important research papers by Narver and Slater (1990) and Kohli and Jaworski (1990) that have shaped the market orientation concept as we know it today are reviewed in more detail, as they partially function as model for measuring the bank’s degree of market orientation.

Thirdly, the literature concerning organizational culture is reviewed, and the Denison model and measurement instrument explained. Concluding from existing literature, the market orientation concept has two main dimensions. These two points of view are discussed in more detail, and then the reasons for supporting the market orientation as form of organizational culture explained.

Fourthly, the methodology of measurement is discussed and the model for hypotheses testing staged and explained. Thereafter, findings and results are discussed and conclusions drawn. They are then connected to those found in earlier reviewed literature. Consequently, similarities and differences are looked into and suggestions for further research proposed.
2 Literature review

The following chapter outlines theories about market orientation and discusses the development of the concept with respect to empirical research, its implications on operations, performance, business sectors and the markets on which they operate. The chapter discusses the sources from which it has emerged and defines the concept and the characteristics of market oriented companies in greater detail. Then, two very important articles on market orientation published in 1990 are reviewed. The chapter ends with some theories on how to implement market orientation – a road map, if you will.

2.1 Definitions of market orientation

Businesses aim to maximize their profit to shareholders by creating a sustainable competitive advantage over rivals on the market. But where competitive advantage was once based on structural characteristics such as market power, economies of scale, or a broad product line, the emphasis today has shifted to capabilities that enable a business to consistently deliver superior value to its customers. After all, this is the meaning of competitive advantage (Gummesson, 1991). Research shows that a market-oriented culture provides a solid foundation for these value-creating capabilities. Day (1991) stated that organizations that are well educated about their markets, in other words market oriented organizations, stand out in their ability to rapidly sense and act on events in volatile and fragmenting markets.

We can reason that market orientation builds on the same foundations as the market concept, as that concept is believed to have three facets that are customer focus, coordinated marketing focus and profit focus (Donnelly, Ivancevich and Hise, 1967; Kohli and Jaworski, 1990; Wrenn, 1997). Customer focus implies that companies need to have intensive knowledge and understanding of customer needs, demands and expectations. In order to be able to fulfill those demands and expectations with goods and services those must be carefully charted. This is done with marketing planning, surveys, market intelligence dissemination and generation. Focus on integrated marketing means
that all marketing efforts of the company are in sync and support each other. Profit focus is an important measurement in all strategy-making and management. Even not for profit firms measure their performance, although they use other than financial benchmarks.

The marketing concept can be classified into two parts, being the “old” marketing concept and the “new” marketing concept. According to Gunay (2002) the “old” marketing concept is concerned with customer-orientation, innovation and profit as an inducement for creating satisfied customers. The “new” marketing concept is more a business culture than a philosophy. Philosophic questions cannot be answered empirically by observation or experiment, while it is possible to measure the level of culture, and then describe its characteristics.

Many labels have been used to denote the market orientation concept (Shapiro, 1988; Kohli and Jaworski, 1990; Harris and Ogbonna, 2001). Examples include “market-led” (Piercey, 1997) “customer-oriented” (Kelly, 1992); “integrated marketing” (Felton, 1959); “market-oriented culture” (Harris, 1998a, 1998b); “marketing oriented” (Gummesson, 1991). There is consensus in the literature that there are few differences among these labels (Shapiro, 1988), although “market orientation” has been taken as the most appropriate label to describe the construct (Kohli and Jaworski, 1990; Narver and Slater, 1990). The following text gives a number of the most frequently used classifications and definitions.

Market orientation can be defined as a form of organizational culture where employees throughout the organization are systematically and entirely committed to the continuous creation of superior customer value (e.g. Narver and Slater, 1990; Kohli and Jaworski, 1990; Desphandé, Farley and Webster, 1993; Day, 1994; Ngansantil, 2001). Kohli and Jaworski (1990) argued that the market orientation of an organization is one of degree rather than one of presence or absence. Narver and Slater (1990) confirm the view that market orientation cannot be turned on or off. Being marketing orientated is more than just being customer-led. It requires the full support of the organization to be fully implemented in the long term and, in most cases, may need a complete change in an organization’s culture.

According to Narver and Slater (1990), the three major components of market orientation - customer orientation, competitor focus, and cross-functional coordination -
are long-term in vision and profit-driven. Based on extensive interviews with managers and executives, they conclude that market orientation provides a unifying focus for the efforts and projects of individuals, thereby leading to superior performance. A developing stream of empirical research has found a strong relationship between market orientation and several measures of business performance, including profitability, customer retention, satisfaction, innovation, sales growth, and new product success. In order to become market oriented, all employees must participate in working towards a common goal. Employees that feel that their colleagues support and empower them are more likely to create superior customer value and (Zeithaml and Bitner, 2003). Therefore, cross-functional coordination between employees is very important for organizations that want to create a high degree of market orientation.

Narver, Slater and Tietje (1998) state that market orientation is an organizational culture where culture, management and market orientation are interwoven. For an organization to be market oriented, leaders within that company must have a clear vision that is continuously mediated to employees. Market oriented companies must communicate their mission, vision and values in such a way that every employee knows his/her role. Companies must be able to change and adapt to new market situations such as increased competition, needs and expectations of customers and new technologies.

Bisp (1999) defines market orientation as a series of actions to obtain, analyze and apply information about current and new customers, consumers and competitors. He emphasizes the importance of organizational learning and states that the ability to attract and develop staff with the needed knowledge and skills drives market orientation. Farrell (2000) also emphasizes that organizational learning is of great importance when installing a market orientation. Other scholars prefer to view market orientation as proactive business actions that take place in a certain sequence. Bisp (1999) emphasizes that market orientation should not be confused with marketing orientation which has a functional focus or customer orientation that has a stakeholder focus. According to Bisp (1999) the form and intensity of market oriented activity is a behavioral manifestation of elements of corporate culture and strategy.

Kotler (2001) points out that market oriented companies must balance between customer orientation and competitor orientation when installing a market oriented culture
in the company. Logically, a company that only focuses on either the customer or the competition will end up performing poorly.

Gudlaugsson (2004) has written about market orientation as behavior that supports the market concept and is characterized by continuously gathering market data, analyzing data and creating knowledge that is communicated to everybody within the organization. Gray et al. (1998) posit that although there is no agreement (in extant literature) regarding what a market orientation means, the definitions of Kohli and Jaworski (1990) and Narver and Slater (1990) seem to be gaining ground and acceptance. However, despite the fact that there are a number of acceptable definitions of market orientation, scholars seem to agree that the concept has both a cultural aspect and market aspect to it. For the purpose of this study, market orientation is believed to be the implementation of the market concept through a form of organizational culture.

2.2 The history of market orientation

Terms such as market-oriented, market-driven and customer-focused have become synonymous with proactive business strategy in organizations all over the world. The notion that the customer needs to be at the origin of business planning processes seems a very contemporary one, as is the idea of organizing the firm’s activities around a thorough understanding of customer needs and demands (Desphandé, 1999). Many management theorists cite Peter Ducker’s statement from 1954 that marketing is not a specialized functional activity but rather “the whole business seen from the point of view of its final result, that is, from the customer’s point of view.” The market orientation concept builds on the marketing concept which is a relatively new academic. A definition of the marketing concept that is cited from the American Marketing Association website (AMA, 2008) is found in Grönroos (2006) article called “On defining marketing: finding a new roadmap for marketing”:

“Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. (Approved October 2007)”
Bagozzi, RosaCelly, José, and Sawhney (1998) emphasize that organizations must use marketing efforts in a way that meets and exceeds customer needs and expectations and fulfills firm objectives and beats the competition.

Paul Converse was one of the first academics that created a comprehensive overview of the concepts of marketing in 1945. He made a list of text books and articles about marketing, reviewed the offer of marketing courses taught in American universities and lectures about the subject until the forties. He found out that in 1878, business men became interested in ways to increase sales, enhance sales processes, and how to create a demand for their products and services so that customers would buy more leading to increased turnover and higher profits. This resulted in companies teaching their sales force how to sell systematically more units. Professional courses in marketing and sales were first taught in 1901 at the University of Illinois.

The first books on marketing were printed in the years 1911 to 1915 and they were mainly based on basic economic theory. The first empirical research papers on marketing and connected issues were printed around 1920 (Converse, 1945 and 1951).

The first academic journal about marketing was published in 1936 in the USA as “Journal of Marketing”. It had 600 subscribers that year, but demand grew really fast among academics and business owners around the country. In 1948, The American Marketing Association (AMA, 2008) put forward the following definition of marketing:

“The performance of business activities directed toward, and incident to, the flow of goods and services from producer to consumer.”

As discussed earlier in this chapter, the new definition was approved by AMA in 2007. According to both the old and the new definition, marketing is considered a specialist function managing certain decision-making areas to create exchanges that satisfy the customers´ and the firm´s goals alike (Grönroos, 2006). On the AMA website (www.ama.org) it is stated that the association has to this day around 38.000 subscribers, and that the journal serves around 750.000 marketing professionals in the United States only. We can conclude that marketing has now become an important academic field in
business and economic studies. There is hardly a company in the world that does not employ one or more marketing experts.

The last decade the field of marketing has grown tremendously and many books and articles about the subject have educated business people across the globe. Before market orientation became the general term for this a well-known concept within marketing, many scholars had described the concept in different ways. Drucker (1954) described the concept in his book “The practice of Management” where he states that only customers can define what a company is by measure of their needs and expectations.

In 1987, the Marketing Science Institute (MSI) in the USA organized a conference on the topic “Developing a Market Orientation”. According to Desphandé (1999) the main purpose of this forum was both to showcase some early learning from market orientation implementation and, more importantly, to articulate the need for strong, scholarly research to better define, measure, and model the construct. This conference marks a major development in market orientation research. In 1990, a second conference was organized, this time it featured both academic speakers and practitioners that summarized their companies’ experiences with instilling a market orientation. In 1994, market orientation was anointed to be a capital research topic by MSI. After that, market orientation became a very popular area for dissertation thesis research.

Two research papers, both published in 1990, have established the concept of market orientation firmly into the academic of business research. The first paper by Kohli and Jaworski (1990) put forward antecedents to and moderator effects of market orientation and the second one that came later in 1990 by Narver and Slater proposed a market orientation framework with three dimensions. Most studies on market orientation revolve around three components that were first defined by Kohli and Jaworski (1990) and later established by Narver and Slater (1990). The next chapter takes a close look at these two important papers.

2.3 Kohli´s and Jaworski´s view on market orientation

The scholars Ajay K. Kohli and Bernard J. Jaworski published their article “Market orientation: The construct, research propositions and managerial implications”
in July 1990. They viewed market orientation as the implementation of the marketing concept that was discussed in the first chapter of this thesis. The model they propose emphasizes the collection of marketing data, dissemination of this data across functions within the organization and the action that is taken based on this intelligence. The model is built on the results of interviews with 62 managers in both marketing- and non-marketing positions in US companies. They used a “theoretical sampling plan” (Glaser and Strauss, 1967). The sample was a blend of companies in diverse sectors and of different sizes.

A main finding was that profitability is a consequence of market orientation, and not a component of it. Kohli and Jaworski did not suggest that market orientation is an aspect of organizational culture.

Their definition of market orientation:

“Market orientation is the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it.”

In other words: Market orientation is the implementation of the market concept and a firm with a high degree of market orientation is one whose actions are consistent with this concept. Market intelligence is said to be the starting point of market orientation, and refers to the collection and assessment of data on customer’s current and future needs plus competitor data and government regulations that could influence those needs. Organizational learning plays a major role in the creation of a market orientation: managers/employees must continually gather, disseminate and communicate information around all departments of the company in both a formal and informal manner. It is important to acknowledge that this vital function is not the exclusive responsibility of the marketing or sales departments. This idea is in line with the importance of inter-functional coordination within firms as recommended by Narver and Slater (1990), Slater and Narver (1993) and Shapiro (1998).
Kohli and Jaworski propose three sets of antecedents for market orientation and they are senior management factors, interdepartmental dynamics and organizational systems.

2.3.1 Antecedents

Senior management has an important role to foster market orientation. Kohli and Jaworski state explicitly that the commitment of top managers is an essential prerequisite to a market orientation. Their job is to facilitate communication and data flows between organizational levels. Important characteristics that senior managers should have are a positive attitude towards change and organizational learning. They should not be too risk averse. Risk aversion was found to be a factor discouraging market orientation.

Kohli and Jaworski define interdepartmental dynamics as the formal and informal interactions and relationships among an organization's departments. Their study findings suggested that departments that have conflicts are not likely to be willing to share information and as such endanger a high market orientation. Connected departments on the contrary cooperate and create an atmosphere leading to a higher degree of market orientation. As such, they are an important antecedent to market orientation.

The third set of antecedents to a market orientation relate to organization-wide characteristics. Expectedly, high formality and centralization levels create a barrier for market orientation because it obstructs information dissemination and knowledge sharing. Important customer messages or market knowledge that must travel a long way before they can be acted upon become irrelevant and obstruct market oriented behavior. Levitt (1969) discusses departmentalization or specialization as a barrier to communication (and hence intelligence dissemination) which confirms this view. It is likely that an organizational system where all employees are aware that certain behavior leads to more profitability and hence higher bonuses will increase the degree of market orientation. Kohli and Jaworski call this responsiveness to market intelligence, which is generated and disseminated. Their study findings suggested that responsiveness involves the design
and selection of products and services, target market selection and the production, distribution and promotion of products.

2.3.2 Consequences

In terms of employee response, Kohli and Jaworski conclude that market orientation leads to a cohesive product focus, clear leadership, better coordination of sales activities, a much better job of reviewing products from a worldwide basis and better differentiation. A market orientation provides psychological and social benefits to employees. The greater the level of market orientation is, the greater the (1) esprit de corps, (2) job satisfaction, and (3) organizational commitment of employees.

In terms of customer response Kohli and Jaworski find that a market orientation leads to more satisfied customers who spread the good word to other potential customers and keep coming back to the organization.

In terms of performance, the study suggests that though a market orientation is likely to be related to business performance in general, it may not be critical under certain conditions. A greater market orientation is likely to lead to increased demand and sales, better margins, more market share and increased profits.

The variables that enforce or weaken the relationship between the degree of market orientation and business performance were found to be market turbulence, technology, degree of competition and demand. In some situations market orientation was found of trivial importance, e.g. in a market with little competition, speedy technology development or a very steady business environment. Companies that operate in a highly competitive, turbulent market are more likely to benefit from a high degree of market orientation.

In 1993, Kohli and Jaworski published yet another research paper „Market orientation: Antecedents and Consequences“. As the title suggest, the goal of this paper was to review and measure the antecedents that lead to market orientation and the consequences of it for the company. The hypotheses proposed in the 1990 construct were tested and results concluded that market orientation builds on three equally important pillars: Customer focus, coordinated marketing and profitability.
Figure 2.1 shows the interaction between intelligence generation, dissemination and responsiveness. Intelligence gathering is just what the name implies: Gathering intelligence about customers, competitors and the marketplace. Intelligence dissemination, however, is what a department, manager or employee chooses to do with the information after they have it.

![Diagram showing the interaction between intelligence generation, dissemination, and responsiveness.]

Figure 2.1 – Kohli and Jaworski’s view on market orientation. Source: Kohli and Jaworski (1990).

Responsiveness only happens if the formalized process for sharing business intelligence is not too burdensome. If management emphasized sharing, and if the organizational system’s reward system provides an incentive to do so or there is no penalty for doing so. In other words, a department, manager or employee is only willing to share information if it implies no costs.
2.4 Narver and Slater´s view on market orientation

The renowned scholars John C. Narver and Stanley F. Slater published their now famous article about market orientation in October 1990, several months after their distinguished colleagues Kohli and Jaworski. Narver´s and Slater´s goal was to shed light on the components that build a market orientation and propose a useable definition of the concept. They interviewed managers in 113 strategic business units in one corporation. Narver and Slater viewed market orientation as an organization culture, just like Desphandé and Webster (1987). However, they took the definition further and argued that market-oriented firms focus not only on customers but equally much on competitors. Additionally, they placed emphasis on inter-functional coordination that is meant to create unison between all functions in the organization and become part of the organizational culture. So they developed this definition:

“Market orientation consists of three behavioral components – customer orientation, competitor orientation, and inter-functional coordination- and two decision criteria – long-term focus and profitability.”

Narver and Slater define three equally important behavioral dimensions of market orientation, them being customer orientation, competitor orientation and inter-functional coordination. They add two decision criteria that are long-term focus and profitability to their model.

2.4.1 Three behavioral dimensions

Research shows that the consequence of market orientation materializes in all tasks performed by a firm. The degree of market orientation shows through employee- and customer satisfaction, as well as content shareholders. Customers of a company with a high degree of market orientation experience great value for money and excellent service that is gladly delivered by skilled and professional employees of that company.
Not surprisingly, Gray and others (1998) found that the more market oriented a company, the more satisfied and loyal its customers and employees are. Also not surprisingly, Day and Wensley (1988) found that market orientation means that organizations do not only understand the customer, but also its customer’s customers and their business environment and how that will develop in the future. We see that this concept coincides with Kohli’s and Jaworski’s (1990) suggestion that companies must collect and assess data on customer’s current and future needs. These companies’ employees should emphasize service delivery and manage their customer relations well. Employees should spend considerable time with their customers (Narver and Slater, 1994).

Competitor orientation is the second component of market orientation and states that organizations should identify, analyze and use the strengths, weaknesses, opportunities and capabilities of both current and future competitors. This is very logical although not entirely new. Already in 1960, Levitt said that parallel to customer analysis, companies must do competitor analyses and contemplate possible solutions that might fulfill current and future customer needs and expectations (Levitt, 1960).

Inter-functional coordination or integrated marketing means that all departments within the company play a critical role in satisfying customers. This idea concurs with Shapiro’s (1988) research that found that market orientation is not marketing orientation, because a market orientation does not suggest that only the marketing department has the most important role here. On the contrary, market orientation emphasizes that all departments and all employees are aware of the fact that their job attitude towards internal and external customers is crucial.

According to Narver and Slater, competitor and customer orientation include all activities that involve generating market intelligence about customers and competitors, analyzing it and distributing that knowledge throughout the organization. This means that the market oriented company must provide adequate business processes and systems for data input and coordinate the communication of disseminated business info in order to create superior value for customers.
2.4.2 Long term focus and performance

Market oriented organizations typically have a long term focus related to profits and to implementing a high degree of market orientation (Felton, 1959). A short-run focus on profits is not inconsistent with long-run profit performance. According to Levitt (1980), the relationship between them is as follows: At all times a business attempts to create superior value for buyers. As competitors respond and diminish business’s buyer-value superiority, the business discovers and implements additional value for its customers (i.e. it augments its product). To grow and survive in a competitive environment they must focus on long term investment strategies that are important for building the market orientation. Market orientation is not a business mode that can be switched on or off, which also implies a long term focus (Gudlaugsson 2004).

As discussed earlier, the first rigorous study of the effect of a market orientation on business performance done by Narver and Slater (1990) found a significant relationship between market orientation and return on investment (ROI) in a sample of business units belonging to one corporation operating in the forest products industry. As an indicator of the importance of this study, the Social Sciences Citation Index (http://scientific.thomsonreuters.com) show over 100 references to it and it is frequently cited in both marketing management and marketing strategy texts (e.g., Kotler, 1994; Boyd, Walker, and Larreche, 1995; and in tradebooks (e.g., Barabba and Zaltman, 1991; Desphandé, 1999). However, another study did not show the same results. In two broad samples of businesses, Jaworski and Kohli (1993) found no significant relationship between their measure of market orientation and managers’ assessments of either return on equity or market share. These finding of “no results” in a broad sample were found troubling, because it raised concerns about the generalizability of Narver and Slater’s (1990) result. It is possible, based on the Narver and Slater study from 1990 that the market orientation – profitability relationship does not apply in all organizations or business sectors. Therefore, in 2000 Narver and Slater decided to repeat their research from 1990 and retested the hypothesis „market orientation and business profitability are positively related“. To address the limitations of the original study, this time they used a broad sample of businesses and different respondents’ assessment of market orientation.
and business performance in a business unit. Again, they found a positive relation between market orientation measures and performance. Actually, the positive relationship was even stronger in 2000. These are interesting results. However, market orientation is said to be influenced by the business environment and competition levels (Houston, 1986). In an article by Paul D. Ellis published in 2005 it says that the strong relationship between market orientation and performance materializes in strong economies like the United States (Kohli and Jaworski, 1993; Slater and Narver, 1994) and The Netherlands (Langerak, 2001) but not at all in weaker economies with less knowledgeable consumers, less competition and less capitalism. Icelanders are very knowledgeable consumers but quit price insensitive. The Icelandic culture is materialistic but due to the small population, there isn’t much competition. The fact that there are only 4 consumer banks in Iceland confirms that. One might expect that the Icelandic culture is made of Nordic ingredients, spiced up with American and European influences.

Figure 2.2 below shows the interaction between the three behavioral components customer orientation, competitor orientation and inter-functional coordination. According to Narver and Slater, continuous innovation is implicit in each of these components. If there is no innovation and continuous data generation, employees will not have the right prerequisites to offer that extra service to the customer. The two decision criteria shown in the figure are a long term profit focus and profitability. It is through the continuous creation of superior customer value that a business creates its long-run profit performance. A short period marketing campaign or sales action might boost sales, but the organizational image and generation of repeat-customers only evolves over time along with reputation and “good word of mouth”.

25
The mayor similarities and differences between the two visions that have been discussed will be subject of the next chapter.

### 2.5 Similarities and differences – Kohli & Jaworski vs. Narver & Slater

On the whole, the two views on market orientation are quite similar and complementary and very useful to anyone seeking to learn the meaning of the market orientation concept. Both research papers view market orientation as a concept that (if well implemented) leads to a greater competitive advantage for the company. Both duo’s agree that business intelligence about customers and competitors is a key prerequisite to build market orientation; that all managers and staff must participate in creating and maintaining the market orientation; that market orientation is a construct with three equally important components.
However, the two views have important differences. Kohli and Jaworski do lay a bit more emphasize on customers than Narver and Slater do. They viewed market orientation more like the implementation of the market concept as discussed earlier. Narver and Slater emphasize the human role and explain market orientation as a corporate culture, which leads to certain customer/competitor oriented behavior throughout the organization creating this specific atmosphere that leads to better performance.

It is not possible to prefer any of these theories above the other, but it is advisable to critically review both of them and use the best from both when building a market orientation. A mix of the theories might lead to the optimal degree of market orientation.

2.6 Enhanced model of market orientation

Now that we have reviewed the two most influential models of Kohli and Jaworski (1990) and Narver and Slater (1990) in addition to the integrated framework based on those two models, let us draw up the enhanced model of market orientation.

The enhanced model (see figure 2.3) is divided into four layers: Antecedents (as defined by Kohli and Jaworski, 1990), moderators of market orientation (as defined by Narver and Slater, 1990; Kohli and Jaworski, 1990) and consequences (as defined by Narver and Slater, 1990; Kohli and Jaworski, 1990).
2.7 Antecedents of market orientation

Kohli and Jaworski (1990) recognized three sets of organizational antecedents to market orientation. If these antecedents are not in place, it will be near impossible to increase the level of market orientation within the organization. These antecedents are 

- Senior management factors
- Interdepartmental dynamics
- Organizational systems
Literature has produced several generally accepted antecedent variables in the three rubrics mentioned above. **Senior management** must whole-heartedly be willing to increase the level of market orientation. They are the initial strategy makers and have the power to insert the concept of market orientation in the mission statement and overall strategy. They also have the meanings to install the appropriate processes for business intelligence generation, dissemination and responsiveness. The senior management factor is most important of all. Risk aversion is a senior management factor identified by Jaworski and Kohli (1993). Risk-averse companies are not likely to reach a high level of market orientation, as the costs of implementing such a concept needs investment of both time and money. Hammond, Webster and Harmon (2006) found that top management emphasis was directly related to market orientation, a finding common to other research on antecedents to a market orientation (Kirca, Jayachandran and Bearden, 2005). Senior management factors are antecedents to a market orientation that play a critical role in fostering a market orientation. **Interdepartmental factors** are explained as connectedness and conflict. All departments within the organization need to be connected so that business intelligence can flow smoothly up and down the organization. Interdepartmental dynamics, operating as organizational systems, represent the interactions and relationships among an organization’s departments. Kohli and Jaworski (1990) acknowledged the importance of the dynamics of organizational systems and identified interdepartmental conflict, interdepartmental connectedness and a concern for ideas of other departments as organizational systems sub-constructs of organizational climate (Hafer and Gresham, 2008). Kohli and Jaworski (1990) found support in the literature (e.g., Deshpande and Zaltman, 1982; Argyris, 1965) for the hypothesis that low levels of concern for ideas of other departments (including individuals within the department) and the lack of interdepartmental connectedness hampered the dissemination of market intelligence among departments and impeded overall market responsiveness of the firm (Kohli & Jaworski, 1990). Organizational systems may hinder or facilitate developing a market orientation by new product development teams and the innovations generated by these teams. Literature shows that organizational characteristics such as decentralization, formalization, and connectedness may be needed to develop exploratory and exploitative innovations simultaneously (Gibson and Birkinshaw 2004; Jansen, Van
den Bosch and Volberda, 2005). Hafer and Gresham (2005) conclude that while a department may gather this information, motivated by organizational commitment, management emphasis and esprit de corps, relinquishing this valuable asset/resource to someone else depends in large part on whether the department having ownership of this information sees benefits to doing so. Organizational systems include the level of formalization, centralization, reward system orientation, and training (not one of Jaworski’s and Kohli’s, 1993 original inclusions). Kirca, et al (2005). Found that only connectedness, top management emphasis and reward system orientation were significantly related to market orientation.

Looking at the antecedents of market orientation it becomes clear that a number of human related aspects can help or hinder the process. The level of market orientation will be influenced by the style of leadership, communication, and the way top management handles risk. Furthermore, interdepartmental conflict and connectedness are directly related to human characteristics, e.g., the level of sharing common values; the willingness to take responsibilities for the work they do; and the willingness to solve conflicts. Antecedents may not only influence the level of market orientation, they also influence levels of employee commitment and morale. Earlier research shows that once a relationship has been established, commitment and morale result in greater customer satisfaction and a more effective organization (Schneider 2000; Grönroos, 2000; Clark, 2002). Still, the question remains whether this relation is a result of market orientation or a consequence of interventions to become market oriented. It is suspected that the latter might be true. In the same verse, it seems equally likely that organizational commitment and esprit de corps may contribute to creating and maintaining an organization’s market orientation as much as they may be the product of it (Hafer and Gresham, 2005).

In summary, organizational system factors that could influence intelligence gathering, intelligence dissemination and response implementation are top management emphasis, risk aversion, interdepartmental conflict, interdepartmental connectedness, formalization, centralization, reward system orientation, organizational commitment and esprit de corps (Jaworski & Kohli, 1993).
2.8 Two dimensional approach to market orientation

Until recently, scholars either followed Narver and Slater’s view, or Kohli and Jaworski’s view on market orientation leading to rather imperfect studies. With the new millennium came a new awareness that the two concepts are not exclusive but rather complementary. Evidence shows that both the market concept view and culture view are equally important pillars when building a market orientation (Hurley and Hult, 1998). Cervera, Molla and Sanchez (2002) agree to this and state that the two views are not mutually exclusive and in fact show different facets of the same concept. When combining the Kohli and Jaworski framework with that proposed by Narver and Slater, a two-dimensional model appears. Figure 2.4 visualizes this model.

![Figure 2.4 – a two-dimensional approach to market orientation. Source: Kohli and Jaworski, 1990; Narver and Slater, 1990.](image)

As shown in the outer circle of figure 3, customer orientation, competitor orientation and integrated marketing must exist in all company operations. To empower
management and staff with business intelligence, companies must also have systems in place for intelligence generation, dissemination and distribution of this information. This is shown in the inner circle in figure 2.4. Obviously, management and staff must act upon the intelligence that they have access to. The task of top management is to install the market oriented culture through strategy making and implementation on all levels (Kohli and Jaworski, 1990; Narver and Slater, 1990).

The integrated model showing two views suit the definition that a market orientation is the implementation of the marketing concept; a form of organizational culture.

2.9 **Moderators and barriers of market orientation**

Market oriented companies continuously investigate the shape of the market that they operate in as well as the shape of the company in order to stay alert on anything that could affect the level of market orientation such as changes in supply, demand, service level and atmosphere. The internal atmosphere within the company is a very important moderator of market orientation. Management and staff can create a barrier to market orientation as they as a team create organizational beliefs, values, directions and company culture (Gudlaugsson, 2005). So it seems that organizational change can be a treat to company performance because it affects people’s beliefs and how they feel about the company. Employees that are too occupied with changing their systems, processes and work rules cannot lay emphasis on market oriented behavior.

Cultural differences and opinion forming might have effect on the link between market orientation and performance measures. A relevant question is whether the relationship between the two can be strengthened or weakened by changes in the geographic situation, economic situation and business environment of a firm. Research shows that market orientation is less likely to have impact on performance in some environmental conditions such as a very strong demand (Day and Wensley, 1988 ; Bisp, 1999). In such an environment, companies can get away with not being market oriented at all. In a market with scarcity where products are rationed to consumers, market orientation also does not matter at all. Kohli and Jaworski (1990) concluded that market
turbulence and competition turbulence will strengthen the relationship between market orientation and performance, while technology turbulence will weaken this relationship.

The effects of market orientation on business performance might be moderated by the turbulence in the environment (Kohli and Jaworski, 1990, Slater and Narver, 1994). In more turbulent environments, a high level of market orientation will be more beneficial as firms can better follow, sense, and use changes in the environment. Kumar, Subramania and Yauger (1998) found that in a high market turbulence companies need a higher level of market orientation in order to perform well. This relationship worked both ways and therefore we could say that in an easy market with little change the level of market orientation is not relevant. Slater and Narver (1994) found limited support that the competitive environment influenced the relationship between market orientation and performance in any way. They found that market turbulence does have impact on the rate of return on assets (ROA), whilst technological change has impact on the success of newly marketed products. Hence they conclude that companies should not adjust their level of market orientation to match environmental conditions. Being market oriented is never harmful in their opinion.

Literature indicates that the degree of market orientation is less important in a booming market situation with healthy demand/supply equilibrium. In times of recession or in distorted demand/supply equilibrium the level of market orientation has a crucial function. As a contradiction, Gudlaugsson (2004) found that this does not apply to a public company such as the Icelandic bus transport. In economic recession, the degree of market orientation for this type of organizations has a positive link to business performance, whilst the opposite is true in a booming economy. This is explained by the fact that recession goes with higher inflation, more unemployment, and higher fuel prices and less purchase power. As a result more people will use the bus for transport. Not all firms developing advantageous products are necessarily market-orientated. For example, many Taiwanese high-tech firms pursue an “innovative and product-advantage” strategy when launching their new products. These firms aim to introduce products with high innovativeness and compete with rivals by providing above average products (Hsieh, Tsai, and Wang, 2008).
In fierce competitive markets such as the financial sector, organizations tend to be „lean and mean“. Overhead costs are kept down and main budget allocation is to keep current customers and obtain new ones from competitors. As an example, banks try to keep costs down by providing as many financial services as possible via the Internet.

Organizations that want to become market oriented can benefit from implementing a good business intelligence software system, often called BI. When organizations discover how BI drives higher performance, they inevitably expand their use of it, tapping into additional data sources and delivering more information in more ways to greater numbers of users throughout the enterprise (O'Regan, Ghobadian and Sims, 2006). But as BI solutions grow in size and importance, they can become challenging to maintain and administer, and IT invariably comes under increased pressure to meet service level agreements without exceeding budgets and available resources.

2.10 Consequences of market orientation

Having read different definitions and opinions about the market orientation concept we have a good idea of what it means to be market oriented. We have learned that it is both a business culture and an implementation of the market concept. That being clear, we can now move on and discuss what the consequences of market orientation can be, and how they can be influenced. Main consequences of market orientation derived from literature are great esprit de corps (team spirit), greater organizational commitment, greater competitive advantage and better performance. Other (indirect) consequences include clarity of focus, more innovation and increased organizational learning.

Kohli and Jaworski (1990) discussed the organizational consequences of market orientation. They stated that greater market orientation should lead directly to one consequence in particular, more esprit de corps (later supported by Jaworski & Kohli, 1993; Rose & Shoham, 2005), and to another consequence, greater organizational commitment. They suggested that marketing orientation’s positive impact on performance might be greater than previously assumed because of its indirect impact on performance through organizational commitment and esprit de corps. The word “through” suggests that organizational commitment and esprit de corps could both be causal antecedent
variables and consequences of a market orientation. The management literature has a rich collection of research suggesting that organizational commitment develops from many other aspects of the firm’s environment and culture other than market orientation. Kohli’s and Jaworski’s (1990) supposition was that marketing orientation fosters company spirit and employee commitment, when, in fact, the exact reverse may be the case.

Many scholars that have researched market orientation and its consequences as well as its effects on performance and have concluded that it leads to a competitive advantage, if well implemented (Narver and Slater, 1990; Slater and Narver, 1993; Kohli and Jaworski, 1990; Martín-Consuegra and Esteban, 2007). Respected economics and business authors also state that market oriented companies perform better and gain competitive advantage that is sustainable (Desphandé, 1999; Webster, 1988; Kotler, 1984; Levitt, 1960). The positive link between the degree of market orientation and organizational performance has been found in many countries and business sectors disregarding company size, culture or product/service (Kohli and Jaworski, 1990; Narver and Slater, 1990; Ruekert, 1992; Jaworski and Kohli, 1993, 2000; Slater and Narver, 1994; Desphandé and Farley, 1999, Slater and Narver, 2000, Berthon, Hulbert and Pitt, 1996).

Market oriented business culture facilitates *clarity of focus*. This focus becomes evident through the mission statement, the common vision of management and staff and the overall attitude of the company towards the customer. This creates a high degree of employee satisfaction, better morale, and greater commitment to the job and loyalty to the organization (Ruekert, 1992). Supporting this consequence, Sigauw, Brown and Widing (1994) reported that firms with a high degree of market orientation have a sales force that practices a greater level of customer orientation, decreases role stress and express greater job satisfaction and organizational commitment. It is important for frontline staff such as sales-, marketing- and service staff, to be market oriented, as they typically target new customers and persuade them to purchase. In order for the new customer to become a satisfied one that will repeat his purchase, the whole process from sales to transaction to after-sales must fit the market orientation concept. Anything the customer needs or wants must be adequately dealt with. A high score on customer satisfaction leads to loyal customers that repeatedly buy and might spread goodwill in
favor of the company attracting new customers and thus more business (Kohli and Jaworski, 1990).

The relationship between market orientation and performance is a cornerstone in the market orientation literature. A positive relationship between the level of market orientation and diverse performance measures was found by Narver and Slater (1990), Kohli and Jaworski (1990), Ruekert (1992), Orvis, (1996), Deshpandé and Farley (1999); Rose and Shoham, (2005); Xenikou and Simosi (2006), Martín-Consuegra and Esteban, 2007; Skerlavaj, Stemberger, Skrinjar and Dimovski (2007). A few empirical studies do not measure this positive relationship, which raises concerns about whether or not the most market-oriented firms are the best performers (e.g. Han, Kom and Srivastave (1998), Dimantopoulos and Hart (1993), Greenley (1995), Appiah-Adu (1998). Greenley (1995) developed an empirical study of 240 firms in the United Kingdom to test the relationship between level of market orientation and performance. His findings showed no significant effects on return on investment, sales growth or new product success. Hermansdottir (2006) tested the effect of market orientation of three Icelandic insurance companies on their performance and found a positive relationship. Surprisingly, she did not find a significant effect on customer satisfaction.

Scholars have mixed opinions on the relationship between market orientation and business performance. Is it moderated by other environmental factors such as economic situation, market turbulence, technology and competition, or does geographical situation matter the most?

The consequences of market orientation seem not to be sector specific. A high extend of market orientation not only benefits companies that sell to consumers, but also to service companies that exclusively sell business-to-business and even not for profit organizations and the public sector. Orvis (1996) did research on retail store performance in the United States of America and found out that the more market oriented, the better the performance. As discussed earlier in this paper, Kohli and Jaworski (1992) did not find the positive link between market orientation level and performance in their survey. This led to criticism on the importance of market orientation. In 1998, Kumar et al studied 159 hospitals in the United States of America and concluded a positive relationship between the two concepts. The research of Caruana, Ramaseshan and Ewing
(1999) confirmed that the level of market orientation has a positive effect on performance of government institutions. Their customers are citizens and organizations in need of state or government assistance. Before, these institutions were typically very bureaucratic and provided a low service level. After establishing a market orientation culture, customer satisfaction increased notably as well as employee satisfaction.

The most common measure for performance is *business profitability*. Slater and Narver (2000) found that market orientation is indeed positively related to business profitability, measured by return on investment. Other measures include sales growth and new product success and those were used in Narver’s and Slater’s research of 1994 and also showed a positive relationship. Castro, Armario and Sánchez del Río (2005) found that market orientation links with customer- and employee satisfaction. The positive effect of market orientation on service quality was mapped by Kantsperger and Kunz (2005).

Market orientation has several *indirect effects* on performance. Research provides evidence that a high level of market orientation will lead to *increased innovation and organizational learning* that in turn lead to better performance, as the company obtains more knowledgeable employees that make better products and provide better service. (e.g. Rapp, Schillewaert, Wei Hao, 2008; Shepstone and Currie, 2008; Laforet, 2008) Already in 1990, Prahalad and Hamel (1990) identified that over 80 percent of senior managers agreed that innovation creates a strong source of competitive advantage, and 90 percent indicated that innovation is highly valued. Jaworski and Kohli (1993) connected innovation with market orientation because they believed that the concept was driven by creating change and introducing new ways of doing business in order to differentiate and build a competitive advantage. Skerlavaj et al (2006) propose that organizational learning culture might be the missing link between business process change and organizational performance. Results from Laforet (2008) show that medium-sized and small companies are more innovative and market-oriented than larger companies.

The majority of research on market orientation is conducted in the United States of America. In general, American researchers conclude a positive link between market orientation and performance. When the same studies are replicated in non-US countries however, they yield mixed results. Often a weak or non-significant relationship between
market orientation and business performance is found (Dimanantopoulos and Hart, 1993; Greenley, 1995; Appiah-Adu, 1998). An explanation might be cultural differences (Hofstede, 1989). In their study of the effects of market orientation in the United States of America, Denmark, Sweden and Norway, Selnes, Kohli and Jaworski (1996) say that the findings indicate that (1) organizational antecedents are affected by national context; (2) the effects of the antecedents of market orientation are similar in U.S. and Scandinavia; (3) market orientation affects overall performance in both the U.S. and Scandinavia; and (4) strong effects of market orientation on esprit de corps are evident in both cultures.

2.11 Status and scope of market orientation

The marketing concept can be classified into an “old” marketing concept and a “new” one (Gunay 2002). The shift in focus becomes clear with the new millennium. Before 2000, scholars mainly focused on the direct effects of market orientation that were found to be diverse business performance measures, while after 2000, the focus shifted to the numerous indirect effects of it such as the effect on learning, employees satisfaction, and innovation. For example, Farell (2000) was one of the first to come with new evidence that the level of marketing orientation goes hand in hand with organizational learning. The “old” marketing concept emphasized customer orientation, product innovation and profit as drivers to creating happy customers while the “new” one emphasizes culture, innovation and the importance of organizational learning. Today’s marketing concept comprises customer orientation, distinctive advantages, market intelligence, value or quality delivery, continuous improvement in goods and services, customer-oriented business culture, and coordinated and integrated business activities in the whole organization creating a competitive advantage.

In order to get this job done, organizations must gather and analyze market knowledge and empower their people with it. Market orientation involves an outward-looking perspective from a firm, meaning that it should not only focus on customers but also on competitors, the development of their business sector and the work environment
as a whole (Narver and Slater, 1990). As the definitions of market orientation suggests, there is quite a strong market-related information aspect to market orientation. Hence, its fit within an organization is related to the ability of that organization to effectively manage its business information systems and make sure that all data is analyzed and developed into useable knowledge. Prahalad og Hamel (1990) share this opinion and state that market knowledge must be translated into strategic capabilities that in turn will create core competences leading to a defendable competitive advantage. Desphandé (1990) poses that the fit of market orientation within a firm is threefold: as part of the development of strategic competence as a learning organization; as part of a market knowledge management system and as a foundation for corporate strategy.

It has become clear that the traditional perspective of market orientation sees the concept as a business philosophy. However, contemporary approaches to market orientation see it as a dimension of a firm’s culture; a guiding representation to a firm’s tendencies; a differentiating capability; and an array of business behaviors (Varela and Rio, 2003). Market orientation has, also, been seen as both a behavioral and cultural business philosophy (Gounaris and Avlonitis, 2001). Figure 2.5 visualizes the nature and scope of the marketing over time.

![Figure 2.5](image)

*Figure 2.5 – Scope of marketing and its focus over time. Source: Hunt (1976)*
The time-line displayed in figure 2.5 draws on Hunt’s (1976) article “The Nature and Scope of Marketing”. In this article, Hunt asks himself if a new model of the scope of marketing can help resolve the “nature of marketing” and “marketing science controversies”. Hunt (1976) comes to the conclusion that marketing can indeed be described as a science, and that the concept and its dimensions will evolve over time. Hafer and Gresham (2008) agree to this vision and state that the long-term marketing planning has been exchanged for an integrated market orientation that manifests itself in the organizational culture. The organization focuses no longer only on maximizing its number of strategic business units, but takes into consideration what the customer wants and expects. Today’s employees are empowered with live date concerning customers, competitors, quality matters and performance with automated systems, enabling them to innovate and bring extra value to the customer at all times (Grönfeldt and Strother, 2006). Skerlavaj et al (2007) emphasize that the link between market orientation and performance is established by organizational learning, meaning that companies as a collective of people must learn along the way to perfecting their business concept. Shepstone and Currie (2008) found that it is of utmost importance to install the market orientation with the organizational culture. The focus of marketing is still evolving and shifting. Wind (2008) states that companies must focus their market orientation on “customer managed relationships”, as opposed to “customer relationship management” that has been a wide-spread concept in marketing for the last 10 years.

Next, a short discussion on how organizations can successfully implement a market orientation building on old and new experiences and best practices; using organization learning and changing organizational culture.

2.12 Implementing a market orientation

From literature we learn that market orientation is not an operating mode that can be turned on or off but rather a state of being that evolves over time (Narver and Slater, 1990). It will manifest itself trough the organizational culture where employees strive to continuously provide outstanding service to internal and external customers. The higher
the degree of market orientation, the more skilled employees become to integrate all processes in order to maximize performance for the company as a whole (Laforet, 2008). There are a number of steps that must be taken in order to install a market orientation. What follows is a rough road-map that is grounded in theory.

To install the market orientation process, one should start with thorough analysis of the company and its environment, the markets on which it operates, competition, customer demands and expectation and the satisfaction level of customers and employees to name a few. Kohli and Jaworski (1990) write about the antecedents in this context. Marketing theorist have provided a number of simple tools such as SWOT (analysis of strengths, weaknesses, opportunities and threats), PESTEL (analysis of political, economical, social, technological, environmental, legal issues) to do this analysis.

The next step is to systematically and continuously mediate the obtained knowledge and information to all employees (Kotler et al, 2001). This organizational learning process will mix with the corporate culture and as such create market oriented behavior that will have a positive effect on employees and customers and lead to better overall performance. The third step is continuous learning and adapting. Firms must set clear and measurable goals and milestones, and improve along the way. Feedback is an important issue here. The concept of market orientation and its steps for implementation should be integrated with the strategy and decision making processes in the company (Perry and Shao, 2002).

Many business owners and top managers tend to focus on the Kohli and Jaworski (1990) behavioral/information perspective when introducing a market orientation in their company (Hafer and Gresham, 2005). That is understandable, because businesses are becoming more and more information driven, and their decisions, operations, customer relationships, supplier relationships and internal networking are increasingly information dependent. The decision to take the behavioral/information-related perspective is based on the belief that being able to change information acquisition, dissemination and responses to the information in reaction to customer, competitor and market conditions is expected to be faster, cheaper, and easier, and would produce more immediate consequences than trying to change company culture. Thus, the behavioral/information-related (Kohli and Jaworski) perspective would offer a company the greatest immediate
return for the least effort and could be the grass roots foundation of company culture or cultural change. That being said, it has become evident that organizational culture is the key to building a market orientation and the vehicle that should drive organizational learning and change (cf. Narver and Slater, 1990; Denison, 1990; Han, Kom and Srivastave, 1998; Bisp, 1999). One could say that a distinctive type of organizational culture is necessary to effectively build a high level of market orientation.

The next chapter is dedicated to discuss this strong link between organizational culture and market orientation in greater detail.
3 Organizational culture and market orientation

Having reviewed relevant literature about market orientation, its ins and outs, models and effects, we now discuss how organizational culture and market orientation interact. To begin with, literature concerning organizational culture is reviewed. Next, the cultural model by Denison is explained in more detail and linked to the theories of Narver and Slater and Kohli and Jaworski. Furthermore, this chapter explains why organizational culture can be an effective way to measure market orientation.

3.1 Defining organizational culture

Organizational culture is a concept that is hard to describe distinctly. One could say that organizational culture is the personality of the organization (Schein, 2004). In that perspective, culture is viewed as a set of shared beliefs and values that are reflected in habits and traditions as well as in more tangible manifestations—stories, symbols, or even buildings, brands and products. It is an organization's self-identity: What members really think about what the company is and where it is going. Another perspective poses that companies are comparable to ethnical societies with respect to culture, where different people have different opinions of what norms and values are perceived prudent. Deal and Kennedy (2000) introduced the concept of organizational culture in their book Organizational Culture that was published in 1982. They say that organizational culture, broadly defined, is a collective understanding, a shared and integrated set of perceptions, memories, values, attitudes and definitions that have been learned over time and that determine expectations (implicit and explicit) of behavior that are taught to new members in their socialization into the organization. It is the organizational culture that gives identity, provides collective commitment, builds social system stability and allows people to make sense of the organization (Sannwald, 2002). Culture is comprised of the assumptions, values, norms and tangible signs or artifacts of organization members and
their behaviors (Mobely, Wang and Fang, 2005). Bowditch and Bouno (1995) wrote the following definition that is widely used for it is short and understandable:

“Organizational culture is the shared pattern of beliefs, assumptions, and expectations held by organizational members, and their characteristic way of perceiving the organization's artifacts and environment, and its norms, roles and values as they exist outside the individual”

The concept of organizational culture has been summarized comprehensively by Ott (1998) who summarized definitions from 58 books. He defined the core of organizational culture to build on norms, beliefs, opinions, feelings and other intangible items that together create the behavioral pattern that members of the culture follow. Similar definitions appear in studies by Silvester, Anderson, and Patterson (1999); Deal and Kennedy (2000); Despandé and Farley (1999), Kotter and Heskett, (1992); Schein (1992).

Culture is particularly important when attempting to manage organization-wide change, which is often necessary when implementing a market orientation. Practitioners realize that, despite the best-laid plans, organizational change must include not only changing structures and processes, but changing the corporate culture as well. Despandé, Farley and Webster (1993) recognized this fact and were the first scholars to connect market orientation with company culture. O’ Regan et al. (2006) propose that innovation is driven by a company's culture, leadership and strategic planning. They conclude that high performing firms have stronger and more defined leadership and culture styles compared with low performing firms. This is in line with the findings of Narver and Slater (1990) that suggest a strong relationship between organizational culture and market orientation. So, an empowerment culture where all employees encourage and assist each other associates with successful innovation, leading to a stronger market orientation and better performance.

There has been a great deal of literature generated over the past decade about organizational culture, particularly in regard to learning how to change organizational culture. Organizational change efforts are rumored to fail the vast majority of the time.
Usually, this failure is due to lack of understanding about the strong role of culture and the role it plays in organizations (Laforet, 2008). That is one of the reasons that many strategic planners that want to install a market orientation now place as much emphasis on identifying strategic values as they do mission and vision. A market orientation can only build upon a strong organizational culture, and has to become a part of that culture (Desphandé, Farley and Webster, 1993).

3.2 Market orientation and organizational culture

There is much evidence that links organizational culture with market orientation (cf. Denison, 1990; Kotter and Heskett, 1992; Sörensen, 2002; Denison, Haaland and Goelzer, 2004; Gainer and Pandanyi, 2005; Xenikou and Simosi, 2006; Skerlavaj et al, 2007; Laforet, 2008). The first scholars that connected market orientation with organizational culture were Desphandé, Farley and Webster (1993). Their study found that corporate culture is positively related to business performance through the market culture, which is the organizational culture that includes a high goal achievement orientation stressing competitive advantage. In such a culture, managers and staff are aware of the fact that the company exists to continuously produce great service and therefore they behave in a customer oriented way. Kotter and Heskett (1992) concluded that organizations with a responsible culture that takes everybody’s needs into consideration perform far better than companies that have a culture that only considers profits. A strong organizational culture that empowers employees is one of the most valuable resources to be found within a company (Denison, 1984).

Organizational culture plays a critical role in creating a work environment where employees are committed and contribute to the success of the organization (Shepstone and Currie, 2008). So this is where the implementation of a market orientation should start. A strong organizational culture is contaminous meaning that new employees are easily influenced with it in such a way that they start to behave in a market oriented manner. Therefore, companies want to spread this “positive virus” though key-personnel (Grönfeldt and Strother, 2006). Kotter and Heskett (1992) elaborate that in a market
oriented culture, employees all follow the same strategic direction of the organization. They have a common goal and recognize that all individuals and small jobs together make up the company and its performance. In such a company, people work harder and create that extra value for the customer. Companies with a market oriented culture have the infrastructure that fosters empowerment of the individual, knowledge creation and dissemination, and freedom to act in the best interest of the organization.

3.3 The effects of organizational culture on performance

One of the most frequently cited studies of culture and performance is Denison's research (1990). His study of 34 large American firms found that companies with a participative culture reap an ROI that averages nearly twice as high as those in firms with less efficient cultures. It showed that organizations with a participative culture experience better performance than organizations that have a more formal culture with less room for employee participation in decision- and strategy making. Denison suggests that studying organizational culture provides a way to capture the impact that culture has on organizational performance. He argues that his framework provides a way of diagnosing organizations and measuring the effects that human resource management, organizational culture and management practice’s can have on business performance. In other words, Denison's study provides hard evidence that the cultural and behavioral aspects of organizations are closely linked to both short-term and long-term survival. In further research, Denison and his colleagues (Denison, 1990; Denison and Mishra, 1995; Denison et al., 2004) developed and empirically supported a theory of organizational culture and effectiveness that identifies four cultural traits that are positively related to organizational performance. Others (Cooke and Rousseau, 1988; Rousseau, 1990; Cooke and Szumal, 2000) have demonstrated that efficient and innovative organizations have norms that promote achievement, self-actualization, and participation in decision making, cooperation, social support, and constructive interpersonal relations. In another exploratory model of the relation between organizational culture and performance, Marcoulides and Heck (1993) showed that culture as reflected in task organization had a positive direct effect on performance. Kotter and Heskett's (1992) study documented
results for 207 large U.S. companies in 22 different industries over an eleven-year period. They reported that companies that managed their cultures well saw revenue increase four times more than the companies that did not manage their cultures well; stock price increased 12 times more and net income increased of 756 times more.

Literature poses several challenges to organizational culture and its effects on business performance. Schein (2004) points out that the members of a culture can never fully describe all of the beliefs that underpin their culture; that culture is always complex and multidimensional; and that an organization’s culture is never fully unified meaning that there are always subcultures within the organization. Then there is reciprocal causality: Can managers improve business performance and wait to see culture begin to change? Or do managers change the culture in order to improve the business performance? (Ngansathil, 2001) Culture management requires a holistic approach that works from both directions simultaneously. Either way, it is the manager’s job to create the culture and mindset that bring about the behavior that helps the organization achieve its vision and strategy. A strong organizational culture that empowers members to take action in favor of the company is one of the most important resources of an organization (Denison, 1984). Although much of the literature on market orientation seems to argue for a ‘‘culture-drives-activities’’ relationship between the two constructs, an ‘‘activities-create-culture’’ relationship must also be considered as a possible model.

This brings us to the leadership challenge: What cultural attributes does the organization most need to successfully achieve its vision and strategy? What support should the organization give its managers to create and manage the desired culture?

Gainer and Padanyi (2005) agree with Tadepalli and Avila (1999) who say that norms and values drive behavior (which in turn drives performance). This conceptualization draws on the rational model of strategy formulation, which presumes that strategy development is a controlled process presided over by a chief executive and then implemented by middle management and staff. There is evidence in the marketing literature that market-oriented activities, such as monitoring the external environment, lead to the development of a strong market-oriented culture (Kohli and Jaworski, 1990, 1996; Appiah-Adu, 1998). A strong organizational culture positively links with better performance. Employees that experience the organizational culture of their company
supporting and comfortable are more likely to behave in a market oriented manner (Denison, 1990; Kotter and Heskett, 1992). Many managers complain that their employees are de-motivated, unproductive, and disloyal. One could say that these organizations get what they deserve. A "toxic" or dysfunctional work environment will lead to toxic behavior from employees. According to Pfeffer's (1994) research, companies that manage people right will outperform companies that don't by 30% to 40%.

3.4 Measuring organizational culture

There are several ways to measure the level of market orientation. It can be measured as a set of activities or behaviors relating to market intelligence gathering, market intelligence dissemination cross-functionally within a firm, and the action responses based on this intelligence (Desphandé, 1999). It can also be measured as an organizational culture (Narver and Slater, 1990; Adalsteinsson and Gudlaugsson, 2007; Shepstone and Currie, 2008; Hafer and Gresham, 2008; Heimisdottir, 2008). There have been efforts to integrate the marketing- and culture perspectives into one framework (Matsuno, Mentzer and Rentz, 2005; Carr and Lopez, 2007; Hafer and Gresham, 2008). The discussion about the cultural perspective versus the behavioral perspective has been well established in the literature and there is empirical evidence linking organizational culture characteristics to performance measures (Narver and Slater, 1990; Varela and Rio, 2003).

Evidence shows that more actively market-oriented companies excel in customer satisfaction and loyalty (Gray, Matea, Boshoff and Matheson, 1998). In articles by Ruekert (1992); Jaworski and Kohli (1993) and Baker and Sinkula (1999) the positive connection between the degree of market orientation and financial performance, innovation and organizational learning has become quite clear. Text books and articles emphasize that products and services should reflect market demand and transformations in customer preferences (Slater and Narver, 1995). Market orientation explains among other things that market knowledge of customers and how companies react to changing
demand are connected. However, other research shows mixed results and often a non-significant or very weak relationship between the degree of market orientation and performance (e.g. Appiah-Adu, 2001; Noble; Sinha and Kumar, 2002). When researchers apply objective performance measures such as real sales numbers, EBITDA and other key performance indicators (Langerak, 2001), significant effects of market orientation on performance are not easily found (Piercy, Harris and Lane, 2002). This is because market orientation and performance are most commonly measured with subjective measures such as opinion polls and perception surveys among customers and employees.

In order to describe and to be able to discuss cultural phenomena several models have been derived. Schein (1992, 2004) proposes a model that seems to be the most popular in the literature at the moment. As shown in figure 3.1, Schein structures culture into three levels representing the different levels of cultural evidence that range from the very tangible manifestations to the deeply embedded, unconscious basic assumptions that together form the organizational culture as a whole. The first level is named *artifacts*. These are the visible signs of culture that people experience when entering the office or the website of the organization. All from the dress-code to language usage and design of the building or products contribute to this level. The second level is *exposed beliefs and values*. Those are shaped by the feelings and ideas that people get when they read the companies mission, vision and values. The experience they have when actually having a close encounter with the company. The third level is *underlying assumptions*. These are intangible ideas about the organization that people create in their minds. They build upon artifacts and put into context with beliefs and values of that particular person. Other models to measure organizational culture include Hofstede, Trompenaars and OCI. This thesis does not use those models; hence they are not discussed any further.

It has been questioned whether organizational culture profiles are comparable between organizations (Denison and Mishra, 1995; Fey and Denison, 2003). Several scholars have concluded that organizations with a high level of market orientation have cultures with similar characteristics (Narver and Slater, 1990; Desphandé and Webster, 1998; Slater and Narver, 2000).
Carr and Lopez (2007) conclude that market oriented culture and conduct will ultimately affect employee responses and behavior. Kohli and Jaworski (1990) propose that firm market orientation is transmitted to employees and results in positive employee responses such as organizational commitment, job satisfaction and esprit de corps.

### 3.4.1 Denison model to measure organizational culture

Denison (1984) proposed a model to evaluate the shape of organizational culture and an instrument to measure it that he called DOCS (Denison Organizational Culture Survey). The methodology origins from research by Denison (1982, 1984, 1990), Denison & Spreitzer (1991), and Denison & Mishra (1995). Initially, Denison studied 34 companies and found that results were significantly different depending on behavioral issues. Denison and Mishra (1995) expanded the database to 756 companies and now this database includes results of over 1500 companies of different sizes (Mobley, Wang and Fang, 2005). The main focus of this method is to connect several different cultural/behavioral dimensions to company performance. Those dimensions are involvement, consistency, adaptability, mission and cultural traits. The DOCS has proved to be a reliable instrument to measure company culture and it has been used in various countries with different circumstances (cf. Denison, Haaland, Goelze, 2003; Fey and
Denison, 2003; Mobley, Wang and Fang, 2005; Adalsteinsson and Gudlaugsson, 2007). The four cultural traits are positively related to organizational performance and there is also some evidence for the links between organizational culture and entrepreneurship (Denison, Haaland and Goelzer, 2003). The model is not intended to encompass every possible relationship between research items, but revolves around the characteristics of organizational culture, market oriented activities and effects of market orientation.

Figure 3.2 shows the Denison model and its dimensions graphically. The first dimension is called the *Adaptability Trait*. Its statements categorize into the indices *customer focus, organizational learning* and *creating change*. The dimension measures how the organization understands and reacts to their customers, and anticipates their future needs. It reflects the degree to which the organization is driven by a concern to satisfy their customer and to build a sustainable competitive advantage in the market.

*Figure 3.2 – The Denison model to measure organizational culture. Source: Denison (1984, 1990)*
The second dimension is called the *Mission Trait*. Its statements categorize into the indices strategic direction and intent, goals and objectives and vision. High performance companies have a clear set of goals and objectives that are linked to the mission, vision, and strategy, and provide everyone within the organization with a clear direction in their work. The mission dimension is useful in identifying whether the organization is in danger of market myopia and to review if it is equipped with a systematically defined strategic and action plan.

The third dimension is called the *Consistency Trait*. Its statements categorize into the indices coordination and integration, agreement and core values. The Denison Consulting Group website elaborates on this dimension: “It defines the values and systems that are the basis of a strong culture. Consistency provides a central source of integration, coordination and control. Consistent organizations develop a mindset and a set of organizational systems that create an internal system of governance based on consensual support. They have highly committed employees, key central values, a distinct method of doing business, a tendency to promote from within, and a clear set of do's and don'ts” (Denison, 2008). Denison (2008) poses that consistency is the dimension that creates a strong culture based on a shared system of beliefs, values and symbols that are widely understood by members of an organization. According to Denison (2008), implicit control systems based on internalized values can be a more effective means of achieving coordination and integration than external-control systems that rely on explicit rules and regulations. The power of this method of operation is said to be particularly apparent when organizational members encounter unfamiliar situations. It enables individuals to better react in a predictable way to an unpredictable environment by emphasizing a few general, value-based principles on which actions can be grounded.

The fourth dimension is called the *Involvement Trait*. Its statements categorize into the indices empowerment, team orientation and capability development. Involvement is all about building human capability, ownership and responsibility. Denison (2008) poses that organizational cultures characterized as "highly involved" strongly encourage employee involvement and create a sense of ownership and responsibility. They rely on informal, voluntary and implied control systems, rather than formal, explicit, bureaucratic control systems. According to Denison (2008), out of this sense of ownership grows a
greater commitment to the organization and an increased capacity for autonomy. Receiving input from organization members increases the quality of the decisions and improves their implementation. The fourth dimension defines successful organizations as those that have a clear sense of purpose that defines long-term directions.

Denison and Mishra (1995) research found that the traits of involvement and adaptability were the best predictors of innovation which is strongly affected by entrepreneurship.

The model scales the four dimensions on a horizontal axis showing internal vs. external focus and a vertical axis that depicts flexible vs. stable focus. The dimensions “adaptability” and “mission” belong to the external environment and “involvement” and “consistency” to the internal environment of the organization. The dimensions “mission” and “consistency” also belong to the stability side of the axis while “adaptability” and “involvement” belong to the flexibility side of the axis.

The Denison model is not flawless, just as other models published in literature are not perfect. The adaptability and involvement dimensions are supposed to be flexible, while the mission and consistency dimensions must ensure a stable environment for the company. This creates a paradox, as companies with a strong customer focus must have a flexible mission statement and allow for rapid changes and adaptations of strategy (Denison, Haaland and Goelzer, 2004). Slater, Olsen and Huld (2006) argue that due to the constant search for opportunities prospectors must maintain flexibility so the organization can adapt to new information. Similarly, Ozsomer, Calantone and Di Bonneto (1997) suggest that a proactive strategic company posture usually leads to a flexible organizational structure that promotes innovativeness.

In summary, the Denison culture model is a tool which helps organizations, divisions, and teams, and the individuals within each attain a baseline assessment of current cultural strengths and weaknesses. A high score on any of the 12 dimensions is regarded to be positive, a strength, for the organizational culture, while the opposite is true for a low score. The center of the model (see figure 3.2) shows the underlying beliefs and assumptions that are the foundation for the human behavior and the actions taken by the organization. A run with the Denison model will provide managers with an understanding of bottom-line related performance such as profitability, sales/revenue
growth, market share, quality, innovation, and employee satisfaction, with direct links to cultural elements which may be supporting or hindering these performance areas.

The outcome of a measurement with DOCS defines the shape of the organizational culture. At the same time, the outcome of the adaptability dimension shows the level of market orientation of that organization. Knowing that the right research instrument has been chosen for the purpose of this study, we can now proceed to the research questions connected to the main research question: what are the effects of the bank’s level of market orientation on its business performance?

In the next chapter, these research questions are described along with the connected hypotheses.


4 Research questions and hypotheses

The objective of this chapter is to propose a conceptual framework and model based on the literature review in the previous chapters. Furthermore, it states a number of hypotheses founded on the research questions of this study and the framework.

4.1 Research questions

The main goal of this thesis is to investigate the practice of market orientation in an Icelandic financial organization, with a specific focus on the shape of organizational culture. The research subject was one of Iceland’s commercial banks. The study objectives were to measure the shape of this bank’s organizational culture; the level of its market orientation; and to test the relationships between the cultural dimensions (defined in the Denison Organizational Culture Survey) and business performance. Following the suggestions of Gainer and Pandanyi (2005), it is believed that the positive relationship between market-oriented behaviors and organizational performance is mediated by market-oriented culture.

The indicators that were used to test the relations between the cultural dimensions and performance measures are derived from research by Narver and Slater (1990) and Kohli and Jaworski (1990). These indicators were sales growth, profitability/ROI, quality of product and service, employee satisfaction, customer satisfaction and overall organizational performance. Notably, the performance indicator is a subjective measure, meaning that the respondent decides what performance means. This perception might differ between respondents. The other dimensions are more objective, meaning that respondents will generally perceive the response possibilities in a similar way.

Concerning the shape of organizational culture, the components coordination and integration (belonging to the consistency dimension) as well as strategic direction and intent (belonging to the mission dimension) are also believed to relate positively with market orientation in the sense that managers should coordinate the use of business
intelligence (BI) and integrate BI processes with the organizations strategy (Narver and Slater, 1990). Therefore, they were studied in more detail as well.

The research questions proposed to meet study objectives were:

1) What is the shape of organizational culture of the bank?
2) What is the level of this bank’s market orientation?
3) What is the relationship between this bank’s degree of market orientation and its performance?

The first research question “What is the shape of organizational culture of the bank?” is pretty straight-forward as the outcome of a measurement with DOCS defines the shape of the organizational culture. To study the shape of organizational culture and define the bank’s characteristics of market orientation and their influence on other variables, the following hypothesis was used:

H 1 – The adaptability dimension of the Denison model has a stronger correlation with the six performance measures than all sixty statements together do.

Previous research shows that one dimension in the Denison model in particular, adaptability, has a strong relation with the level of market orientation, which in turn has a strong relation with performance measures (Heimisdottir, 2008; Adalsteinsson and Gudlaugsson, 2007; Denison, 1990). If this hypothesis holds, we can conclude that the adaptability dimension is indeed a measure for market orientation for the bank. The measure of market orientation will then be a number on the scale of 1 to 5, calculated from a 15 item subset of the sixty statements of the Denison questionnaire.

The positive link between the level of market orientation and performance has been supported in numerous cases (Denison, Janovics, Young and Cho, 2006; Narver and Slater, 2000; Denison and Mishra, 1995; Selnes, Jaworski and Kohli, 1996; Kohli and Jaworski, 1993; Narver and Slater, 1990). Hence, it is of importance to test if this relationship also exists at this bank, and in particular for the three components of the adaptability dimension:
The three components of the adaptability dimension (level of the banks market orientation) link positively to the performance indicators

The next step is then to go a bit deeper and test the relation between the bank’s degree of market orientation and the three indicators of the adaptability dimension (a) creating change; (b) customer satisfaction; (c) organizational learning and (d) several other business performance indicators, the following hypotheses were used:

**H 2.1. Market orientation links positively to creating change**

**H 2.2. Market orientation links positively to customer satisfaction**

**H 2.3. Market orientation links positively to performance through organizational learning**

Hypothesis H 2.1 proposes that the level of the banks market orientation is positively related to the “creating change” sub-dimension. This relationship has been found in previous research (e.g. Gainer and Pandanyi, 2005). Hypothesis H 2.2 proposes that the level of the banks market orientation relates positively to customer satisfaction. This link was found by Narver and Slater (1990) and supported later on by Denison and Mishra (1995); Gainer and Padanyi, 2005; Denison, Janovics, Young and Cho (2006). Hypothesis H 2.3. proposes that market orientation links positively to organizational learning. Earlier research indicates that organizational learning has a positive effect on performance (e.g. Jiménez-Jiménez and Cegarra-Navarro, 2007; Skerlavaj and Stemberger, 2007; Desphandé, 1999; Denison, 1990).

The hypotheses concerning the relation between the bank’s degree of market orientation and business performance indicators are the following:

**H 2.4. Market orientation links positively to employee satisfaction**

**H 2.5. Market orientation links positively to overall performance**

**H 2.6. Market orientation links positively to sales growth**

**H 2.7. Market orientation links positively to profitability (ROI)**
Two indicators of the Denison model have shown extreme scores throughout the INTICE study (Heimisdottir, 2008; Adalsteinsson and Gudlaugsson, 2007). These are the indices “coordination & integration” from the consistency dimension with a high score and “strategic direction & intent” from the mission dimension that score very low. It has been argued that the coordination & integration sub-dimension generally show high scores in market oriented companies (Denison, 1990). The following hypotheses are used to test if the bank scores according to the trend on these indicators:

\[ H_3 \text{ - The level of coordination & integration increases when the degree of market orientation increases.} \]

\[ H_4 \text{ - The level of strategic direction & intent decreases when the degree of market orientation increases.} \]

In the next chapter, the four hypotheses are forged together in a conceptual framework that shows how variables are expected to connect.

### 4.2 Conceptual framework

Figure 4.1 is based upon Denison’s model and depicts how the hypotheses connect to the variables used in this study. The boxes “involvement”, “mission”, “adaptability” and “consistency”, aligned in the upper part of the figure, represent the shape of organizational culture and builds on the dimensions derived directly from the Denison model. For purpose of this study, a number of the statements that are included in these four factors form a concept or measure that is called market orientation. The “adaptability” box is emphasized with bold text, as this dimension is expected to contribute most variables to the market orientation measure. The model then shows how the level of market orientation relates to the seven performance indicators that are shown in the 6 blue boxes in figure 7. The two boxes on the right hand side of the figure are included in the model and represent the two indicators that have given extreme results in previous INTICE research.
As has been pointed out, this study measures market orientation from the cultural point of view. The shape of organizational culture (defined by four Denison dimensions) is the main variable of research as it is believed to be the foundation for creating a high level of market orientation. The focus of this thesis is in line with Narver and Slater’s argument that organizations that want to maximize performance and long-term profit, must continuously strive to offer superior value to their customers. That can only be achieved by creating an organizational culture that is customer oriented, competitor oriented and by maintaining a good inter-functional coordination (Narver and Slater, 1990). The seven performance measures included in the framework are based on this fact.

The focus of this thesis is also in line with Kohli and Jaworski’s argument that market orientation revolves around intelligence generation, intelligence dissemination and responsiveness to this intelligence (Jaworski and Kohli, 1990). Those items
categorize within the adaptability dimension in the Denison model and the components strategic direction & intent and coordination & integration and are included in the framework.

In the next chapter describes the research methodology used to put this conceptual framework to action.
5 Research methodology

This chapter discusses the research methodology used in this study. It explains the choice of study design, the survey method, survey instrument and sample. The Denison questionnaire is compared with the MARKOR questionnaire that was specifically designed to measure the level of market orientation. Then, the choice of the Denison model as survey instrument is explained in more detail.

5.1 Measuring market orientation

Market orientation can be measured in different ways. In the eighties, several scholars had discussed the influence of market orientation on performance but no official measurement instrument had been developed so it was not easy to compare results between different studies (Kohli, Jaworski and Kumar, 1993; Narver and Slater, 1990). The questionnaires that were made to link measure the introduction of the market concept and the link to performance sufficed for the individual studies though (Donnelly, Ivancevich and Hise, 1967; Lawton and Parasuraman, 1980; Thwaites and Lynch, 1992).

The first scholars to develop a dedicated research instrument to measure market orientation were Narver and Slater (1990). Their conceptual framework described the market orientation concept as three behavioral variables and two decision variables. The 14-item scale of Narver and Slater 1990 measures an organization’s focus on customer orientation, competitor orientation, and interfunctional coordination. Response possibilities were scaled on a 7 item Likert scale. The research instrument was named MKTOR and has been used for the last two decades to measure market orientation level (Dawes, 1999).

Three years after the launch of MKTOR, Kohli, Jaworski and Kumar (1993) developed another questionnaire based on their model that is called MARKOR. This is an abbreviation of MARKet Orientation. The MARKOR 32-item scale measures an organization’s focus on intelligence generation, intelligence dissemination, and responsiveness (see appendix 2).
Oczkowski and Farell (1998) suggest that MKTOR, in general, is superior to MARKOR in explaining variations in measures of business performance. Perhaps the main reason for this is that MARKOR lays too much emphasis on the aspect of intelligence generation. Kumar, Stern, and Anderson (1993) prefer the MARKOR questionnaire as it has a massive set of questions that measures the concept of customer orientation.

Both dimensions of market orientation - the *cultural dimension* (Narver and Slater, 1990) and the *organizational/process* one (Kohli and Jaworski, 1990, 1993), have a positive relationship with the *adaptability dimension* in the Denison model (Adalsteinsson and Gudlaugsson, 2007). Heimisdottir (2008) compared the Denison questionnaire with the MARKOR questionnaire and confirmed this. She concluded that the MARKOR questionnaire includes eight questions that match to creating change; three questions that measure organizational learning; and sixteen questions that measure customer focus. Five questions remain in the MARKOR questionnaire that cannot be matched to their counterparts in the Denison questionnaire (see appendix 3).

It can be argued that the adaptability dimension with its fifteen statements does not suffice as a measure for market orientation, even though it matches with all but five of the MARKOR questions that were specifically designed to measure the concept (see appendix 3). From literature we see that intelligence generation, dissemination and responsiveness are at the center of building a successful market orientation (Narver and Slater, 1990). On the other hand, MARKOR does almost not include questions that match to the “involvement”, “consistency” and “mission” dimensions in Denison’s cultural traits mode while those dimensions are also trivial to creating a successful market orientation, as they can have positive effects on company performance (Jimenez and Cegarra, 2007; Desphandé, 1999; Oczkowski and Farrell, 1998; Denison, 1990).

Even so, the Denison Organizational Culture Survey is believed to be a suitable tool for measuring the level of market orientation of the Icelandic bank that is subject of study in this thesis. A second reason for using the Denison model and questionnaire is that the INTICE project group uses this measurement tool. It allows for the results to be compared to the results of other Icelandic internationals that have been measured with this method during the past two years.
5.2 The survey instrument

The Denison Organizational Culture Survey (DOCS) is a carefully designed questionnaire with sixty questions grouped into four dimensions or traits and twelve sub-dimensions (see appendix 1). Each dimension has fifteen questions connected to it. As a whole, it measures the shape of organizational culture and the strengths or weaknesses of the company in that regard. However, single dimensions can measure other underlying concepts, one of which is market orientation. The dimension "adaptability", consisting of questions 31 to 45, basically measures the level of market orientation as it takes three key ingredients of market orientation into consideration: creating change, customer orientation and organizational learning.

For this study, the background questions in DOCS were adapted to the study object (the Icelandic bank) and extended with a question about the branch in which the respondents worked.

All questions were put forward both in English and Icelandic in order to avoid misunderstandings. The Icelandic translation is by Christiansen, audited by Gudlaugsson (2007). This translation has been used several times to measure organizational culture and level of market orientation of Icelandic companies with positive results.

The DOCS consists of four dimensions named *adaptability*, *mission*, *consistency* and *involvement*. Each dimension is then divided into three sub-dimensions as shown in figure 5.1.
Each category has five relevant questions or statements connected to it that together measure the concept. The 15 relevant statements within the dimension „Adaptability” that measures the level of Market Orientation are the following:

**Creating change**
31. The way things are done is very flexible and easy to change.
32. We respond well to competitors and other changes in the business environment.
33. New and improved ways to do work are continually adopted.
34. Attempts to create change usually meet with resistance.
35. Different parts of the organization often cooperate to create change.

**Customer focus**
36. Customer comments and recommendations often lead to changes.
37. Customer input directly influences our decisions.
38. All members have a deep understanding of customer wants and needs.
39. The interests of the customer often get ignored in our decisions.
40. We encourage direct contact with customers by our people.
**Organizational learning**

41. We view failure as an opportunity for learning and improvement.
42. Innovation and risk-taking are encouraged and rewarded.
43. Lots of things „fall between the cracks“.
44. Learning is an important objective in our day-to-day work.
45. We make certain that the „right hand knows what the left hand is doing“.

The adaptability dimension has proven to measure the level of market orientation and link positively to business performance in a very similar way as the MARKOR questionnaire does. In this study, it will be tested whether or not the adaptability dimension has a stronger relationship with the six performance measures than the other three dimensions.

Previous research results from the DOCS shows that two indices in particular are of interest (Gudlaugsson, 2007). The first one is **strategic direction & intent** from the mission dimension. Icelandic companies seem to score very **highly** there. The second one is **coordination & integration** from the consistency dimension, where the average Icelandic score is very **low**. The relevant statements are the following:

**Strategic direction and intent**

46. There is a long-term purpose and direction.
47. Our strategy leads other organizations to change the way they compete in the industry.
48. There is a clear mission that gives meaning and direction to our work
49. There is a clear strategy for the future.
50. Our strategic direction is unclear to me.

**Coordination and integration**

26. Our approach to doing business is very consistent and predictable.
27. People from different parts of the organization share a common perspective.
28. It is easy to coordinate projects across different parts of the organization
29. Working with someone from another part of this organization is like working with someone from a different organization.
30. There is good alignment of goals across levels.

A 5 point Likert scale was used for all response options connected to the statements. The scale started with „very much agree“, then „agree“, „neither agree nor disagree“, „disagree“ and concluded with „strongly disagree“. The first response item was coded with the numeric value 5 and the last one as numeric value 1.
The background questions or measures used to analyze the date were categorized by the following Company Performance and Demographics questions:

- *Overall performance*
- *Sales growth*
- *Profitability (ROI)*
- *Quality*
- *Customer satisfaction*
- *Employee satisfaction*
- *Gender*
- *Age*
- *Time at the company*
- *Branch*
- *Status*

The complete Denison Organizational Culture Survey can be found in appendix 1.

### 5.3 Research approach

In order to collect the data set needed to test the research questions, a cross-sectional study design was used. This design was most convenient as the questionnaire was only sent out once to a single population element. Cross-sectional study design fits studies that aim to analyze a phenomenon, problem, situation, attitude or issue by considering a cross-section of a certain population at one point in time (Kumar, 1996). This type of design is comfortable both for the researcher and the participants. Matter of factly, the majority of market orientation studies described in literature use this study design (e.g. Heimisdottir, 2006; Hermannsdottir, 2008; Jaworski and Kohli, 1993; Narver and Slater, 1990). The main disadvantage of this study design is the fact that the results only mirror one point in time and show no trend or development over time.

Furthermore, this study employs the survey method using an electronic questionnaire that was sent to the respondents by e-mail. The use of e-mail surveys is recommended for this type of studies as it is convenient and cost effective. A first advantage is that the researcher can dispatch the survey to the whole sample at once, track response rates in real time and sent reminders to the people that have not yet answered after a certain time period. Within days rather than weeks, all data is collected, opposed to the interview method that is very time consuming. Secondly, self-
administered questionnaires can eliminate interview bias (Cooper and Schindler, 2006). Thirdly, the method was used to measure market orientation by Narver and Slater, (1990); Jaworksi and Kohli, (1993); Hermansdottir, (2006); Heimisdottir, (2008). Nevertheless, the mail survey method has some disadvantages to it. The obvious of which is the response rate that can be quite low because there is no direct one-on-one interaction between the researcher and the respondents in the sample. Secondly, e-mail surveys can automatically end up in the junk mail box, or be thrown there by the receiver.

5.3.1 Sampling frame, method and size

The sampling frame used for this study was obtained from the human resources system of the bank that served as study object for this thesis. The sample consisted of the top managers, managers and front-line personnel in all the 32 Icelandic branches. This approach fits the bottom-up approach to measure the level of market orientation of the bank. Other studies have collected data from top managers only, as they are the ones making strategy. The target group of this study consists of people that are actually implementing strategy by executing top level directions. The front-line staff included in the sample used is in direct personal touch with the customer on a daily basis. Their responses should therefore give a good indication of how market oriented the bank really is.

The standardized questionnaire was not pre-tested, as it has already been used several times in this form in Iceland (Heimisdottir, 2008; Adalsteinsson and Gudlaugsson, 2007). Earlier runs have proven that the questionnaire is reliable and its Icelandic translation adequate.

5.3.2 Data collection procedure

A week before enabling the survey, an informative e-mail was sent to all respondents by the Human Resources Director of the bank. In this letter, the purpose of the survey was explained as well as the importance of the results for the bank. The letter
mentioned that if respondents should experience any difficulties during participating in the survey they were allowed to contact both the researcher and the VP of HRM at the bank.

This letter was very important, as it clearly showed the bank’s commitment to the project. It also motivated the respondents to participate, as pointed out in the recommendations of Kumar (1996).

Data was collected by fully structured questionnaires that were delivered to the 300 respondents by e-mail. The questionnaire was first mailed in April 2008 by the Vice President of Human Resources. On a regular basis, three reminders were sent to the sample, two by the Vice President of HR at the bank, and one by the researcher from a private e-mail address. In total, 300 respondents received the e-mail survey. 51 e-mails did not reach recipients by reason of fault, out of office and maternity leave. Therefore, 249 people had the opportunity to answer the survey. 153 responses were received, giving a response rate of 61.4%.

5.4 Respondents

The respondents in this study are 153 employees of the bank’s branches in Iceland. Originally, the research aimed at an audience of top managers to ensure a strategic and to some degree even an interdisciplinary perspective on the company in question. After deliberation, it was decided to rather use a bottom-up approach, and send the survey to middle managers and front-line staff that are in personal touch with clients. Respondent demographics are shown in Table 1.

Considerably more women than men responded to the survey. However, over 70% of the employees in the 32 branches are female so the results are in line with the gender dispersion. Almost 55% of the respondents have worked less than 10 years for this bank. The largest single group (41.7%) had been employed less than 5 years, indicating a young work force. The largest single group of respondents (60%) work as service representatives. Those are office workers that provide personal banking service to clients such as loan advice and money transfers but also fulfill back-office work such as
filling out forms for approval and the like. This group is also representative for the company.

Table 5.1 – Respondents and their demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Number of respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
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<td></td>
</tr>
<tr>
<td>Response rate</td>
<td>153</td>
<td>61.4</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>22.5</td>
</tr>
<tr>
<td>Female</td>
<td>117</td>
<td>77.5</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger than 35</td>
<td>58</td>
<td>38.4</td>
</tr>
<tr>
<td>35 years or older</td>
<td>93</td>
<td>60.8</td>
</tr>
<tr>
<td><strong>Time at the company</strong></td>
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<td></td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>63</td>
<td>41.7</td>
</tr>
<tr>
<td>5 - 10 years</td>
<td>20</td>
<td>13.2</td>
</tr>
<tr>
<td>11 - 15 years</td>
<td>13</td>
<td>8.6</td>
</tr>
<tr>
<td>16 - 20 years</td>
<td>14</td>
<td>9.3</td>
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<tr>
<td>More than 20 years</td>
<td>41</td>
<td>27.2</td>
</tr>
<tr>
<td><strong>Job title</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branch manager</td>
<td>10</td>
<td>7.5</td>
</tr>
<tr>
<td>Deputy branch manager</td>
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</tr>
<tr>
<td>Service manager</td>
<td>12</td>
<td>9.0</td>
</tr>
<tr>
<td>Cashier</td>
<td>19</td>
<td>14.3</td>
</tr>
<tr>
<td>Business service representative</td>
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<td>9.8</td>
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<td>Sales manager</td>
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<td>6.8</td>
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<tr>
<td>Team manager</td>
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<td>0.8</td>
</tr>
<tr>
<td>Business service manager</td>
<td>1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

The geographical location of respondents (shown in table 5.1) is in sync with the size of the bank’s branches country-wide. Most responses (11.3%) were received from the head-branch that is in the heart of the capital Reykjavík, followed by another large branch situated in Iceland’s second largest city Akureyri (10.5%) and third place is occupied by Iceland’s largest mall Kringlan (8.9%). The response rate together with the fact that the background variables are representative strongly indicate that the dataset can be used to realistically measure the level of the banks market orientation with respect to the Icelandic branches.
To decrease traceability of responses to individuals the branches have been recoded into the categories “Capital” with 53 respondents, “Cities & Towns” with 20 respondents and “Rural” with 51 respondents. 29 Respondents did not fill out in which branch location they were situated, resulting in even so much missing values.

The data analysis procedure and empirical results will be discussed in the next chapter.
6 Empirical results

This chapter discusses the empirical results of the study. First, the shape of the bank’s organizational culture is analyzed on three levels: 1) the total questionnaire of sixty statements; 2) the four dimensions consistency, involvement, adaptability and mission; and 3) the twelve sub-dimensions included in those four dimensions. The cultural shape is lined-out on the two axes of the Denison model and analyzed. Also, the sub-dimension strategic direction & intent from the “mission” dimension, and the sub-dimension coordination & integration from the “consistency” dimension are analyzed. Second, the factor analysis and reliability analysis are discussed that were executed to categorize the “adaptability” dimension of culture and test if it loads correctly into the model as suggested by Fey and Denison (2003). Thirdly, the correlation between variables and performance indicators is reviewed. Finally, the results of hypotheses testing are reviewed. All hypotheses were statistically tested with SPSS software.

6.1 Shape of organizational culture

The bank’s shape of organizational culture or “profile” was evaluated by plotting the 12 sub-dimensions of the Denison model into a radar chart. The sixty Denison statements together create a shape around the center of this radar chart, alongside the 12 grid-lines that reflect the twelve sub-dimensions of the model. All statements were evaluated on a five-point Likert scale where 1 means “very much disagree”, 2 “disagree”, 3 “neither disagree nor agree”, 4 “agree” and 5 “very much agree”. Each question had the same weight in the total score of dimensions and sub-dimensions or organizational culture. The questions 15, 24, 29, 34, 39, 43, 50 and 58 were on a reverse scale and therefore had to be transposed before analysis.

First, the mean score of all sixty statements was calculated by summarizing all scores and dividing the total by 60. The means and scores are calculated according to the Denison methodology. The score is obtained by dividing the mean by 5 and then multiply
by 100. The result for the total questionnaire is a mean score of 3.62, or 71 points \((3.62 / 5) * 100 = 71\).

Next, the mean score was calculated for each of the four cultural dimensions and the twelve sub-dimensions. All mean scores were then categorized into three intervals. The first interval ranging from 4.20 – 5.00 (score 84 – 100) indicates the company’s strengths in the organizational culture profile. The second interval ranging from 3.70 – 4.19 (score 74 – 83) indicates an acceptable level of organizational culture. The third interval ranging from 1.00 – 3.69 (score 20 – 73) indicates weaknesses in the cultural profile, and is therefore called the “action interval”. The dimensions that score in this interval are in need of attention (Grönfeldt and Strother, 2006). Note that this categorization is derived from Fey and Denison (1993) and follows an international standard for categorizing mean scores. It is not specifically a part of DOCS.

Table 6.1 shows the mean scores of all respondents on the sixty statements included in the Denison survey instrument. The mean score is the arithmetic average of a set of values, or distribution (Field, 2005). In this study, this is a number between 1 and 5 because there were 5 response possibilities to every statement. Most statements were answered by all of the 153 participants, but in some cases there are fewer responses. The standard deviation ranges from 0.81 to 4.46 and this is explained as such that more variance of responses leads to a greater standard deviation (Burns and Bush, 2006). If all data values are equal, then the standard deviation is zero. A useful property of standard deviation is that, unlike variance, it is expressed in the same units as the data.
Table 6.1 – Mean scores in Denison statements.

<table>
<thead>
<tr>
<th>Involvement</th>
<th>N.</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Consistency</th>
<th>N.</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
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<td></td>
<td></td>
<td><strong>Core values</strong></td>
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<td></td>
<td>Consistency</td>
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<td>0.97</td>
</tr>
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<td>1.01</td>
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<td></td>
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<td>3.91</td>
<td>0.78</td>
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</table>
Table 6.2 shows all averages in the dimensions and sub-dimensions. The means and scores are calculated according to the Denison methodology. For example: the score for “Empowerment” is calculated \((3.42 / 5) \times 100 = 68\).

Table 6.2 – Mean scores in Denison dimensions and sub-dimensions

<table>
<thead>
<tr>
<th>Dimension / sub-dimension</th>
<th>Mean</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
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<tr>
<td>Empowerment</td>
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<td>Team orientation</td>
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<td>Capability development</td>
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<tr>
<td>Core values</td>
<td>3.72</td>
<td>74</td>
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<tr>
<td>Agreement</td>
<td>3.64</td>
<td>73</td>
</tr>
<tr>
<td>Coordination &amp; integration</td>
<td>3.25</td>
<td>65</td>
</tr>
<tr>
<td>Mission</td>
<td>3.91</td>
<td>78</td>
</tr>
<tr>
<td>Strat. dir. &amp; intent</td>
<td>4.18</td>
<td>84</td>
</tr>
<tr>
<td>Goals &amp; objectives</td>
<td>3.91</td>
<td>78</td>
</tr>
<tr>
<td>Vision</td>
<td>3.63</td>
<td>73</td>
</tr>
</tbody>
</table>

The Involvement dimension scored 68 points, the adaptability dimension 71, the consistency dimension 71 and the mission dimension 78. This outcome indicates that three dimensions must receive attention. Although the mission dimension scores 78 points, it may also be improved such as to get from category 2 (acceptable) into category 3 (strength).

To test if there were differences between the means of the dimensions, they were divided into four different pairs: involvement vs. adaptability, consistency and mission; adaptability vs. involvement, consistency and mission; consistency vs. involvement, adaptability and mission; mission vs. involvement, adaptability and consistency. Next, paired t-tests with a 95% confidence interval were used to see if there were differences between the means of the pairs. The paired t-test is appropriate when there is just one
observation for each combination of the nominal values. **Involvement** vs. adaptability, consistency and mission scored ($t(152) = -7.360; p<0.05$), indicating a significant difference between the means of these dimensions. **Adaptability** vs. involvement, consistency and mission scored ($t(152) = -1.822; p=0.07$) which is not significant. **Consistency** vs. involvement, adaptability and mission scored ($t(152) = -3.695; p<0.05$), indicating a significant difference between the means of these dimensions. **Mission** vs. involvement, adaptability and consistency scored ($t(152) = 0.776; p<0.05$), indicating a significant difference between the means of these dimensions.

Figure 6.1 shows the bank's profile on the radar chart. This graphical display visualizes the high score in the “strategic direction and intent” dimension, and the low score on the “coordination and integration” dimension. As mentioned, this profile is in line with previous Icelandic research (e.g. Heimisdottir, 2008).

![Figure 6.1 – Bank´s shape of organizational culture in a radar chart](image-url)
The organization profile of the bank could do better according to the outcome of the Denison survey. Of the twelve sub-dimensions, only four score 74 points or higher, indicating an acceptable level of organizational culture. Eight sub-dimensions score under 74 points indicating that the bank’s management must take action. The dimensions “vision” and “agreement” both score 73 points and are very close to falling in the acceptable level category. That leaves the bank with six sub-dimensions that are in need of intensive care.

The Denison model has four hemispheres that are Strong Internal Focus, displayed with a Bottom Heavy/Top Light shape on the vertical axis; Strong External Focus, displayed with a Top Heavy/Bottom Light shape on the vertical axis; High Flexibility/Low Stability and High Stability/Low Flexibility on the horizontal axis. A hemisphere can be defined as a half of a sphere bounded by a great circle, in this case the visual set-up of the Denison model as shown in figure 6.1.

The bank’s cultural shape shows a strong external focus with a shape that is top heavy and bottom light. The bank’s cultural shape appears to focus more on high stability and consequently low flexibility.

The sub-dimension “coordination & integration” forms a notch in the chart thanks to a low score of 65 points. When the individual statements within this sub-dimension are considered, it appears that statement 27 “People from different parts of the organization share a common perspective” scores 3.00, dragging down the mean score for the sub-dimension. To test if this score is significantly different from the other scores in the sub-dimension “coordination & integration”, a t-test was employed for statement 26 to 30. The test value was set to 3.00 and the confidence interval to 95%. The mean of statement 27 is significantly lower than the means of statement 26 (t(151)=8.13; p<0.05) , statement 29 (t(152)=-2.60; p<0.05) and statement 30 (t(152)=5.27; p<0.05. There was no significant difference between statement 27 and 28 that scored also low, 3.08.

The sub-dimension “team orientation” shows a low score as well, 67 points. When the individual statements within this sub-dimension are considered, it appears that statement 6 “Cooperation across different parts of the organization is actively encouraged” scores 3.14, dragging down the mean score for the sub-dimension. To test if this score is significantly different from the other scores in the sub-dimension “team
The sub-dimension “empowerment” shows another low score, 68. When the individual statements within this sub-dimension are considered, it appears that statement 5 “Business planning is ongoing and involves everyone in the process to some degree” scores 3.24, dragging down the mean score for the sub-dimension. The sub-dimensions “capability development”, “creating change” and “customer focus” all score 69 points. When the individual statements within this sub-dimensions are considered, it appears that statements 15 “Problems often arise because we do not have the skills necessary to do the job” (3.25); 31 “The way things are done is very flexible and easy to change” (2.69); and 37 “Customer input directly influences our decisions” (2.88) drag their respective mean scores down.

To test if the score in statement 15 is significantly different from the other scores in the sub-dimension “capability development”, a t-test was employed for statement 11 to 15. The test value was set to 3.25 and the confidence interval to 95%. The mean of statement 15 is significantly lower than the means of statement 12 (t(151)=2.01; p<0.05), statement 13 (t(151)=3.14; p<0.05) and statement 14 (t(151)=5.56; p<0.05).

To test if the score in statement 31 is significantly different from the other scores in the sub-dimension “creating change”, a t-test was employed for statement 31 to 35. The test value was set to 2.69 and the confidence interval to 95%. The mean of statement 31 is significantly lower than the means of statement 32 (t (152)=15.17; p<0.05), statement 33 (t(152)=13.83; p<0.05), statement 34 (t(152)=8.90; p<0.05) and statement 35 (t(152)=11.20; p<0.05).

To test if the score in statement 37 is significantly different from the other scores in the sub-dimension “customer focus”, a t-test was employed for statement 36 to 40. The test value was set to 2.88 and the confidence interval to 95%. The mean of statement 37 is significantly lower than the means of statement 38 (t (151)=9.76; p<0.05), statement 39 (t(152)=5.33; p<0.05) and statement 40 (t(151)=22.86; p<0.05).
The sub-dimension “*strategic direction & intent*” scores highest with 84 points and falls in the third category – an organizational strength. Statement 46 “*There is a long-term purpose and direction*” scores a 4.46. To test if the score in statement 46 is significantly different from the other scores in the sub-dimension “*strategic direction & intent*”, a t-test was employed for statement 46 to 50. The test value was set to 4.46 and the confidence interval to 95%. The mean of statement 46 is significantly higher than the means of statement 47 (t(152)=0.62; p<0.05), statement 48 (t(152)=-5.01; p<0.05), statement 49 (t(152)=-2.10; p<0.05) and statement 50 (t(152)=-5.05; p<0.05).

In order to test if there were significant differences between the scores of the three categories within each of the twelve sub-dimensions, a paired-samples t-test was used with 95% confidence interval. The “*involvement*” dimension showed no significant difference between the scores of empowerment/team orientation, empowerment/capability development nor team orientation/capability. The “*adaptability*” dimension showed a significant difference between organizational learning/creating change (t(152)=-7.92; p<0.05) but none between creating change/customer focus. The “*consistency*” dimension showed no significant difference between the scores core values/agreement. It showed a significant difference between core values/coordination & integration (t(152)=8.95; p<0.05) and between agreement/coordination & integration (t(152)=7.73; p<0.05). The “*mission*” dimension showed a significant difference between strategic direction & intent/goals & objectives (t(152)=6.99; p<0.05), strategic direction & intent /vision (t(152)=12.07; p<0.05) and goals & objectives/vision (t(152)=8.13; p<0.05).

Table 6.3 shows the results of the paired t-tests graphically. Each dimension shows how its sub-dimensions relate to each other. The sub-dimensions that group together have no significantly different score, while the ones that group in separate boxes significantly differ.
Table 6.3 – Summary of results of the paired t-tests

<table>
<thead>
<tr>
<th>Involvement (61)</th>
<th>Consistency (71)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowerment (68)</td>
<td>Core values (74)</td>
</tr>
<tr>
<td>Team orientation (67)</td>
<td>Agreement (73)</td>
</tr>
<tr>
<td>Capability development (69)</td>
<td>Coordination &amp; integration (65)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adaptability (71)</th>
<th>Mission (78)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Org. learning (76)</td>
<td>Strategic direction &amp; intent (84)</td>
</tr>
<tr>
<td>Creating change (69)</td>
<td>Goals &amp; objectives (78)</td>
</tr>
<tr>
<td>Customer focus (69)</td>
<td>Vision (73)</td>
</tr>
</tbody>
</table>

There is no significant difference between any of the scores of the sub-dimensions of “involvement”. Coordination & integration in “consistency” has a significantly higher score than core values and agreement and there is no significant difference between the latter two. Organizational learning scores higher than the other two sub-dimensions of “adaptability”. All sub-dimensions of “mission” score significantly different.

Another run with paired t-tests was executed to see how the sub-dimensions of the “adaptability” dimension compare to all other sub-dimensions in the Denison model. In total, 108 pairs were made. 45 pairs had significant differences between their means, and they are shown in table 5. 20 pairs included one of the three sub-dimensions of the “adaptability” trait. The sub-dimension “organizational learning” was represented 8 times, “customer focus” 6 times and “creating change” 6 times as well. Table 6.4 presents the results.
Table 6.4 – Results of paired t-test

<table>
<thead>
<tr>
<th>Pair</th>
<th>Sub-dimension</th>
<th>Sub-dimension</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>152</td>
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</tr>
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<td>coordination</td>
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</table>
In table 6.5, the twelve sub-dimensions are ranked by score, starting by the highest and decreasing to the lowest.

Table 6.5 – Summary of results from paired t-tests by sub-dimensions

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<tr>
<th>strat. intent</th>
<th>goals and objectives</th>
<th>org. Learning</th>
<th>core values</th>
<th>agreement</th>
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<td>coordination</td>
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<td>core values</td>
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<td>team orientation</td>
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<td>agreement</td>
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<td>team orientation</td>
<td>coordination</td>
</tr>
</tbody>
</table>

In table 6.5, the sub-dimensions that belong to the “adaptability” trait in the Denison model are colored. “Organizational learning” scored well, but “creating change” and “customer focus” did not. “Coordination” did significantly worse than the other sub-dimensions.

Next, responses were cross-referenced with the back-ground variable “branch location” on three hierarchical levels: 1) all sixty statements, 2) the four dimensions and 3) the twelve sub-dimensions. Table 6.6 shows the results. The bold numbers in the column “mean” indicate a significant difference within that column. Overall, the branches in Iceland’s capital Reykjavik score highest, 73 points. This remains the fact when the four dimensions are reviewed, 80 points. One level down, on the twelve sub-dimensions, we see that branches in rural area’s occasionally score higher. When the scores in the four dimensions are compared within categories, the bank scores significantly higher on “mission” than on the other three dimensions according to the t-test (t(52)=4.18; p<0.05). Location does not make a difference here. Branches in the rural area’s score significantly lower on the “involvement” dimension (t(50)=-2.516; p<0.05).
When the scores in the twelve sub-dimensions are compared within categories, we see significant differences between scores on several items.

Table 6.6 – Average scores by branch location

<table>
<thead>
<tr>
<th>Sub-dimension</th>
<th>Capital Mean Score</th>
<th>Standard dev.</th>
<th>N</th>
<th>Cities/towns Mean Score</th>
<th>Standard dev.</th>
<th>N</th>
<th>Rural area Mean Score</th>
<th>Standard dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 60 statements</td>
<td>3.66 73 0.583 53</td>
<td>3.53 71 0.511 20</td>
<td>3.61 72 0.512 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4 dimensions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement</td>
<td>3.45 69 0.733 53</td>
<td>3.37 67 0.705 20</td>
<td>3.36 67 0.705 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td>3.57 71 0.614 53</td>
<td>3.47 69 0.548 20</td>
<td>3.57 71 0.568 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>3.63 73 0.572 53</td>
<td>3.41 68 0.540 20</td>
<td>3.61 72 0.489 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>4.00 80 0.673 53</td>
<td>3.85 77 0.459 20</td>
<td>3.89 78 0.558 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 sub-dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>empowerment</td>
<td>3.46 69 0.805 53</td>
<td>3.34 67 0.770 20</td>
<td>3.39 68 0.812 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>team orientation</td>
<td>3.46 69 0.797 53</td>
<td>3.34 67 0.863 20</td>
<td>3.32 66 0.820 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>capability development</td>
<td>3.41 68 0.792 53</td>
<td>3.43 69 0.726 20</td>
<td>3.39 68 0.700 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>core values</td>
<td>3.78 76 0.707 53</td>
<td>3.57 71 0.606 20</td>
<td>3.73 75 0.656 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>agreement</td>
<td>3.63 73 0.779 53</td>
<td>3.59 72 0.535 20</td>
<td>3.69 74 0.682 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>coordination &amp; integr.</td>
<td>3.29 66 0.666 53</td>
<td>3.26 65 0.768 20</td>
<td>3.28 66 0.660 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>creating change</td>
<td>3.58 72 0.634 53</td>
<td>3.26 65 0.579 20</td>
<td>3.45 69 0.567 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>customer focus</td>
<td>3.46 69 0.624 53</td>
<td>3.31 66 0.647 20</td>
<td>3.52 70 0.552 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>org. learning</td>
<td>3.83 77 0.724 53</td>
<td>3.68 74 0.666 20</td>
<td>3.85 77 0.679 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strategic dir. &amp; intent</td>
<td>4.20 84 0.785 53</td>
<td>4.17 83 0.520 20</td>
<td>4.16 83 0.724 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>goals and objectives</td>
<td>4.03 81 0.767 53</td>
<td>3.88 78 0.630 20</td>
<td>3.87 77 0.612 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vision</td>
<td>3.75 75 0.605 53</td>
<td>3.49 70 0.452 20</td>
<td>3.63 73 0.580 51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the scores between the three locations (see table 6.6) are compared with ANOVA (Analysis of variance), it comes to show that the overall scores are not significantly different between locations.
Figure 6.2 shows that there are very minimal differences in scores by the different locations. This might be explained by the fact that the Icelandic nation is very homogeneous. Further explanations will be given in the results chapter of this thesis.

6.2 Two sub-dimensions of interest

As posed in an earlier chapter of this thesis, there are two sub-dimensions of the Denison model that have received either a very high score or a very low one from Icelandic respondents (Gudlaugsson, 2007; Heimisdottir, 2008). The results of this study also show this trend. The bank scores well on the “strategic direction & intent” sub-dimension (4.18, 84 points) and poorly on the “coordination & integration” sub-
dimension (3.25, 65 points). In the interest of this study, the scores of those two sub-dimensions were correlated with the “adaptability” dimension.

As hypothesized, the sub-dimension “coordination and integration” was expected to have a positive correlation with the market orientation concept. The results support H 3 “the level of coordination & integration increases when the degree of market orientation increases” ($r$)=0.58, $p<0.01$, ($R^2=0.34$) meaning that the variance in the level of coordination and integration explains 34% of the variance in the level of market orientation and vice versa.

As hypothesized, the sub-dimension “strategic direction and intent” was expected to have a negative correlation with the market orientation concept. The result however was that H 4 “the level of strategic direction & intent decreases when the degree of market orientation increases” was not supported, as there was indeed a strong positive relationship between them. In fact, ($r$)=0.68, $p<0.01$, ($R^2=0.47$) meaning that the level of strategic direction and intent explains 47% of the variance in the level of market orientation and vice versa. According to these results, a high score in this sub-dimension can increase the level of market orientation.

### 6.3 Factor analysis

The adaptability dimension of Denison’s model gets most of the attention in this study. Therefore, it is important to test statistically how the fifteen underlying statements load into the factors of the adaptability construct: creating change, customer focus and organizational learning.

Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance that is observed in a much larger number of manifest variables. Variables are categorized according to the loading given by the factor analysis. There should be at least 3 variables that load together as one factor (Fabrigar, Weegner, MacCallum and Straham, 1999). Variables that load together measure the same concept. Merging them together in a factor
makes the statistical analysis stronger than if only single variables were used (Field, 2005).

It is not recommended to do a factor analysis with a sample with less than 100 observations (Fabrigar et al, 1999). Each variable should have at least 10 observations connected to it for the factor analysis to be reliable (Field, 2005). In this study the fifteen variables that belong to the Adaptability dimension in the Denison model were entered into the factor analysis with 124 responses while strictly taken there should have been 150 observations.

The construct validity of Adaptability was assessed using the Principal component factor analysis with varimax rotation. Two statistical tests were done to see if the data were useable for factor analysis. These were Bartlett’s test of sphericity and the Kaiser-Maier-Olkin measure of sampling adequacy (KMO).

Factor analysis was found to be of an excellent applicability to the data, according to KMO. α=0.84 which is considerably higher than the minimum value of 0.7 as proposed by Nunally (1978) and significantly higher than the minimum value of 0.6 as proposed by Kaiser (1974). This result means that 84% of the data are explained with the factors found. Bartlett’s test showed correlation between variables (p<0.001) meaning that the factor analysis can be used (Field, 2005).

In fact, the data suggests that for each recording the best solution results from the extraction of four factors (eigenvalues p>1) and significant loadings (p>0.5). However, when the scree-plot is reviewed in figure 6.3 there seem to be two or three factors at the most. Fewer variables loaded into factors 3 and 4 which might explain this difference. The total percentage of variance explained by each one of the factors extracted was good.
Denison and Mishra (1995) propose three factors for the adaptability dimension and therefore the fourth factor (in effect, statement 34) was merged with the second one. Table 6.7 shows the factor loadings in detail.
Table 6.7 - Results from factor analysis for the adaptability dimension.

<table>
<thead>
<tr>
<th>Question no.</th>
<th>Statement</th>
<th>Org. learning</th>
<th>Creating change</th>
<th>Customer focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>We view failure as an opportunity for learning and improvement.</td>
<td>0.820</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>We encourage direct contact with customers by our people.</td>
<td>0.787</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>Learning is an important objective in our day-to-day work.</td>
<td>0.666</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>We make certain that the &quot;right hand knows what the left hand is doing.&quot;</td>
<td>0.557</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>42</td>
<td>Innovation and risk-taking are encouraged and rewarded.</td>
<td>0.447</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>New and improved ways to do work are continually adopted.</td>
<td>0.394</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>34</td>
<td>Attempts to create change usually meet with resistance.</td>
<td>0.832</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>The way things are done is very flexible and easy to change</td>
<td>0.761</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Customer comments and recommendations often lead to changes.</td>
<td>0.717</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Customer input directly influences our decisions.</td>
<td>0.667</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>We respond well to competitors and other changes in the business environment.</td>
<td>0.406</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>The interests of the customer often get ignored in our decisions.</td>
<td>0.750</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Different parts of the organization often cooperate to create change.</td>
<td>0.587</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Lots of things &quot;fall between the cracks.&quot;</td>
<td>0.584</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>All members have a deep understanding of customer wants and needs.</td>
<td>0.558</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

1 = Organizational learning in the Denison model, 2 = Creating change in the Denison model, 3 = Customer focus in the Denison model

Results show that the three factors found explain 48.7% of the data variance. The factor names were copied from Denison (2005): Organizational learning, creating change and customer focus. These names suited well to the loadings obtained from the factor analysis as they were similar to the original loadings by Denison. In several cases however, the results differed from Denison´s original factor analysis loadings.
The statements 41, 42, 44 and 45 loaded into the factor “organizational learning” which is in line with Denison’s results. Curiously, statements 40 and 33 also loaded into this factor, while Denison loaded them into “customer focus” and “creating change” respectively.

The statements 31 and 32 loaded into the factor “creating change” which is in line with Denison’s results. However, statements 36 and 37 also loaded into this factor, while Denison loaded them into “customer focus”. Statement 34 loaded into a fourth factor as only variable. Therefore, it was replaced into the “creating change” factor where it belongs according to Denison.

The statements 38 and 39 loaded into the factor “customer focus” which is in line with Denison’s results. But statements 35 and 43 also loaded into this factor, while Denison loaded them into “creating change” and “organizational learning” respectively.

The factor loadings are very much alike the results that Heimisdottir (2008) got from her research with the Denison model at an Icelandic pharmaceutical company.

Internal consistency/reliability of each extracted factor was tested using Cronbach’s Alpha (1971) and proved to be excellent for the three factors together (α = 0.82). Creating change had an alpha of 0.56, customer focus had an alpha of and 0.58 and organizational change had an alpha of 0.71. Drawing on these results, the conclusion is that the factor analysis identifies the underlying variables, that explain the pattern of correlations within the fifteen statements that together make up the “adaptability” dimension.

6.4 Performance

The bank’s performance was measured by statements 61 – 67 that were added to the original sixty Denison statements. The statements were posed in such a way that respondents would rate the banks performance as compared to other companies in the financial sector. Of course, this is a subjective manner of measurement which builds on the perspective of the respondent rather than on the performance itself (Adalsteinsson and Gudlaugssson, 2007). Fortunately, there is evidence of consistency between subjective and objective performance measures (Dawes, 1999; Pearce, Robbins and Robinson, 1987;
Dess and Robinson, 1984) and therefore the subjective method is accepted in this thesis. Table 6.8 shows the scores on the bank’s performance indicators.

Table 6.8 – Results of performance indicators

<table>
<thead>
<tr>
<th>Performance</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales growth</td>
<td>4.39</td>
<td>0.084</td>
<td>153</td>
</tr>
<tr>
<td>Profitability</td>
<td>4.75</td>
<td>0.090</td>
<td>153</td>
</tr>
<tr>
<td>Quality</td>
<td>4.32</td>
<td>0.093</td>
<td>153</td>
</tr>
<tr>
<td>Employee satisfaction</td>
<td>3.86</td>
<td>0.115</td>
<td>153</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>3.61</td>
<td>0.106</td>
<td>153</td>
</tr>
<tr>
<td>Overall performance</td>
<td>4.14</td>
<td>0.082</td>
<td>153</td>
</tr>
</tbody>
</table>

On average, the bank scores a 4.2 on its performance indicators (4.39+4.75+4.32+3.86+3.61+4.14/6=4.2). The highest score of 4.75 goes to the “profitability” indicator and the lowest one 3.61 to customer satisfaction. The one-sample t-test shows that the profitability does score significantly higher than the other five indicators (t(152)=6.046; p<0.05). Other significant differences were found for sales growth (t(152)=2.299; p<0.05), employee satisfaction t(152)=-2.930; p<0.05) and customer satisfaction t(152)=5.515; p<0.05).

All but one performance indicators score over the threshold of 3.69 as defined by Denison as minimum level for a healthy company culture. The bank’s personnel that responded to the survey do not rate the customer satisfaction level very highly as is indicated by a score of 3.61.

When cross-referenced (ANOVA) with branch location, no significant differences were found between the mean scores. This is shown in table 6.9.

Table 6.9 – Performance by branch location.
As table 6.9 shows, the profitability of the bank is perceived to be far better than any other bank in Iceland by the respondents to the survey. Respondents from cities/towns (not the capital) give this indicator the highest possible score – 100 points. Those same respondents also give the lowest score for customer satisfaction, 69 points, although this is not significantly lower than respondents that work in the capital or the rural areas.

### 6.5 Correlation analysis and hypothesis testing

Four hypotheses were posed in this study to answer the research questions. The first one of which posed that the adaptability dimension of the Denison model has a stronger correlation with the six performance measures than all sixty statements together do. The six performance indicators are sales growth, profitability, quality, employee satisfaction, customer satisfaction and overall performance. The second hypothesis posed that the three components of the adaptability dimension (level of the bank’s market orientation) links positively to the performance indicators. The third one posed that the level of coordination & integration increases when the degree of market orientation increases and the fourth and last one that the level of strategic direction & intent decreases when the degree of market orientation increases.

A correlation analysis with Pearson’s correlation efficient ($r$) was conducted on all variables in this study for two purposes. The first reason for conducting the correlation analysis was to explore the relationships between variables. The second was to check the presence of multicollinearity. Multicollinearity refers to a situation in which two or more
explanatory variables in a multiple regression model are highly correlated (Berry and Feldmann, 1985). Perfect multicollinearity occurs if the correlation between two independent variables is equal to 1 or -1. Perfect multicollinearity in a data set is rarely found. More commonly, the issue of multicollinearity arises when there is a high degree of correlation (either positive or negative) between two or more independent variables. The data set in question did show some signs of multicollinearity. For example, quality did correlate strongly with overall performance (r)= 0.60, p<0.01. Customer satisfaction did correlate strongly with employee satisfaction (r)=0.52, p<0.01. These positive interrelations are in the nature of these performance measures. High quality of goods or services produced should lead to a good overall performance, as customers receive value for money and are probably willing to pay a higher price or do repeat purchases. A high level of customer satisfaction might in turn have a positive effect on employee satisfaction, as employees feel happier when interacting with satisfied customers.

The coefficient of determination, R², was used to estimate the quality of correlations found. R² is a statistic number between 0 and 1 that gives some information about the goodness of fit of a model. An R² of 1 indicates that the regression line perfectly fits the data, and therefore explains to what percentage one variable explains the constant variable, in this thesis the measure of market orientation.

To interpret the strengths of relationships between variables, the guidelines suggested by Field (2005) were followed, mainly for their simplicity. His classification of the correlation efficient (r) is as follows: 0.1 – 0.29 is weak; 0.3 – 0.49 is moderate; and > 0.5 is strong. Rowntree (1987) classified the correlation efficient (r) is as follows: 0.0 – 0.2 is very weak, negligible; 0.2 – 0.4 is weak, low; 0.4 - 0.7 is moderate; 0.7 – 0.9 is strong, high, marked and 0.9 – 0.10 is very strong, very high. Obviously, this is a much broader scale that –if used- would make it more difficult to categorize the strengths of correlation. The bivariate correlation procedure was subject to a one-tailed test of statistical significance at the level of 90% significance, p<0.01 and of 95% significance, p<0.05.

The results of the correlation analysis of the “adaptability” dimension (market orientation) and its sub-dimensions with the six performance indicators are displayed in table 6.10.
As shown in table 6.10, most correlations between the adaptability dimension and the six performance indicators were weak according to Field’s (2005) classification. The correlation between adaptability and employee satisfaction was moderate ($r=0.34$) and ($R^2 = 0.12$), meaning that the dimension “adaptability” could explain 12% of employee satisfaction. These data support hypothesis H 2, although the correlation of the sub-dimension “adaptability” to the performance indicators is weak.

The corollary hypotheses, H 2.1 market orientation links positively to creating change ($r=0.81$); H 2.2 market orientation links positively to customer satisfaction ($r=0.84$); and H 2.3 market orientation links positively to performance through organizational learning ($r=0.88$), were all supported. The results of the correlations are displayed in table 6.11.

**Table 6.10 – Correlations for the dimension “adaptability” and its sub-dimensions with performance indicators**

<table>
<thead>
<tr>
<th></th>
<th>Sales growth</th>
<th>Profitability</th>
<th>Quality</th>
<th>Employee satisfaction</th>
<th>Customer satisfaction</th>
<th>Overall performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>0.14*</td>
<td>0.01</td>
<td>0.22**</td>
<td>0.34**</td>
<td>0.27**</td>
<td>0.22**</td>
</tr>
<tr>
<td>Creating change</td>
<td>0.08</td>
<td>0.07</td>
<td>0.16*</td>
<td>0.32**</td>
<td>0.21**</td>
<td>0.15*</td>
</tr>
<tr>
<td>Customer focus</td>
<td>0.18*</td>
<td>-0.41</td>
<td>0.20**</td>
<td>0.23**</td>
<td>0.18*</td>
<td>0.18*</td>
</tr>
<tr>
<td>Organizational learning</td>
<td>0.11</td>
<td>0.01</td>
<td>0.20**</td>
<td>0.30**</td>
<td>0.28**</td>
<td>0.21**</td>
</tr>
</tbody>
</table>

* $p<0.05$

** $p<0.01$

As shown in table 6.10, most correlations between the adaptability dimension and the six performance indicators were weak according to Field’s (2005) classification. The correlation between adaptability and employee satisfaction was moderate ($r=0.34$) and ($R^2 = 0.12$), meaning that the dimension “adaptability” could explain 12% of employee satisfaction. These data support hypothesis H 2, although the correlation of the sub-dimension “adaptability” to the performance indicators is weak.

The corollary hypotheses, H 2.1 market orientation links positively to creating change ($r=0.81$); H 2.2 market orientation links positively to customer satisfaction ($r=0.84$); and H 2.3 market orientation links positively to performance through organizational learning ($r=0.88$), were all supported. The results of the correlations are displayed in table 6.11.

**Table 6.11 – Correlations of the MO level with three sub-dimensions.**

<table>
<thead>
<tr>
<th></th>
<th>Creating change</th>
<th>Customer focus</th>
<th>Organizational learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation Level</td>
<td>0.81**</td>
<td>0.84**</td>
<td>0.88**</td>
</tr>
</tbody>
</table>

* $p<0.05$

** $p<0.01$

As shown in table 6.11, the mean score in the “adaptability” dimension (market orientation level of the bank) has a positive relationship with the three key ingredients of market orientation, creating change, customer focus and organizational learning. All three
scores categorize as strong according to Field (2005). The remaining corollary hypotheses, \( H_{2.4} \) market orientation links positively to employee satisfaction \((r=0.34)\), \( H_{2.5} \) market orientation links positively to overall performance \((r=0.14)\), and \( H_{2.6} \) market orientation links positively to sales growth \((r=0.01)\), \( H_{2.7} \). Market orientation links positively to profitability (ROI) are all supported, although the positive relationship with overall performance, sales growth and profitability is weak according to Field (2005).

When we correlate the “adaptability” dimension which is our measurement of market orientation, with a combined measure of performance (mean of scores in quality, sales growth, profitability, employee satisfaction and overall performance), the result is \((r=0.31)\), \((R^2 = 0.10)\), meaning that the level of market orientation explains 10\% of the bank’s performance.

To be able to either support or decline the first hypothesis, the Denison questionnaire with all sixty statements was correlated with the six performance indicators. Then, the results were compared with the results of the “adaptability” dimension. The results of the correlation analysis are displayed in table 6.12.

**Table 6.12 – Correlations for all Denison statements with performance indicators**

<table>
<thead>
<tr>
<th>All Denison Statements</th>
<th>Sales growth</th>
<th>Profitability</th>
<th>Quality</th>
<th>Employee satisfaction</th>
<th>Customer satisfaction</th>
<th>Overall performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.19*</td>
<td>0.05</td>
<td>0.22*</td>
<td>0.33**</td>
<td>0.23**</td>
<td>0.24**</td>
</tr>
</tbody>
</table>

* \( p<0.05 \)

** \( p<0.01 \)

Surprisingly, all the sixty Denison statements together (see table 6.12) correlate in a very similar way to the performance indicators as the dimension “adaptability” does. When we correlate all sixty statements with the combined measure of performance, the results is \((r=0.32)\), \((R^2=0.11)\), meaning that all statements together explain 11\% of the bank’s performance. Therefore, the results do not support hypothesis \( H_1 \), that stated that the adaptability dimension of the Denison model has a stronger correlation with the six performance measures than all sixty statements together do.
The third hypothesis, \( H_3 \) - *the level of coordination & integration increases when the degree of market orientation increases* was tested with Pearson’s \( r \) and supported \((r=0.58)\), and \((R^2=0.34)\), meaning that *coordination & integration* explains 34% of the variance of market orientation. There is a positive linear correlation between the two variables, as expected. According to Field’s (2005) classification this is a strong correlation.

The fourth hypothesis, \( H_4 \) - *The level of strategic direction & intent decreases when the degree of market orientation increases* was tested with Pearson’s \( r \) and rejected \((r=0.68)\), and \((R^2=0.46)\), meaning that *strategic direction & intent* explains 46% of the variance in market orientation. There is a positive linear correlation between the two variables, where a negative correlation was hypothesized. According to Field’s (2005) classification this is a strong correlation.

Figure 6.4 displays the correlations between performance variables and the sub-dimension “adaptability”, the measure of market orientation.

*Figure 6.4 – The correlations between market orientation and performance indicators.*

Figure 6.4 shows that although the market orientation measure correlates positively with all six performance indicators, this relation is weak \((r<0.30)\) in five of them. This is indicated with red text in figure 6.4. There is a moderately strong positive
connection between the market orientation measure and employee satisfaction, according to Field’s (2005) classification. This is indicated with green text in figure 6.4.

In table 6.13, the results from correlations of the other three dimensions and sub-dimensions with the performance indicators are displayed. Apparently, these three sub-dimensions do not correlate very strongly with the six performance indicators. The “Involvement” dimension only shows weak correlations with the performance indicators. The “Consistency” dimension scores a moderately strong correlation (r=0.33) (R² = 0.11) with employee satisfaction but weak correlations with the five other performance indicators. The “Mission” dimension scores a moderately strong correlation (r=0.30) (R²=0.09) with employee satisfaction but weak correlations with the five other performance indicators.

Table 6.13 – Correlation between three dimensions, their sub-dimensions and performance

<table>
<thead>
<tr>
<th></th>
<th>Sales growth</th>
<th>Profitability</th>
<th>Quality</th>
<th>Employee satisfaction</th>
<th>Customer satisfaction</th>
<th>Overall performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Involvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement</td>
<td>0.19*</td>
<td>0.08</td>
<td>0.16*</td>
<td>0.20**</td>
<td>0.14*</td>
<td>0.19**</td>
</tr>
<tr>
<td>Empowerment</td>
<td>0.17*</td>
<td>0.07</td>
<td>0.13</td>
<td>0.16*</td>
<td>0.16*</td>
<td>0.17*</td>
</tr>
<tr>
<td>Team orientation</td>
<td>0.19*</td>
<td>0.09</td>
<td>0.19*</td>
<td>0.18*</td>
<td>0.16*</td>
<td>0.23**</td>
</tr>
<tr>
<td>Capability development</td>
<td>0.12</td>
<td>0.05</td>
<td>0.11</td>
<td>0.27**</td>
<td>0.06</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Consistency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core values</td>
<td>0.11</td>
<td>-0.01</td>
<td>0.24**</td>
<td>0.33**</td>
<td>0.25**</td>
<td>0.22**</td>
</tr>
<tr>
<td>Agreement</td>
<td>0.87</td>
<td>0.02</td>
<td>0.27**</td>
<td>0.32**</td>
<td>0.24**</td>
<td>0.20**</td>
</tr>
<tr>
<td>Coordination &amp; integration</td>
<td>0.06</td>
<td>-0.20</td>
<td>0.22**</td>
<td>0.25**</td>
<td>0.30**</td>
<td>0.20**</td>
</tr>
<tr>
<td><strong>Mission</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic direction and intent</td>
<td>0.23**</td>
<td>0.07</td>
<td>0.19*</td>
<td>0.30**</td>
<td>0.20**</td>
<td>0.22**</td>
</tr>
<tr>
<td>Goals and objectives</td>
<td>0.19**</td>
<td>0.04</td>
<td>0.17*</td>
<td>0.24**</td>
<td>0.18*</td>
<td>0.17*</td>
</tr>
<tr>
<td>Vision</td>
<td>0.21**</td>
<td>0.06</td>
<td>0.13</td>
<td>0.32**</td>
<td>0.13</td>
<td>0.18*</td>
</tr>
</tbody>
</table>

* p<0.05  ** p<0.01

Next, we review how the four traits of the Denison model correlate to each other. Table 6.14 shows that all correlations are significant with the 99% certainty level.
Table 6.14 – Correlation between the four traits in the Denison model

<table>
<thead>
<tr>
<th></th>
<th>Involvement</th>
<th>Consistency</th>
<th>Mission</th>
<th>Adaptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>1</td>
<td>0.77**</td>
<td>0.64**</td>
<td>0.69**</td>
</tr>
<tr>
<td>Consistency</td>
<td>0.77**</td>
<td>1</td>
<td>0.72**</td>
<td>0.77**</td>
</tr>
<tr>
<td>Mission</td>
<td>0.64**</td>
<td>0.72**</td>
<td>1</td>
<td>0.78**</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.69**</td>
<td>0.77**</td>
<td>0.78**</td>
<td>1</td>
</tr>
</tbody>
</table>

* p<0.05  
** p<0.01

As shown in table 6.14, the mission trait has the strongest correlation with the adaptability dimension and therefore market orientation.

When comparing the empirical results that have been discussed in this chapter to the conceptual framework as defined in chapter four of this thesis, the keen eye will see that neither the measure of market orientation (10%) nor the other dimensions (11%) explicitly explain of the performance of the bank. In the next chapter, we will elaborate on these facts and discuss possible reasons for these results.
7 Discussion of results, conclusions and recommendations

The previous chapter reported on the empirical results of the measures of the bank’s shape of organizational culture; its level of market orientation; and the correlations between market orientation and performance. In this last chapter of the thesis, we will discuss and explain research findings in more detail and draw conclusions that will hopefully be of interest to managers, researchers and investors in the International community. Special emphasis lays again on the “adaptability” dimension, the measure of market orientation, and its relation with performance. The chapter concludes with the limitations and recommendations for future research.

7.1 Organizational culture, market orientation and performance

The reason why market orientation has received a great deal of attention from many researchers in the past decade is because it is believed that a high level of market orientation can provide a solid basis for a sustainable competitive advantage (Narver and Slater, 1998; Hunt and Morgan, 1995). In this study, we hypothesize that market orientation has a positive effect on performance. The level of market orientation is measured with the Denison Organizational Culture Survey (DOCS). To refresh, we categorized all scores from DOCS between 1.00 - 3.69 (20 to 73 points) as weakness in the cultural profile; 3.70 – 4.19 (74 to 83 points) as acceptable level of organizational culture and 4.20 – 5.00 (84 to 100 points) as strengths in the organizational culture profile. This categorization derived from Fey and Denison (1993) was used in previous Icelandic research with DOCS and therefore thought appropriate.

The first result of this study is that the four dimensions of the Denison model evaluate the organizational culture of the bank with a score of 3.62, which would be a weak organizational culture. As discussed in the previous chapter, the bank scored a 3.91 on the mission dimension, which is acceptable; a 3.54 on the consistency dimension,
which is a weak score; a 3.41 on the involvement dimension, a weak score; and a 3.57 on the adaptability dimension, also a weak score. From these empirical results it becomes clear that the shape of the bank’s organizational culture could be better with regard to the level of market orientation. Although an average score of 3.62 on a five-point scale (71 points on the scale 0 – 100) is not all bad, Denison and Fey (2003) say that scores below 3.69 indicate a weakness in the organizational profile. So, strictly taken, the bank has a weak organizational culture according to the Denison methodology. On the other hand, the score in this study is only 1.9% lower than the break point between the categories “organizational weakness” and “acceptable level of organizational culture”. This means that if we choose a positive point of view, we could conclude that the bank generally has an acceptable level of organizational culture, although there are indeed some issues that need improvement. Denison, Janovics, Young and Cho (2006) have published a benchmark from the large database with world-wide results from DOCS. This benchmark is shown in table 7.1.

Table 7.1 – Benchmark scores from DOCS compared with bank´s scores

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Sub-dimension</th>
<th>Benchmark Score</th>
<th>Standard deviation</th>
<th>Bank’s score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>Creating change</td>
<td>3.10</td>
<td>0.69</td>
<td>3.45</td>
</tr>
<tr>
<td></td>
<td>Customer focus</td>
<td>3.37</td>
<td>0.69</td>
<td>3.46</td>
</tr>
<tr>
<td></td>
<td>Organizational learning</td>
<td>3.13</td>
<td>0.71</td>
<td>3.8</td>
</tr>
<tr>
<td>Mission</td>
<td>Strat. dir. &amp; intent</td>
<td>3.41</td>
<td>0.82</td>
<td>4.18</td>
</tr>
<tr>
<td></td>
<td>Goals &amp; objectives</td>
<td>3.47</td>
<td>0.69</td>
<td>3.91</td>
</tr>
<tr>
<td></td>
<td>Vision</td>
<td>3.30</td>
<td>0.67</td>
<td>3.63</td>
</tr>
<tr>
<td>Involvement</td>
<td>Empowerment</td>
<td>3.31</td>
<td>0.71</td>
<td>3.42</td>
</tr>
<tr>
<td></td>
<td>Team orientation</td>
<td>3.40</td>
<td>0.77</td>
<td>3.36</td>
</tr>
<tr>
<td></td>
<td>Capability development</td>
<td>3.41</td>
<td>0.69</td>
<td>3.45</td>
</tr>
<tr>
<td>Consistency</td>
<td>Core values</td>
<td>3.50</td>
<td>0.66</td>
<td>3.72</td>
</tr>
<tr>
<td></td>
<td>Agreement</td>
<td>3.22</td>
<td>0.66</td>
<td>3.64</td>
</tr>
<tr>
<td></td>
<td>Coordination &amp; integration</td>
<td>3.03</td>
<td>0.73</td>
<td>3.25</td>
</tr>
</tbody>
</table>
If we compare the bank’s score to the benchmark as shown in table 7.1, we can conclude that the bank scores higher than the average company in all sub-dimensions except team-orientation. From this perspective, the bank’s score on DOCS is very good. Whatever the perspective, the Denison model provides relevant information for the bank’s managers that should consider the scores carefully and then take appropriate action.

Concerning the bank’s overall shape of organizational culture, results show an external focus (top heavy graph on the vertical axis) combined with focus on stability (heavy graph on the right side of the horizontal axis). This external focus is in line with results from Narver and Slater (1990) that stated that market orientation involves an outward-looking perspective from a firm, meaning that it should not only focus on customers but also on competitors, the development of their business sector and the work environment as a whole. According to Denison’s explanation (2008), the external focus often indicates an entrepreneurial company that focuses on identifying patterns and trends in the marketplace without focusing on systems, processes and controls to execute organizational strategies. The danger for the bank is that the organization may lack the controls or infrastructure necessary to sustain or manage its growth.

The focus on stability indicates that the bank has strong systems, structures and processes in place and can operate with machine-like precision meaning that it can excel at operations and the impressive execution of a plan (Denison, 2008). In a stable marketplace, the bank should be able to out-perform their competitors, but once the marketplace starts to change and competitor pressures emerge, it may have a difficult time responding to the changes due to their strict adherence to rules, regulations, and bureaucracy. The bank might become victim of their own success as much time and energy is expended protecting the status quo at the expense of meeting changing customer, product or service requirements.

It is interesting that the results of this study are much alike the results of two other Icelandic companies (cf. Heimisdottir, 2008; Gudlaugsson, 2007), indicating that the scores and scoring categories range a bit differently here than e.g. in the US. This strengthens the view that the bank’s organizational shape might be “acceptable” rather
than “weak”, compared to other Icelandic organizations. There is more research with the Denison questionnaire in Iceland needed in order to prove this right or wrong.

The sixty Denison statements showed positive correlations with the six performance indicators that were used in this study, and five of them were significant. The strongest correlation appeared to be with the measure of employee satisfaction, of which the Denison statements explain 11% of variance. It is interesting to note that the bank’s shape of organizational culture does not seem to have an effect on its profitability. It can be concluded that organizational culture as measured with the Denison instrument does not explain all variance in the bank’s performance, meaning that performance is affected by other factors that are not included in this study. Those factors could be the external environment, exchange rate, investment policy, economic situation, to name a few. In comparison to the other performance indicators, one would have expected to see a stronger correlation with profitability. Most likely, this correlation lacks because profitability was a subjective measure.

When the scores on the four dimensions where reviewed by branch location, the differences were not significant. The scores from respondents working in the capital are not significantly different from the scores given by respondents working in cities/towns or in rural areas. The most logical explanation is that the Icelandic culture is homogenous. People’s perceptions and opinions do not differ too much between geographical areas.

Next, the scores in each dimension and sub-dimension are discussed in more detail and connected with theory in order to draw plausible conclusions that could be of use for managers and readers of this thesis alike. We start with the adaptability dimension.

The **adaptability dimension** is of particular interest in this study, as it is the measure of the market orientation level because it contains some of the key ingredients of market orientation as defined by Narver and Slater (1990; 1993). The Denison instrument scored a 3.57 indicating that the bank has a low level of market orientation. We recommend with Denison, Janovics, Young and Cho (2006) that the bank should improve its reaction to external changes and customer needs. The organization should plan better and use organizational learning to improve its way of doing business.
The sub-dimension “organizational learning” scored a 3.80 (76 points) which Denison (2003) categorizes as acceptable. This score is not far from being an organizational strength. This means that the bank has a moderately strong learning orientation, which is important to building a market orientation. Learning orientation is the ability of the organization to implement new ways of business (Baker and Sinkula, 1999). Farell (2000) says that learning is the most valuable asset within an organization to maintain its competitive advantage. Bisp (1999) also emphasizes the importance of organizational learning. He furthermore emphasizes that market orientation is driven by the ability to attract and develop staff with the needed knowledge and skills. This is a wisdom that the bank’s managers should keep in mind. Let’s also not forget that organizational learning was in theory often found to be an indirect result of market orientation that in turn leads to better performance.

The adaptability dimension did not correlate with the profitability measure, while it had significant positive relations with the other performance indicators. This finding is in line with a study done by Balabanis, Stables and Phillips (1997) that poses that the efforts to develop a market orientation take some time to yield rewards. This may be the case for this bank as well, but it is rather far-fetched though, as the bank has not been actively been implementing a market orientation. A more likely explanation might be that (again) profitability was a subjective measure and as such not directly connected to the shape of culture nor to the level of market orientation.

The sub-dimension “customer focus” scored a 3.46 (69 points) which Denison (2003) categorizes as a weakness. Kotler (1997) pointed out that organizations must define and analyze customer needs and expectations in order to be able to fulfill their demand. To improve customer focus, the bank might want to do more / better market research (e.g. regularly conduct opinion polls amongst customers to measure customer satisfaction level). This sub-dimension correlated positively with all performance indicators, and best with employee satisfaction.

The sub-dimension “creating change” scored a 3.45 (69 points) which Denison (2003) categorizes as a weakness. Concluding from the results, the bank’s management should increase the level of market orientation by fostering the creation of change for
example by encouraging more frequent direct contact with customers, and by dealing better with customer input such as questions, complaints and notifications.

In order to test how the fifteen statements of the adaptability dimension load into the factors of the adaptability construct: creating change, customer focus and organizational learning, factor analysis was used. The results showed loadings that did not always comply with the loadings that Denison and Fey (2003) published. Several variables loaded into other factors than they were supposed to load into. Possible explanations could be that there is a glitch in the translation of the statements; that Icelandic respondents may put a different meaning to some statements; or maybe some of the statements do not apply to Icelandic businesses. Other instances where DOCS has been used to measure Icelandic companies in regard to market orientation show similar discrepancies in factor loading. This indicates that the questionnaire itself as measurement instrument is useable, but that it might need revision and adaptation to the Icelandic culture. Probably the list contains some statements that are not understood in the way they were meant to be understood by respondents. It is worth mentioning that there are two different views on the market orientation construct in literature. One group of scholars (e.g. Kumar et al, 1998) argues that market orientation should be considered as a single construct. They say that it is one component – no factor analysis needed. The other group of scholars (e.g. Han, Kim and Srivastava, 1998) sees market orientation as three different components. Denison and Fey (1993) follow this group.

The correlation between adaptability and overall performance was positive, significant and explained 11% of variance. Hypothesis H 1 was rejected however as the adaptability dimension did not show a stronger correlation with performance indicators than all Denison statements together did. In fact, the two concepts correlated very similarly with the performance indicators. A plausible explanation for this might be that the questionnaire was sent to middle- and lower level employees of the bank as opposed to top-level managers that might have a different perspective on the sixty statements. The sample might have been a bit skewed in this regard, making it difficult to compare the bank’s results with other results. The data showed no differences in results by branch location.
The consistency dimension scored significantly lower than the three other dimensions, a 3.54. When drilling down through the sub-dimensions and eventually the single statements, it appeared that the respondents felt that people from different parts of the bank do not share a common perspective. This pulls down the average score for the dimension and is something to focus on in the bank’s strategy. It is important that employees (especially the ones that are on similar level) have a common perspective of what the strategy of the bank is, what the goals are, and how they should be obtained. According to Kohli and Jaworski (1990), this is the role of senior management. Hence we recommend that the bank’s top management should focus on involving front-line staff in coordination and integration strategy-making in order to improve the average score. The front-line personnel are the ones that are in touch with customers on a daily basis, and therefore their opinion counts and values the bank. Special emphasis should lay on team-orientation since that sub-dimension of involvement scored the lowest in its dimension. To become a more consistent organization, the bank could develop a mindset and a set of organizational systems that create an internal system of governance based on consensual support. This would enable individuals to better react in a predictable way to an unpredictable environment by emphasizing a few general, value-based principles on which actions can be grounded (Denison Consulting website). Consistency showed a moderately strong correlation with employee satisfaction and weaker correlations with quality, customer satisfaction and overall performance.

The sub-dimension “core values” scored a 3.72 (74 points) which Denison (2003) categorizes as acceptable. So we can conclude that the bank’s employees share a set of values which create a sense of identity and a clear set of expectations. This result is a controversy with statement 27 in the coordination and integration sub-dimension: People from different parts of the organization share a common perspective because on that one the bank scores only a 3.00.

The sub-dimension “agreement” scored a 3.64 (73 points) which Denison (2003) categorizes as a weakness. This is only one point short from the acceptable level though. This means that the bank could do better on reaching agreement on critical issues. This includes both the underlying level of agreement and the ability to reconcile differences when they occur.
The sub-dimension “coordination and integration” scored a 3.25 (65 points) which Denison (2003) categorizes as a weakness. This sub-dimension scores worst within consistency. The main reason has already been mentioned. Statement 27 scores out of line with the other statements, probably due to inadequate translation. This controversy is believed to origin from the fact that the questionnaire was translated into Icelandic and there these two statements have somehow gotten a different meaning. This low score is in line with the findings of Heimisdottir (2008) at an Icelandic pharmaceutical company. In her study, the lowest scores were found within this dimension, with statement 27 scoring a 3.02. The dimension itself scored a 3.47 which is even lower than the score in this study. Heimisdottir (2008) did not explain this further. The low score was also found by Sigthorsdottir (2008) who studied the shape of organizational culture at a publicly owned Icelandic company. That raised the question whether a low score on coordination and integration is one of the characteristics of Icelandic companies, reflected by hypothesis 3 “the level of coordination & integration increases when the degree of market orientation increases”. This study supports this theory.

The involvement dimension scored significantly lower than the other three dimensions. In fact, this dimension scored lowest of all. This result implies that the bank is not strong in encouraging employee involvement or creating a sense of ownership and responsibility. A reason for this might be that the bank rather uses the formal, explicit and bureaucratic control system. After all, it might be appropriate to have such an organizational culture. This is not necessarily bad, although it might stand in the way of creating the optimal level of market orientation. If the bank’s management wants to, they could install a greater sense of ownership leading to a greater commitment to the organization and an increased capacity for autonomy. Receiving input from organization members increases the quality of decision-making and improves their implementation (Denison Consulting Website).

The sub-dimension “empowerment” scored a 3.42 (68 points) which Denison (2003) categorizes as a weakness. This indicates that individuals don’t have enough authority, initiative and ability to manage their own work. The bank can overcome this weakness by adopting an atmosphere of empowerment. According to Strother and Grönlund (2005) this calls for a change in employee and managerial roles and for a
reversal in the traditional relationship between service provider and customer. Instead of the employee just doing what the manager dictates, he or she must do what the customer wants and needs (Strother and Gröndfeldt, 2005).

The sub-dimension “team orientation” scored a 3.36 (67 points) which Denison categorizes as a weakness. This indicates that there should be more value placed on working cooperatively toward common goals for which all employees feel mutually accountable.

The sub-dimension “capability development” scored a 3.45 (69 points) which Denison (2003) categorizes as a weakness. This indicates that the bank should invest more in the development of employees' skills in order to stay competitive and meet ongoing business needs.

The mission dimension scored a 3.91 which is in the acceptable range according to Denison (2003). This result is good news for the bank. It means that the organization has a clear direction and goals that serve to define an appropriate course of action for the organization and its members. As stated on by Denison (2008) on the website www.denisonconsulting.org “a sense of mission allows an organization to shape current behavior by envisioning a desired future state. Being able to internalize and identify with an organization's mission contributes to both short and long-term commitment to the organization”. Success is more likely when individuals and organizations are goal directed. So the bank should use this particular strength to overcome its weaknesses. Concluding from results, the mission/vision/goals are there, but not everybody in the organization is sufficiently aware of that.

(Ruekert, 1992) stated that market oriented business culture facilitates clarity of focus which mainly becomes evident through the mission statement, the common vision of management and staff and the overall attitude of the company towards the customer. This is also true for the bank and obviously creates a high degree of employee satisfaction, better morale, and greater commitment to the job and loyalty to the organization.

The sub-dimension “strategic direction and intent” scored a 4.18 (84 points) which Denison (2003) categorizes as a strength. This is the highest score in the study. Obviously, the bank has a clear direction and goals that serve to define an appropriate
course of action for the organization and its members. As put on the Denison Consulting website “Clear strategic intentions convey the organization's purpose, make it clear how everyone can contribute and make their mark in the industry”. Throughout the INTICE study, this dimension has been getting high scores. This has also raised the question whether this is one of the typical characteristics of an Icelandic company. This study supports this theory. As hypothesized, this sub-dimension was expected to have a negative correlation with the market orientation concept. The result however was that H 4 “the level of strategic direction & intent decreases when the degree of market orientation increases” was not supported, as there was indeed a strong positive relationship between them. In fact, R²=0.47 meaning that the level of strategic direction and intent explains 47% of the variance in the level of market orientation and vice versa.

The sub-dimension “goals and objectives” scored a 3.91 (78 points) which Denison (2003) categorizes as acceptable. This result indicates that the bank has a clear set of goals and objectives that can be linked to the mission, vision, and strategy. Furthermore, that the bank uses this set of goals to provide everyone with a clear direction in their work.

The sub-dimension “vision” scored a 3.63 (73 points) which Denison (2003) categorizes as a weakness. According to Denison, the bank should sharpen their shared view of a desired future state. This view embodies core values and captures the hearts and minds of the organization's people, while providing guidance and direction. Narver, Slater and Tietje (1998) agree to this and state that leaders within a company must have a clear vision that is continuously mediated to employees.

In summary, the bank should focus on lifting the scores of the adaptability and involvement dimensions that now categorize as cultural weaknesses. The consistency dimension may also improve, especially in the sub-dimension coordination and integration. The mission dimension is on acceptable level which is good. The bank should defend this position and increase its level of market orientation on that foundation.

Next, let’s discuss the results from the performance indicators in more detail. The results showed a score ranging from 3.61 for customer satisfaction, 3.86 for employee satisfaction, 4.14 for overall performance, 3.42 for quality, 4.39 for sales growth to 4.75 for profitability. This bank has grown tremendously the last year, and
growth has led to more profitability. It is surprising that customer satisfaction and employee satisfaction get the lowest scores. They are still on the acceptable level though. In the long run, too much profit focus might be dangerous as it might be at the cost of customer- and employee satisfaction levels that in turn might lead to higher churning rates. Heimisdottir (2008) got similar results for the pharmaceutical company that she analyzed with the Denison methodology. Is this maybe another characteristic of Icelandic organizations?

Using a cross-sectional study is can be hard to capture the financial outcome of market orientation. Many studies reported a non-significant relationship between market orientation and financial performance such as ROI or sales growth (e.g. Appiah-Adu, 1998; Greenley, 1995), while Diamantopoulos and Hart (1993) revealed a weak association between market orientation, relative sales growth and relative profit margin. It is therefore not surprising to see the non-significant relationship between market orientation and financial performance in this study.

Absolute sales growth (objective measure) is another popular performance measure in literature. But most researchers prefer subjective measures and rather use relative sales growth instead of absolute sales growth. This was also done in this study because it is so much easier to let the respondent decide how much better or worse sales growth is compared to other companies in the same industry. Jaworski and Kohli (1993) used both subjective and objective measures, but received unreliable responses to the objective ones. They did not find the direct relationship between market orientation and sales growth and profitability while at the same time their results showed a highly significant relationship between market orientation and overall performance. The results of this study are in line with those results.

On a final note, interpreting the relationship between market orientation and performance measures must be done very carefully due to the problem of low adjusted $R^2$. The results in this study show that the independent variable, market orientation, explains only 4% of the total variation in business performance ($r=0.20$, $R^2=0.04$). This means that the business performance of the bank is for 96% influenced by other explanatory variables than market orientation. The low adjusted $R^2$ may be partly due to low reliability and low variation in the response measure (Cohen and Cohen, 1981).
7.2 Limitations and recommendations for further research

The limitations of this study concern potential bias in the sample population and sample size, research design, methodology, and the measures used. The limitations of this study should be kept in mind when interpreting the findings. Also, they should be considered when planning future research in the field of market orientation with the Denison instrument.

The first limitation of this study is the instrument of measurement, the Denison Organizational Culture Survey (DOCS). Although it has been used in at least two occasions to measure the organizational shape of culture in Icelandic companies, its dimensions, sub-dimensions and statements have not yet been professionally evaluated. To professionally evaluate the validity of DOCS, it is necessary to review the translation form English to Icelandic; the reverse translation; and the alpha scores. It is unknown if all statements apply to the Icelandic situation. It might be that Icelandic data fits the model differently. In fact, some results already point that way. When the Icelandic translation of the questionnaire is reviewed, it appears that several statements do in fact ask two questions at once. This should be avoided (Burn and Bush, 2006).

The Denison instrument has been used to measure the concept of market orientation in two previous studies (Sigthorsdottir, 2008; Heimisdottir, 2008). However, it is still questionable if the instrument can indeed substitute specialized questionnaires such as MARKOR and MKTOR that were designed to measure market orientation. Although this study reasons that the Denison instrument can replace MARKOR, this has not yet been empirically proved. MARKOR includes more questions and might measure the concept better.

There were 153 respondents to the survey. Although this sample size is adequate, larger samples will provide more confidence in the results and option to use more sophisticated data analysis techniques such as structural equation modeling. The background variables in this study could not be used as much as the researcher would have wanted, due to few respondents in each category.
Another limitation of this study is that it was self-administered via e-mail. Respondents could give “wrong” answers without anyone noticing. A recommendation for next researchers might be to use a different data collection method.

At the time of data collection and reporting, the Icelandic economy is entering the first stages of a recession, following the problems first caused by sub-prime loans in the US. The Icelandic banks use the Icelandic crown as main currency, which has been problematic as the National Bank of Iceland has not been able to fulfill its function as lender of last resort. This situation might have influenced the study; and could influence future studies in this field.

The respondents in question were mainly middle managers and frontline personnel. It is likely that they only follow orders from their nearest superior and do not know the bank’s overall strategy, goals, vision and mission. This would then lead to a deceptive measurement, as the Denison instrument presumes that the respondents know their companies strategy, goals, mission, vision and processes very well.

This study employed a cross-sectional research design where data were collected at a single point in time. That means that the data do not reflect the continual process that occurs in the implementation of market orientation. Another shortcoming of this research design is that it does not detect causal effects of variables. Measuring constructs that are dynamic in nature cannot be correctly assessed in a cross-sectional study. A longitudinal study would give a much better assessment of how organizations become market oriented over time, and how market oriented culture affects performance indicators.

The categorizations of results are disputable. Fey and Denison (1993) say that scores below 3.69 indicate a weak organizational profile. At the same time, Denison et al (2006) publish benchmark scores from the Denison database including over 1,000 companies that appear to be considerably lower than the acceptable and strong scores defined originally by Fey and Denison (1993). This is a contradiction that should be kept in mind when interpreting the results from DOCS. One might want to change these categories and e.g. say that all scores below 3 indicate a weak organizational culture; scores between 3 and 4 are acceptable; and scores above 4 indicate a strong organizational culture.
The DOCS methodology gives directions on how the results from the survey should be published in a radar graph that displays the four dimensions in a specific way on the hemispheres. This is important for the interpretation of scores alongside the axes internal/external focus and flexible/stable focus. In this thesis, these directions are followed. However, previous results from DOCS in Iceland are shown in a different order in the radar graph. Therefore, these results disregard the importance of the direction of focus on the axes. This comment should be considered carefully in further research with the DOCS.

Despite the limitations, this study has given a fine overview of the shape of organizational culture of the bank, as well as its level of market orientation and its effects on performance. We can conclude that this study contributes to the literature of market orientation by adding empirical evidence from Iceland.
8 References


Houston (1986). Managing Assets and Skills: The key to Sustainable Competitive Advantage. California Management Review. 31 (2) 91-106


Appendix 1 – DOCS & performance indicators

Response scale : 1 – very much agree, 2, 3, 4, 5 – very much disagree

Involvement

Empowerment

1. Most employees are highly involved in their work
2. Decisions are usually made at the level where the best information is available
3. Information is widely shared so that everyone can get the information he or she needs when it's needed.
4. Everyone believes that he or she can have a positive impact.
5. Business planning is ongoing and involves everyone in the process to some degree.

Team orientation

6. Cooperation across different parts of the organization is actively encouraged.
7. People work like they are part of a team
8. Teamwork is used to get work done, rather than hierarchy.
9. Teams are our primary building blocks.
10. Work is organized so that each person can see the relationship between his or her job and the goals of the organization.

Capability development

11. Authority is delegated so that people can act on their own.
12. The "bench strength" (capability of people) is constantly improving.
13. There is continuous investment in the skills of employees
14. The capabilities of people are viewed as an important source of competitive advantage.
15. Problems often arise because we do not have the skills necessary to do the job.

Consistency

Core values

16. The leaders and managers "practice what they preach".
17. There is a characteristic management style and a distinct set of management practices.
18. There is a clear and consistent set of values that governs the way we do business.
19. Ignoring core values will get you in trouble.
20. There is an ethical code that guides our behavior and tells us right from wrong.

Agreement

21. When disagreements occur, we work hard to achieve "win-win" solutions
22. There is a "strong" culture.
23. It is easy to reach consensus, even on difficult issues.
24. We often have trouble reaching agreement on key issues.
25. There is a clear agreement about the right way and the wrong way to do things.

**Coordination and integration**
26. Our approach to doing business is very consistent and predictable.
27. People from different parts of the organization share a common perspective.
28. It is easy to coordinate projects across different parts of the organization.
29. Working with someone from another part of this organization is like working with someone from a different organization.
30. There is good alignment of goals across levels.

**Adaptability (measure of market orientation)**

**Creating change**
31. The way things are done is very flexible and easy to change
32. We respond well to competitors and other changes in the business environment.
33. New and improved ways to do work are continually adopted.
34. Attempts to create change usually meet with resistance.
35. Different parts of the organization often cooperate to create change.

**Customer focus**
36. Customer comments and recommendations often lead to changes.
37. Customer input directly influences our decisions.
38. All members have a deep understanding of customer wants and needs.
39. The interests of the customer often get ignored in our decisions.
40. We encourage direct contact with customers by our people.

**Organizational learning**
41. We view failure as an opportunity for learning and improvement.
42. Innovation and risk-taking are encouraged and rewarded.
43. Lots of things "fall between the cracks."
44. Learning is an important objective in our day-to-day work.
45. We make certain that the "right hand knows what the left hand is doing."

**Mission**

**Strategic direction and intent**
46. There is a long-term purpose and direction.
47. Our strategy leads other organizations to change the way they compete in the industry.
48. There is a clear mission that gives meaning and direction to our work.
49. There is a clear strategy for the future.
50. Our strategic direction is unclear to me.

**Goals and objectives**
51. There is widespread agreement about goals.
52. Leaders set goals that are ambitious, but realistic.
53. The leadership has "gone on record" about the objectives we are trying to meet.
54. We continuously track our progress against our stated goals.
55. People understand what the organization will be like in the future.

Vision

56. We have a shared vision of what the organization will be like in the future.
57. Leaders have a long-term viewpoint.
58. Short-term thinking often compromises our long-term vision.
59. Our vision creates excitement and motivation for our employees.
60. We are able to meet short-term demands without compromising our long-term vision.

Performance indicators

Response scale: 1 – weak, 2, 3, 4, 5 - strong

61. Sales growth
62. Profitability / ROI
63. Quality of product and service
64. Employee satisfaction
65. Customer satisfaction
66. Overall organizational performance
Appendix 2 – MARKOR questionnaire

MARKOR questionnaire.

Intelligence generation

1. In our business unit, we meet with customers at least once a year to find out what products or services they will need in the future.
2. Individuals from our service department interact directly with customers to learn how to serve their needs better.
3. In our business unit, we do a lot of in-house market research.
4. We are slow to detect changes in our customers’ product/service preferences.
5. We survey end-users at least once a year to assess the quality of our product and service offerings.
6. We often share our survey results with those who can influence our end-users’ purchase such as retailers and distributors.
7. We collect industry information by informal means (e.g., lunch with industry friends, talk with trade partners).
8. In our business unit, market intelligence on our competitors is generated independently by several departments of our firm.
9. We are slow to detect fundamental shifts and trends in our industry such as competition, technology, and regulation.
10. We periodically review the likely effect of changes in our business environment such as regulations and technology on customers.

Intelligence dissemination

11. A lot of informal talks in this business unit concerning our competitors’ tactics or strategies.
12. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
13. Marketing personnel in our business unit spend time discussing customers’ future needs with other functional departments.
14. Our business unit periodically circulates documents (e.g., reports, and newsletters) that provide information on our customers.
15. When something important happens to our major customer of market, the whole business unit knows about it within a short period.
16. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
17. There is minimal communication between marketing and manufacturing departments concerning market developments.
18. When one department finds out something important about competitors, it is slow to alert other departments.
Responsiveness

19. It takes us forever to decide how to respond to our competitor’s price changes.
20. In our business unit, principles of market segmentation drive new product development efforts.
21. For one reason or another we tend to ignore changes in our customer’s product/service needs.
22. We periodically review our product development efforts to ensure they are in line with what customers want.
23. Our business plans are driven more by technological advances than by market research.
24. Several departments get together periodically to plan a response to changes taking place in our business environment.
25. The product/service lines we market depend more on internal politics than real market needs.
26. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.
27. The activities of the different departments in this business unit are well coordinated.
28. Customer complaints fall on deaf ears in this business unit.
29. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.
30. We are quick to respond to significant changes in our competitors’ pricing structures.
31. When we find out that customers are unhappy with quality of our service, we take corrective action immediately.
32. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.
## Appendix 3 – Comparison Denison Survey and MARKOR

<table>
<thead>
<tr>
<th>no.</th>
<th>Denison statement</th>
<th>no.</th>
<th>corresponding MARKOR statements</th>
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<tbody>
<tr>
<td>1</td>
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<td>Everyone believes that he or she can have a positive impact.</td>
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<td>Business planning is ongoing and involves everyone in the process to some degree.</td>
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<td>6</td>
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