

**The relationship between organisational culture  
and effectiveness in the Western Cape banking  
industry**

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## **DECLARATION**

I, Yang Liu, declare that the contents of this thesis represent my own unaided work, and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Signed

Date

## **ABSTRACT**

Organisations in many industries, such as energy, banking and electronics, have faced increasingly complex and changing environments brought about by deregulation, technological revolution, foreign competition and unpredictable markets. Key to the success of these organisations is the development of a particular culture for the organisation. A well-conceived and well-managed organisation culture closely linked to organisation success, can also mean the difference between success and failure in the present demanding environment. Organisational culture has been assumed to have important implications, not only for the individual's affective reactions to organisational life, but also for organisational effectiveness.

This study investigates the relationship between organizational culture and effectiveness in the Western Cape banking industry. Beginning with an existing model of organizational culture and effectiveness, the paper presents a linked study. The study uses survey data from six organizations designed to test the applicability of the model in the context of the Western Cape banking industry. The results support Denison's findings, namely that organisational culture has a positive impact on effectiveness. The discussion includes several recommendations for future research.

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# CHAPTER 1

## OVERVIEW OF THE STUDY

### 1.1 Background

Organisations in many industries, such as energy, banking and electronics, have faced increasingly complex and changing environments brought about by deregulation, technological revolution, foreign competition and unpredictable markets. Key to the success of these organisations is the development of a particular culture for the organisation (Philip & McKeown, 2004:624-636). This consists of fostering attitudes of flexibility, dynamism and responsiveness; seeking structures and cultures that are positive and organic; and developing the human resource to its maximum capacity (Pettinger, 2000:227).

Organisational culture may be defined as “underlying values, beliefs and principles that serve as a foundation for an organisation’s management system as well as the set of management practices and behaviors that both exemplify and reinforce those basic principles” (Denison, 1990:1). The concept of organisational culture started to become popular in the 1980s. Organisational culture is said to mean, for example, an organisation’s beliefs and values (Denison, 1990), an organisation’s assumptions (Schein, 1992; Kotter & Heskett, 1992) or an organisation’s understandings (Deal & Kennedy, 1982).

However, there is little consensus about definitions of organisational culture. Various authors have adopted different approaches to studying organisational culture. Schein (1992:17) identified three levels of organisational culture, namely artifacts, espoused values and underlying assumptions, from a visible level to an invisible level. Handy (1993) related culture to a particular structure and design of organisation. Culture can also be viewed from a more behaviour-oriented perspective, which is the most commonly used approach by researchers such as Denison (2001) and Peters and Waterman (1982); while Hofstede (1980) recognised some basic dimensions associated with national and organisational culture, which devoted the difference between

national cultural groupings and organisational culture that influenced organisation success.

A common hypothesis about the role of organisational culture is that an organisation that possesses a “strong” culture exhibiting a well-integrated and effective set of specific values, beliefs, and behaviours, will perform at a higher level of productivity (Denison, 1984). Many research studies have provided evidence to confirm this hypothesis (Denison, 1984; Kotter & Heskett, 1992; Gordon & DiTomaso, 1992; Gerowitz, Lemieux –Charles & Heginbothan, 1996).

In particular, organisational culture was used to explain the success of Japanese companies over American organisations, through the development of a highly motivated workforce, committed to a common set of core values, beliefs and assumptions (Denison, 1984). While it has been suggested that culture accounts for the economic performance of various countries (Hofstede, 1980), the idea of organisational culture also serves to provide a basis for understanding the difference that may exist between successful companies operating in the same national culture (Schein, 1990).

Chan, Shaffer & Snape (2004) have suggested that organisational culture can be a valuable resource for companies, especially for service industries. Organisational culture has been assumed to have important implications, not only for the individual’s affective reactions to organisational life, but also for organisational effectiveness (Schein, 1990; Gordon & DiTomaso, 1992; Denison & Mishra, 1989, 1995; Denison & Fey, 2003). A well-conceived and well-managed organisation culture, closely linked to organisation success, can also mean the difference between success and failure in the present demanding environment.

There is research to suggest that organisational culture can improve an organisation’s ability to adapt the competitive environment, as well as to achieve high levels of performance and effectiveness. The intensification of research on organisational effectiveness has led to the recognition of several

organisational factors that play an influential role in the determination of an organisation's performance (Marcoulides & Heck, 1993:81-94). Organisational culture is recognised as one such factor, which has received much attention in organisational behaviour literature (Ouchi, 1981; Denison, 1984; Hofstede, 1986; Hofstede, Neuijien, Ohayv & Sanders, 1990; Schein, 1990; Gordon & DiTomaso, 1992; Denison & Mishra, 1989, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer 2003, 2004), because of the key role it plays in determining levels of organisational outcomes.

Peters and Waterman (1982:5), for example, held that successful organisations possess certain cultural traits of "excellence". Ouchi (1981:1-10) presented a similar relationship between corporate culture and increased productivity, while Deal and Kennedy (1982:5-16) argued for the importance of a "strong" culture in contributing towards successful organisational effectiveness.

Denison, an influential researcher in the study of the relationship between organisational culture and effectiveness, together with his colleagues presented a series of papers and confirmed the impact of organisational culture on organisational effectiveness at macro level in a wide variety of industries in America, Russia, North America, Asia, Jamaica, Brazil, Australia, Canada, Japan, Europe-Mid-East-Africa (EMEA), and South Africa (Denison, 1984; Denison & Mishra, 1989, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer 2003, 2004). In order to provide extra evidence and deep understanding of this relationship within the context of South Africa, this study will make use of Denison's organisational culture framework and measurement instruments to examine whether there is a link between organisational culture and effectiveness in six banks (ABSA, Nedbank, Standard Bank, First National Bank, Capitec Bank, and African Bank), which represent the Western Cape banking industry in South Africa.

Moreover, the research will attempt to contribute to the existing literature on organisational culture and effectiveness. The results of this study on organisational culture will offer guidelines for South African banks on

organisational culture building if a positive nexus is shown to exist between culture and effectiveness.

## **1.2 The Denison Organisational Culture Model (DOCM)**

The Denison Organisational Culture Model was developed from a range of studies on organisational culture and effectiveness (Denison, 1984; 1990; Denison & Mishra, 1995; Denison & Fey, 2003; Denison, Haaland, & Goelzer, 2004; Denison, Leif & Ward, 2004; Denison, Janovics, Young & Cho, 2006). This model includes four major aspects of organisational culture, which are called cultural traits, namely: involvement, consistency, adaptability, and mission. Each of these traits is measured by three culture indices, and each of those indices is measured by five survey questions. The definition of each culture trait is presented hereunder:

- **Involvement**

Involvement is one of Denison's culture traits. This assessment will assist managers in determining the level of an employee's involvement in the management process. An organisation with a high level of employee involvement will develop the employees' capability at all levels and create a sense of ownership, responsibility, and loyalty toward their organisation. In the model, this trait is measured by the following three indices: empowerment, team orientation and capability development.

- **Consistency**

This cultural trait asserts that an organisation with a strong and cohesive internal culture tends to be more efficient. Therefore, an organisation with high levels of consistency, conformity and consensus can easily achieve agreement among their members at all levels when they have different points of view concerning difficult questions in the decision-making process. In the model, this trait is measured by the following three indices: core values, agreement and coordination and integration.

- **Adaptability**

This cultural trait focuses on the organisation's ability to adapt quickly to signals from the external environment, such as the demands of customers. An organisation with strong adaptability can translate those signals into internal behavioural changes, which increase the organisation's chances of survival and development. In the model, this trait is measured by the following three indices: creating change, customer focus and organisational learning.

- **Mission**

The cultural trait of mission is utilised to examine whether organisations have a clear sense of vision, strategic direction, goals and objectives. Furthermore, it also indicates whether all these statements are understood and shared among all the members in the organisation. Everyone will utilise the mission statements as reference in their everyday work. In the model, this cultural trait is measured by the following three indices: vision, strategic direction and intent and goals and objectives.

### **1.3 Statement of the research purpose**

In view of the foregoing rationale and theoretical explanation of the possible nexus between culture and effectiveness, the following research purpose has been formulated:

- To establish the relationship between organisational culture and effectiveness in the Western Cape banking industry.

### **1.4 Research questions**

Based on the research purpose of this study, the following research questions have been formulated:

- What are the characteristics of the organisational culture of the Western Cape banking industry?
- What are the specific strengths and weaknesses in the characteristics of the culture of the Western Cape banking industry?
- What is the relationship between Denison's four culture traits and effectiveness in the Western Cape banking industry?

### **1.5 Hypotheses**

Based on the above research questions, the major hypothesis and sub hypotheses are derived as the following:

#### ***Major hypothesis***

***H<sub>1</sub>***: There is a positive relationship between organisational culture and organisational effectiveness.

#### ***Sub-hypotheses***

***Sub H<sub>1</sub>***: Involvement is a cultural trait that relates positively to organisational effectiveness.

***Sub H<sub>2</sub>***: Consistency is a cultural trait that relates positively to organisational effectiveness.

***Sub H<sub>3</sub>***: Adaptability is a cultural trait that relates positively to organisational effectiveness.

***Sub H<sub>4</sub>***: Mission is a cultural trait that relates positively to organisational effectiveness.

## **1.6 Definitions and terms**

### **1.6.1 Organisational culture**

In the current research study, organisational culture is the independent variable. It refers to the “underlying values, beliefs and principles that serve as foundation for an organisation’s management system as well as the set of management practices and behaviours that both exemplify and reinforce those basic principles” (Denison, 1990:2).

This study will utilise Denison’s organisational culture model to measure the organisational culture, which includes the four culture traits of involvement, consistency, adaptability and mission (Denison & Fey, 2003:688). Each cultural trait is sub-divided into three indices which manifest that particular cultural trait. Five questions are used to measure each of the culture indices. The results of this culture survey will provide the basic cultural characteristics of the organisation.

### **1.6.2 Organisational effectiveness**

In the current study, organisational effectiveness was the dependent variable. An effective organisation is one with higher financial performance, and a higher level of satisfaction among all the stakeholders. Highly effective organisations can react quickly to their customers’ demands, provide good quality services and products, and continue to improve their competitive ability (Robertson, Callinan & Bartram, 2002:5).

This study adopted seven subjective measurement criteria to define the organisational effectiveness. These included overall performance, market share, sales growth, profitability, employee satisfaction, quality of products and services, and new product development (Denison & Fey, 2003:686-706). The respondents needed to compare their own organisation with their competitors in the same industry. In the study, therefore, the extent to which an

organisation is said to be effective is relative to the performance of other organisations within the same industry.

### **1.7 Delimitation of the study**

The organisational culture study was conducted within the banking industry in the Western Cape in South Africa.

The institutional sample consisted of six banks that have branches and regional offices in the Western Cape area. The names of these six banks are listed as the following: ABSA, Nedbank, Standard Bank, First National Bank, Capitec Bank, and African Bank. Due to the nature of the sample, the results may not be representative of the rest of the South African banks.

The respondents in survey were from the middle level management contingent of the six banks. This was due to the fact that five of the six banks' head offices are not located in the Western Cape Province, with the result that only middle and lower level employees are located in the Western Cape. The reason for selecting middle level management employees as participants as opposed to lower level employees relates to the fact that these employees are more likely to be familiar with the banks' performance within the banking industry.

The limitations of this study include the subjective measurement of organisational effectiveness, because some employees were over-confident about their organisation's performance, which may not reflect the true performance of the organisation. Time and human resource constraints were responsible for these limitations.

### **1.8 Statement of Ethics**

This research study will comply with ethical standards and principles of academic research to ensure that the physical, social and psychological wellbeing of the respondents in research are not adversely affected by this research. The following ethical principles were applied in this study.

- Providing a full explanation to research respondents about this research project: what the research was about, who was undertaking and financing it, why it was being undertaken, and how it would be reported. Such explanations were provided in a covering letter at the beginning of questionnaire and also in verbal communication (Brewerton & Millward, 2001:62).
- Confidentiality and anonymity would be assured. No tape recorders and video cameras were used during the data gathering process. Respondents did not have to mention their names in the completed questionnaire (Brewerton & Millward, 2001:64).
- The gathered data was to be used for this research study only and not to be shared with other researchers for other purposes. The data would be stored in a secure manner (Brewerton & Millward, 2001:65).

## **1.9 Structure of the study**

This study includes five chapters. Chapter two deals with the literature study; Chapter three provides a discussion of the research methodology that was followed; Chapter four reports the results of the empirical study; and the final chapter presents conclusions and recommendations.

### **❖ Chapter 2**

Chapter 2 provides an extensive review of the relevant literature that forms the theoretical basis for this study. The literature review is divided into three broad sections: organisational culture, organisational effectiveness, and the empirical studies on the relationships between organisational culture and effectiveness. The literature will be used to provide a conceptual framework for the research topic.

In the first part of the chapter, different perspectives on organisational culture are discussed and compared. The different views on the specific contents of

organisational culture will also be discussed, with a focus on Denison's four culture traits and twelve culture indexes. Several organisational culture measuring instruments are compared and attention is also given to Denison's Organisational Culture Survey (DOCS).

In the second part, a brief introduction to the different organisational effectiveness models that were developed in the past two decades is given. The effectiveness measurement criteria that are recognized by several researchers are presented and compared, focusing on the effectiveness measurement criteria used in several empirical studies on the relationships between organisational culture and effectiveness.

Lastly, several examples of evidence in support of the relationship between organisational culture and effectiveness is reported and discussed, including Denison and his colleague's series of studies on the relationship between organisational culture and effectiveness based on various industries in different countries.

### ❖ Chapter 3

This chapter provides a detailed description of the research methodology used to conduct this empirical study.

This empirical study applies a quantitative research approach that follows Denison's organisational culture study framework. As indicated in the previous section, Denison's Organisational Culture Survey (DOCS) is used as the measuring instrument. A detailed overview of this instrument is provided, the techniques for determining the population and sampling are explained and discussed and the data gathering procedure and the statistical techniques that were utilised to test the hypothesis are also explained.

### ❖ Chapter 4

This chapter is devoted to reporting and discussing the results of the empirical study in relation to the research purpose, objectives as formulated in the first chapter. The findings are presented in three broad sections.

Firstly, brief descriptive statistics with regard to the response rate and the distribution of the respondents' positions of work are provided. Then the average score on Denison's four culture traits and twelve culture indexes is presented at both individual bank and Western Cape banking industry level. The scores will indicate the weaknesses and strengths of the specific culture traits or indices.

Finally, the relationship between organisational culture and effectiveness is analysed and reported. This relationship is indicated by means of the calculated correlation coefficients identified between different aspects of organisational culture and different measurement criteria of effectiveness. The significance of these relationships are also tested and reported.

#### ❖ Chapter 5

The last chapter focuses on conclusions and recommendations based on the findings presented in Chapter four. These conclusions are presented in relation to the research questions and hypotheses set for the study. Various limitations of this empirical study are also discussed. Conclusions and recommendations for future studies are provided on the basis of these. Recommendations are also provided for management, which may be used to improve organisation culture and related organisational performance.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter will review the literature on organisational culture and its impact on organisational performance. Firstly, an overview of several studies on organisational culture will be presented. Secondly, the literature about different organisational effectiveness models and measurement criteria are reviewed. Lastly, extensive empirical studies about the relationships between organisational culture and effectiveness are reviewed. This literature review will serve to provide a conceptual framework for the research topic. It should be noted that a great deal of the literature on organisational culture comprises seminal works that were published a number of years ago.

#### **2.2 Organisational culture**

In the early 1980s, there were four best selling management books: *The Art of Japanese Management* (Pascale & Athos, 1981), *Theory Z* (Ouchi, 1981), *Corporate Culture* (Deal & Kennedy, 1982), and *In Search of Excellence* (Peters & Waterman, 1982). The first two books suggested that the Japanese corporate culture largely contributed to the success of Japanese businesses; while the second two books argued that a strong culture is an important factor in the success of an organisation. These authors all realised that organisational culture was key to organisational effectiveness and could be managed to improve a company's competitive advantage.

Organisational culture became a popular topic and attracted enormous interest from social scientists and organisational researchers. However, there was little consensus in this subject, each culture study developed different organisational culture definitions based on the different study approaches. Schein (1990:109) explained this difference as "culture, like role, lies at the intersection of several social sciences and reflects some of the biases of each

– specifically, those of anthropology, sociology, social psychology, and organisational behavior.”

In this chapter, literature about organisational culture will be reviewed under the following divisions: definitions of organisational culture, theories of organisational culture and the measurement of organisational culture.

### **2.2.1 Definitions of organisational culture**

At the organisational level, researchers and authors speak of organisational culture, which amounts to a consideration of organisational values and norms, with the focus on assumptions and beliefs (Wilson, 2001:356). Defining organisational culture is important, as the concept of organisational culture has been central in the developmental work on organisational effectiveness. To date, there is still no consensus regarding the definition of organisational culture due to culture being presented from various points of view.

Drennan (1992:5) provided a simplified definition: culture is “*how things are done around here*.” This basic definition does not support understanding but simply provides a vague description of the term culture. This simple description, contrasts with the more comprehensive and more useful definitions suggested by Deal and Kennedy (1982), Denison (1990), Schein (1992) and Kotter and Heskett (1992). These are presented below:

- *Organisational culture is”... the integrated pattern of human behavior that includes thought, speech, action and artifacts and depends on man’s capacity for learning and transmitting knowledge to succeeding generations” (Deal & Kennedy, 1982:15).*
- *Denison (1990:2) defined organisational culture as “...underlying values, beliefs and principles that serve as a foundation for an organisation’s management system as well as the set of management practices and behaviors that both exemplify and reinforce those basic principles. ”*

- *In Schein's view, fundamental assumptions comprise the core and most important aspect of organisational culture. Schein (1992:9) described organisational culture as "the pattern of basic assumptions that a given group had invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to these problems."*
- *"At the deeper and less visible level, culture refers to values that are shared by the people in a group and that tend to persist over time even when group membership changes. At the more visible level, culture represents the behaviour patterns or style of an organisation that new employees are automatically encouraged to follow by their fellow employees. Each level of culture has a tendency to influence the other" (Kotter & Heskett, 1992:4).*

From the above definitions, it appears that the concept of organisational culture is a complex issue. There is no consensus as to the definition of organisational culture, such as shared meanings (Kotter & Heskett, 1992), beliefs and values (Denison, 1990), assumptions (Schein, 1992) and understandings (Deal & Kennedy, 1982).

These definitions outline some of the common facets that appear in many of the definitions proposed for organisational culture. According to Wilson (2001:356), there are two levels of organisational culture, the visible level and the deeper, less visible level.

The visible aspects encompass behavioural patterns, the physical and social environment, as well as the written and spoken language used by the group. The deeper, less visible level of organisational culture relates to the group's values and basic assumptions (Wilson, 2001:356). The shared values consist of the goals and concerns that shape a group's sense of what should be (Wilson, 2001:356). These notions about acceptable norms, values and

behaviour, can vary greatly in different groups. At this level the organisational culture tends to persist over time (Kotter & Heskett, 1992:15).

Another facet relates to the manner in which new members learn the culture (Wilson, 2001:356). Deal and Kennedy (1982:30) explained that, if an individual enters an organisation where employees work in a group environment, the individual adopts the groups' norms. Kotter and Heskett (1992:52) have also asserted this respect; with new employees being automatically encouraged to follow their fellow employees.

Developing these facets into a definition results in organisational culture being defined as the visible and less visible norms, values and behaviour shared by a group of employees, which shape the group's sense of what is acceptable and valid. Pacanowsky and O'Donnell-Trujillo (1983:126) concluded that "...organisational culture is not just another piece of the puzzle, it is the puzzle. From our point of view, a culture is not something an organisation has; a culture is something an organisation is".

### **2.2.2 Theories of organisational culture**

A theory of organisational culture emerges from a combination of organisational psychology, social psychology, and social anthropology (Scott, Mannion, Davies & Marshall, 2003:924). The development of organisational culture as a subject of study can be seen as an elaboration of the human relations (Roethlisberger & Dickson, 1939) and social systems approaches (Parsons, 1977). The term "organisational culture" first appeared in the academic literature in an article published in the *Administrative Science Quarterly* by Pettigrew in 1979 (Scott, Mannion, Davies & Marshall, 2003:924).

While the subject of organisational culture became popular in the early 1980s, along with the growing interest in the topic, there were different perspectives on this topic. In the numerous previous studies on organisational culture researchers used different approaches, methods, models and terms to describe the specific contents of organisational culture. There were several

terms that were often used by them, such as components, elements, dimensions, levels and variables (Organisational culture and information technology implementation n.d.). In the following sections, several popular perspectives on organisational culture are reviewed.

### **2.2.2.1 Hofstede's perspective**

Hofstede (1980) recognized four basic dimensions associated with national culture:

#### ➤ Power distance

This deals with the boss-subordinate relationship. This cultural dimension tends to measure the extent of inequality between superiors and subordinates. It can be used to reflect how power and influences are distributed across the society; and the physical and psychological distance between people.

#### ➤ Individualism/collectivism

These concepts are used to describe how the individual person deals with his/her relationship with the groups in which he/she finds himself. In other words, it refers to the extent to which people distinguish themselves or relate with the groups around them.

#### ➤ Masculinity/femininity

This cultural dimension refers to the degree to which a society values such behaviour as assertiveness, success, fortune, ambition, gaining of wealth or attention to the needs of others, and quality of life.

#### ➤ Uncertainty avoidance

This cultural dimension deals with the uncertainties that people have to face in everyday life. The cultural differences among countries are demonstrated as the extent of acceptance of the uncertainty that comes from the future.

Geert Hofstede (Hofstede & Bond, 1988:4-21) together with his colleague, Michael Harris Bond, identified another cultural dimension, namely Confucian

dynamism, which was used to explain the rapid economic development of many Asian countries. This cultural dimension deals with the particular types of ethics upheld by a society and, for them, refer to the ethics taught in Confucian teachings. The researchers found out that thrift, perseverance, a sense of shame, and following a hierarchy could be regarded as influential factors in the rapid economic growth in some Asian countries. However, other types of ethics, such as tradition and saving face, were regarded as less important.

Furthermore, Hofstede, Neuijen, Ohayv and Sanders (1990:386-316) extended their culture study to the organisational level. They analysed organisational culture from the perspectives of both value and practice. They identified three dimensions of organisational culture from these perspectives:

(i) Need for security

This culture dimension is similar to the uncertainty avoidance identified in the cross-national study.

(ii) Work Centrality

This dimension does not appear in the national culture dimensions. It refers to the extent to which work is central in most people's total lifestyle. The main point focuses on job involvement as a central life interest.

(iii) Need for authority

This dimension is the same as the power distance dimension in the cross-national study.

Based on organisational practices, Hofstede et al., (1990) divided organisational culture into six other dimensions:

#### (i) Process-Oriented versus Results-Oriented

In the process-oriented organisation, the means of dealing with everyday work is regarded as the most important thing. However, in a results-oriented organisation, the employees' performance is only evaluated by the final result. There is no concern about the means by which the result is achieved.

#### (ii) Employee-Oriented versus Job-Oriented

In employee-oriented organisations, important decisions are made by employees. In contrast, in a job-oriented organisation, managers reserve good employees for their own departments and have little concern for personal problems of employees.

#### (iii) Parochial versus Professional

In a parochial organisation, employees derive their identity mostly from the organisation that they belong to. In a professional organisation, on the other hand, employees identify themselves according to the type of job they do.

#### (iv) Open System versus Closed System

This culture dimension is used to describe the communication environment in an organisation. In open system organisations, employees cooperate with each other and like to exchange ideas. New employees can fit into their work environment easily with the help of other senior members in the organisation. However, in closed system organisations, the people and the organisation are closed and secretive, so that new employees take a long time to fit into the organisation.

#### (v) Loose Control versus Tight Control

This culture dimension refers to the extent of internal structuring in an organisation. In loosely controlled organisations there are no strict rules and procedures to guide employees' behaviour. This kind of organisation is adaptable and easy to change. In contrast, in a tightly controlled organisation, employees need to follow procedures and rules set up by their organisation. For example, meeting times must be kept punctually and employees need to be well-groomed at work.

#### (vi) Normative versus Pragmatic

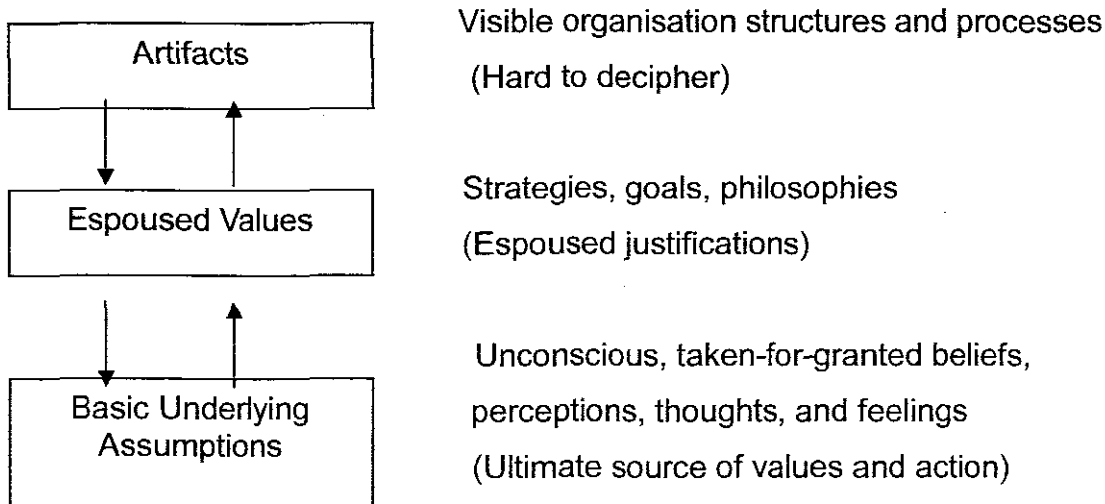
The term pragmatic is used to define an organisation with a market-driven culture. Normative organisations recognise their mission towards the external environment as the implementation of unbreakable regulations (Hofstede, Neuijen, Ohayv and Sanders, 1990:386-316)

By using international comparisons, Hofstede devoted a series of studies to understanding how national culture influences organisation processes. He differentiated between national culture and organisational culture. Hofstede showed that organisational culture is somewhat manageable while national culture works as given facts in management (Hofstede, 1980:120). Hofstede, Neuijen, Ohayv and Sanders (1990:286-316) argued that shared perceptions on daily practices form the core of an organisation's culture. They also pointed out that, while practices are the visible part of an organisation's culture, values are the invisible part. National cultures differ mostly on the level of values; while organisational cultures are revealed at the level of practice as in symbols, heroes and rituals (Hofstede, 1998:2).

In order to provide a common framework for differentiating and comparing cultures, a number of researchers have devoted their work to classifying organisational culture into a range of types (Schein, 1992; Handy, 1993; Denison, 1984, 1990; Denison & Mishra, 1989, 1995; Denison & Fey, 2003; and Denison, Haaland & Goelzer 2003, 2004). A number of these classifications are reviewed in the following sections.

#### **2.2.2.2 Schein's perspective**

In one of the most influential texts on organisational culture, Schein (1992:16) argued that organisational culture could be analysed on three separate levels, namely: artifacts, espoused values, and basic underlying assumptions. The three levels are separated on the basis of "the degree to which the cultural phenomenon is visible to the observer" (Schein, 1992:16). Schein (1992:17) described this three-level model graphically as the following:



**Figure 2.1** Levels of Culture (Schein, 1992:17)

The first level of organisational culture is the artifact, which is the most visible aspect. The manifestations of organisational culture at this level include the most tangible aspects shared by the members of an organisation, for example, the office arrangement, verbal communication, clothing style, stories and myths, rituals, symbols and ceremonies, technology and products. All of the aspects on this level are very easy to observe, however, they are very difficult to decipher.

The next level comprises espoused values, which refer to the values or beliefs that are shared by the members of an organisation (Schein, 1992:17). Those common values or beliefs are developed from the everyday working process in an organisation. Organisations often experience a lot of problems with workers developing one common solution to certain problems. They then form certain beliefs or values that are shared among the members and taught to newcomers.

The basic assumptions are found at the deepest level of organisational culture. They are the underlying assumptions and premises on which an organisation is based (Schein, 1992:17). The assumptions are key to understanding and determining the phenomenon of organisational culture at the other two levels. These assumptions may include factors such as: how members in an

organisation think about themselves and the world, the relationships among members and the nature of the organisation.

Schein's perspective on organisational culture provides a framework for researchers to identify the specific culture characteristics which range from behavioural norms to underlying beliefs within organisations. Lim (1995:16) has indicated that Schein's perspective is regarded as the process-oriented approach to organisational culture. Lim (1995:16) concluded that "the process-oriented approach views organisational culture as a continuous recreation of shared meaning". In other words, Schein's perspective has only illustrated where organisational culture is located, but did not propose specific culture types.

The following section introduces, another researcher's perspective; Handy described organisational culture according to the structural characteristics of an organisation.

### **2.2.2.3 Handy's perspective**

Handy (1993:183-191), on the basis of organisational structure characteristics, classified organisational structure into four basic types, namely power culture, role culture, task culture and person culture. These four types are explained as follows:

#### **2.2.2.3 (i) Power culture**

Power culture is often described as a web, where a ruling spider is at the centre. This type of culture is often found in small organisations where a powerful leader holds the dominant influential position (Handy, 1993:183). The control of power culture is determined by the centre and decisions are taken on the basis of power and influence. When the organisation with a power culture grows big and complex, the web can be broken. In order to remain the web-structured, the organisation will then develop other 'spin-off' organisations and each web structure will keep its own right.

### **2.2.2.3 (ii) Role Culture**

Role culture can be described as a 'bureaucracy'. The organisation with this kind of culture tends to have a traditional hierarchical organisational structure, where the organisation's operation is controlled by regulations, rules and procedures (Handy, 1993:184). Each department's function is described up front with managers being defined as coordinators for each department's operation. Position power is recognised as the central role in this organisational culture. The definition of roles and responsibilities become important influential factors for the organisation's success. The advantages for an organisation with role culture are its expectedness, stability, and constancy. If it is in a stable environment, this kind of organisation will perform well. However, if the environment changes rapidly, this kind of organisation may not perform well because it tends to react and adjust relatively slowly in response to rapid changes.

### **2.2.2.3 (iii) Task Culture**

Handy (1993:187-189) described this culture type as a net, where the strength is derived from the intersections or connections. In this kind of organisation, structures are formed on the basis of various tasks, so it shows the flexible characteristics of the culture. In this organisation, each department combines and cooperates with another as a team to work on a given task. The culture is extremely adaptable and flexible, and emphasises outcomes, problem-solving and getting the job completed. It enhances innovation and motivation particularly in competing organisations. It is dynamic and enables reactivity.

### **2.2.2.3 (iv) Person Culture**

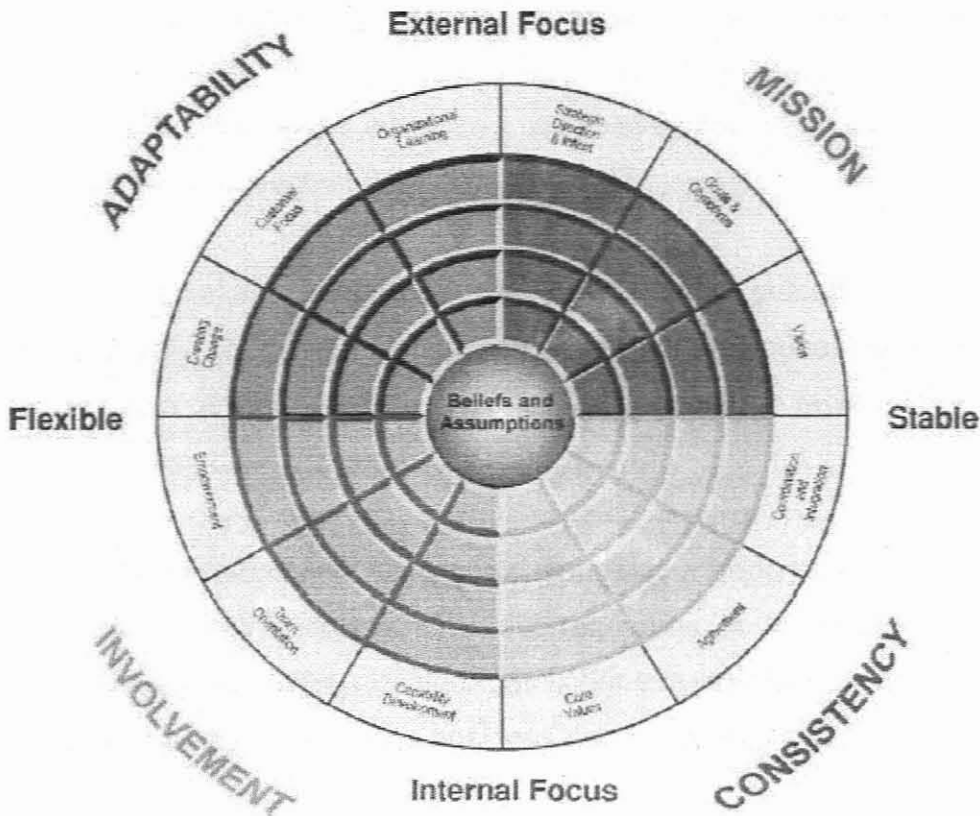
The person culture sees an individual at the centre of the organisation. Sometimes, this culture may be found in organisations formed by educated and articulate individuals, specialists (solicitors, architects and academic researchers); what links them together is the common interest. It is quite difficult for an organisation to manage them. They tend to work independently on a task.

These four culture types reflect an organisation's beliefs, the way work should be organised, the way authority should be exercised, people rewarded and people controlled (Handy, 1993:181). In addition, this classification seems to suggest that organisations need to select a culture that is suited to their own development. No culture type is better than the other.

Denison is another well-known researcher in the field of organisational culture. He has investigated the relationship between organisational culture and effectiveness with his colleagues (Denison & Mishra, 1989, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer 2003, 2004; Denison, Lief & Ward, 2004).

#### **2.2.2.4 Denison's perspective**

Denison and his colleagues have developed a model over the past 15 years, with data from more than 3,000 organisations and more than 100,000 respondents (Denison, 1984, 1990; Denison & Mishra, 1989, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer 2003, 2004; Denison, Lief & Ward, 2004). This model describes a theory of organisational culture that is linked to organisational effectiveness. It is presented in Figure 2.2 below:



**Figure 2.2:** The Denison Organisational Culture Model (Denison & Fey, 2003:689)

At the centre of Denison's organisational culture model are an organisation's basic beliefs and assumptions. The model includes four main cultural traits, namely involvement, adaptability, mission and consistency. Each trait is sub-divided it into three smaller areas, giving a total of twelve cultural categories (Denison & Fey, 2003:688). The four traits and twelve cultural indices are explained under separate headings (Denison, 2001:353-354).

#### 2.2.2.4 (i) Involvement

This culture trait reflects the level of an employee's involvement in the management process. One organisation with a high level of employee involvement will develop an employee's capability at all levels and create a sense of ownership, responsibility and loyalty toward their organisation. Involvement is further divided into the following three culture indices (Denison, 2001:353).

- **Empowerment:** In an organisation with high levels of empowerment, the employees have the authority, initiative and ability to manage their own work, which enable them to create a sense of ownership and responsibility toward their organisation (Denison, 2001:353).
- **Team orientation:** Organisational values are placed on working cooperatively to get the work done and all employees feel mutually accountable. A team-oriented organisation depends on team effort to deal with everyday tasks (Denison, 2001:353).
- **Capability development:** An organisation with a good plan for capability development will continue to invest resources in the development of employees' skills, which enable organisations to maintain their competitive advantage and meet ongoing business needs (Denison, 2001:353).

#### **2.2.2.4 (ii) Consistency**

This cultural trait asserts that an organisation with a strong and cohesive internal culture tends to be more efficient. This can be explained by saying that an organisation with a high level of consistency, conformity and consensus can easily achieve agreement among members at all levels, even when they have different points of view with regard to difficult questions in the decision-making process. Consistency is further divided into the following three culture indices (Denison, 2001:353).

- **Core values:** If all the members in the organisation share a set of the same values, they will form a sense of their organisational identity and have a clear set of expectations (Denison, 2001:353).
- **Agreement:** This reflects how easily the members in the organisation are able to reach an agreement on crucial matters. Such agreement contains both the underlying level of agreement and the ability to resolve differences when they occur (Denison, 2001:353).

- **Coordination and integration:** An organisation with good coordination and integration skills is capable of bringing people from different functions and units to work together well to achieve common goals. The organisation's functional boundaries do not get in the way of getting work done (Denison, 2001:353).

#### **2.2.2.4 (iii) Adaptability**

This culture trait focuses on the organisation's ability to adapt quickly to signals from the external environment, such as the demands of customers. An organisation with a strong capacity to adapt can translate those signals into internal behavioural changes, which increase its chances of survival and development. In the model, this trait is measured by the following three indices (Denison, 2001:354):

- **Creating change:** An organisation with a strong ability to create change is able to find adaptive ways to meet changing needs. It indicates the organisation's abilities to understand their business environment, react rapidly to current movements, and forecast future changes (Denison, 2001:354).
- **Customer focus:** The more effort an organisation puts into getting to know its customers, the quicker and better its reaction to the customer's current needs and the better its anticipation of their future needs. It reveals the degree to which the organisation is driven by the concern to satisfy its customers (Denison, 2001:354).
- **Organisational learning:** If an organisation is willing to take risks, learn from mistakes, encourage innovation and continue to invest in training employees towards gaining new knowledge and developing capabilities, the organisation will be able to get, interpret, and convert signals from the business environment into opportunities (Denison, 2001:354).

#### **2.2.2.4 (iv) Mission**

The culture trait of mission is utilised to examine whether organisations have a clear sense of vision, strategic direction, goals and objectives. Furthermore, it also indicates whether all these statements are understood and shared among all members in the organisation so that everyone will utilise the mission statements as a reference in their everyday work. In the model, this culture trait is measured by the following three indexes (Denison, 2001:354):

- **Vision:** This index is defined as the shared view of a desired future state in the organisation. It represents the organisation's core values and provides guidance and direction to the organisation and its people (Denison, 2001:354).
- **Strategic direction and intent:** An organisation's purpose can be conveyed by a clear strategic direction and statement of intent. This will help members in the organisation to clearly understand and state how they can contribute and plan to 'make their mark' in their industry (Denison, 2001:354).
- **Goals and objectives:** An organisation needs to establish a clear set of goals and objectives that are linked with the mission, vision and strategy. This will provide everyone with clear direction in their work (Denison, 2001:354).

The four elements identified by Denison focus on different aspects of culture but, more importantly, stress different functions of culture. Consistency and mission tend to encourage stability while involvement and adaptability allow for change. Consistency and involvement see culture as focusing on internal organisation dynamics; mission and adaptability see culture as addressing the relation of the organisation to its external environment (Denison & Mishra, 1995:216).

### **2.2.2.5 A comparison of the different approaches to the theories of organisation culture**

All the above-mentioned researchers were trying to find a way to describe the complex concept of organisational culture. However, there is still no consensus with regard to a general theoretical framework to guide researchers to assess organisational culture (Scott, Mannion, Davies & Marshall, 2003:924).

Schein (1992:17) identified three levels of organisational culture – artifacts, espoused values and underlying assumptions, from a visible level to an invisible level. Other researchers defined cultural elements as very different principles. For example, the perspective suggested by Handy related culture to a particular structure and design of organisation. A role culture has a typical pyramid structure. A task culture has flexible matrix structures. A power culture has web-like communications structure. A person culture has a cluster structure.

Whilst the above examples reflect layers and structural views of organisations, others have a cross-cultural view, defining culture according to regions and groups. Hofstede (1980) devoted his series of studies to understanding how national culture influences organisational processes by means of international comparisons. He differentiated between national cultures on the basis of distance from power, avoidance of uncertainty, individualism-collectivism, and masculinity-femininity.

Denison (Denison & Mishra, 1989) propagated a more behaviour-oriented view, which identified four elements of organisational culture – involvement, consistency, adaptability and mission. The differences between the Denison model and those of other theorists are presented in Table 2.1:

**Table 2.1** The Denison model vs. other cultural models

DENISON MODEL	OTHER CULTURAL MODELS
<ul style="list-style-type: none"> <li>▪ Behaviourally based</li> </ul>	<ul style="list-style-type: none"> <li>▪ Often psychologically based or personality based</li> </ul>
<ul style="list-style-type: none"> <li>▪ Designed and created within the business environment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Often designed and created within the academic environment</li> </ul>
<ul style="list-style-type: none"> <li>▪ Business language used to explore business-level issues</li> </ul>	<ul style="list-style-type: none"> <li>▪ Often non-business language which must be converted through interpretation to the business context</li> </ul>
<ul style="list-style-type: none"> <li>▪ Linked to bottom-line business results</li> </ul>	<ul style="list-style-type: none"> <li>▪ Often unclear about specific links to business results; little if any research conducted in placing cultural elements in relation to performance</li> </ul>
<ul style="list-style-type: none"> <li>▪ Fast and easy to implement</li> </ul>	<ul style="list-style-type: none"> <li>▪ Often requires extended time to implement assessment and/or interpret results in the business context</li> </ul>
<ul style="list-style-type: none"> <li>▪ Applicable to all levels of the organisation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Specifically designed for either top level or front lines implementation</li> </ul>

Source: Denison consulting (2007)

The main difference between Denison and other researchers is that the latter developed a general theoretical model of the links between organisational culture and effectiveness while Denison's organisational culture model focuses on the internal integration and external adaptation that lead to successful management practices.

In the following paragraph, the assessment of organisational culture is further described through several approaches to culture studies

### **2.2.3 Measurement of organisational culture**

Organisational culture is a very complex concept to assess. Every organisation reveals a different culture. Some organisations have a “strong” culture and others have a “weak” culture. How is it possible to decide which kind of culture an organisation has? Researchers who study organisational culture have addressed these questions and a number of approaches have been developed on the basis of specific perspectives (Schein, 1992; Hofstede, Neuijien, Ohayv & Sanders; O’ Reilly, Chatman & Caldwell, 1991). Anthropologists and sociologists often use qualitative techniques such as interviews, stories and observations in the attempt to understand the complex concept of organisational culture. Organisational and management theorists, though, intend to quantify dimensions of organisational culture by applying questionnaires (Onken 1999:235).

In this section, several approaches to measuring organisational culture will to be reviewed and discussed.

#### **2.2.3.1 Schein’s Ten-step culture study approach**

Schein (1992:161-175), from a clinical perspective, proposed an “iterative clinical interview” approach to investigate “shared underlying assumptions” among members of an organisation. This approach was developed into a series of ten steps, which are presented as:

1. Entering and focusing on surprises
2. Systematically observing and checking
3. Locating a motivated insider
4. Revealing the surprises, puzzlements, and Hunches
5. Jointly exploring to find explanation
6. Formalising hypotheses

7. Systematically checking and consolidating
8. Searching for shared assumptions
9. Perpetually recalibrating
10. Writing a formal description

This ten-step approach to studying culture requires a high level of cooperation between the employees and the researchers. In this culture study process, there are no initial magic questions or correct actions for researchers to observe. The approach also does not use a prepared questionnaire with selected answers for studying an organisation.

This method of studying culture utilises qualitative techniques such as direct observation, interviews, and ethnography. The approach enables researchers to assess and understand the “deeper” levels of culture, such as symbolic meaning, semiotics, and underlying beliefs and assumptions, which is not possible with the quantitative techniques on which survey questionnaires rely (Denison, Janovics, Young & Cho, 2006:4). Moreover, such an approach usually provides much in-depth information about an organisation (Lim, 1995:16).

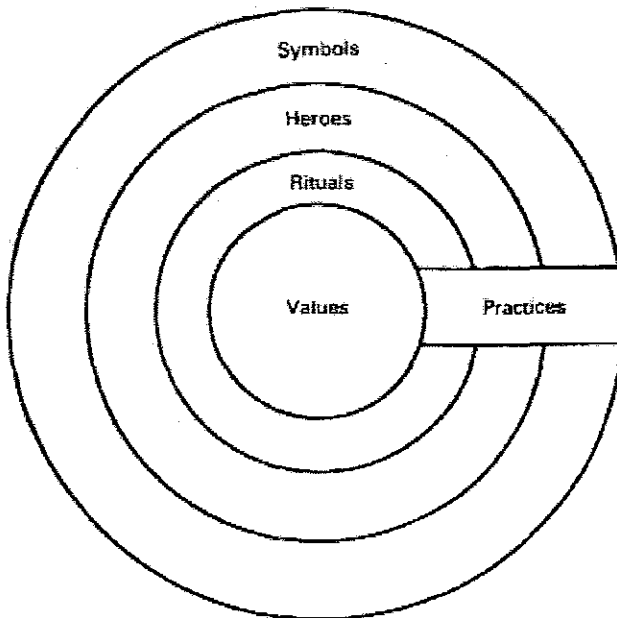
Hofstede, Neuijien, Ohayv & Sanders (1990) had earlier presented a mix of both qualitative and quantitative techniques to measure organisational culture, as is shown in the following paragraph.

#### **2.2.3.2 Hofstede, Neuijien, Ohayv & Sanders’ three-step culture study approach**

In a study of culture across 10 different organisations in Denmark and the Netherlands, Hofstede, Neuijien, Ohayv and Sanders (1990) proposed a three-step approach to study organisational culture.

In the first step, they conducted in-depth interviews with selected respondents who, in this instance, included the unit top manager and his secretary and employees from all levels in the organisation. The in-depth interviews were used to investigate organisational culture qualitatively and to select suitable

questions to be included in the following survey. The researchers suggested that organisational culture could be manifested by four categories: symbols, heroes, rituals, and values, as presented in Figure 2.3.



**Figure 2.3** Manifestations of culture: from shallow to deep (Hofstede, Neuijen, Ohayv & Sanders, 1990:291)

Symbols included words, gestures, pictures, or objects, which indicated a specific sense of organisational culture. Heroes referred to the person, such as leaders or founders, who were considered to be models of behaviour among employees. Rituals referred to similar reactions regarding particular issues that employees would show in one organisation. The first three levels were combined as the practice level, because they could be observed visually. At the deepest level were the values, which could not be observed visibly, but were manifested in the activities of the other levels. A number of questions were also formulated as a checklist for the in-depth interview, which could be used to ensure covering all the aspects of organisational culture (Hofstede, Neuijen, Ohayv & Sanders, 1990:291).

In the second step, Hofstede *et al.* (1990:291) conducted a standard survey questionnaire. This included 135 pre-coded questions, which combined 60

survey questions from their earlier cross-national culture study and some other questions developed on the basis of the in-depth interview of the first step. All the questions were rated on a five-point scale according to level of importance, agreement, speed or frequency. The respondents were then randomly selected from each unit, covering managers, professionals and other employees.

Finally, the researchers performed a factor analysis of all 135 survey questions to determine the specific organisational culture at both value and practice levels.

At the level of value, organisational culture was divided into three dimensions. Organisational culture was divided into six dimensions at the practice level, as explained in Section 2.2.2.1 (above).

As mentioned above, this three-step approach presented a balanced method to assess and study organisational culture with a mix of both qualitative (interview) and quantitative (questionnaire) techniques. This approach enables researchers studying organisational culture to understand both “deeper” levels of organisational culture, such as underlying beliefs (through interview) and assumptions, and the level of values and behavioural norms (through survey questionnaires).

In the following paragraph, Denison culture study approach presented a quantitative method to measure an organisational culture - survey questionnaire.

### **2.2.3.3 Denison’s approach to studying organisational culture**

The Denison approach to studying organisational culture was developed from a stream of research on culture and organisational effectiveness (Denison, 1984, 1990; Denison & Mishra 1989, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer 2003, 2004; Denison, Janovics, Young, Cho, 2006). This culture study utilised a quantitative survey technique to measure

organisational culture. The survey was formulated on the basis of Denison's organisational culture model, which was discussed in section 2.2.2.4. The survey addressed Denison's four critical cultural traits: involvement, consistency, adaptability, and mission. A sixty-item questionnaire was formulated to measure these culture traits. Table 2.2 gives a brief description of the structure of the questionnaire:

**Table 2.2** Traits and dimensions measured by Denison's organisational culture survey

TRAIT	DIMENSION	EXAMPLES OF ITEMS
INVOLVEMENT	Empowerment	Everyone believes that he or she can have a positive impact
	Team orientation	Working in this organisation is like being part of a team
	Capability development	This organisation continues to invests in the skills of employees
CONSISTENCY	Core values	This organisation has an ethical code that guides our behavior and tells us right from wrong
	Agreement	It is easy to reach consensus, even on difficult issues
	Coordination and Integration	There is good alignment of goals across levels of this organisation
ADAPTABILITY	Creating change	This organisation is very responsive and changes easily
	Customer focus	Customer input directly influences our decisions
	Organisational learning	We view failure as an opportunity for learning and improvement
MISSION	Strategic direction & intent	This organisation has long-term purpose and direction
	Goals & objectives	There is widespread agreement about goals in this organisation
	Vision	Our vision creates excitement and motivation for our employees

Source: Denison & Fey (2003: 704)

Each cultural trait is further sub-divided into three indices, which manifest it. Five questions are used to measure each culture index. Each question is related to a five-point Likert scale with response categories ranging from one to five, representing "strongly disagree", "agree", "neutral", "disagree", and "strongly agree" respectively.

Denison's organisational culture survey focuses on a quantitative multi-dimensional assessment of the core organisational cultural traits. It focuses directly on those aspects of organisational culture that appear to influence organisational effectiveness (Denison, Janovics, Young & Cho, 2006:3).

#### **2.2.3.4 A comparison of the qualitative and quantitative measurement of organisational culture**

As seen from the above literature, qualitative approaches enable researchers to study the deeper levels of organisational culture, while quantitative approaches present organisational culture at the level of values and behavioural norms.

The literature on organisational culture presents many arguments about the advantages and disadvantages of both qualitative and quantitative assessment in culture studies. As summarised by Tucker, McCoy and Evans (1990:5),

...qualitative methods provide an opportunity to maximize the values of heuristic, flexibility, adaptiveness, depth and realism; whereas quantitative methods provide an opportunity to maximize the values of precision, systematization, repeatability, comparability, convenience, large scale, unobtrusiveness and cost-effectiveness.

One of the important advantages of the quantitative organisational culture study approach is that it enables researchers to relate culture to relevant business outcomes (Petty, Rush, Davis, Calabrese, Small, Swann, Kramer, Orsulak, Blake & Bowden, 1995:593-683). In addition, it can also be applied to

many organisations in the same way. The results can then provide a basis for comparison and generalisation (Denison, 1984:7).

Moreover, as suggested by Marcoulides and Heck (1993:210) “if we are to study seriously the concept of culture we must adopt a systematic approach that enables researchers to identify those dimensions and variables that are amenable to empirical measurement and hypothesis testing”.

According to Scott, Mannion, Davies and Marshall (2003), there are no simple answers to the questions asked by people looking for a culture measurement tool – Which instrument is best? How and who do I choose to sample? How many subjects do I need? The answer is that it depends – on how we want to define “culture”, “measurement” and “organisation”, the purpose of the investigation, the intended use of the results, and the availability of resources.

Organisational effectiveness is the dependent variable in this study, so it is important to review some of the main issues in the effectiveness literature.

### **2.3 Organisational effectiveness**

Organisational effectiveness has been one of the most extensively studied topics since the early development of organisational theory (Rojas, 2000:97-104). Although many people would agree on the central role of management in achieving organisational effectiveness, it is much more difficult to specify what is meant by the concept itself.

To an economist or financial analyst, organisational effectiveness is synonymous with profit or return on investment. To a production manager, effectiveness often means the quality or quantity of output of goods or services. To a research scientist, effectiveness may be defined in terms of the number of patents, inventions, or new products of an organisation. And for a number of social scientists, effectiveness is often viewed in terms of the quality of working life. In short, the concept of organisational effectiveness means “different

things to different people, depending upon one's frame of reference" (Steers, 1977:1).

According to Steers (1977:5), effectiveness can be defined "in terms of an organisation's capacity to acquire and utilize its scarce and valued resources as expeditiously as possible in the pursuit of its operative and operational goals".

In addition, an organisation's effectiveness can be seen as the members' need to gear their activities towards defining and attaining shared goals (Robertson, Callinan & Bartram, 2002:1). Robertson *et al.* (2002:5) quoted Dunphy (1981), who provided a list of characteristics that define an effective organisation, namely: (i) goal specification; (ii) clarity of goals and clear communication of objectives throughout the organisation; (iii) awareness of the commercial environment and ability to change and evolve within it; (iv) a management structure that facilitates goal-related performance; (v) a well-motivated workforce, valued by the organisation, with competencies that are aligned with the goals of the organisation.

Numerous debates regarding organisational effectiveness were conducted in the following areas: ambiguous meaning and definition, the lack of agreement on how to measure it, and the disparity in its use by practitioners and academics (Cameron, 1984). Agreement has been achieved on the following aspects: (i) organisational effectiveness requires multiple criteria (Henri, 2004:97); (ii) the choice of model and criteria should be flexible and appropriate for the context (Cameron, 1986), the definition, circumscription and criteria identification of organisational effectiveness remain problematic, and no definitive theories have been put forth (Henri, 2004:97).

To define the perspective on organisational effectiveness on which this research study is premised, the different models and measurement criteria of organisational effectiveness will be reviewed in the following paragraphs.

### **2.3.1 Organisational effectiveness models**

Several conceptual frameworks for organisational effectiveness (Miles, 1980; Katz & Kahn, 1966, 1978; Goodman & Pennings; 1977; Scott, 1977; Cameron & Whetten, 1983; Seashore, 1983) are summarised into the basic models presented in the following:

#### **2.3.1.1 The goal attainment model**

The earliest models that were developed were goal based (Miles, 1980). The goal attainment model explains organisational effectiveness as the achievement of specific organisational objectives. The owners of an organisation may define organisational objectives as a set of narrow economic objectives, or the organisation's constituents may define them as the set of institutional goals. In both cases, "...organisations are perceived as contrived, instrumental, and purposeful..." (Denison, 1990:36). Organisational effectiveness is measured in terms of accomplishment of outcomes (Etzioni, 1960). This model mainly focuses on the organisation's achievement of goals, objectives, or targets.

#### **2.3.1.2 The natural systems model**

The goal attainment model was followed by a systems model. This model expands on the biological metaphor of an organism with an internally differentiated and integrated structure, which is interdependent with its environment for information and energy (Miles, 1980:355). Miles (1980:355-365) pointed out that organisational "goals" are not simple; instead organisational effectiveness must be evaluated with respect to the equilibrium and elaboration of the system itself. In terms of this perspective, the outcomes of primary interest become system characteristics such as growth, stability or decline.

### **2.3.1.3 The multiple-constituencies model**

This model extends the two previous models by adding the expectations of the various powerful interest groups (such as employees, customers, suppliers and so on) that must be satisfied in order to ensure the effectiveness of the organisation (Connolly, Conlon & Deutsch, 1980:211-217). Therefore, an organisation is perceived as a set of internal and external constituencies that negotiate a complex set of constraints, goals and referents (Goodman & Pennings, 1977:160). This model ensures effectiveness not only internally but also as a function of customer satisfaction.

### **2.3.1.4 Competing–value model (multidimensional model)**

The Competing–value model, which constitutes a synthesis and an extension of the previous models (Quinn & Rohrbaugh, 1983), uses multidimensional scaling organisational value as a starting point. This model makes evaluations about the effectiveness of organisations based on three underlying dimensions: (i) an internal focus versus an external focus (such as individual satisfaction versus organisational goal accomplishment); (ii) a concern for flexibility versus a concern for control (such as innovation and adaptation versus predictability and stability); and (iii) a concern for ends versus a concern for means (such as efficient production of outputs versus planning and goal setting).

### **2.3.1.5 Comparison of the effectiveness models**

The earliest models among the above-mentioned were goal based in the measurement of organisational effectiveness in literature (Etzioni, 1960). Researchers considered the goal model unsatisfactory because selection of inadequate goals cannot lead to an effective organisation (Miles, 1980; Mohr, 1983). Later, the system model was defined as encompassing the ends-focus of goal models, together with the means and environmental factors. However, like the goal model, relevant systems and key processes within the organisational systems could be misdirected and prove inefficient if they caused, even if unintended, undesirable external consequences (Mohr, 1983).

These models gave way to the strategic-constituencies model, which, unlike the previous models, was portrayed as focusing solely on the constituencies that could threaten the survival of an organisation. Lastly, the competing-values model was presented as an integrative framework of the previous models.

“Different models of effectiveness are useful for research in different circumstances. Their usefulness depends on the purposes and constraints placed on the organisational effectiveness investigation” (Cameron, 1986:541). From the above it seems that, because different models of organisational effectiveness follow from different organisational conceptualisations (Cameron & Whetton, 1983), no model covers all contingencies or applies to all settings. Each model has its own focus and strengths. Debates about which model of effectiveness is best or right are largely beside the point because models are more likely to complement one another than supplant one another (Cameron, 1986).

One of the most apparent conclusions emerging from a comparison of the various models is the lack of consensus on what constitutes a useful and valid set of organisational effectiveness measurement criteria. The following section therefore presents and discusses the measurement criteria of organisational effectiveness.

### **2.3.2 Measurement criteria of organisational effectiveness**

Past research has employed multiple criteria as measures of organisational effectiveness. Unfortunately, there has been little agreement as to the criteria that actually serve to define organisational effectiveness (Cameron, 1978; Goodman & Penning, 1977; Steers, 1975).

According to Wall, Michie, Patterson, Wood, Sheehan, Clegg and West (2004:95), there are two major measurement approaches in the study of organisational effectiveness, namely objective measures and subjective measures. In the following paragraphs, the two measurement approaches of

organisational effectiveness in the various organisational culture studies are presented:

### **2.3.2.1 Objective measurement criteria of organisational effectiveness**

Objective measures of organisational effectiveness are used in determining the relationship between organisational culture and organisational effectiveness. The objective measurement typically is taken from externally recorded and audited accounts, such as productivity, profit, or return on assets (Wall *et al.*, 2004:96).

For example, Gordon and DiTomaso (1992:783-798) measured the relationships between cultural strength and organisational performance. Two objective measurements of organisational performance were used in the study, namely growth in assets and new premium income. In addition, Denison (1984) tested the relationship between organisational culture and organisational effectiveness in 34 large American companies. In that study, two financial ratios, return on investment and return on sales were selected as the objective performance measurement criteria.

Flamholtz (2001; 2005) also investigated the relationship between organisational culture and financial performance. In these studies, financial performance was measured objectively by 'EBIT' (earnings before interest and taxes). Calori and Sarnin (1991) examined the relationship between organisational culture and organisational effectiveness from a sample of five French companies. The following three complementary ratios were selected as the measurement of organisational performance: return on investment ratio (which is a measurement of the effective utilisation of resources over time); return on sales ratio (which is a measure of operating efficiency) and annual variation of the net turnover (which is an indicator of the growth performance of the firm).

Another study, by Aidla and Vadi (2005:1-27), focused investigations on Estonian secondary schools. This study related organisational culture to the

performance of schools with consideration of the effect of size and location. Objective measurement of secondary school performance was based on the results of national examinations of secondary schools within the last five years (2000-2004). The exam results in mathematics, English, composition and history were considered as the basis of comparison.

Although some studies used objective measures, subjective measures have also been used in a number of empirical studies concerning the links between organisational culture and effectiveness.

### **2.3.2.2 Subjective measurement criteria of organisational effectiveness**

The subjective measurements of organisational effectiveness have also been utilised in studying the relationship between organisational culture and effectiveness. The subjective measurement relies on questionnaires, interviews and observations (Wall, Michie, Patterson, Wood, Sheehan, Clegg and West, 2004:96).

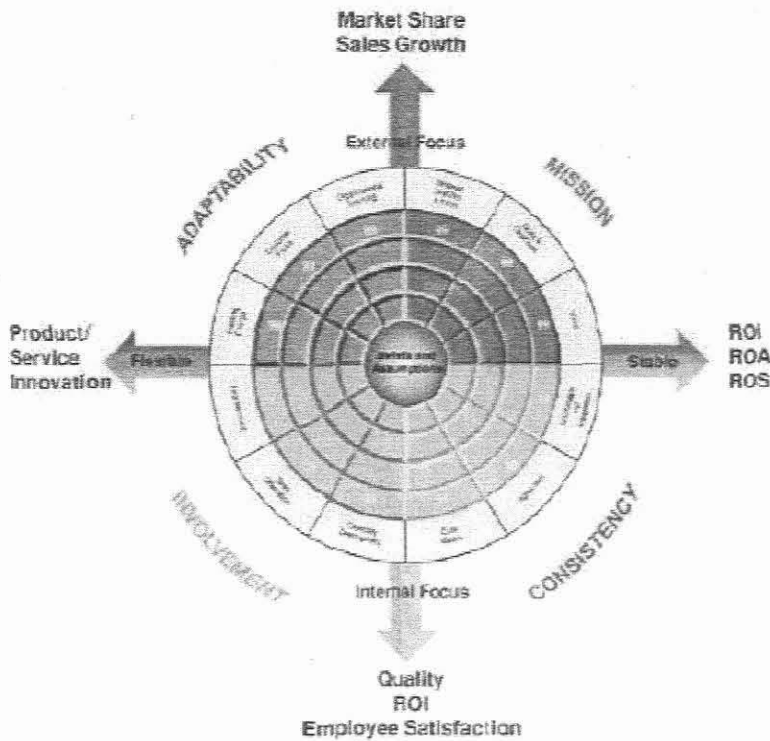
Dess and Robinson (1984:268) used a single item, simply asking respondents to rate "overall firm performance/success"; whereas Delaney and Huselid (1996:956) combined responses to four items rating performance with respect to marketing, growth in sales, profitability, and market share. In a study by Hoque (1999), performance was measured by a questionnaire completed by the employees. Three items were used, namely (i) "How well does labour productivity at your hotel compare with the hotel industry average?" (ii) "How does quality of service at your hotel compare with the hotel industry average?" and (iii) "How would you compare the financial performance of your hotel with the hotel industry average?"

In a series of studies on the links between organisational culture and effectiveness by Denison and his colleagues (Denison, 1984, 1990; Denison & Mishra, 1989, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer 2003, 2004; Denison, Lief & Ward, 2004), seven items to measure organisational effectiveness were identified. These items included overall performance;

market share; sales growth; profitability; employee satisfaction; quality of products and services; and new product development. The respondents were required to rate these seven items. These seven subjective measurements are explained as follows:

- New product development focuses on the overall process of strategy, organisation, concept generation, product and marketing plan creation and evaluation, and commercialisation of a new product.
- Sales growth measures the growth in sales in a company.
- Market share addresses a firm's sales in relation to total industry sales.
- Profitability measures the quality of affording gain, benefit or profit
- Overall company performance measures the accomplishment of work assignments or responsibilities and contributions to the organisational goals, including behaviour and professional demeanour (actions, attitude, and manner of performance) as demonstrated by the employee's approach to completing work assignments.
- Quality measures the level of meeting the needs and expectations of customers.
- Employee satisfaction measures the company's ability to fulfil the physical, emotional, and psychological needs of its employees.

Among these different measurement criteria used in the links between culture and effectiveness studies, Denison's seven subjective effectiveness measurement criteria may be seen as a set of operational norms that could reflect on the organisation's business outcomes. Denison and Mishra (1995:204-223) also advocated that their seven subjective measurement criteria are closely linked to the four cultural traits of involvement, adaptability, mission, and consistency. These are presented in Figure 2.4 and are explained as follows:



**Figure 2.4** Operational dimensions of Denison's organisational culture model (Source: Denison consulting, online)

- Product development and innovation are typically impacted by involvement and adaptability (Flexible) and typically indicates higher levels of product and service innovation and creativity, as well as a fast response to customers' and employees' changing needs.
- Financial performance measures such as Return on Assets (ROA), Return on Investment (ROI) and Return on Sales (ROS) are impacted on by mission and consistency (Stable). This typically indicates high return on assets, investments and sales, and operational strength.
- Sales growth and market share are typically impacted on by adaptability and mission (External Focus) and indicate continually increasing sales growth and market share.
- Quality, employee satisfaction and Return on Investment are impacted on by consistency and involvement (Internal Focus). These indicate

higher levels of quality, less defects and rework, good utilisation of resources, and higher levels of employee satisfaction.

In addition, Denison and Mishra (1995:204-223) compared the results based on subjective and objective effectiveness criteria. They found that the correlation between the four cultural traits and the objective effectiveness criteria are size dependent, but the subjective effectiveness criteria did not show the same pattern.

From the preceding discussion it is clear that there are multiple criteria of measurement for organisational effectiveness. Although some studies use objective measures of organisational effectiveness, many rely on subjective measures as reported by respondents. Subjective measures of organisational effectiveness are widely used in research and are interpreted as equivalent to objective measures (Wall, Michie, Patterson, Wood, Sheehan, Clegg, & West, 2004:95). It is important to recognise that, in practice, subjective measures tend to focus on overall performance, whereas objective measures use more specific financial indicators (Wall *et al.*, 2004:97).

Subjective measures of organisational effectiveness are cost-effective because such performance data can be collected either through questionnaires or through interview surveys that simultaneously elicit information on practices. This is a good reason why subjective measures of organisational effectiveness have been and will continue to be employed (Wall *et al.*, 2004:96).

Nathan and Alexander (1988:432-439) quite early came to the conclusion that objective effectiveness measures are not more predictable than subjective measures. As an assessment of organisational effectiveness research suggests that while no theory is inherently superior to another, research generally should draw on existing knowledge bases. It seems that effectiveness research should draw on the methods that have been most useful in examining the issues and in the context being considered (Cameron & Whetton, 1983:42).

## **2.4 The links between organisational culture and effectiveness**

The topic of culture and effectiveness is of central importance in organisational studies (Denison & Mishra, 1995:205). Researchers studying organisational culture have addressed the links between organisational culture and effectiveness since the 1980s.

For example, Peters and Waterman (1982:2-6) held that a successful company often contains a characteristic of strong culture. Kilmann (1985:351-369) stated that, to perform well, companies must have adaptive cultures that contain a 'risk-taking, trusting and proactive approach'. Furthermore, Gordon (1985:103-125) found that organisational culture could impact on the performance of the banking and utilities industries. In addition, Barney (1986:656-665) suggested that organisational culture might impact on efficiency or effectiveness from an economic perspective and Saffold (1988:546-558) analysed organisational cultural traits and strengths and developed a more sophisticated understanding of the relationship between organisational culture and performance.

In the 1980s, despite the claims for a link between organisational culture and effectiveness, few studies actually examined the existence or the nature of this relationship (Lim, 1995:16). This was possibly due to difficulties such as the limited consensus regarding a general theory of organisational culture; whether culture could be "measured" in a way that allows one organisation to be compared with another; and the complexity of measuring effectiveness (Denison & Mishra, 1995:205).

In the 1990s and recent years, the development in the literature with regard to the measurement instruments/models for both culture and effectiveness have resulted in organisational researchers developing certain theories of organisational culture and effectiveness. The following sections will therefore provide a review of empirical studies that presented supporting evidence of organisational culture and effectiveness within various industries in the US and other countries.

### **2.4.1 The relationship between organisational culture and organisational effectiveness in the US studies**

The earlier studies concerning organisational culture provided little solid supporting evidence for the impact of culture on organisational effectiveness. In order to bridge this gap, Denison (1984:4-22) investigated this relationship empirically on the basis of survey data collected from 34 large American companies. He found that organisations with a participating corporate culture and well-organised workplaces have better performance records than those that do not.

Furthermore, Denison and Mishra (1989:168-172) subsequently integrated the numerous implicit assumptions about the relationships between organisational culture and effectiveness and formulated a general organisational culture and effectiveness theory, which included four important hypotheses:

- **Involvement hypothesis**

This hypothesis suggests that an organisation with a high level of employee involvement will develop the employee's capability at all levels and create a sense of ownership, responsibility, and loyalty toward the organisation.

- **Consistency hypothesis**

This hypothesis suggests that an organisation with a strong and cohesive internal culture tends to be more efficient. This can be explained as that an organisation with a high level of consistency, conformity and consensus can easily achieve agreement among members at all levels when they have different points of view concerning difficult questions in the decision-making process.

- **Adaptability hypothesis**

This hypothesis focuses on the organisation's ability to adapt quickly to signals from the external environment, such as the demands of customers. An organisation with strong adaptability can translate those signals into internal

behavioural changes, which increase its chances for survival and development.

- Mission hypothesis

This hypothesis probes whether or not organisations have a clear sense of vision, strategic direction, goals and objectives. Furthermore, it also queries whether such statements are understood and shared among all the members in the organisation as everyone will utilise the mission statements as a reference in their everyday work.

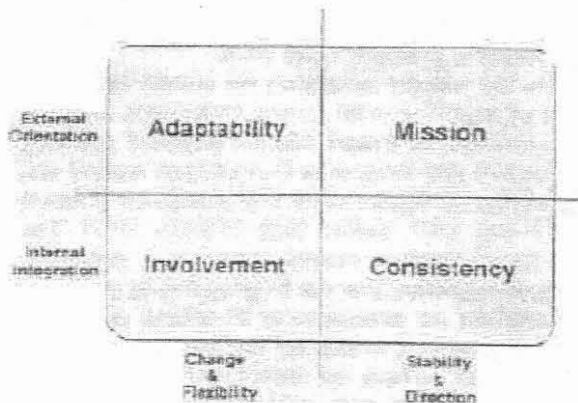
After formulating the above four implicit hypotheses, Denison and Mishra (1989:168-172) presented a preliminary empirical test by using CEO (chief executive officer) perceptions of culture and effectiveness from a sample of 969 organisations. The study provided strong supporting evidence for the four hypotheses. The results showed that 'mission' is the strongest predictor of performance and provides the strongest prediction of market share and overall performance. Involvement hypotheses were also particularly strongly supported as predictive of new product development and overall effectiveness. 'Adaptability' was a significant predictor of four out of six effectiveness measures, while product development and overall performance were seen as highly significant. In addition, the results also showed that 'consistency' was less significant as a predictor of performance.

Following the Denison (1984; 1989) study method, Gordon and DiTomaso (1992:783-798) tested the relationships of cultural strength and two organisational cultural elements (adaptability and stability) with organisational performance, based on a sample of 11 insurance companies. The study provided results that were consistent with Denison's previous findings that organisational culture was positively related to organisational performance in subsequent years. This paper concluded that companies with cultures that emphasised adaptability tended to perform better than those with cultures that emphasised stability. They also suggested that "a culture of adaptability was more related to success than one of stability for an industry undergoing significant and rapid change" Though they also admitted that "the opposite

may well be true in companies where technologies, products and customer needs change very slowly, if at all” (Gordon & DiTomaso, 1992:795).

Marcoulides and Heck (1993:81-94) developed and tested another exploratory structural model concerning how the different elements of organisational culture may influence organisational performance. They concluded that the different variables of organisational culture are predictive of organisational performance and that organisational performance can be improved by proper management of the different variables of organisational culture.

Based on their four cultural hypotheses which were formulated in 1989, Denison and Mishra (1995:216) further integrated the four hypotheses into a single framework. This was regarded as a more general theory of the association between organisational culture and effectiveness. The integrated culture traits model is shown in Figure 2.5:



**Figure 2.5:** Theoretical model of culture traits

Source: Denison & Mishra, 1995:216

The integrated four hypotheses model was designed into a 2 x 2 dimensional structure (Figure 2.5): (i) external orientation versus internal integration and (ii) change and flexibility versus stability direction. Involvement and consistency primarily address the internal dynamics of an organisation. Adaptability and mission, in contrast, focus on the relationship between the organisation and its external environment. In addition, involvement and adaptability emphasise the

organisation's capacity for flexibility and change. While consistency and mission, in contrast, are oriented toward control and stability.

Denison and Mishra (1995:204-223) tested the four traits culture model by means of two studies, namely: (i) a qualitative case study of five firms to determine the traits linked to organisational effectiveness; and (ii) a quantitative study that measured the CEO's perceptions of these four traits in 764 US organisations and related these traits to subjective and objective measures of organisational effectiveness.

The results showed consistent supporting evidence that Denison's four different cultural traits were positively related to several different subjective measurements of organisational effectiveness. Their paper pointed out that the two cultural traits of involvement and adaptability were strong indicators of growth and the other two traits, of consistency and mission, were better predictors of profitability. The results also showed that the four cultural traits were strong predictors of subjectively rated effectiveness measurement criteria for all the sample organisations, but strong predictors of objective effectiveness measurement criteria such as return-on-assets and sales growth only for large organisations (Denison & Mishra, 1995:204-223).

Flamholtz (2001:268-275) went on to focus investigations on organisational culture impacts on financial performance on the basis of a single sample of a medium-sized industrial enterprise with twenty operating divisions in US. This study applied five hypothesised organisational cultural elements to analyse the corporate culture. These elements included: (i) people scale, (ii) customer scale, (iii) performance and accountability scale, (iv) teamwork and communication, and (v) corporate citizenship.

The paper that resulted from this showed statistically significant evidence of the impact of organisational culture on financial performance. It was demonstrated that better performing operating divisions were those that behave in ways consistent with the desired organisational culture. The study concluded that organisational culture was a significant factor of an

organisation's success; the effective management of culture can therefore enhance profitability.

Flamholtz and Kannan-Narasimhan (2005:50-64) afterwards extended Flamholtz's earlier research and assessed the extent of the impact of the different cultural dimensions on financial performance. This paper revised five cultural factors (Flamholtz, 2001) to a six factor scale, which included (i) a customer scale, (ii) a human resource practices scale, (iii) an identification with the company scale, (iv) a performance and behaviour standards scale, (5) a corporate citizenship scale, and (6) a communication scale.

They found that four cultural factors (customer service, corporate citizenship, performance and behavioural standards and identification with the company) impacted directly on the financial performance (measured by 'EBIT', or earnings before interest and taxes) of the company. These four factors were termed primary cultural factors. The other two factors (human resource practices and organisational communication) were not correlated to financial performance, but had a significant impact on all four primary cultural factors. These two factors were named secondary cultural factors.

Overall, the theory of the links between organisational culture and effectiveness were mainly developed in the United States (Denison & Fey, 2003:686). A number of researchers also applied this theory in the context of non-U.S. companies and tested the applicability of American management theories abroad. The empirical studies also showed strong support to the positive impact of organisational culture on effectiveness (Ogbonna & Harris, 2000:768-770).

#### **2.4.2 Studies of the relationship between organisational culture and effectiveness in the other countries**

In a French study by Calori and Sarnin (1991:71), three major findings were obtained, namely (i) an organisation's relative growth performance is positively impacted on by the following cultural attributes and associated management

practices: personal fulfilment, listening to others, team spirit, responsibility, trust, openness to the environment, adaptation, anticipation, entrepreneurship, quality and consistency; (ii) the intensity and the homogeneity of organisational culture are positively related to the organisation's relative growth performance; and (iii) an organisation's relative returns on investment and sales are positively correlated with some cultural attributes, namely openness to the environment, participation in local activities, societal contribution, solidarity and flexibility. The study showed a positive relationship between the different dimensions of culture and performance; especially that organisational culture had more impact on the company's growth than on profitability.

In addition, Ogbonna and Harris (2000:766-788) further tested the relationship between organisational culture and performance by using a sample organisation selected from the U.K. They included the following four culture dimensions in their study: (i) Innovative culture, (ii) Competitive culture, (iii) Bureaucratic culture, and (iv) Community culture. Interestingly, their final results indicated that the two culture dimensions (bureaucratic and community) did not have any impact on the performance of those U.K. companies. Consistent with other researchers, they confirmed the positive impact of the other two culture dimensions (innovative and competitive) on performance.

Ogbonna and Harris (2000:782) regarded the first two dimensions of culture as externally oriented organisational culture and the other two as internally oriented organisational culture, so they suggested that "an internally oriented organisational culture may prove comparatively disadvantageous when compared to the advantages possible with externally oriented cultures" (Ogbonna & Harris, 2000:782). Finally, the study concluded that organisational cultures could only be regarded as a source of sustainable competitive advantage when they were adaptable to the external environment.

Based on Denison's earlier findings in the US studies, Denison and Fey (2003:686-706) further tested their results through a quantitative study conducted on 179 foreign-owned firms operating in Russia. The results of the study showed a consistent, significant, positive relationship between the four

traits of organisational culture and effectiveness. In contrast to the US study, this paper showed that adaptability and involvement presented the strongest correlation with the effectiveness index of overall performance, profitability, and product development and that involvement and mission were well correlated with market share, sales growth, employee satisfaction and quality. The mission was most highly correlated with effectiveness dimensions.

The results also supported the idea that different aspects of culture are linked to different elements of effectiveness. Overall, adaptability and involvement seemed to be the most important determinants of effectiveness in the Russian context. Due to the Russia's turbulent transition economy, stability traits such as mission and consistency were less strongly associated with effectiveness than were the flexibility traits of involvement and adaptability (Denison & Fey, 2003:701).

Following this, Denison, Haaland and Goelzer (2003, 2004) further tested the linkage between organisational culture and effectiveness in two separate studies. The first study sample contained 36,820 individuals from 230 organisations in different industries from three regions: North America, Asia, and Europe-Mid-East-Africa (EMEA). The sample for the second study recorded in this paper comprised 2,162 employees of independently owned local grocery stores from seven countries (Australia, Brazil, Canada, Jamaica, Japan, South Africa and the United States).

The first study found that all correlations between organisational culture indices and organisational effectiveness were significant in North America and Europe-Mid-East-Africa (EMEA). However, none of the correlations were significant for the Asian companies. In the second study, they found that five countries (Brazil, South Africa, the United States, Australia and Canada) showed a strong and consistent pattern of correlation between the culture and effectiveness measures. There was a divergent pattern of findings in Japan and Jamaica. In Jamaica, the correlations between culture and effectiveness measures were generally very low. In Japan, a few correlations were quite strong.

Denison, Haaland and Goelzer (2003, 2004) then suggested that it was quite possible to measure and compare the organisational cultural traits and their impact on performance across nations. The study concluded that there perhaps was a common set of cultural traits that could be used to understand the effectiveness of organisations. However, these were expressed quite differently in different national settings.

Aidla and Vadi (2005:1-27) investigated this research topic, focusing on Estonian secondary schools. They related organisational culture to the performance of schools with consideration of the effect of size and location. The study identified two dimensions of organisational culture: (i) task-oriented culture, which indicated the extent of all members' willingness to support their organisation and (ii) relationship-oriented culture, which refers to the 'belongingness to their organisation'. Although the researchers found a positive relationship between the two culture dimensions and the performance of the schools, this relationship was not statistically significant. They further tested this relationship with consideration of the impact of size and location on the performance of schools. The results showed that a significant relationship between task-oriented culture and performance could only be found in city and town schools.

The above-mentioned empirical studies provided strong support for a positive relationship between organisational culture and effectiveness in other countries as well. On the one hand, these researches illustrated that the cultural theory developed in the United States could be applied in other parts of the world. In addition, the studies undertaken in other countries showed that the theory can be a useful foundation for understanding differences in the culture-effectiveness relationship across nations.

## **2.5 Conclusion**

This chapter has provided an extensive review of the relevant literature which has established the theoretical basis for organisational culture and effectiveness studies.

There is no consensus to date on a definition of organisational culture, but the majority of definitions have described it as shared meanings, beliefs and values, assumptions and understandings. The concept of organisational culture is further sub-divided into elements based on different perspectives. Several different methods for measuring culture were developed and organisational culture has been shown to be one of the important factors that have a positive influence on organisational effectiveness. Several researchers have provided strong empirical evidence to support the above conclusion, on the basis of studies undertaken in different contexts.

In order to provide some extra evidence, this study will apply Denison's organisational culture model to investigate the relationship between culture and effectiveness in the context of the Western Cape banking industry.

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

An outline of the research design and methodology employed in the investigation of the possible relationship between organisational culture and effectiveness within the Western Cape banking industry is provided in this chapter.

A quantitative approach was adopted for this research. The quantitative approach is the method most frequently used for capturing culture information through survey assessments (Rojas, 2000:99). As suggested by Tucker, McCoy and Evans (1990:5) "...quantitative methods provide an opportunity to maximize the values of precision, systematization, repeatability, comparability, convenience, large scale, unobtrusiveness and cost-effectiveness." For the present study, a quantitative approach enables the researcher to measure dimensions of culture, relate culture to the business outcomes, and perform hypothesis testing in terms of the relationship between culture and effectiveness in the Western Cape banking industry.

The detailed research design is presented in the following sections. Firstly, the population, sampling techniques and data gathering procedures that were utilised are described. Secondly, the statistical techniques utilised to test the hypothesis are explained. Finally, the design, development and validation of the survey questionnaire is explained and discussed.

#### **3.2 Research question**

Based on the research purpose of this study, the following research questions were formulated.

- What are the characteristics of the organisational culture of the Western Cape banking industry?
- What are the specific strengths and weaknesses in the characteristics of the culture of the Western Cape banking industry?
- What is the relationship between Denison's four culture traits and effectiveness in the Western Cape banking industry?

### **3.3 Hypotheses**

The major hypothesis and sub-hypotheses that were derived from the above research questions were as follows:

#### ***Major hypothesis***

***H<sub>1</sub>***: There is a positive relationship between organisational culture and organisational effectiveness.

#### ***Sub-hypotheses***

***Sub-H<sub>1</sub>***: Involvement is a cultural trait, that is positively related to organisational effectiveness.

***Sub-H<sub>2</sub>***: Consistency is a cultural trait that is positively related to organisational effectiveness.

***Sub-H<sub>3</sub>***: Adaptability is a cultural trait that is positively related to organisational effectiveness.

***Sub-H<sub>4</sub>***: Mission is a cultural trait that is positively related to organisational effectiveness.

### 3.4 Research population and selection of the sample

Bless, Higson-Smith and Kagee (2006:98) define a population as "...the entire set of objects or people which is the focus of the research and about which the researcher wants to determine some characteristics." The research population for the present study is the Western Cape banking industry, which comprises of twelve banks in total (South African Banking Association, <http://www.banking.org.za/2004>). These banks are presented below:

- Absa Bank
- African Bank
- Capitec Bank
- First National Bank
- GBS Mutual Bank
- Investec Bank
- Mercantile Bank
- Nedbank
- Rand Merchant Bank
- Rennie's Bank
- Sasfin Bank
- Standard Bank

It is a limitation of the study that the entire Western Cape banking industry is regarded as a single entity. However, this is similar to the approach followed by various authors who studied the relationship between culture and organisational performance. Examples of these studies between include Denison (1984:4-22) who studied 34 American companies and came to conclusions about the relationship in America; Gordon and DiTomaso (1992:783-798) who examined 11 companies in the insurance industry; Flamholtz (2001:268-275) who studied medium-sized industrial enterprises; Calori and Samin (1991:71) who studied French organisations; and Aidla and Vadi (2005:1-27) who focussed on Estonian secondary schools. These authors did not only look at a particular industry, but examined the relationship on a national level. The scope and level of the study also does not allow for a comparison of the cultures of the different banks.

### 3.4.1 Sampling

According to Bless *et al.* (2006:98), a sample is “the subset of the whole population which is actually investigated by a researcher and whose characteristics will be generalized to the entire population.” They further summarised the main advantages of sampling as:

- Gathering data on a sample is less time consuming;
- It is less costly; and
- Sampling is a practical way to collect data when the population is extremely large.

#### 3.4.1.1 Sampling design

According to Bless *et al.* (2006:99) sampling methods can be distinguished between probability and non-probability sampling. For probability sampling, the probability of including each element of the population can be determined. Non-probability sampling, on the other hand, cannot determine the probability of including each element of the population in a sample.

The sampling design that was considered appropriate for the present study was non-probability sampling. The reason for choosing non-probability sampling over probability sampling concerns cost, human resources and time. According to Emory and Cooper (1991:86), probability sampling requires more planning and repeated follow-up calls to ensure that each member in the selected sample is contacted. These activities can become expensive. The non-probability sampling technique is cost-effective, requires less in human resources and consumes less time. One type of non-probability sampling is purposive sampling (Cooper & Schindler, 2001:191).

One of the key challenges presented in designing a sample of the Western Cape banking industry was the lack of available human resource and other information. Following an extensive search for appropriate data that could be used to structure the sample, the only clear indices available was that of market share and this was thus used to structure sample. Based on this the

researcher selected six banks from the Western Cape banking industry listed hereunder:

- ABSA Bank
- African Bank
- Capitec Bank
- First National Bank
- Nedbank
- Standard Bank

The six above-mentioned banks represent more than 80 percent of the total market share in the banking industry (Banking Survey South Africa, 2004). The research assumption is that these six banks are representative of the Western Cape banking industry. The total assets percentage of the six banks is presented below (Table 3.1).

**Table 3.1** Total assets percentage of individual bank

Bank	Total Assets (R million)	Percentage of the total assets
Standard Bank	968991	41%
ABSA	495112	21%
FNB	442388	19%
NED Bank	424912	18%
African Bank	8163	0.4%
Capitec Bank	125.1	0.01%

Source: Bank Annual report 2006

#### 3.4.1.2 Purposive Sampling

“Purposive sampling is confined to specific types of people who can provide the desired information, either because they are the only ones who have it, or conform to some criteria set by the researcher” (Sekaran, 2003:277). The researcher used purposive sampling for the present study because the selected middle level management employees (such as branch managers, sales managers, regional officers) in the six banks mentioned above were in a position to provide more accurate and valuable information on the

organisation's culture and performance, compared to lower level employees, thus making it easier to answer the research questions in the present study (Sekaran, 2003:277).

As Schein (1990:111) claims, "...cultural origins and dynamics can sometimes be observed only in the power centres where elements of the culture are created and changed by founders, leaders, and powerful persons". Following the same logic, culture measured at this level will be most predictive of the future behaviour and performance of the organisation. An additional reason for selecting middle level management employees as participants over lower level employees relates to whether they are familiar with the banks' performance in the whole banking industry. Most lower level employees in the banks are not familiar with the bank's performance regarding return on assets, profitability and sales/revenue growth.

A total of 103 questionnaires were distributed to the six banks in the Western Cape, according to each individual bank's percentage of total assets (Table 3.1). This method allowed the project to reflect a reasonable sample size for the Western Cape banking industry. The number of questionnaires distributed to each bank was as follows (Table 3.2): 41 questionnaires were distributed to Standard bank, 21 questionnaires went to ABSA, 19 questionnaires to FNB, 18 questionnaires to Ned bank, 2 questionnaires each to both the African bank and Capitec bank. It should be noted that the aim of the study was to examine the Western Cape banking industry as a whole as opposed to analysing the culture and performance of the individual banks.

**Table 3.2** Distribution of questionnaires

Bank	Distribution of questionnaires (n)	Percentage of sample	Percentage of the total assets
Standard Bank	41	40.8%	41%
ABSA	21	20.3%	21%
FNB	19	18.4%	19%
Nedbank	18	17.5%	18%
African Bank	2	1.9%	0.4%
Capitec Bank	2	1.9%	0.01%

A total of 68 fully completed questionnaires were returned. The remaining 35 questionnaires were not returned or could not be utilised in the study as they were incomplete. This means that a response rate of 66% was achieved. As confirmed by Sekaran (2003:295), sample sizes of between thirty and five hundred subjects are appropriate for most research studies.

### **3.5 Data collection instruments**

The purpose of this study was to investigate the existence of a possible relationship between organisational culture and organisational effectiveness. To assess this relationship, a survey questionnaire was considered to be the appropriate method for data collection in this study. According to Weiers (1988:121), there are specific benefits to utilising questionnaires:

- ❖ The cost per questionnaire is relatively low;
- ❖ Structured information in the questionnaire makes analysing questionnaires relatively straightforward; and
- ❖ Questionnaires give respondents ample time to formulate accurate responses.

In addition, the survey questionnaire enables researchers to collect information for quantifying organisational culture and organisational effectiveness. Furthermore, as suggested by Denison and Fey (2003), the key strength of the

survey technique is to study organisational culture by means of a method that can be applied to different organisations in the same way. The findings then provide a basis for comparison and generalisation.

The survey questionnaire was premised on the Denison Organisational Culture Survey (DOCS) as developed by Denison and Fey (2003), which is recognised as a reliable and valid research instrument for the study of organisational culture and effectiveness. As demonstrated in Chapter two, this questionnaire was utilised in the following academic studies: Denison and Mishra (1989), (1995); Denison and Fey (2003); Denison, Haaland and Goelzer (2003), (2004). Furthermore, Denison, Janovics, Young and Cho (2006) provided a statistical validation of Denison's Organisational Culture Survey to measure organisation culture.

Around the world, organisations have also applied this questionnaire to diagnose their organisational culture and examine the impact of organisational culture on effectiveness. This questionnaire in question was previously used by over 3,000 organisations and more than 100 000 respondents worldwide (Denison, Lief & Ward, 2004:65).

After collecting the questionnaires from the participants in each bank, Cronbach's Alpha Reliability Coefficient was applied, using the SPSS programme, to test reliability. The calculated coefficients were 0.823 for involvement, 0.808 for consistency, 0.731 for adaptability, 0.876 for mission, and 0.882 for effectiveness measures, which suggests a strong positive item-homogeneity in this measuring instrument. This is significant as an indication of test reliability.

Denison's Organisational Culture Survey includes the following three sections:  
Section 1 - Biographical Questionnaire;  
Section 2 - Organisational Culture Questionnaire; and  
Section 3 - Organisational Effectiveness Questionnaire.

Each section is explained below.

### **3.5.1 Biographical section**

The biographical questionnaire includes the following two questions, which relate to personal information:

- At which bank are you employed?
- Which position do you hold at the bank?

The biographical questionnaire was used to confirm the respondents' job position and each one of them supplied the name of the bank at which he/she was employed.

### **3.5.2 Organisational culture section**

The second section of the questionnaire is designed to measure the four existing critical organisational culture traits:

- Mission
- Adaptability
- Involvement and
- Consistency.

Each cultural trait is further sub-divided into three indices, which manifest that particular cultural trait. Five questions are used to measure each culture index. The culture survey includes 60 questions. Each question is linked to a five-point Likert scale with response categories ranging from 1 to 5, representing "strongly disagree", "agree", "neutral", "disagree", and "strongly agree" respectively. The Likert scale is named after Rensis Likert, who published a report describing its use (Likert, 1932). Provision N/A stands for a not applicable response.

The results of this culture survey provide the basic cultural characteristics of the organisation. It enables comparison of an individual company with the best-performing companies, as well as worst-performing companies. The

results of the survey reflects not only the difference in culture between company A and B, but also indicates how each company measures against the optimal business cultures of the highest-performing organisations.

Thirty-six statements were used to measure the different culture indices in the present study. Denison and Fey (2003:702-703) also applied the same 36 statements in their organisational culture study in Russia. The 36 selected statements are regarded as appropriate and sufficient to identify and record the characteristics of organisational culture. The 36 statements are reproduced in Appendix 1.

### **3.5.3 Organisational effectiveness section**

Denison and Mishra (1995) measured organisational effectiveness subjectively by means of seven questions. These seven questions measured the following dimensions:

- Overall performance;
- Market share;
- Sales/revenue growth;
- Profitability/return on investment;
- Employee satisfaction;
- Quality of products and services; and
- New product development.

The responses to the seven questions were also scaled, using a five-point Likert type rating scale with items ranging from one to five. The values one to five represented “low performer”, “below average”, “average”, “above average”, and “high performer” respectively. The seven subjective effectiveness measuring criteria are seen as a set of operational norms that can reflect organisational business outcomes.

Previous empirical studies provided a good precedent for subjective effectiveness measurement to assess the relationship between organisational culture and effectiveness (Delaney & Huselid, 1996; Denison & Mishra, 1995; Denison & Fey, 2003).

It must be remembered that subjective measures of organisational effectiveness are cost-effective because performance data can be collected through questionnaires or interview surveys that simultaneously elicit information on practices. It is also important to recognise that, in practice, subjective measures have tended to focus on overall performance, whereas objective measurement has typically used more specific financial indicators (Wall *et al.*, 2004). That is a good reason why subjective measures of organisational effectiveness have been and will continue to be employed (Wall *et al.*, 2004).

### **3.6 Data collection process**

A questionnaire with a covering letter describing the study and assuring confidentiality was personally taken to the branches or regional offices for the middle level management employees to complete. Upon meeting the middle level management employees, the researcher also provided a verbal description of the project. Whenever possible, the middle level management employees completed the questionnaire at that time.

However, the middle level management employees in most cases decided to work through the questionnaire at another time and provided a specific time for the researcher to collect the completed questionnaire. They generally needed one week to complete the questionnaire. If questionnaires were not finished by the specific time that was indicated by the participants, an extensive follow-up procedure was undertaken which included making three telephone calls at one-week intervals. The third telephone call was regarded as the final reminder for completing the questionnaire. Finally, the middle level management employees whose questionnaires were not returned by the end of this procedure were regarded as non-respondents.

### **3.7 Statistical analysis method**

A number of statistical techniques were employed to test the research hypotheses. These included both descriptive and inferential statistical techniques.

Each statistical analysis method is explained below:

#### **3.7.1 Descriptive statistics**

Descriptive statistics provide a statistical summary of the data that has been collected (Sekaran, 2003:394). For the present study, the descriptive statistics included percentages and arithmetical means.

Percentages are used to reflect the information regarding the survey respondents' job position.

The mean is one of the common measures for central tendency and reflects the arithmetic average of frequency distributions. The following means were calculated and used to measure the different aspects of organisational culture and effectiveness.

- Mean scores on culture traits, indices for the Western Cape banking industry; and
- Mean scores on the seven subjective measures of organisational effectiveness for the Western Cape banking industry.

The range of the mean scores extended from "0" to "5" with "0" indicating the lowest score and "5" indicating the highest score. The mean scores on the culture indices and traits facilitated the identification of strength or weakness in the different aspects of organisational culture for both the individual bank and the Western Cape banking industry as a whole.

### **3.7.2 Inferential statistics**

Inferential statistics provide an instrument for drawing conclusions about a population from a sample (Hair, 2003:102). According to Sekaran (2003:400), inferential statistics are employed when generalisations are made from sample to population. In this study it was employed for the purpose of determining whether a statistically significant relationship exists between organisational culture and effectiveness within the Western Cape banking industry. The type of inferential statistics that were utilised was Pearson's Product Moment Correlation Coefficient and the Analysis of Variance (ANOVA).

These types of inferential statistics are further explained below.

#### **3.7.2.1 Pearson's Product Moment Correlation Coefficient**

Pearson's Product Moment Correlation Coefficient provides an indication of strength, magnitude and direction of the relationship between two variables (Thorne & Giesen, 2003:78). In other words, correlation coefficients are used to reveal the extent to which two measurement variables "vary together". The Pearson's Product Moment Correlation Coefficient is, therefore, suitable for the purpose of this study since the researcher intends to determine the direction and extent of the relationships between the four culture traits and twelve culture indices and organisational effectiveness. Furthermore, the Pearson Product Moment Correlation Coefficient also facilitates the significance test of the relationships.

#### **3.7.2.2 Analysis of Variance (ANOVA)**

According to Tredoux and Durrheim (2002:254), "ANOVA is used to test for differences between the means of more than two groups, and can be used in designs with more than one independent variable." In the present study, ANOVA was used to test the mean score differences among four cultural traits and twelve cultural indices for the Western Cape banking industry.

In order to conduct the above statistical analysis, the Statistical Package for the Social Science (SPSS) computer software was utilised.

### **3.8 Conclusion**

The research methodology utilised in the present study was addressed in this chapter.

Six banks from within the Western Cape banking industry were selected as the sample for this study and 103 questionnaires were distributed to them on the basis of the total assets of each bank. This study analyzed the collected information by using SPSS computer software and tried to determine whether there is any relationship between organisational culture and effectiveness in the Western Cape banking industry.

The findings and results of this investigation are presented in the next chapter, Chapter 4.

# CHAPTER 4

## ANALYSIS AND PRESENTATION OF FINDINGS

### 4.1 Introduction

The results of this study concerning organisational culture study within the Western Cape banking industry are presented in this chapter. Descriptive statistics regarding the job functions of the respondents in the survey are presented. The organisational culture profile for the Western Cape banking industry is also provided. Finally, the major objective of this research, which was investigating the relationships between organisational culture and effectiveness, is presented and analysed.

### 4.2 Job classification of the respondents

The different types of jobs that the respondents in the research project performed in the bank are summarised in Table 4.1, below. Seven different categories are described.

**Table 4.1:** Job classification of the respondents

	Frequency	Percentage
Branch management	40	59%
Team leader	9	13%
Sales management	7	10%
Service management	4	6%
Administration management	3	4%
Marketing management	3	4%
Floor management	2	3%
Total	68	100%

The 59% of the respondents occupied the position of branch manager while team leaders comprised 13% of the sample, while sales managers comprised

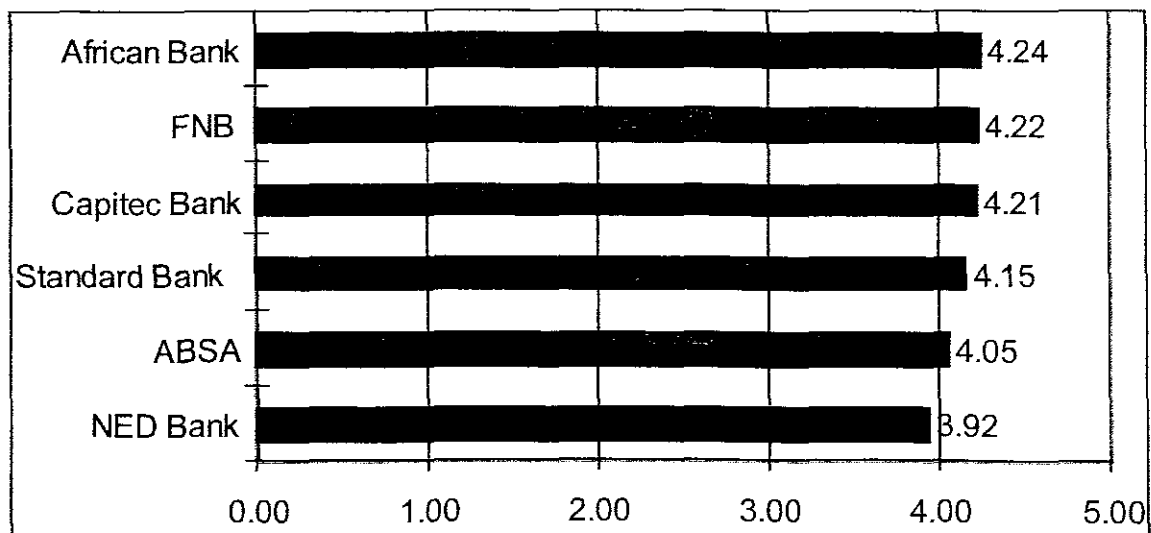
10% of the sample. The remaining 17% of the respondents comprised service managers, administration managers, marketing managers and floor managers respectively.

### 4.3 The results of organisational culture measurement

The participants' perceptions with regard to each item of the Denison Organisational Culture Survey are reported in this section. The mean scores on Denison's four culture traits and twelve culture indices were used to illustrate the current organisational culture characteristics and the strengths or weaknesses that were identified in the Western Cape banking industry.

#### 4.3.1 Mean scores for organisational culture of the individual banks

The mean scores for the organisational culture for each bank are presented in Figure 4.1. This result could assist in determining whether or not organisational culture differs among the sample banks that were selected for the current study.



**Figure 4.1:** Mean scores for organisational culture of the individual banks

As shown in Figure 4.1, above, the mean scores for organisational culture for the individual banks are ranked as follows: African Bank achieved the highest score of 4.24, followed by FNB (4.22), Capitec Bank (4.21), Standard Bank (4.15), and ABSA Bank (4.05). Nedbank obtained the lowest score with 3.92.

All the scores were ranged from 0 to 5, with “0” indicating the lowest rating and “5” indicating the highest level of rating.

An ANOVA test conducted to determine whether the differences in the mean scores were statistically significant yielded the results presented in Table 4.2 below.

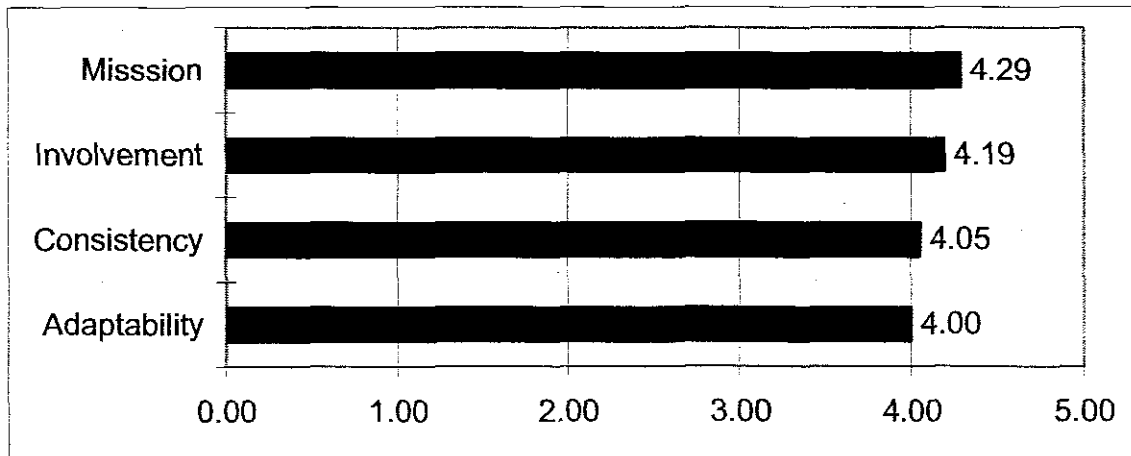
**Table 4.2:** ANOVA for the overall organisational culture

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	.723	5	.145	1.054	.395
Within Groups	8.641	63	.137		
Total	9.364	68			

The results of the ANOVA indicated that there were no significant differences between the six banks as far as organisational culture was concerned (P= 0.395, F=1.054).

#### **4.3.2 Mean scores for organisational culture traits of the Western Cape banking industry**

In order to assess the current cultural characteristics of the Western Cape banking industry, the mean scores for the four cultural traits of mission, involvement, consistency and adaptability were calculated. These are graphically presented below in Figure 4.2.



**Figure 4.2:** Mean scores for the four culture traits for the Western Cape banking industry

As shown in Figure 4.2, the mean scores for the four culture traits for the Western Cape banking industry ranged between 4.00 and 4.29. The mean score for mission was 4.29, for involvement it was 4.19, consistency showed a mean score of 4.05 and adaptability was registered at 4.00. The mean score for mission is relatively higher than the mean scores on the other three culture traits.

The results of the ANOVA conducted to determine whether the differences in the mean scores were statistically significant are presented in Table 4.3.

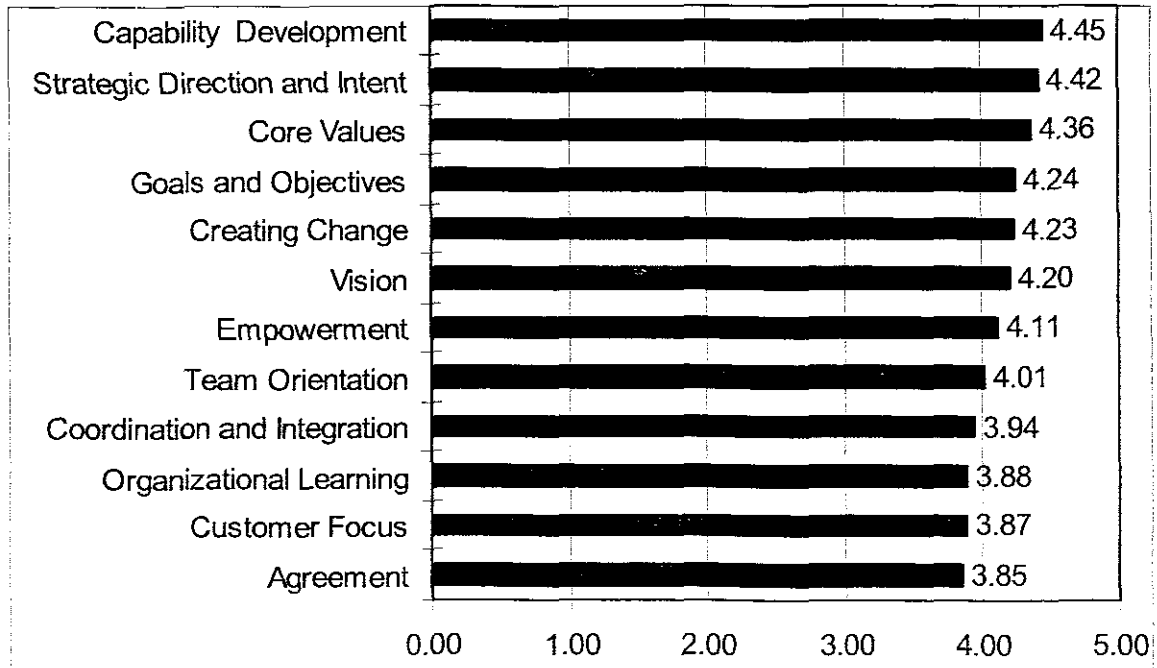
**Table 4.3:** ANOVA for the four culture traits

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	.315	3	.105	2.314	.107
Within Groups	.907	20	.045		
Total	1.221	23			

The ANOVA results (Table 4.3) demonstrated that the score differences among the four culture traits are not statistically significant (p-value= 0.107, F=2.314).

### 4.3.3 Mean scores for organisational culture indices for the Western Cape banking industry

The Western Cape banking industry's organisational culture characteristics were measured further by the calculation of the mean score on each culture index. The results of the mean scores on 12 culture indices are graphically presented below, in Figure 4.3.



**Figure 4.3:** Mean scores for the twelve organisational culture indices for the Western Cape banking industry

Figure 4.3 shows the mean score on the culture index of capability development as 4.45, which is the highest score attained among the 12 culture indices for the Western Cape banking industry. The mean scores for strategic direction and intent, core value, goals and objectives and vision were recorded at 4.42, 4.36, 4.24, and 4.23 respectively, while empowerment had a score of 4.11 and team orientation and coordination and integration obtained mean scores of 4.01 and 3.94 respectively. The mean scores for organisational learning, customer focus, and agreement were 3.88, 3.87, and 3.85 respectively.

Conducting an ANOVA to determine whether the differences in the mean scores were statistically significant yielded the results presented in Table 4.4:

**Table 4. 4:** ANOVA for twelve culture indices

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	3.158	11	.287	3.936	.000
Within Groups	4.376	60	.073		
Total	7.535	71			

These ANOVA results (Table 4.4) demonstrate that the score differences among the twelve culture indices are significant (P-value=0.0000, F=3.936). However, this does not indicate where the significant differences between traits are. *Post hoc* tests conducted subsequently were then used to illustrate where the significant differences among the pairs of culture traits occurred (Pallant, 2005:218). The significant differences are summarised in Table 4.5, while the complete table is attached as Appendix B at the end.

**Table 4.5:** Significant results for test of differences across culture indexes

(I) CultureIndex	(J) CultureIndex	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Empowerment	Capability Development	-0.34*	0.16	0.03	-0.65	-0.03
	Strategic Direction &Int	-0.31*	0.16	0.05	-0.62	0.00
Team Orientation	Capability Development	-0.45*	0.16	0.01	-0.76	-0.13
	Core Values	-0.35*	0.16	0.03	-0.66	-0.04
	Strategic Direction & Int	-0.42*	0.16	0.01	-0.73	-0.10
Capability Development	Agreement	0.60*	0.16	0.00	0.29	0.91
	Coordination&Integration	0.52*	0.16	0.00	0.21	0.83
	Customer Focus	0.58*	0.16	0.00	0.27	0.89

	Organisational Learning	0.58*	0.16	0.00	0.26	0.89
Core values	Agreement	0.50*	0.16	0.00	0.19	0.81
	Coordination&Integration	0.42*	0.16	0.01	0.11	0.73
	Customer Focus	0.48*	0.16	0.00	0.17	0.80
	Organisational Learning	0.48*	0.16	0.00	0.17	0.79
Agreement	Creating Change	-0.38*	0.16	0.02	-0.69	-0.07
	Strategic Direction & Int	-0.57*	0.16	0.00	-0.88	-0.26
	Goals&Objectives	-0.38*	0.16	0.02	-0.69	-0.07
Coordination & Integration	Vision	-0.34*	0.16	0.03	-0.65	-0.03
	Strategic Direction & Int	-0.49*	0.16	0.00	-0.80	-0.18
	Creating Change	0.36*	0.16	0.03	0.05	0.67
Customer Focus	Organisational Learning	0.36*	0.16	0.03	0.04	0.67
	Strategic Direction & Int	-0.55*	0.16	0.00	-0.86	-0.24
	Goals&Objectives	-0.36*	0.16	0.02	-0.67	-0.05
Organisational Learning	Vision	-0.32*	0.16	0.04	-0.63	-0.01
	Strategic Direction & Int	-0.55*	0.16	0.00	-0.86	-0.23
	Goals & Objectives	-0.36*	0.16	0.03	-0.67	-0.05
	Vision	-0.32*	0.16	0.04	-0.63	-0.01

\* The mean difference is significant at the .05 level

As illustrated in Table 4.5, *post hoc* tests confirmed 26 paired differences as statistically significant ( $0.31 < \text{Absolute Mean Difference} < 0.58$ ,  $P\text{-value} < 0.05$ ). The differences among others, however, were not statistically significant (see Appendix B).

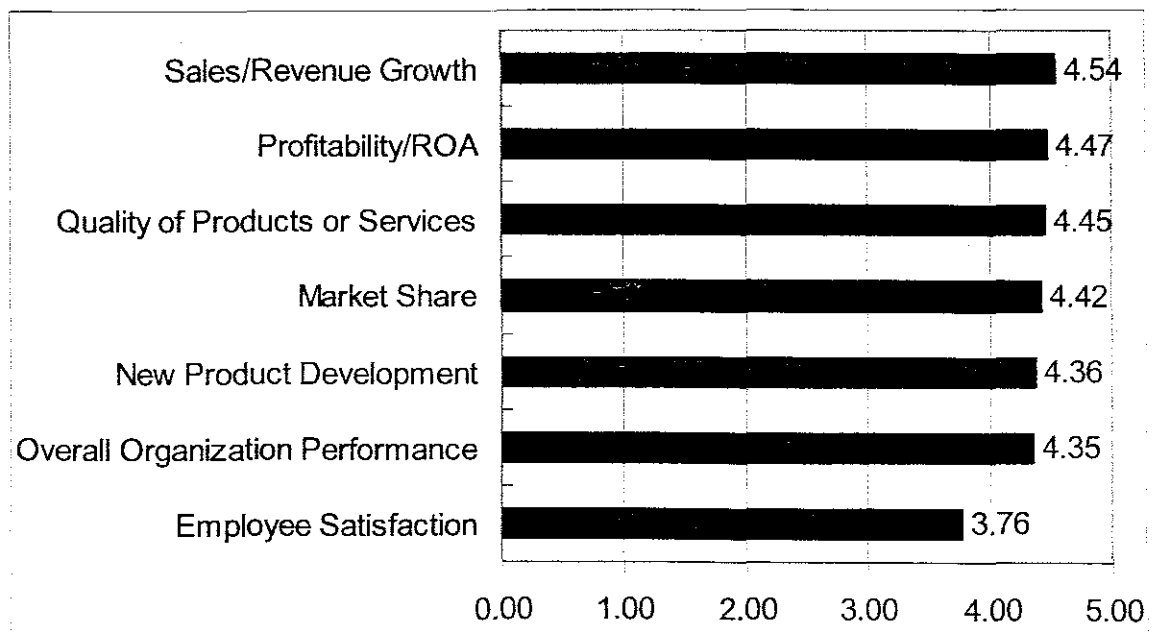
The mean scores for each cultural index provided a clearer culture profile for the Western Cape banking industry. These results indicate that the Western Cape banking industry has strengths with regard to the six culture indices of capability development; strategic direction and intent; core value; goals and objectives; creating change; and vision. The Western Cape banking industry

however showed relative weakness with regard to the other six culture indices of empowerment; team orientation; coordination and integration; organisational learning; customer focus; and agreement.

#### 4.4 Organisational effectiveness

The results concerning employees' perception on the different aspects of organisational effectiveness are reported in this section. The level of effectiveness is indicated by a rating with a range from 0 to 5. A rating of '5' indicates the highest level of scoring.

The mean scores for each aspect of the effectiveness measure for the Western Cape banking industry are summarised in the Figure 4.4.



**Figure 4.4:** Mean scores for each aspect of effectiveness measurement for the Western Cape banking industry

As illustrated in Figure 4.4, the mean scores for most aspects of the effectiveness measurement are higher than 4.0. The only effectiveness aspect, which scored lower than 4.0, was employee satisfaction.

An ANOVA applied to determine whether the differences in the mean scores were statistically significant yielded the results presented in Table 4.6.

**Table 4.6:** ANOVA for different aspects of organisational effectiveness

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	2.456	6	.409	1.737	.141
Within Groups	8.245	35	.236		
Total	10.701	41			

The ANOVA results (Table 4.6) demonstrate that the differences in scores among the twelve culture indices are not statistically significant (P-value=0.141, F=1.737).

#### 4.5 Correlation coefficients between organisational culture and effectiveness

In order to identify the relationships between organisational culture and organisational effectiveness in the Western Cape banking industry, the Pearson product-moment correlation coefficients for the different aspects of organisational culture and effectiveness measures were calculated. The results are presented in Tables 4.7 and 4.8, following.

The Pearson product moment correlation coefficients are interpreted in terms of direction, magnitude and significance. A '+' before the correlation coefficients indicates a positive relationship, while a '-' before the correlation coefficients indicates a negative relationship, a '0' correlation coefficient means no relationship (Pretorius, 1995:36). Pretorius (1995:36-37), in addition, suggests a rough guideline to the interpretation of correlation coefficients:

- < 0.2 = Slight correlation
- 0.2 - 0.4 = low correlation
- 0.4 - 0.7 = moderate correlation

- 0.7 - 0.9 = high correlation
- 0.9 = very high correlation

All the correlation coefficients were tested to see whether they represented a statistically significant relationship. In the test, a P-value less than 0.05 is used to determine whether there is a significant relationship between two variables.

#### 4.5.1 Correlation coefficients between culture traits and effectiveness

The Pearson product-moment correlation coefficients for four culture traits and seven subjective effectiveness measures are reported in Table 4.7.

**Table 4.7:** Correlations between culture traits and organisational effectiveness

		Sales/Revenue Growth	Market share	Profitability/ROA	Quality of Products or Services	New Product Development	Employee Satisfaction	Overall Performance
Involvement	Pearson r	0.61	0.65	0.81*	0.69	0.37	0.89*	0.75
	P-value	0.20	0.16	0.05	0.13	0.48	0.02	0.09
Consistency	Pearson r	0.50	0.52	0.35	0.68	0.76	0.10	-0.05
	P-value	0.31	0.29	0.49	0.14	0.08	0.85	0.93
Adaptability	Pearson r	0.57	0.67	0.33	0.68	0.78	0.03	-0.03
	P-value	0.24	0.15	0.52	0.14	0.07	0.96	0.96
Mission	Pearson r	-0.12	-0.20	-0.35	-0.09	0.20	-0.65	-0.58
	P-value	0.82	0.71	0.49	0.87	0.71	0.16	0.23

\* Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 4.7 (row 2), the culture trait of involvement shows a positive impact on seven effectiveness measures. There is a significant positive correlation between involvement and employee satisfaction ( $r=0.89$ ,  $P\text{-value}=0.02$ ), with high levels of employee involvement in the management process associated with higher levels of employee satisfaction. There is also a significant positive correlation between involvement and profitability/ROA

( $r=0.81$ ,  $P\text{-value}=0.05$ ), with a high level of employee involvement in the management process associated with higher levels of profitability/ROA. Involvement also shows a high level of impact on overall performance ( $r=0.75$ ). In addition, involvement shows moderate correlation with quality of products/services ( $r=0.69$ ), market share ( $r=0.65$ ), sales/revenue growth ( $r=0.61$ ), and overall organisational performance ( $r=0.44$ ). The subjective measure of new product development is impacted by involvement at a relatively low level ( $r=0.37$ ).

For the culture trait of consistency (row 4), the correlation with the different effectiveness measures is relatively lower than that seen in the results of involvement, with 'r' ranged from  $-0.05$  to  $0.76$ . Consistent with the culture trait of involvement, different organisational effectiveness measures were also impacted by consistency at different levels.

The culture trait of adaptability (row 6), shows a high correlation with new product development ( $r=0.78$ ) and a moderate correlation with quality of products/services ( $r=0.68$ ), market share ( $r=0.67$ ) and sales/revenue growth ( $r=0.57$ ). The subjective measure of profitability/ROA is impacted by adaptability at the low level ( $r=0.33$ ). However, adaptability seems to have had an impact on employee satisfaction ( $r=0.03$ ) and overall performance ( $r=-0.03$ ).

The correlation coefficients for the culture trait of mission (row 8) are negative, with exception of new product development ( $r=0.20$ ). The different organisational effectiveness measures are also impacted by mission at various levels.

Table 4.7, with the exception of the correlation between involvement and employee satisfaction, indicates that no correlation has a p-value lower than 0.05, and so none of the correlation coefficients are statistically significant at the 0.05 level.

From the above results, the findings can be described as follows: Organisations in which members experience the culture traits to a greater degree, are likely to be more effective than those organisations where members experience the culture traits to a lesser degree. However, the majority of these relationships are not statistically significant.

The results also indicate that the culture trait of involvement seems to be the most important determinant of effectiveness in the context of the Western Cape banking industry. Mission is the organisational cultural trait showing the least association with organisational effectiveness, rather showing negative impact.

The relationships between overall performance and organisational culture traits, moreover, cannot be justified by this study. The other six aspects of effectiveness measures are moderately impacted by the organisational traits.

**4.5.2 Correlation coefficients between culture indices and effectiveness**

The correlation coefficients for the 12 culture indices and seven subjective effectiveness measures are presented in Table 4.8, below.

**Table 4.8:** Correlations between culture indices and effectiveness

		Sales/Revenue Growth	Market Share	Profitability/ROA	Quality of Products or Services	New Product Development	Employee Satisfactions	Overall Performance
Empowerment	Pearson r	0.87*	0.91*	0.89*	0.94*	0.74	0.77	0.65
	P-value	0.02	0.01	0.02	0.01	0.09	0.07	0.16
Team Orientation	Pearson r	0.30	0.38	0.63	0.40	-0.01	0.86	0.73
	P-value	0.56	0.46	0.18	0.43	0.99	0.03	0.10
Capability Development	Pearson r	0.48	0.46	0.67	0.52	0.26	0.77	0.65
	P-value	0.33	0.36	0.14	0.29	0.63	0.07	0.17
Core Values	Pearson r	0.55	0.40	0.26	0.49	0.71	-0.14	-0.08

	P-value	0.26	0.44	0.61	0.33	0.11	0.80	0.88
Agreement	Pearson r	-0.22	-0.19	-0.25	-0.09	-0.02	-0.35	-0.36
	P-value	0.67	0.71	0.63	0.86	0.97	0.49	0.49
Coordination & Integration	Pearson r	0.57	0.66	0.54	0.74	0.68	0.48	0.26
	P-value	0.23	0.15	0.27	0.09	0.13	0.34	0.62
Creating Change	Pearson r	0.85*	0.93*	0.84*	0.96*	0.79	0.69	0.56
	P-value	0.03	0.01	0.04	0.00	0.06	0.13	0.25
Customer Focus	Pearson r	0.07	0.07	-0.10	0.04	0.17	-0.36	-0.22
	P-value	0.89	0.89	0.84	0.94	0.75	0.48	0.67
Organisational Learning	Pearson r	0.10	0.23	-0.23	0.24	0.54	-0.46	-0.55
	P-value	0.86	0.66	0.67	0.65	0.27	0.36	0.26
Strategic Direction & Intent	Pearson r	-0.27	-0.44	-0.38	-0.40	-0.23	-0.57	-0.36
	P-value	0.61	0.39	0.45	0.43	0.67	0.23	0.49
Goals and Objectives	Pearson r	0.00	-0.03	-0.17	0.09	0.27	-0.43	-0.41
	P-value	1.00	0.96	0.75	0.87	0.61	0.39	0.42
Vision	Pearson r	-0.01	0.01	-0.31	0.15	0.50	-0.60	-0.68
	P-value	0.99	0.98	0.55	0.78	0.32	0.21	0.14

\* Correlation is significant at the 0.05 level (2-tailed).

In total, 84 correlation coefficients were calculated to identify the impact of the 12 culture indices on the different aspects of effectiveness measures. Out of the total of 84 correlation coefficients, 53 were positive and the remaining 31 negative. None of the negative correlations were statistically significant. Moreover, only eight positive relationships were statistically significant with p-values less than 0.05. All other p-values were higher than 0.05.

As shown in Table 4.8, the different culture indices also showed different levels of impact on the seven subjective effectiveness measures, with the culture index of 'empowerment' having the strongest positive impact. Four out of seven correlation coefficients were statistically significant at the 0.05 level. This result seemed to suggest that the success of an organisation in the Western Cape banking industry is driven by the concern to empower their employees. The culture index of creating change also shows a high positive impact on the different aspects of organisational effectiveness (average r

=0.80). Consistent with the culture index of empowerment, four out of seven correlations are statistically significant (with p-values less than 0.05).

In addition, the different effectiveness measures also impacted on each of the culture indices at a different level. These results are consistent with the results in the previous section.

Clearly, the culture indices' correlation coefficients with different aspects of effectiveness provide support to the results of culture traits.

#### 4.5.3 Correlation coefficients between culture traits and overall organisational performance

The relationships between organisational culture and effectiveness were subjected to further testing by calculating the correlation coefficients of each culture trait with all the aspects of subjective effectiveness measures. The results are summarised in Table 4.9.

**Table 4.9:** Correlation coefficients between organisational performance and culture traits

		Involvement	Consistency	Adaptability	Mission	Organisational Culture
Organisational	Pearson r	.767	.471	.504	-.283	.673
Effectiveness	P-value	.075	.346	.308	.587	.143

\* Correlation is significant at the 0.05 level (2-tailed).

As illustrated in Table 4.9, the culture traits of involvement, consistency, and adaptability show a positive impact on organisational performance, with 'r' ranged from 0.471 to 0.767. The culture traits of involvement (r=0.767) show high-level impact on organisational effectiveness. Both adaptability (r=0.504) and consistency (0.471) show a moderate correlation with organisational

performance. However, the culture trait of mission shows a relatively low negative correlation with organisational performance at  $-0.283$ . The P-values demonstrate that none of the correlation coefficients are significant at the 0.05 level.

## **4.6 Conclusion**

The results of organisational culture measures have been summarised in Section 4.4 to create a culture profile for the Western Cape banking industry and to help managers to identify the strength or weakness of specific cultural aspects.

The major objective of this study was addressed in Section 4.5. With reference to the above analysis of results, the following findings are of particular note. Most aspects of organisational culture have a positive impact on the different aspects of organisational effectiveness. However, only ten correlations were confirmed as statistically significant. These included: the culture traits of involvement and employee satisfaction, involvement and profitability/ROA; the culture index of empowerment with sales/revenue growth, market share, profitability/ROA, and quality of products or services; as well as the culture index of creating change and sales/revenue growth, market share, profitability/ROA, and quality of products or services. Furthermore, the culture trait of mission and the six culture indices of organisational learning, customer focus, goals and objectives, vision, agreement and strategic direction and intent have little negative or positive impact on different aspects of organisational effectiveness.

In the next chapter, a discussion of the findings will be presented, together with a comparison with previous empirical studies regarding the relationship between organisational culture and effectiveness in the Western Cape banking industry. Recommendations regarding this and future studies are also presented in the next chapter.

## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The final chapter of this empirical research focuses on two main areas. Firstly, several major findings of the research are summarised and discussed. Then, recommendations for the future research into the relationships between organisational culture and effectiveness are presented.

#### **5.2 Conclusions**

##### **5.2.1 Findings**

Through the results analysis in Chapter 4, several major discoveries with regard to the main objective of this study were summarized as follows:

- The major hypothesis of the study, namely that there is a positive relationship between organisational culture and effectiveness was not proved. The Pearson Product-Moment Correlation Coefficients presented in Chapter 4 were not statistically significant. However organisational culture may indeed have a positive impact on organisational effectiveness in the Western Cape banking industry. Each of Denison's four culture traits and twelve culture indexes showed a positive association with a wide range of subjective measures of organisational effectiveness. However, most of the relationships cannot be justified as statistically significant in the current study.
  
- The culture trait of 'involvement' showed the strongest correlation with the different aspects of effectiveness measures. The statistical test confirmed involvement and employee satisfaction, involvement and profitability/ROA correlation coefficients as statistically significant;

'Mission' had a slight negative impact, whilst 'Consistency' and 'adaptability' were shown to have a moderately positive impact on organisational effectiveness.

- The culture index of 'Empowerment' (average  $r=0.69$ ) had the strongest positive impact on the different aspects of effectiveness measures. Empowerment with sales/revenue growth, market share, profitability/ROA, and quality of products or services correlation coefficients were confirmed as statistically significant. The culture index of 'creating change' and sales/revenue growth, market share, profitability/ROA, and quality of products or services were also confirmed as statistically significant.

### 5.2.2 Discussion

The findings that Denison's four organisational culture traits positively influence organisational effectiveness are supported by several previous research studies (Denison & Mishra, 1995; Denison & Fey, 2003; Denison, Haaland & Goelzer, 2003; Coffey, 2003).

Denison and Mishra (1995) provided empirical evidence of the positive relationships between the culture traits and effectiveness on the basis of a culture survey conducted in the US. Denison and Fey (2003) provided such evidence in their Russian study. Furthermore, Denison, Haaland and Goelzer (2003) also provided evidence for this in the case of three regions, namely North America, Asia, and Europe-Mid-East-Africa. Moreover, Coffey (2003) confirmed the importance of organisational culture in determining the organisation's success within public sector housing construction in Hong Kong.

In the current study, most of the statistical test results cannot confirm these positive relationships between organisational culture and effectiveness as the results were not statistically significant. This could possibly be explained by the limited sample used in the present study. The limited sample size, especially in

relation to the number of respondents from the individual banks is a limitation of this research.

As suggested by Pallant (2005:127) the determining of significance of  $r$  is a "very messy area, and should be treated cautiously. The significance of  $r$  is strongly influenced by the size of the sample. In a small sample (e.g.  $N=30$ ), you may have moderate correlation that does not reach statistical significance at the traditional  $p<0.05$  level. In large samples ( $N=100+$ ), however, very small correlations may be statistically significant."

In addition, Denison, Haaland and Goelzer (2003:220) also pointed out the limitations in their Asian study that "the small sample that is available shows the same pattern of results as the larger sample, but statistical significance is very low, and thus our confidence in these findings is comprised." This was also then the case in this study with patterns emerging that were not statistically significant.

The research pointed to involvement and adaptability as relatively important influential culture traits in determining effectiveness in the context of the Western Cape banking industry. This finding is consistent with Denison and Fey's (2003) study conducted in the context of Russia. Denison and Fey (2003:701) found that adaptability and involvement seemed to be the most important determinants of effectiveness. However, in contrast to the current study and Denison and Fey's Russian study, mission is the organisational culture trait most highly associated with effectiveness in the U.S.A. With regard to the difference between Russia and the U.S.A. Denison and Fey (2003:701) interpreted this as due to the differences in the economic environments of these two countries.

The economic environment is turbulent and unpredictable in Russia, so the ability to adapt to the changing environment is more important for companies. In contrast, the economic environment is more stable in the U.S.A., where mission appears to take on much greater importance. The above interpretation with regard to Russia may apply in the current study, since South Africa is also

one of the countries experiencing a lot of change with regard to the economy and society. Coffey (2003:7) also found that the culture trait of adaptability had the strongest correlation with effectiveness in the context of Hong Kong.

Another interesting finding is that the culture index of empowerment showed the strongest correlation with effectiveness, especially as four out of seven correlation coefficients were confirmed as statistically significant (sales/revenue growth, market share, profitability and quality of products or services). Employees in an organisation registering a high level of empowerment have the authority, initiative and ability to manage their own work (Denison, Haaland & Goelzer, 2003:208). This helps them to develop a sense of ownership and responsibility toward the organisation. In the context of South Africa, empowering the employees is one of the most important factors for the organisation's success. Human capital is nowadays becoming one of the most important resources for a company, so, if the organisation could empower its people, the employees will look after their organisations as their own. This kind of organisation will operate more efficiently. Such organisations will more easily get competitive advantage and improve performance.

All in all, it is evident from the present study that organisational culture may indeed have a positive impact on organisational effectiveness. The present research study discovered that there is a positive relationship between organisational culture and effectiveness in the Western Cape banking industry. Hence, the stronger the organisational culture, the greater the level of organisational effectiveness. The banking industry is an increasingly competitive environment and is therefore under constant pressure to manage its costs and to retain its employees. A well-conceived and well-managed organisation culture, closely linked to organisation success, can also mean the difference between success and failure in the present demanding environment.

### **5.3 Recommendations**

The results obtained in the study make it possible to make recommendations from both practical and academic perspectives.

#### **5.3.1 Recommendations for management**

The results of this study have important implications for the management of the Western Cape banking industry and other banks in the South African banking industry.

Based on the results of the study, management should realise the importance of organisational culture to the success of an organisation. They need to develop a better understanding the organisational culture concepts and try to build a stronger organisational culture, which in turn would improve organisational performance and create a competitive advantage for their companies. The following specific recommendations should be considered:

- Performing an organisational culture evaluation annually to track progress. The same organisational culture survey could be used for this.
- Add more qualitative analysis to the study, such as including a comments and suggestions section on the questionnaire and interviewing employees. This would help to understand organisational culture at a deeper level.
- Implementing an organisational culture development programme at all levels in order to help employees to develop a better understanding of the importance of organisational culture and to foster a cohesive organisational culture.

### 5.3.2 Recommendations for future research

In this final section of the study, and based on the literature review and the results of the study, the researcher would like to recommend some areas for future research.

- In order to avoid the effect of under-representation and consequent lack of significance of the results from a too small sample size, future studies should increase the sample size and include employees from different levels if time and resources allow this. It would also be useful to increase the sample size for the different banks in order to compare the organizational culture of the different banks that form part of the Western cape banking industry.
- In the present study, only subjective measures were used as indicators of effectiveness and relationships were examined with the help of Denison's view of organisational culture. However, a variety of views on the measurement of organisational culture and effectiveness is presented in the literature review and the use of objective measures is included. Future studies could alternate some objective measures of organisational effectiveness, and different organisational culture concepts.
- The present study only used quantitative research methodology. Future studies could incorporate qualitative research in order to understand organisational culture at a deeper level. The combination of quantitative and qualitative research would help to create a better and deeper understanding of culture within organisations.
- This study only focused on the Western Cape banking industry. The results cannot be generalised to the national level. A future study on a larger institutional sample that includes a variety of organisations in different industries will provide more insight into culture and its relationship to organisational performance in this country. This could be compared with the results of empirical studies in other countries.

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## **Appendix A: Denison's organisational culture survey – Covering letter**

Dear Sir/Madam,

I am a Business Administration Masters student at the Cape Peninsula University of Technology.

One of the requirements of the course is to conduct a research study .To do this I am conducting research on “The relationship between organisational culture and organisational effectiveness within the banking industry in South Africa”. I would be grateful if you would assist me by completing the attached questionnaires.

The results of the questionnaires will be used purely for academic purposes and will not impact your current jobs in any way or form. All information obtained will be treated with the strictest confidence. Your responses will remain anonymous. Respondents will be guaranteed that their names will not be used in the final report.

I appreciate your feedback and thank you for taking the time to share your opinions with me.

Best regards,

Yang Liu

Graduate student

Cape Peninsula University of Technology

Email: [Casy613@163.com](mailto:Casy613@163.com) or [Casy613@yahoo.com.cn](mailto:Casy613@yahoo.com.cn)

Cellphone No.:0766812002

Thank you for participating in this survey!

You will find that the questionnaire is easy to read. It should only take a few minutes to fill out. This survey presents a set of 36 statements that describe different aspects of an organisation's culture. To answer the items, think of your organisation as a whole and the way things are usually done. Use the scale to indicate the extent to which you agree or disagree with each of the statements. Use Neutral when you neither agree nor disagree with the statement. In cases where an item is not applicable, select N/A.

Please help us by completing each of the items in the attached questionnaire and marking the appropriate block with a cross.

This is not a test and there are no true or false responses.

Please firstly give us your brief profile here.

1. At which bank are you employed? \_\_\_\_\_

2. Which position do you hold at the bank? \_\_\_\_\_  
(e.g. branch manager, sales manager, etc.)

(Please turn to the next page)

In this organisation...	1	2	3	4	5	N/A
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
<b>Empowerment</b>						
1. Decisions are usually made at the level where the best information is available.						
2. Information is widely shared so that everyone can get the information he or she needs when it's needed.						
3. Everyone believes that he or she can have a positive impact.						
<b>Team orientation</b>						
4. Working in this organisation is like being part of a team.						
5. This organisation relies on horizontal control and coordination to get work done rather than hierarchy.						
6. Teams are the primary building blocks of this organization						
<b>Capability development</b>						
7. The organization is constantly improving compared with its competitors in many dimensions.						
8. This organisation continuously invests in the skill of employees.						
9. The capability of people in this organisation is viewed as an important source of competitive advantage.						
<b>Core values</b>						
10. The leaders and managers follow the guidelines that they set for the rest of the organisation.						
11. There is a clear and consistent set of values in this organisation that governs the way we do business.						
12. This organisation has an ethical code that guides our behaviour and tells us right from wrong.						

In this organisation...	1	2	3	4	5	N/A
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
<b>Agreement</b>						
13. When disagreements occur, we work hard to achieve solutions that benefit both parties in the disagreement.						
14. It is easy to reach consensus, even on difficult issues.						
15. We often have trouble reaching agreement on key issues.						
<b>Coordination and integration</b>						
16. People from different organisational units still share a common perspective.						
17. It is easy to coordinate projects across functional units in this organisation						
18. There is good alignment of goals across levels of this organisation						
<b>Creating change</b>						
19. This organisation is very responsive and changes easily						
20. This organisation responds well to competitors and other changes in the business environment.						
21. This organisation continually adopts new and improved ways to do work.						
<b>Customer focus</b>						
22. Customer comments and recommendations often lead to changes in this organisation.						
23. Customer input directly influences our decisions.						
24. The interests of the final customer often get ignored in our decisions.						
<b>Organisational learning</b>						
25. We view failure as an opportunity for learning and improvement.						
26. This organisation encourages and rewards those who take risk.						
27. We make certain that we coordinate our actions and efforts between different units in this organisation						

In this organisation...	1	2	3	4	5	N/A
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
<b>Strategic direction and intent</b>						
28. This organisation has long-term purpose and direction.						
29. This organisation has a clear mission that gives meaning and direction to our work.						
30. This organisation has a clear strategy for the future.						
<b>Goals and objectives</b>						
31. There is widespread agreement about goals of this organisation.						
32. Leaders of this organisation set goals that are ambitious, but realistic.						
33. The leadership has clearly stated the objectives we are trying to meet.						
<b>Vision</b>						
34. We have a shared vision of what this organisation will be like in the future.						
35. Leaders of this organisation have a long-term orientation.						
36. Our vision creates excitement and motivation for our employees.						
<b>Organisational Performance</b>						
The following set of questions asks about the performance of your organisation. Compared to companies like yours, how would you assess your organisation's performance in the following areas?						
	1	2	3	4	5	Don't know
	Low Performer	Below Average	Average	Above Average	High Performer	
Sales / Revenue Growth						
Market Share						
Profitability / ROA						
Quality of Products or Services						
New Product Development						
Employee Satisfaction						
Overall Organisation Performance						

**Appendix B** Significant test for differences across culture indexes

(I) Culture Index	(J) Culture Index	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
					Empowerment	Team Orientation
	Capability Development	-0.34*	0.16	0.03	-0.65	-0.03
	Core Values	-0.25	0.16	0.12	-0.56	0.07
	Agreement	0.26	0.16	0.10	-0.05	0.57
	Coordination&Integration	0.18	0.16	0.26	-0.14	0.49
	Creating Change	-0.12	0.16	0.44	-0.43	0.19
	Customer Focus	0.24	0.16	0.13	-0.07	0.55
	Organisational Learning	0.24	0.16	0.14	-0.08	0.55
	Strategic Direction & Int.	-0.31*	0.16	0.05	-0.62	0.00
	Goals & Objectives	-0.12	0.16	0.44	-0.43	0.19
	Vision	-0.09	0.16	0.59	-0.40	0.23
Team Orientation	Capability Development	-0.45*	0.16	0.01	-0.76	-0.13
	Core Values	-0.35*	0.16	0.03	-0.66	-0.04
	Agreement	0.15	0.16	0.33	-0.16	0.46
	Coordination&Integration	0.07	0.16	0.65	-0.24	0.38
	Creating Change	-0.23	0.16	0.15	-0.54	0.09
	Customer Focus	0.13	0.16	0.40	-0.18	0.44
	Organisational Learning	0.13	0.16	0.41	-0.18	0.44
	Strategic Direction & Int.	-0.42*	0.16	0.01	-0.73	-0.10
	Goals & Objectives	-0.23	0.16	0.15	-0.54	0.08
	Vision	-0.19	0.16	0.23	-0.50	0.12

**Appendix B Significant test for differences across culture indexes (Continued)**

Capability Development	Core Values	0.10	0.16	0.54	-0.22	0.41
	Agreement	0.60*	0.16	0.00	0.29	0.91
	Coordination&Integration	0.52*	0.16	0.00	0.21	0.83
	Creating Change	0.22	0.16	0.16	-0.09	0.53
	Customer Focus	0.58*	0.16	0.00	0.27	0.89
	Organisational Learning	0.58*	0.16	0.00	0.26	0.89
	Strategic Direction & Int.	0.03	0.16	0.85	-0.28	0.34
	Goals & Objectives	0.22	0.16	0.17	-0.09	0.53
	Vision	0.26	0.16	0.11	-0.06	0.57
Core values	Agreement	0.50*	0.16	0.00	0.19	0.81
	Coordination&Integration	0.42*	0.16	0.01	0.11	0.73
	Creating Change	0.12	0.16	0.43	-0.19	0.44
	Customer Focus	0.48*	0.16	0.00	0.17	0.80
	Organisational Learning	0.48*	0.16	0.00	0.17	0.79
	Strategic Direction & Int.	-0.07	0.16	0.68	-0.38	0.25
	Goals & Objectives	0.12	0.16	0.43	-0.19	0.44
	Vision	0.16	0.16	0.31	-0.15	0.47
Agreement	Coordination&Integration	-0.08	0.16	0.61	-0.39	0.23
	Creating Change	-0.38*	0.16	0.02	-0.69	-0.07
	Customer Focus	-0.02	0.16	0.90	-0.33	0.29
	Organisational Learning	-0.02	0.16	0.89	-0.33	0.29
	Strategic Direction & Int.	-0.57*	0.16	0.00	-0.88	-0.26
	Goals & Objectives	-0.38*	0.16	0.02	-0.69	-0.07
	Vision	-0.34*	0.16	0.03	-0.65	-0.03

**Appendix B Significant test for differences across culture indexes(Continued)**

Coordination & Integration	Creating Change	-0.30	0.16	0.06	-0.61	0.01
	Customer Focus	0.06	0.16	0.70	-0.25	0.37
	Organisational Learning	0.06	0.16	0.71	-0.25	0.37
	Strategic Direction & Int.	-0.49*	0.16	0.00	-0.80	-0.18
	Goals & Objectives	-0.30	0.16	0.06	-0.61	0.01
	Vision	-0.26	0.16	0.10	-0.57	0.05
Creating Change	Customer Focus	0.36*	0.16	0.03	0.05	0.67
	Organisational Learning	0.36*	0.16	0.03	0.04	0.67
	Strategic Direction & Int.	-0.19	0.16	0.23	-0.50	0.12
	Goals & Objectives	0.00	0.16	1.00	-0.31	0.31
	Vision	0.04	0.16	0.82	-0.28	0.35
Customer Focus	Organisational Learning	0.00	0.16	0.99	-0.31	0.31
	Strategic Direction & Int.	-0.55*	0.16	0.00	-0.86	-0.24
	Goals & Objectives	-0.36*	0.16	0.02	-0.67	-0.05
	Vision	-0.32*	0.16	0.04	-0.63	-0.01
Organisational Learning	Strategic Direction & Int.	-0.55*	0.16	0.00	-0.86	-0.23
	Goals & Objectives	-0.36*	0.16	0.03	-0.67	-0.05
	Vision	-0.32*	0.16	0.04	-0.63	-0.01
Strategic Direction & Intent	Goals & Objectives	0.19	0.16	0.23	-0.12	0.50
	Vision	0.23	0.16	0.15	-0.09	0.54
Goals & Objectives	Vision	0.04	0.16	0.81	-0.27	0.35

\* The mean difference is significant at the .05 level