Significance of the Organisation's Climate on Cross-Functional Behaviour and Activities

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DECLARATION

I, the undersigned, hereby declare that this dissertation titled 'Significance of the Organisation's Climate on Cross-Functional Behaviour and Activities' is my own original work. It is being submitted in partial fulfilment of the degree Masters in Business Administration at the Graduate School of Business Leadership, University of South Africa.

All reference sources have been accurately reported and acknowledged, and this document has not been previously submitted, in full or partially, for any academic qualification at any other university or institution.

Francois Colhardt Duvenage 72410574 14 May 2012

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GLOSSARY

Competency Area

A specific area of science and technology research and development within an Operating Unit

Competency Area Manager

Individual responsible for the operations of a specific Competency Area

Mandate

The function and objects stated and imposed on the Organisation by means of a specific Act

Operating Unit (previously termed Business Units)

Sector-aligned and associated with socio-economic clusters in the Organisation

Operating Unit Executive Director

Individual responsible for the operations and strategy of a specific Operating Unit

Organisation

The Organisation the research is based on being a statutory council and juristic person in the Republic of South Africa

Parliamentary Grant

Parliamentary Grant refers to the annual funding allocation made to the Organisation by the Government of South Africa through a National Department

Research Group

Typically a research focused group falling within a Competency Area focusing on a specific area of science and technology research

Research Group Leader

Individual responsible for the functions of a specific Research Group within a specific Competency Area

SUMMARY

In order to be successful today, organisations need to have a clear understanding of the factors influencing the successful implementation, efficiency and effectiveness of their strategies. Organisations need to combine this understanding with developing capabilities for adjusting to these factors continuously to remain competitive. One such capability is to build a climate that fosters creativity, harmony and teamwork (Alpander and Lee, 1995).

The aim of this research is to explore the relationship between culture and climate as well as the significance of an organisation's climate on cross-functional behaviour, activities and actions (who, what and when) which forms an integral part of strategy implementation and increasing performance.

A key component of an organisational development is team work; which facilitates organisational learning, establish common goals and provide support to achieve these goals.

Within the Organisation under investigation there has not been any research into the subject of the significance of the climate on cross-functional behaviour and activities, which is impacted by 'coopetition' - the simultaneous role of cooperation and competition within organisations. The research by means of qualitative research should provide some insight into the significance of and if climate impact cross-functional behaviour and activities in organisations. The research methodology included a customised survey which was developed to elicit answers to determine the climate and cross-functional behaviour and activities within the Organisation. Interviews were conducted with Operating Unit Executive Directors of the Organisation.

The results indicate that the perceived current climate of the Organisation is not positive and that there is still silo-behaviour within the Organisation which is as a result of the culture of the Organisation, a culture which existed prior to Beyond 60 process. The research confirmed the overlapping relationship between culture and climate and that climate indeed impact cross-functional behaviour and activities at the Organisational and Operating Unit level.

Key Words: Strategy implementation, culture, climate, cross-functional behaviour and activities

CHAPTER LAYOUT

CHAPTER 1: OVERVIEW OF RESEARCH

In this chapter the background to and the purpose for this research is provided. The problem in context and review will be discussed, the research objectives specified and the applicable concepts and constructs. The research design and methodology is also discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 Culture as a Factor in Strategy Implementation

The purpose of this chapter is to consider the relevant literature and models on strategy implementation and culture as a factor in effective strategy implementation, by addressing the key components.

2.2 Relationship between Culture and Climate

The purpose of this chapter is to consider the relevant literature on the subject matter and to understand and delineate the relationship between culture and climate, according to key components.

2.3 Cross-functional behaviour and activities

In this chapter the relevant literature on the subject matter is discussed in order to expand on the concept of cross-functional behaviour and activities, by taking into account its key components.

CHAPTER 3: THE EMPIRICAL RESEARCH

The purpose of this chapter is to describe the research population and the sample. The administration of the survey, processing and analysis of the data and the interview process are described. Validity and reliability issues are highlighted and a conclusion drawn. The analysis of survey data is captured in tables and the findings compared with various concepts from the literature review and finally the relationship between these concepts is discussed.

CHAPTER 4: RESULTS AND FINDINGS OF THE RESEARCH

In this chapter research hypothesis is tested and the results of the empirical research presented.

CHAPTER 5: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this final chapter of the research, results are integrated and conclusions drawn. The limitations of the research are explained and recommendations made for the field of organisational strategy and possible further areas of research within the Organisation. The chapter close with concluding remarks in order to integrate the research findings with the literature.

CHAPTER 1

OVERVIEW OF THE RESEARCH

This dissertation focuses firstly on the relationship between culture and climate and secondly on the impact of climate on cross-functional behaviour and activities.

In this chapter the background and the purpose for this research is provided. The research objectives, as well as the applicable concepts and constructs are specified. The research design and methodology are also discussed.

1.1 Background to and Purpose of the Research

The purpose of this research is to evaluate the current level of coherency and continuity by focussing on the internal cooperation between the Operating Units as part of strategy implementation and the significance of the Organisation's climate at both corporate level and business level and the impact thereof specifically on cross-functional behaviour and activities.

There is virtually uniform agreement that the complexity, turbulence, and extraordinary changes during the 1980's and 1990's contributed to the rapid development of an ultra-competitive global economy (Ireland and Hitt, 1999).

The current environment organisations are operating in differs significantly from the industrial age of the 1960's and 1970's. In these eras, organisations were more reliant on structure and systems, while in the mid 1980's the focus shifted to strategy formulation.

In 1990's organisation operations shifted to the current implementation of strategy due to impact of globalisation, product differentiation and employee empowerment and the impact of the soft 'S's – style, skills, employees, subordinate goals (Atkins, 2006).

Currently the Organisation operates in an extremely competitive environment with the focus on employing knowledge workers such as engineers and scientists as its most valuable assets. The failure to respond to these external changes, e.g. change in political landscape, social responsibility, technology, legal (environmental laws) and economy, may place an organisation at risk of 'strategic drift', especially where strategies progressively fail to address the strategic position of the organisation in the industry it operates. This failure is frequently followed by transformational change (Pearce and Robinson, 2005).

As organisations become more knowledge-intensive, past frameworks of strategy based on a microeconomic model of industry becomes less relevant, the application of these strategies proves limiting in the current competitive and everchanging environment in which organisations operate. For example, resourcebased theory illustrates the relationship between input resources, competencies and the performance of organisations but fails to show how to direct and manage these resources to add value (Rylander and Peppard, 2003).

Talonen and Hakkarainen (2008) conclude that a single research and development strategy is not sufficient. Organisations require three crucial related strategies essential for driving research and development and technology development namely 1) general business-competitive strategy, 2) product/services-and-platform strategy and 3) integrated technology-and-competence strategy. It is, however, not the defining of and articulation of strategies but strategic resilience - the ability to recover from, or adjust easily to, misfortune or change - that is crucial to the survival and success of an organisation in today's ever-changing and turbulent business operating environment.

Within the Organisation there has not been any in-depth research into climate impact on cross-functional behaviour and activities or as stated by Luo, Slotegraaf & Pan (2006) – 'Coopetition' - the simultaneous role of cooperation and competition within firms.

Numerous studies support the notion that cross-functional teams contribute to the improvement of performance (Herfert and Arbige, 2008).

The current research attempts to supply an insight whether the notion is also applicable to the Organisation and, if so, to what extend do the Climate contribute to facilitate such cross-functional behaviour.

1.2 Background to the Organisation

Prior to 2004, the Organisation survived and prospered mainly due to the stability of its environment and for 60 years the Organisation had experienced steady growth. In May 2004, however, the Organisation announced the start of a formal process aimed at investigating future options for the Organisation following. This decision followed feedback from various reviews (internally as well as externally), that pointed towards 'strategic drift' and consequently the Organisation identified the need to refocus, reposition and strengthen its science and technology base.

At the heart of the change to strengthen its science and technology base lies the Organisation's ability to fulfil its objectives in line with the Organisation's mandate which is to ensure that its operations, its delivery of impact across the innovation chain and its role within the National System of Innovation are unequivocally clear.

So in considering this mandate the Organisation resolved that on its 60th year of existence (2005), the time was ideal to refocus and reposition itself and to strengthen any areas where dilution of its core purpose may have occurred.

The Organisation's Executive Team appointed a 'Design Team' tasked with conducting the research, analysis and generation of an essential framework and strategy which would allow the Organisation to refocus and reposition itself going forward, which was internally termed the 'Beyond 60' process. The key findings of the Design Team were as follows:

Core activities

Three interlinked categories of research and innovation activities are required to ensure a balanced research, development and innovation portfolio across the innovation chain.

- Type A; strategic basic and applied research (science and technology platform development)
- Type B; experimental development (technology, product and service development)
- Type C; technology transfer and specialist services (knowledge application)

Structural options

A structural model was adopted which would allow for integration of activities across the research and innovation value chain within market-facing sectors, and the separation of science and technology focused strategic and directed basic research from market-facing activities.

The Operating Units would typically be sector-aligned units associated with socioeconomic clusters similar to the pre Beyond 60 Business Units in the Organisation.

As illustrated in a simplified organisational chart of focussing on operations within the Organisation (Figure 1) there are currently seven Operating Units in the Organisation and each Operating Unit have its own set of Competency Areas and within these areas each has their own set of Research Groups.



Figure 1: Explanatory Organisational Chart - Operations

The Design Team identified the following key challenges:

 Develop an Organisation specific capability to ensure each activity is embraced in a conducive environment in terms of measurement systems and process, management style and culture

- <u>Undertake regular reviews of the Organisation's total portfolio in order to</u> <u>ensure that it is balanced and remains aligned</u>.
- The annual Parliamentary Grant received should not be used for any purposes other than those activities defined by the Mandate; in particular, it should only be used to support activities that involve directed research and technological innovation in the national interest.

The structural make-up of the Organisation required a set of key design features (or 'behavioural' issues) that would underpin and support its activities and maximise the Organisation's intellectual capital. These are:

- focus on the national interest;
- ensure a people-centred organisation;
- operate within networks and alliances;
- ensure agility;
- build on an appropriate value system, culture and governance;
- ensure financial sustainability;
- lead by dynamic and strong leadership.

As a result of the Beyond 60 process, the Organisation underwent major restructuring (transformational change) and significant numbers of employees were retrenched and the remaining employees transferred to the newly established Operating Units.

The current structure supports that within all the Operating Units there are focused groups, 'Competency Areas', focussing on specific areas of science and technology research and development, as illustrated in Figure 1.

<u>Culture</u>

The traditional Business Units were reconfigured into Operating Units which were required to establish themselves and perform both operationally and financially. Failing to do so, these Operating Units were to be reconfigured again which led to a culture in which employees experienced restructuring and consequent retrenchment possibilities a continuous threat. Consequently, a second culture, the 'survival of the fittest' mode, developed. This culture is characterised by employees in the Operating Units holding on to clients and business opportunities to ensure operational and financial performance, resulting in silo-behaviour, not cooperation and collaborating with each other.

Operating Units share information selectively to ensure that income opportunities are not lost or shared with other Operating Units. On top of this, Operating Units have to compete with one another for funding from the Parliamentary Grant received by the Organisation from the South African government. As a consequence, the executive directors of Operating Units also seem unwilling to support cross-functional behaviour and activities in the drive to meet the budget.

Lastly, the Organisation's performance system supports bonus payment on the basis and level of individual and Operating Unit performance and not at organisational level – thus the more successful an Operating Unit Executive Director manages an Operating Unit and the better the net-profit of the Operating Unit performs- the higher the profit share and bonus payment to the individual and employees in the Operating Unit. To illustrate, see Figure 2, the Organisation's March 2011 Operating Unit Performance Scores based on Key Performance Indicators.

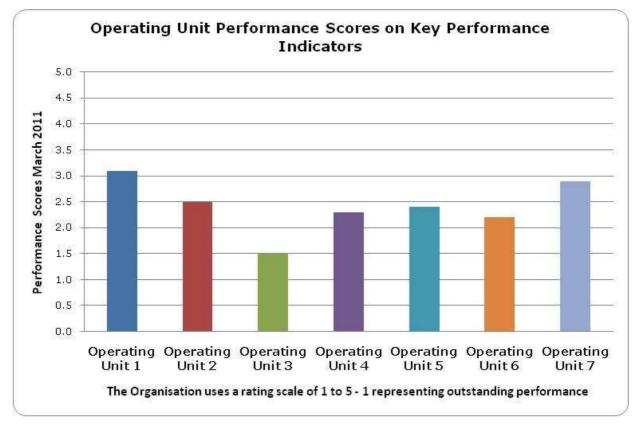


Figure 2: March 2011 Operating Unit Performance Scores

From Figure 2 - Operating Unit 3 with a score of 1.5 received the highest performance bonus allocation from the Organisation's bonus pool, which is allocated funding available from which all bonuses will be paid. Operating Unit 3, on the other hand, with a score of 3.1 received the lowest performance bonus allocation from the Organisation's bonus pool.

These prevailing practices, processes and systems (climate) lead employees to believe that senior management still supports historically types of behaviour e.g competitive and silo-behaviour (culture). The culture of the Organisation was influenced heavily by this historical evolution of the Organisation and its management philosophy.

1.3 Problem Statement

Culture and climate within the organisation are significant factors that inhibit crossfunctional behaviour and activities between the Operating Units.

1.4 Research Objectives

1.4.1 General Objective

The general objective of this research is to determine whether there is a relationship between culture and climate and the impact thereof on cross-functional behaviour and activities at the Organisational and Operating Unit level.

1.4.2 Primary Research Objectives

Research Objective 1

To investigate and identify to what extent the climate within the organisation inhibits cooperation between Operating Units

Research Objective 2

To investigate and identify to what extent cross-functional behaviour and activities are occurring within the organisation

1.5 Research Design and Methodology

As the research is descriptive in nature and attempts to explore concepts, qualitative research techniques were used.

A survey was designed and distributed to a target group of Competency Area Managers and Research Group Leaders representing employees respectively on the level two and three of the upper three levels within the Operating Units. The findings were then triangulated with interview responses from Operating Unit Executive Directors (top level).

1.6 Collection of data

A survey will be distributed to the target group via e-mail, who will be required to respond within a specified time. The advantages and disadvantages of the survey method are discussed in chapter three. Interviews will be scheduled with the Operating Unit Executive Directors to elicit responses on ten customised questions applicable to the operations of the Organisation.

1.7 Analysis

Respondents will be required to rate their level of agreement to a customised statement on a five point Likert scale in this case 1) strongly agree, 2)agree, 3) disagree, 4)strongly disagree). The responses to each statement will be listed and then expressed as an occurrence percentage. A comparison will be done between various sets of information and conclusions drawn based on the results.

1.8 Interpretation of data

Data will be tabulated and analysed, which should give an indication of how strong each of the concepts is in terms of operations of the Organisation and Operating Units, as well as the relationship between the dimensions and key elements of the concepts.

1.9 Ethical considerations

Each survey is numbered and respondents will not be required to identify themselves to ensure anonymity. This will ensure that the respondents felt free to give honest responses without fear of reprisal from their superiors. The interviews to be conducted with the Operating Unit Executive Directors were conducted in a similar fashion.

1.10 Research constraints

- The research only involve employees on the upper three levels within the Operating Units; Executive Directors, Competency Area Managers and Research Group Leaders.
- The research did not include similar companies whose focus is on research on development.
- The research did not include Operating Centres which fall within operations of the Organisation

1.11 Assumptions

The following assumptions have been made regarding the research:

- a. The research will only target employees on the upper three levels within the Operating Units. These employees work within time constraints to deliver on projects, thus some of the respondents may not respond at all or within time frame, which will negatively affect the credibility of the research.
- b. The target group comprises of employees with a high level of professional integrity which should lead to results with fairly high level of confidence (Coldwell and Herbst, 2004). False information will negatively affect the credibility of the research.
- c. Respondents will not conceal any relevant information due to being afraid that their identity (privacy) will be infringed upon (Coldwell *et al.*, 2004).

CONCLUSION

Research of this nature has not been conducted at this level within the Organisation. The findings and recommendations will assist the Organisation to transfer the findings and recommendation to the operations and interactions between the Operating Units but also between the Operating Units, Operating Centres and Support Services.

CHAPTER 2

OVERVIEW OF THE LITERATURE REVIEW

This chapter contains a literature review on the key concepts of relevance to this research. Firstly, it considers culture as a factor within strategy implementation.

Secondly, it considers the relationship between culture and climate and lastly the significance of cross-functional behaviour and activities for aligning resources in order to support the capabilities and competencies of the Operating Units.

2.1 Culture as a Factor in Strategy Implementation

2.1.1 Strategy Implementation

Crittenden (1991) states that successful strategy implementation requires the input, cooperation, and the appropriate, coordinated efforts of individuals throughout an organisation. In order for strategy to create superior performance, it has to be complemented by appropriate organisational characteristics and employee behaviours.

A hierarchy of three levels of strategy can be identified within a company:

- Corporate level strategy being the overall purpose and scope of an organisation
- Business level strategy being how the organisation competes and attains a competitive advantage in each area of business e.g. Operating Units
- **Functional level strategy** is concerned with implementing business strategies through the functional areas e.g. finance and human resources

Although formulating a strategy at these three levels, may be a difficult task for any organisation, Hrebiniak (2006) adds that it may even be more difficult to implement such a strategy effectively and successfully throughout the entire organisation.

Cooperation between functions is influenced by the strategy, structure and process/systems. Where the above three factors is supportive of cross-functional behaviour, organisations should ensure it also focuses and align its resources and capabilities which are employees, knowledge/skills/abilities and technology as to ensure successful strategy implementation and to increase performance (Louw and Venter, 2006).

Aaltonen and Ikävalko (2002) found that where organisations struggled to implement its strategy successfully, a number of factors played a role: e.g. unawareness or misunderstanding of the strategy, weak senior management, poor communication; competing activities and poor coordination and sharing of responsibilities.

Atkins (2006) in positing the balance scorecard found that reasons for problems facing strategy implementation are major problems surfacing that had not been anticipated, in addition to uncontrollable factors in the external environment which have adverse affects on organisations. These findings indicate therefore, that at a time of increasing competition, globalisation, shorter lead times and increased customer sophistication, a need exists for effective strategy implementation.

There are many factors that influence the success of strategy implementation such as the strategy formulation process, organisational structure, communication activities, culture and the relationships among different units/departments and different strategy levels. Chimhanzi (2004) suggests that cross-unit working relationships play a pivotal role in the successful implementation of strategy. In this regard, communication is vital on an interpersonal level and requires the support of senior management for interdepartmental dynamics to be effective.

Conflict will hamper successful strategy implementation. An important aspect on strategy implementation is the relationships between different strategy levels which impact the relationships among different cross-organisational levels (Slater and Olson, 2001).

Out of ten most frequently occurring strategy implementation problems, Alexander (1985) found that the effective coordination of activities and distractions from competing activities were the two main problems inhibiting strategy implementation. Internally, Beer and Eisenstat (2000) identified six "silent killers" for strategy implementation:

- Top-down or laisez-fair senior management;
- Unclear strategy and conflicting priorities;
- Ineffective senior management team;
- Poor vertical communication;

• Poor coordination across functions, businesses or border;

• Inadequate down-the-line strategic leadership skills and development.

2.1.2 Strategy implementation frameworks

Research into the area of strategy implementation has resulted in a number of writers defining strategy implementation.

Schaap (2006) defines strategy implementation as those senior-level leadership behaviours and activities that will transform a working plan into a concrete reality, while Lehner (2004) states it may be viewed as a process inducing various forms of organisational learning, because both environmental threats and consequent strategic responses is a prime trigger for organisational learning processes. Strategy implementation therefore proves to be a process that takes longer than strategy formation (Hrebiniak, 2006).

Various models or frameworks have been developed in consideration of strategy implementation. Table 1 illustrate the range of factors to be considered within strategy implementation frameworks. Okumus (2003) highlight the

importance to achieve coherence among all relevant implementation factors in dynamic and complex contexts within which organisations operate.

Higgins (2005) states when a functional organisational structure is dominant, it obscures the need for cross-functional analysis which can in turn be compounded by organisation leaders being unaware of the need for cross-functional behaviour and activities.

The McKinsey 7S's model and subsequently the 8S's model (Higgins, 2005) which is based on the McKinsey model focus and provide models for cross-functional analysis. In the turbulent environments that organisations confront today, cross-functional operations are imperative.

It is the combination of all the factors as identified in various models, as summarised in Table 1, and aligning them that allows for a successful implementation process.

Okumus (2003)	Louw and Venter,	McKinsey 7-S as	Higgins Eight 'S's	Speculand (2009)
	(2006) citing Lee,	practised	(2005)	Implementation
	Venter & Bates	currently		compass
	(2004)			
 Strategy 	○ Culture	 Strategy 	 Strategy 	o Employees
development	 Structure/Systems 	o Style	o Style	o Biz case
 Environmental 	 Knowledge, skills 	∘ Skills	o Re <u>s</u> ources	o Measure
uncertainty	and abilities	• Shared Values	\circ Shared Values	• Culture
 Structure 	 Technology 	(Culture)	(Culture)	o Process
∘ Culture	 Process 	o Structure	o Structure	o Reinforce
 Strategic 	 Stakeholders 	o Systems	 Systems and 	o Review
Leadership	 Capabilities 	 Employees 	processes	
 Operational 			 Employees 	
planning			 Strategic 	
 Resource 			performance	
allocation				
o Communication				
o People				
o Control				
o Outcome				

Table 1:	Recent strategy implementation frameworks
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The objective of this research is to identify a common factor within strategy implementation frameworks as highlighted in Table 1.

Okumus (2001) emphasises the importance of the internal context of an organisation as the key in implementing strategic decisions while Chatman and Cha (2003) single out 'culture' as an important and significant factor in implementing strategy.

There are several possible reasons for dysfunctional spirals (when an organisation goes in the state of strategic drift) and the failure to successfully implement and execute strategy.

This research concentrate on one key reason: that changes introduced fail to alter the fundamental psychology or "feel" of the organisation to its employees. It is this "feel" that directs and motivates employee efforts. (Schneider, Brief & Guzzo, 1996)

Herfert *et al.* (2008) confirms that organisations should clearly define and understand the differences between capabilities and creating competencies. In fostering corporate capabilities, organisations use existing and/or and create operational ability to deliver those competencies (unique products or services developed by through research and development) efficiently and repeatedly.

Four dimensions of knowledge that contribute to these capabilities are 1) skills and knowledge, 2) managerial systems/processes, 3) technical systems and 4) values and norms (culture). The alignment of both capabilities and competencies, are required to successfully compete in the market place.

Resources (tangible, intangible and human resources) play an important part in strategy implementation and being competitive, internally and in within the industry. Part of intangible resources is the culture of the organisation which link up with human resources - expertise, motivation and effort by employees (Grant, 2010, Pearce *et al.*, 2005)

Further to the research findings of Herfert *et al.* (2008), of utmost importance for organisations to successfully implement strategy is through the alignment of

corporate resources (culture, employees) which in turn will support the alignment of the capabilities and competencies.

In addition to this, Alpander *et al.* (1995) also suggested structural factors which are made up of centralisation/decentralisation, nature of authority, organisational climate, interdepartmental relationship, and the extent to which interpersonal interactions are formalised contribute to the success of organisations.

2.1.3 Dimensions of Culture

"Culture is not something that can be changed or manipulated at will; it is an integral part of an organisation-not something that stands and waits independently for change. The culture is a particular combination of beliefs, values, professional traditions, behavioural norms, ways of thinking" Ott (1995:366)

Ott (1995) further states that culture is the personality of an organisation - the character which cannot be separated and examined separately and distinctly from the organisation. In essence, culture is what causes organisations to act distinctively and predictably.

Chatman *et al.* (2003) define culture as a system of shared values (defining what is important) and norms (defining appropriate attitudes and behaviours). Each organisation has its own unique culture. Schein (1996) proposes three types of cultures in an organisation: (a) internal culture that is based on operational success, (b) engineering culture that drives the core technologies, and (c) executive culture that engages the CEO and immediate sub-ordinates.

Hofstede, Neuijen, Ohayv & Sanders (1990) developed a model for culture, as illustrated in Figure 3. According to their model, the core of culture is formed by values represented by broad tendencies of preference which constitute the deepest level of culture. Rituals are defined as collective activities which are considered socially essential, heroes are employees whose characteristics are highly prized while symbols are the obvious recognisable by those who are part of the same culture.

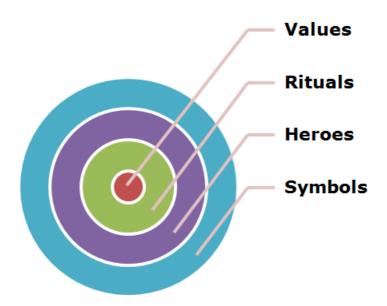


Figure 3: Model of the "Cultural Onion" (Hofstede *et al.*, 1990)

Culture is a powerful strategy implementation tool for managers, and is reflected in managerial decision-making. Changing the culture of an organisation permanently requires the 'personality' of the organisation to be changed. This can be extremely difficult, as this personality has been formed through various organisational elements over a number of years including formal and informal structures, work processes, employee selection procedures, reward and punishment systems (such as advancement criteria), internal and external communication patterns and styles, celebrations, and other rituals (Ott, 1995).

So, when management attempts to change behaviour in an organisation in a manner that contradicts the organisation's culture these attempts seldom succeed, and is usually met with resistance. This resistance can be exhibited in different ways across different levels. At organisational level, resistance may be due to culture and the inclination to hold on to past business process/systems while at individual level due to the fear of losing jobs, reduction in personal roles and influence in the organisation. The above relates to organisations inability to create a climate to facilitate cross-functional behaviour and activities.

Furthermore, when organisations introduce change, such changes go hand in hand with expectations that the change will benefit the organisation and that

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performance will inevitably improve. Yet, when the expected increase in performance does not happen, management introduce other seemingly promising changes. These, too, ultimately fail. This sequence repeats—an unending cycle of high expectations followed by failure and, inevitably, frustration on the part of management and cynicism on the part of workers. (Schneider *et al.*, 1996)

Culture is in a sense a reflection of the climate in an organisation but operates at a deeper level. Climate is easier observable in the practices and policies of the organisation whereas the beliefs and values of culture are not visible at that level 'but exist as cognitive schema which governs behaviour and actions to given environmental stimuli' (Ahmed, 1998:32).

Culture and climate is the "feel of an organisation". The climate of an organisation is inferred by its employees though how the organisation goes about its daily business— 1) is it flexible and innovative or rigid?, and 2) what goals the organisation pursues—profit, quantity, cost containment, market share? (Schneider *et al.*, 1996)

2.2 Relationship between Culture and Climate

"Organisations as we know them are the people in them; if the people do not change, there is no organisational change" (Harung, 1997:194 as cited in Schneider *et al.*, 1996)

Schneider *et al.* (1996) states that the central point to effective changes in core business, hierarchy, technology, operating processes and procedures are the degree to which these structural changes are associated with effective changes in the psychology of employees.

2.2.1 Dimensions of Climate

Schneider *et al.* (1996) identify four key climate dimensions, with the first three relating to function and the fourth to goals:

1. *The nature of interpersonal relationships*. Is there mutual sharing and trust or conflict and mistrust? Are relationships between functional units (e.g. between production and sales) cooperative or competitive? Does the organisation support socialization of newcomers or a sink-or-swim approach? Do people feel that their personal welfare is important to those around them and to top management?

2. *The nature of the hierarchy*. Are the decisions that affecting work and the workplace made only by top management or are they made with participation from those affected by the decision? Is the organisation characterized by a team approach to work or strictly an individualistic competitive basis? Does management have special perquisites that separate them from their subordinates, such as special parking or dining facilities?

3. *The nature of work*. Is the work challenging or boring? Are jobs adaptable by the people performing them, or are they rigidly defined so that everyone must do them the same way? Does the organisation provide workers with the necessary resources (tools, supplies, information) to get the work done?

4. *The focus of support and rewards*. Are the goals of work and the standards of excellence widely known and shared? What behaviour gets supported: being warm and friendly to customers or being fast? Is getting the amount of work done (quantity) or getting the work right (quality) rewarded? On what bases are people hired? To what goals and standards are they trained? What facets of performance are appraised and rewarded?

Research used as early as 1979 by Jones and James, proposed a useful method of measuring organisational climate, this was later supported by the research of Wallace, Hunt & Richards (1999), linking back to Schneider's *et al.*(1996) four key climate dimensions. The six dimensions of climate as identified in the research of Wallace *et al.* (1999) are as follow:

(1) leadership facilitation and support;

(2) workgroup co-operation, friendliness and warmth;

(3) conflict and ambiguity;

- (4) professional and organisational esprit;
- (5) job challenge, importance and variety; and
- (6) mutual trust

Climate reflects the content and strength of 'atmosphere' which is made up of the prevailing values, norms attitudes, behaviours and feelings of the employees, specifically including the level of organisational support, openness within the organisations, conflict, cooperation and competition between employees (McNabb and Sepic, 1995).

Measuring an organisation's climate can be used as barometer of employee satisfactions. Employees' behaviour is linked to the organisation's climate, and if favourable employees will act in a similar fashion and vice versa where the climate is unfavourable.

The dimensions listed by Schneider *et al.* (1996) cause employees to draw inferences about the organisational environment in which they operate through the organisation's practices, procedures and rewards and the way the business routinely runs itself on a daily basis. It encapsulates the organisation's true priorities. (Ahmed, 1998)

Climate therefore exist at two distinct levels: the emotional climate of the individual referring to how the employee currently perceive the work environment; and climate constituting shared perceptions of employees about the organisational environment.

The assumptions employees within a specific organisation make about climate are based on the policies, practices, procedures, and routines that they are subject to. Employee assumptions are also based on the kinds of expected behaviour and which of these behaviours get rewarded and supported. Davidson (2003) states that climate can be affected by operating procedures and allocation of resources.

So, in order to get employees to react positively to change in the organisation and to change the climate of the organisation, employees need to feel their work is challenging. They also need to be able to participate in decisions regarding how the change will be achieved, and their interpersonal relationships must be based on mutual trust.

Schneider *et al.* (1996) concludes that the way in which organisations function for their employees, determines the degree to which change in the focus of people's energies and competencies will be sustained.

2.2.2 Linking Culture and Climate

In order to examine the relationship between climate and cross-functional behaviour and activities it is important to understand the relationship and distinction between culture and climate.

A close and sometime ambiguous relationship exists between organisational culture and climate (Wallace *et al.,* 1999). Evidence suggests that these two concepts have frequently been used synonymously. Although a large number of studies has attempted to define and construct a way to differentiates culture and climate some have proven problematic.

Nevertheless, culture and climate are distinctly identifiable elements within organisations while there is some overlap between the two concepts. Culture is created from a broad range of internal and external influences which have been argued to lie beyond managerial control (Alvesson, 1991). In contrast, climate is held to be a summary perception of how an organisation deals with its employees within the employees' working environment, and it thus develops specifically from internal factors primarily under managerial influence (Ostroff and Schmitt, 1993).

Verbeke, Volgering & Hessels (1998) state that organisational culture reflects the way things are done in an organisation, and define climate as the reflection of the way employees perceive and come to describe the characteristics of their work environment.

Schein (1992:12) defines culture as "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration 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 those problems"

McNabb *et al.* (1995) developed a comprehensive, integrated model that identified the relevant factors determining readiness for change to a TQM operating philosophy (see Figure 4). From this model it is clear that culture and organisational climate in interrelated and that the one influences the other.

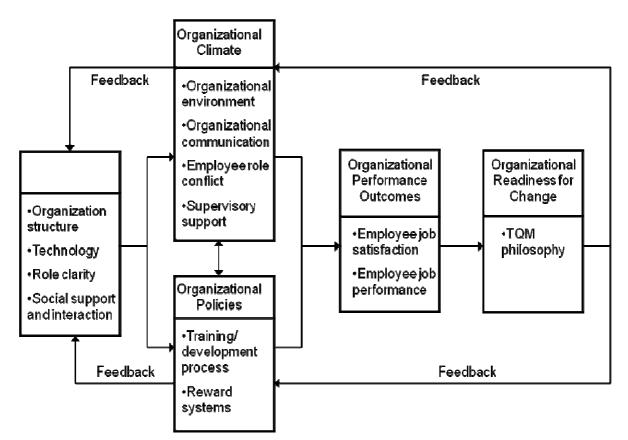


Figure 4: A model of culture, climate, policies, performance outcomes and readiness for change (McNabb *et al.*, 1995:370)

As stated previously the established culture and climate of an organisation possesses a set of learned consequences based on behaviours and policies, practices, and rewards. Therefore, in order to effect change, employees need to learn new sets of behaviours and management need to amend and, where required, establish new policies, practices, and rewards. The culture of an organisation is furthermore passed on from one generation to the next. It changes slowly, if at all (McNabb *et al.*, 1995). So, to change these learned habits, existing perceptions must be undercut while the new culture and climate are reinforced.

Climate can be seen as a snapshot of time and the perceptions of employees linked to that particular time. While culture is slow to form and difficult to change climate, on the other hand, is more volatile and can be changed by many things within an organisation. Hemmelgarn, Glisson & James (2006) describe culture and climate as the mould for the work attitudes and behaviour of the employees which in turn affect the organisation's performance. For organisations to get commitment from their employees, organisations need to create positive cultures and climates which support employees in their jobs. Culture and climate shape the nature, tone and focus of the relationships and interactions, not just internally but also externally with clients.

Organisations are required to change and adapt continually, which impact the nature and shape of these organisations. Within this change organisations are required to develop new organisational forms and concepts of business processes which influence how employees might view factors such as "worker co-operation" and "manager-subordinate relationships" over time (Kangis and Williams, 2000). Organisational performance is therefore dependent on the process for achieving such aims.

Nazari, Herremans, Isaac, Manassian & Kline (2009), focused on an interactive system of ownership of ideas, trust, openness, and risk-taking as dimensions of climate. For the purposes of this research openness refers to open climate which supports contributing and sharing of knowledge and developing positive knowledge management behaviours. An open climate evolves from a culture that has low deference to power and some degree of cooperation. This requires dialogue occurring through the interaction of employees.

Organisational climate is indicative of the prevailing conditions across diverse organisational activities. As a result of this diversity and the habitual nature of many elements, a change in climate is very difficult to achieve in an organisation, although climate may be more readily altered than culture (McNabb *et al.*, 1995). Culture concerns the firmly implanted beliefs and values of employees, and as such it resides at a deeper level of employees' psychology than does organisational climate. Culture is found on a level more unconscious level in the more subtle psychology of the workplace. Whereas climate's

policies, practices, and rewards are observable, the beliefs and values of culture are not as directly visible.

According to McNabb *et al.*, (1995) culture creates a specific climate of operations in an organisation. The product of the interaction of culture, climate, and people is a set of processes, procedures and policies that legitimise and directs the organisation's work. Although climate may be altered more readily than culture, it is nearly as enduring and pervasive in the group. In contrast to culture, which determines behaviour, climate directly influences current behaviour.

Schneider *et al.*, (1996) list a number of factors that can be used to alter climate. There are many dimensions and elements that define climate and climate changes only when current policies, practices, procedures, and routines change. But why change the climate?

Climate influences the success and performance of an organisation. Organisations struggle to develop and promote the climate they need to succeed and retain their most highly effective employees. Hellriegel and Slocum (2006) explain that organisations can take steps to build a more positive and employee-centred climate through:

- Communication how often and the types of means by which information is communicated in the organisation
- Values the guiding principles of the organisation and whether or not they are modelled by all employees, including leadership
- Expectations types of expectations regarding how managers and behave and make decisions
- Norms the normal, routine ways of behaving and treating one another in the organisation
- Policies and rules these convey the degree of flexibility and restriction in the organisation

- Programs programming and formal initiatives help support and emphasize a workplace climate
- Leadership leaders that consistently support the climate desired

2.3 Cross-functional behaviour and activities

Ackoff (1999) found that the more unpredictable and uncertain the competitive environment, the more organisations must rely on their employees as a vital resource of intellectual capital to create the desired future. The character of an organisation's work environment as perceived by an employee has been recognised as a powerful influence on employee attitudes and behaviour. Where employees perceived that they were actively contributing and being involved in decision making, information sharing was favourable which lead to corporate effectiveness.

Cross-functional strategy and alignment of key organisational cross-functional actions (who, what and when) forms an integral part of strategy implementation and increase performance, and employees is an active component to drive change in strategy with leadership giving direction. All the different components are required to be aligned and integrated to enable support of the slightest change in strategy.

Walker and Ruekert (1987) suggests that three aspects: 1) business unit autonomy; 2) sharing programs and synergies across strategic business units; and 3) control and reward systems affect a unit's success in implementing a particular strategy. Miller (1987) also confirms that structure of an organisation not only influences the flow of innovation but it also channels collaboration, specifies modes of coordination, allocates power and responsibility, and prescribes levels of formality and complexity.

A divisional departmentalisation approach based on product/service has shown to create functional silo's causing business to be fragmented which in turn causes managers to manage their departments independently causing a lack of coherency in strategy. Rigid processes/systems impede organisations responsiveness to change and promote functional silo-behaviour e.g. performance bonus schemes etc. In comparison, a flat–(matrix approach) and non-bureaucratic structure tend to support cross-functional behaviour for strategy implementation. (Grant, 2010; Louw *et al.*, 2006)

Talonen *et al.* (2008) found that when strategies are not known across functional boundaries there is danger that departments' strategies are not synchronized with one another and with the corporate strategy due to a lack of communications and competition for resources.

A key component of organisational development is team work which facilitates organisational learning, establish common goals and provide support to achieve these goals. Effective inert and intra- departmental teams provide the organisation with the synergism essential for becoming and remaining more competitive. (Alpander *et al.*, 1995)

Cooperation between functions, however, is influenced by the strategy, structure and process/systems in place in an organisation. Where these three factors is supportive of cross-functional behaviour, an organisation should also focus and align its resources and capabilities namely employees, knowledge (including skills and abilities) and technology so as to ensure successful strategy implementation and increased performance (Louw *et al.*, 2006). Internal competition between the Operating Units is bound to affect the performance of the organisation as a whole.

Luo *et al.* (2006) examined the joint occurrence of cooperation and competition –'coopetition' - across-functional areas within organisations where extant literature review tends to view cross-functional relationships as either primarily cooperative or competitive. They found that organisations need to actively manage cross-functional competition and cooperation to achieve a competitive advantage and enhance organisational learning and performance.

Herfert *et al.* (2008) found that where organisations faces challenges due to multiple business units and markets, each with its own strategy within the overall organisation/corporate strategy, Business Integration Teams (BIT's) can be introduced to facilitate interactive cross-functional engagement within the organisations that involves research and development, manufacturing, supply

of services and other supportive functions. The BIT's, if introduced correctly, will create the necessary cross-functional linkages. Departments that simultaneously compete and cooperate may enhance its market learning which should generate higher performance when facilitated in intensive and frequent interactions between the departments (Luo *et al.*, 2006).

Gerwin and Barrowman (2002) states that cross-functional teams are project groups that is self-managed comprising of representatives from the organisation's relevant departments.

Sapsed (2005) conducted two contrasting case studies analysing organisations' attempts to manage transitions aimed at improving co-ordination processes, with the organisations moving respectively from functional disciplines to product-based, cross-functional teams and vice versa. In analysing the case studies Sapsed found that cross-functional teams generated tension which can be interpreted as the group-service bias for self preservation within an organisation. Cross-functional teams working bring benefits from a production viewpoint but there is a corresponding loss in disciplinary collegiality.

Sapsed (2005) further refers to Donnellon (1993) which found that team members sometimes withhold their functional knowledge from the cross-functional teams as a means of defending functional territory.

It therefore follows that the failure to consider cross-functional strategy issues, and misaligning key organisational cross-functional actions, (who, what and when) can have disastrous consequences resulting primarily in reduced performance. (Higgins, 2005)

CONCLUSION

The literature review reveals that having a positive culture and climate which supports cross-functional behaviour and activities within acceptable bounds of internal competition and internal cooperation may lead to a competitive advantage and enhance organisational learning and performance. However, organisations need to be mindful that cross-functional teams also generate tension. It is therefore important for the organisation to match its internal resources and capabilities to the opportunities that arise from the external environment (Grant, 2010).

CHAPTER 3

THE EMPIRICAL RESEARCH

OVERVIEW OF THE RESEARCH METHODOLOGY

This section outlines the methodology used to conduct this research. The approach that will be used is the qualitative approach as described hereunder, followed by a review of the research design and the research instrument that will be used to gather the information and the data. Lastly, points on the validity and reliability of this research will be discussed.

3.1 Research Methodology

As described in Coldwell *et al.*, (2004) the qualitative research approach is research findings that are not subjected to formal quantification or quantitative analysis, thus the information gathered cannot be analysed by means of mathematical techniques.

Non-scientific methods can be used where human behaviour and opinions are to be studied e.g. how people interact with each other and their environment.

3.2 Research Design

There are many methods of collecting data by following the qualitative approach e.g. interviews, observation, audio and video taping, using documents and surveys (Coldwell *et al.*, 2004). Data for this research will be collected through a primary process:

<u>Primary</u>

 Survey to the respondents – this will be in form of a customised survey, created on various factors and instruments (reference) to measure climate. The main reason was to ensure that statements were relevant to the business operations of the organisation and that of the Operating Units to which the target group could relate to (Coldwell *et al.*, 2004).

• Semi-structured face-to-face interviewing with five out of seven of the Operating Unit Executive Directors - two units have newly appointed Executive Directors that will not be interviewed. This will be based on a list of questions to uncover the respondent's experiences, feelings and opinions. The questions will be drafted open-ended to allow the respondents to expand on their opinions (Coldwell *et al.*, 2004). The responses will be recorded in writing; however respondents will be given an undertaking of confidentiality.

3.3 Population and Sample

3.3.1 Population

Guided by the research question the population is the Operating Units of the organisation, in total there are seven Operating Units.

3.3.2 Sample and Sampling Method

The research will only involve and require participation of employees on the upper three levels within the seven Operating Units based on seniority, knowledge and experience in the Organisation. Bigler (2009) in his research states that decisions taken by middle management to execute strategy determine the performance of the organisation.

Survey Target Group (middle management)

Competency Area Managers

Research Group Leaders

Interviews

Operating Unit Executive Directors

Interviews will be scheduled by e-mail with the five Operating Unit Executive Directors.

The list of respondents will be (sampling frame):

- \checkmark Operating Units number to be sampled, seven (7)
- \checkmark Operating Unit Executive Directors number to be sampled, five (5)
- ✓ Survey Target Group number to be sampled, thirty (30)

The survey will be distributed via e-mail to all the selected respondents (target group) within the seven Operating Units.

After collecting the data from the survey, interviews will be conducted with the five Operating Unit Executive Directors.

3.4 Survey Design

Hofstede *et al.* (1990) adopted the approach developed in 1980 by Hofstede for measurement of culture (across countries) to investigate internal culture involving two interlinked steps: in-depth open interviews in each area or business unit, and a questionnaire survey of stratified samples of managers and workers.

Due to the interrelationship of culture and climate the research approach developed and adopted by Hofstede to measure culture can be extrapolated to investigate climate through the two interlinked steps. The literature also indicates that it is not sufficient to attempt to understand and measure the culture of the organisation. It is also imperative to measure the impact that the culture has on the everyday operations and workings of the organisation, that is, how the organisation is currently operating. Climate is affected by the prevailing culture but van be measured separately by a process of scoring individuals on a climate survey and then aggregating those scores to the Operating Unit or the organisation as a whole (Davidson, 2003). "Cultures create climate" (Reichers and Schneider, 1990:22)

Leedy and Ormrod (2001:196) state; "Survey research captures a fleeting moment in time, much as a camera takes a single frame photograph on an ongoing activity. By drawing conclusions from one transitory collection of data we may in time extrapolate about the state of affairs over a longer period of time. At best, the extrapolation is a conjecture and sometimes a hazardous one at that, but it is the only way to generalize from what we see."

The Likert Scale is the most widely used method of scaling in the social sciences today. Perhaps this is because they are much easier to construct and because they tend to be more reliable than other scales with the same number of items. (Tittle and Hill, 1967)

The Likert Scale requires the respondents in the target group to make a decision on their level of agreement, in this research a five-point scale (e.g. Strongly Agree, Agree, Disagree, Strongly Disagree) with a statement. The number of times a decision occurs out of total number of decisions by all the respondents on a specific statement becomes the value for that response expressed in percentage of occurrence – accordingly termed 'summated scales'. Coldwell *et al.* 2004 suggest that Likert scales is the most commonly used question format for assessing participants' opinions of usability.

The survey will focus on dimensions of climate and cross-functional behaviour and activities as identified through the literature in chapter 2.

The findings will be triangulated with the interviews held with the Operating Unit Executive Directors of the Operating Units.

3.5 Process for Data Collection

A survey will be distributed via e-mail to the target group with specific instructions and confirmation of anonymity and confidentiality of the process. The survey could be completed on the form and e-mailed back or be printed and returned by internal post. Respondents were required to respond within a specified time, any surveys received after the final date for return will not be considered. Appendix A has a copy of the survey that was send out with the composite results. Interviews will be scheduled with the Operating Unit Executive Directors to elicit responses. Appendix B has a copy of the interview questions and the elicited responses recorded in writing.

3.6 Data Analysis and Interpretation

Data will be tabulated and analysed through content analysis, which will give an indication of how strong each of the concepts are in terms of operations of the Organisation and Operating Units, as well as the relationship between the concepts (Coldwell *et al.*, 2004).

As stated previously the Likert Scale will be used which requires the respondents to make a decision on their level of agreement, in this research a five-point scale (e.g. Strongly Agree, Agree, Disagree, Strongly Disagree) to a customised statement. The decisions to each statement will be listed and expressed into an occurrence percentage within the statement and then discussed.

3.7 Limitations of the Research

The target group for the surveys and interviews are all senior employees, which may result in lack of participation and response to the survey and cancellation of interviews due to time constraints and unavailability.

3.8 Validity and Reliability

3.8.1 Internal Validity

Elements that may detract or make the research have less validity are research errors which could be faulty research procedures, poor samples and inaccurate transfer of data. The validity of the inferences made regarding cause-effect relationships. (Coldwell *et al*, 2004:40)

According to Leedy *et al.*, (2001) the internal validity is the extent to which the design and the data allow the researcher to accurate conclusions about cause and effect. The reason for conducting a climate survey was to gauge employees' opinion on cross-functional behaviour and activities.

The weakness of the research in reference to the interviews that are to be conducted could be due to size and selection of the sample, creating a sample bias either by the interviewer or the respondent or the setting of the interview (Coldwell *et al.*, 2004). The interviews will conducted in at a neutral venue on the premises as well as the replicating the same structure e.g. early in the morning, within one week after month end etc.

3.8.2 External Validity

Coldwell *et al.*, (2004:40) defines external validity "as the quality of being able to generalise beyond the data of the research to other situations", thus will the findings be applicable to the relationship between the Operating Units and the functional departments (e.g. finance, human resources etc.)

3.8.3 Reliability

Likert scales may be subject to distortion from several causes such as:

- Respondents may avoid using extreme response categories (central tendency bias);
- Agree with statements as presented (acquiescence bias); or
- Try to portray themselves or their organisation in a more favourable light (social desirability bias).

In designing the survey a scale with balanced keying (an equal number of positive and negative statements) the problem of acquiescence bias can be obviated, since acquiescence on positively keyed statements will balance acquiescence on negatively keyed statements, the survey had twenty eight positive keyed statements and two negative keyed statements as the research focused on establishing if there is a positive climate in the Organisation; similar an option of neither agree/disagree will obviate the problem of central tendency. Social desirability is somewhat more problematic. Reliability relates to the proposition of being able to test a specific proposition to see whether or not it sustains the test, thus the same hypothesis are subjected to the same test which it was subjected to before (Coldwell *et al.*, 2004). Due to the limited time to complete this research this was not possible.

The same survey was distributed at the same time to the target group to ensure reliability. The data received is therefore snapshot of the Organisation specific for the period of the research, which is supportive of the measurement required for climate.

CONCLUSION

The research method was as suggested by Hofstede *et al.*, (1990); two interlinked steps: in-depth open interviews in each area or business unit, and a questionnaire survey of deliberate statement focusing on dimensions of the climate and cross-functional behaviour and activities. The survey was the key instrument, forty one surveys were returned and analysed which are presented in table format, content analysis was used to determine recommendations.

Chapter four contain the key findings after an analysis of the responses.

CHAPTER 4

RESULTS AND FINDINGS OF THE RESEARCH

This chapter presents the testing of the research hypothesis and the results of the empirical research.

4.1 Introduction

The purpose of this chapter is to provide the results of the empirical research findings. The main aim of the research was to investigate the organisational climate and current cross-functional behaviour and activities within the Organisation.

4.2 Sample

The research involved and required the participation of employees on the upper three levels within the seven Operating Units based on their seniority, knowledge and experience in the Organisation.

The data was collected through surveys, semi-structured interviews and a review of the Organisation's documentation relevant to the research and more specific the March 2011 Operating Unit performance scores.

<u>Surveys</u>

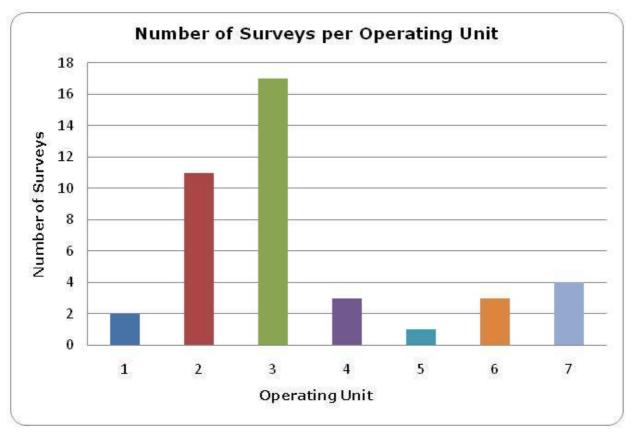
A total number of 87 surveys were distributed via e-mail to the target group with specific instructions and confirmation of the anonymity and the confidentiality of the process.

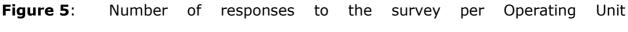
The time frame for the response was fourteen days. A total of forty-one surveys were returned within this time frame: forty via e-mail and one via internal post.

Three surveys were received after the fourteen day deadline and were hence excluded from the sample to ensure the integrity of sampling.

The survey and the composite results are captured in Appendix A.

Figure 5 indicates the distribution of the completed and returned surveys within the seven Operating Units within the fourteen day period. As shown in Figure 5, Operating Unit 3 had the highest response rate (seventeen responses), while Operating Unit 5 had the lowest, only one response.





Interviews

Interviews were scheduled with five Operating Unit Executive Directors to elicit responses. Only four Operating Unit Executive Directors were interviewed.

Despite numerous requests and reminders, one Operating Unit Executive Director did not participate. At the time of research, the other two Operating Units had been newly appointed and therefore they were excluded from the research.

Appendix B is a copy of the interview questions and the responses recorded in writing.

<u>Summary</u>

The final sampling frame consisted of:

- > Operating Units number sampled, seven
- Operating Unit Executive Directors number interviewed, four
- Survey Target Group number of returned surveys, forty-one

4.2.1 Operating Units sampled

The Operating Units from which the sample was drawn are given in Figure 5. The names of the Operating Units have been replaced with numerical numbers to ensure confidentiality. The representation of respondents from the Operating Units varies between one and seventeen of the final sample of forty-one.

4.2.2 Tenure distribution of the sample

The purpose of demographical data is to enable the researcher to cluster the population, which allow for the identification and grouping similar characteristics in the data (Cooper and Schindler, 2003). The demographic used for purposes of this particular research is tenure (continuous years of employment with Organisation).

Respondents were asked to indicate their tenure to check whether there is a relationship between tenure and employees' perceptions with regards to organisational culture and climate as expounded in the literature review, namely culture as historical in nature, whereas climate is the prevailing 'atmosphere' (McNabb *et al.*, 1995)

Respondents were asked to indicate their tenure at the Organisation e.g less than ten years, ten to twenty years and more than twenty years. Figure 6 illustrates the proportioning of respondents, based on their tenure at the Organisation.

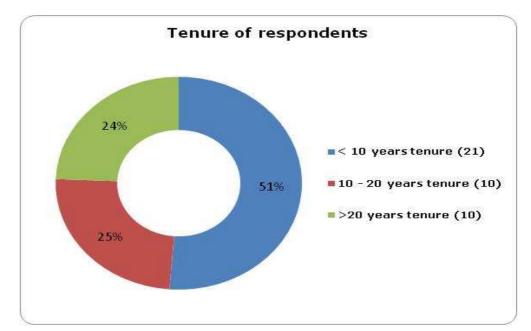


Figure 6: Proportion of number of responses to the survey by tenure

The twenty one respondents with less than ten years employment within the Organisation, would also have been the least impacted by the *Beyond 60* process, which occurred in 2005.

4.3 Identification of the Key Organisational Climate Dimensions and Cross-Functional Behaviour and Activities of the Organisation

The survey was designed by the researcher to measure the organisational climate and cross-functional behaviour and activities of the Organisation. Thirty customised statements were provided about the climate and cross-functional behaviour and activities within the work environment from the perspective of the corporate (Organisation) level versus the business (Operating Unit) level. Respondents were required to indicate their level of agreement with <u>these</u> statements on a Likert scale, respondents to indicate whether they strongly agree, agree, neither agree/disagree, disagree or strongly disagree to the statements.

Climate was shown to originate within six dimensions, which represent a useful method for measuring organisational climate. (Wallace *et al.*, 1999), these dimensions are also included for the purposes of this research into the three key climate dimensions which will be used for the discussing the findings related back to pertinent questions as identified by Schneider *et al.*(1995).

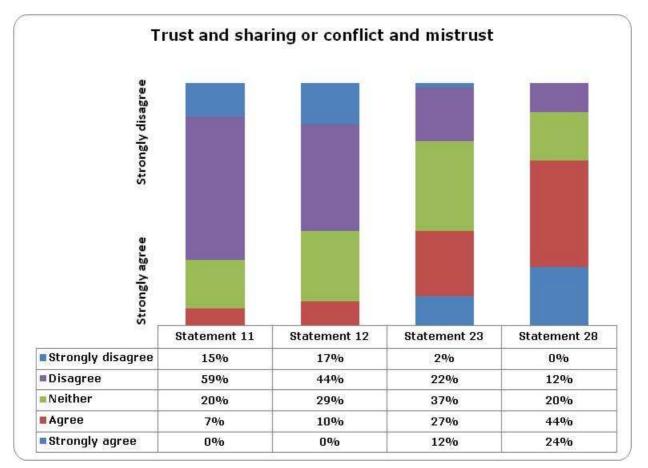
- 1. The nature of interpersonal relationships.
- a. Is there mutual sharing and trust or conflict and mistrust?
- b. Are relationships between functional units cooperative or competitive?
- c. Is there open communication between functional units?
- 2. The nature of the hierarchy.
- a. Are decisions affecting work and the workplace made only by top management or are they made with participation from those affected by the decision?
- b. Is the organisation characterized by a team approach to work or strictly an individualistic competitive approach?
- 3. The focus of support and rewards.
- a. Which facets of performance are appraised and rewarded?

As stated above the rationale behind choosing these three key climate dimensions is that the questions raised by includes and incorporates the climate dimensions identified by Wallace *et al.*, (1999) as well as key elements of cross-functional behaviour and activities as indentified in this research through the literature review namely:

- Communication Information sharing lead to corporate effectiveness (Ackoff, 1999). Talonen *et al.* (2008) found that corporate strategy can be desynchronised due to a lack of communications and competition for resources.
- Business unit autonomy Walker et al. (1987) suggests business unit autonomy and a divisional departmentalisation approach based on product/service creates functional silo's (Grant, 2010, Louw et al., 2006)
- Rigid processes/systems impede organisations responsiveness to change and promote functional silo-behaviour e.g. performance bonus schemes etc. (Grant, 2010, Louw *et al.*, 2006)

- 4. *Team work* Alpander *et al.*(1995) found that a key component of an organisational development is team work
- 5. Cooperation and Competition- between functions are influenced by the strategy, structure and process/systems. Internal competition between the Operating Units will affect the performance of the organisation as a whole (Louw *et al.*, 2006, Luo *et al.*, (2006) examined the joint occurrence of cooperation and competition –'coopetition' across-functional areas within organisations.
- 6. *Tension* Sapsed (2005) found that cross-functional teams generate tension.

4.4 Findings of the Research Results



4.4.1. The nature of interpersonal relationships

Figure 7: Results for statements related to trust and sharing or conflict and mistrust

Statement 11- 74% of the respondents disagreed that Competency Areas in different Operating Units/Centres openly share business opportunities, which indicates that employees are not open to sharing information between Operating Units.

Statement 12 – 61% of the respondents confirmed that they do not know the business areas and service offerings of other Operating Units.

Statement 23 - 49% of the respondents agreed that communication is effective and open in their Operating Units, while 37% neither agreed nor disagreed.

Statement 28 - 68% (24% strongly) of the respondents confirmed that their management in Operating Unit supports sharing of business opportunities.

Finding - Considering the above it is clear that management is supportive of cross-functional behaviour and activities and is attempting to create a climate for such activities yet in reality employees do not openly share business information.

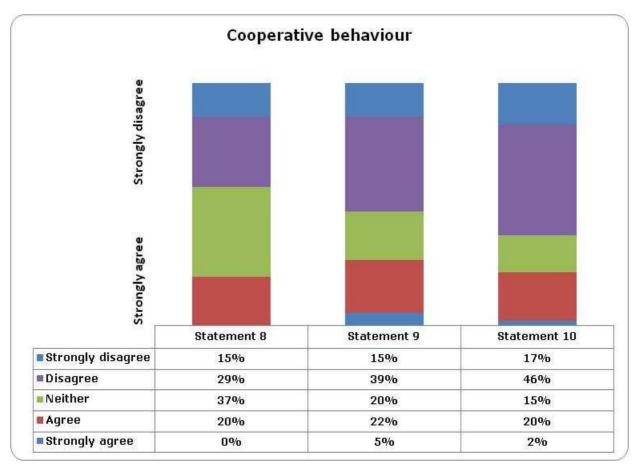
The findings suggest that the failure to share information stems more from ignorance than mistrust as 61% of the respondents did not know the business areas of other Operating Units.

In considering the effectiveness of communication in the Operating Unit, it also seems that employees may not be receiving the message as management thinks it is being communicated.

The result supports that management of Operating Units still seem to support historically types of behaviour e.g. competitive and silo-behaviour (culture) as they are not being told otherwise.

Management do not seem to practice what they preach, as illustrated by a response to the interview question "What is the extent of cooperation between the Operating Units?" One of the Operating Unit Executive Directors stated "Very artificial and mostly money driven and impact does not even enter the discussion."

b. Are relationships between functional units cooperative or competitive?



Cooperative

Figure 8: Results for statements related to cooperative behaviour

Statement 8 - 44% (15% strongly) disagreed with the statement that Operating Units collaborated well, while only 20% agreed with statement. This is supported by Statement 9.

Statement 9 - 54% (15% strongly) of the respondents felt that the Competency Areas between the different Operating Units do not collaborate well.

Statement 10 - Only 22% of the respondents agreed that there is sufficient cooperation between the Operating Units and 63% (17% strongly) of the respondents felt that the cooperation between the Operating Units are insufficient.

Competitive

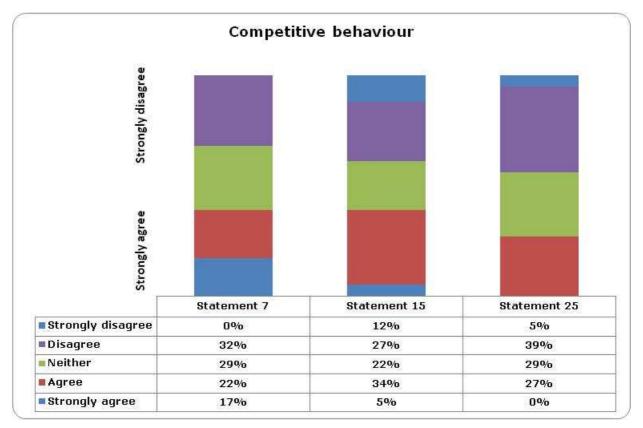


Figure 9: Results for statements related to competitive behaviour

Two diverse viewpoints seem to exist between the Operating Unit Executive Directors. On the one hand, one interviewee stated "*Strong competition, because we compete for the same PG as well as for ad hoc Executive support"* while another interviewee stated "*Not much, really only for PG funds, our markets are too different otherwise"*.

Statement 7 - The finding support the above observation, in that 39% (17% strongly) of the respondents agreed that there is excessive competition, while 32% of the respondents disagreed and 29% did not take a stance on the statement.

Statement 15 - Here 39% of the respondents supported that there is little competition and 39% supported that there is competition. The swinging factor though is that 12% of the respondents felt strongly that competition between Operating Units is rife while only 5% felt strongly that there is little competition. 22% of the respondents neither agreed nor disagreed.

Statement 25 - 44% of the respondents did not experience excessive competition internal to their Operating Unit.

Finding – There does not seem to be excessive competition between the Operating Units, although 12% of the respondents did feel <u>strongly</u> that there is competition between the Operating Units. This might support the finding that Operating Units do not mutually share information. The reported absence of competition between the Operating Units might be attributed to:

- 1 Operating Units do not operate within the same business areas **or**
- 2 Operating Units are not aware that they are competing because of the lack of mutual sharing of information and failure to collaborate and cooperate.

The research suggests it is rather related to point 2 – Operating Units do not know that they compete against each other as there are definitive areas where Operating Units do operate within the same business areas. This is supported by one of the Operating Unit Executive Directors clearly stating "*Biggest competition in the marketplace for OU product offerings currently comes from OU2 and OU7, competition however in a normal business is good and I like it... the problem in the organisation is that is underhand, it is a holy cow, that are not debatable. Normal competitor we can outsmart... this is like a faceless monster."*

Further there is no evidence to suggest that Operating Units compete excessively for PG funding from the Organisation.

Considering whether Operating Units collaborate and coordinate well, findings suggest <u>strongly</u> that there is indeed no cooperation and collaboration between the Operating Units despite the fact that 63% of the respondents felt that there is insufficient cooperation between the Operating Units. As discussed earlier, management is supportive of cooperative behaviour (statement 28) but from the research it is clear that the Operating Units do not know the service offerings of the other Operating Units (statement 12) and that Operating Units do not openly share business opportunities (statement 11).

Statement 28 confirms that Competency Areas within an Operating Unit e.g. business level, collaborate well and share business opportunities (61% and 66%

respectively) which is in stark contrast with what is happening at corporate level, where it seems that cooperation and collaboration are nonexistent.

Communication in the Organisation at both Organisation and Operating Unit level Strongly disagree Strongly agree Statement Statement Statement Statement Statement Statement Statement 23 12 20 21 3 5 2 Strongly disagree 5% 2% 7% 17% 0% 0% 2% Disagree 20% 5% 49% 44% 15% 10% 22% 27% 37% Neither 24% 24% 29% 22% 17% 51% Agree 51% 56% 15% 10% 44% 27% Strongly agree 0% 12% 2% 0% 12% 29% 12%

c. Are there open communication in the Organisation at both Organisation and Operating Unit level?

Figure 10: Results for statements related to communication in the Organisation

Statement 2 - 51% of the respondents confirmed that the strategy of the Organisation is communicated well, while only 25% (5% strongly) disagreed.

Statement 3 – 68% (12% strongly) of the respondents agreed that they understand the strategy of the Organisation.

Statement 5 – This statement considers operating information within the Organisation and the communication thereof. Only 17% (2% strongly) of the respondents agreed that communication of general organisation information is effective and open, while 56% (7% strongly) disagreed.

Statement 12 - Only 10% of the respondents actually know the business areas of and service offerings of other Operating Units.

Statement 20 - 73% (22% strongly) of the respondents confirmed that the strategy of their respective Operating Units is communicated well.

Statement 21 - 73% (29% strongly) of the respondents understand the strategy of their respective Operating Units.

Statement 23 - This statement considers operating information within the Operating Unit and the communication thereof. 39% (12% strongly) of the respondents agreed that communication is effective and open while 24% (2% strongly) disagreed.

Finding – These results suggests that while the strategy of the Organisation is well known (51%), the "how" e.g. *How is the Organisation planning to implement and achieve the strategy?* is not known. The difference between communication at corporate level and business level is also striking as the respondents agree (73%) that the strategy of the Operating Unit is communicated and that 39% agree that operating communication is effective at business level, while only 17% of the respondents feel that operating communication is effective at corporate level.

From these findings, it stands to reason that if the employees do not know the "how" to implement the corporate strategy as well as business strategy. Due to the "how" to implement the business strategy being better communicated, employees are bound to implement the strategy also better known to them – in this case the strategy at business level. This will lead to the corporate strategy falling to the way side. This is compounded by the fact that employees do not know the business areas and by implication the business strategies of the other Operating Units. As one of the interviewee's stated" *Some OU directors attend the business plan presentations of other OUs, but it is voluntary and very low cross-attendance." Another interviewee stated "Not efficient at all; very much based on individuals to do as they see fit."* As highlighted earlier, 73% versus 68% of the respondents understand their Operating Unit strategy better than the strategy of the Organisation.

At both business and corporate strategy level the research results indicate that operating communication is mostly ineffective, although communication at

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business level seems slightly higher. Also, the findings suggest that the Organisation can improve on its communication of its corporate strategy.

4.4.2 The nature of the hierarchy

a. Are decisions affecting work and the workplace made only by top management or are they made with participation from those affected by the decision?

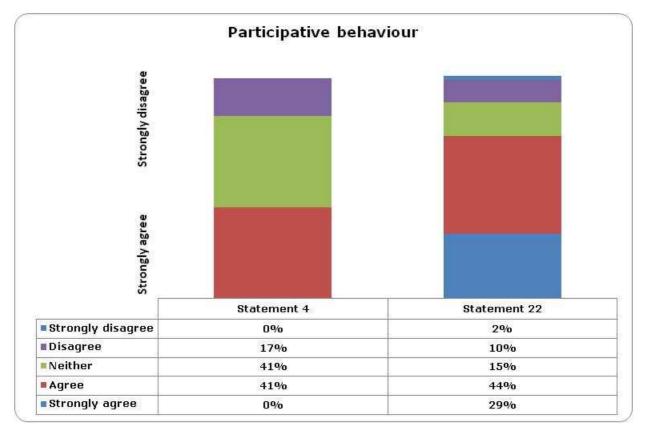


Figure 11: Results for statements related to participative behaviour

Statement 4 - 41% of the respondents agreed that the Organisation is managed well by leadership, while 22% strongly disagreed.

Statement 22 - 73% (15% strongly) of the respondents agreed that their Operating Unit is managed well by the management team of the respective Operating Unit, while only 2% strongly disagreed.

A markedly negative perception was communicated by the interviewees relating to the leadership. One interviewee proffered "*Executive tries to force alignment of*

the OUs to aspects of the Organisation strategy through the business plans, but it is on paper only."

Finding – From the above findings it can be established that at both business and corporate strategy level operating communication is ineffective. Respondents within Operating Units it seems are much more supportive of its own management than that of leadership of the Organisation. Considering the reply above that executive force alignment of Operating Units to aspects of the Organisation strategy through the business plans, it seems that decisions affecting work and the workplace at corporate level are made by leadership only, while at business level the decisions are made with participation from those affected by the decision.

b. Is the organisation characterized by a team approach to work or strictly an individualistic competitive approach?

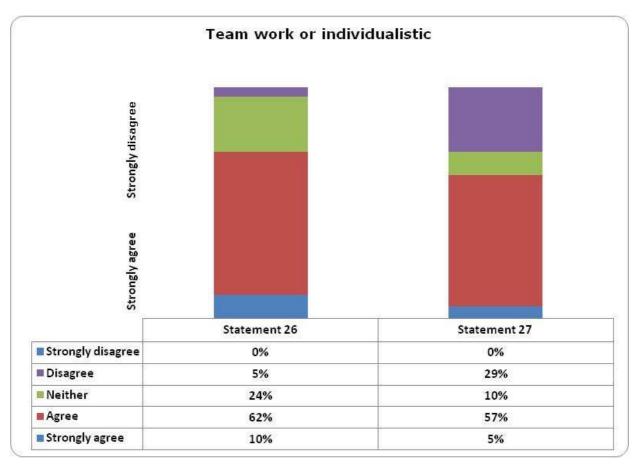


Figure 12: Results for statements related to team work or individualistic behaviour

Statement 26 – 72% (10% strongly) of the respondents confirmed that Competency Areas within their Operating Units collaborate well.

Statement 27 – 62% (5% strongly) of the respondents replied in the affirmative and support the statement that Competency Areas with Operating Units openly share business opportunities with the Operating Unit.

Finding – Operating Units at corporate level do not cooperate and collaborate at all as illustrated in Figure 8. The results for cooperation and collaboration and sharing of business opportunities within an Operating Unit between employees and groups within the Operating Unit is totally in contrast to the above, here the results indicate that team work and support among employees and the various groups is very strong. Thus at corporate level the approach is individualistic yet at business level the approach is one of team work.

In response to the question: *Is team work encouraged between Operating Units?* Operating Unit Executive Directors responded as follows:

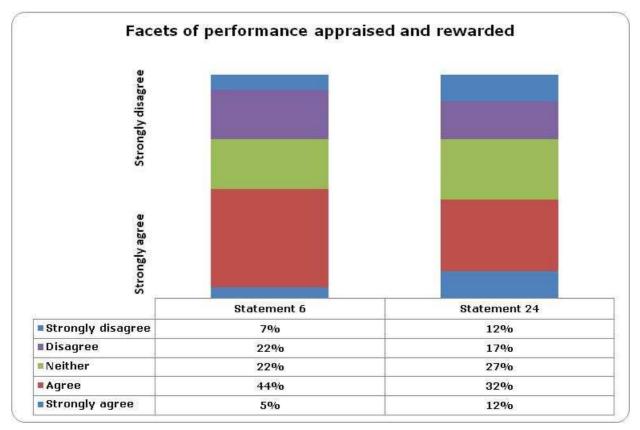
Reply 1: "No"

- Reply 2: "No, only through the previous Thematic Funds, but in practice many operational obstacles."
- Reply 3: "Yes, especially in pursuing goals that goes beyond the capability of a single unit."

Reply 4: "Yes, perhaps overly much."

It is suggested that the sharing of information without the allocation of resources (team work participation) will not contribute to team work. Furthermore, as quoted earlier,-some Operating Unit Executive Directors fail to attend the strategic planning sessions of other Operating Units. This behaviour of management might be sending the message to employees that working as a team is neither supported nor encouraged. 68% (24% strongly) of the respondents confirmed that their management in the Operating Unit supports sharing of business opportunities. Therefore, although management verbalises active support of sharing of business opportunities, their actions negate this.

4.4.3 The focus of support and rewards



a. Which facets of performance are appraised and rewarded?

Figure 13: Results for statements related to facets of performance appraised and rewarded

Statement 6 - 49% (15% strongly) agreed that there is an appropriate difference between the rewards to good performing Operating Units/Centres versus poor performing Operating Units/Centres.

Statement 24 - 44% (12% strongly) agreed that there is an appropriate difference between the rewards to good performing employees versus poor performing employees, while 29 disagreed and 27% neither agreed or disagreed.

The interviewees answered the question - *Does the performance bonus scheme promote cooperation between Operating Units?* as follow:

Reply 1: "Not at all. I do not think the performance bonus scheme promotes performance very much; welfare and units not even performing get bonus pools"

- Reply 2: "No, nothing with reference to collaboration is measured (KPIs) or rewarded."
- Reply 3: "No. Changing the system to do so would have to be done very carefully so that it doesn't allow underperforming units to hide behind the success of high performers. One could experiment with measuring and rewarding cooperation as a KPI measure without detracting from the need for units to be sustainable."
- Reply 4: "Not really, but it does not have to, cooperation could be but one KPI where it is so required."

Finding – Although slightly outside the scope of the research objectives, these responses raises an area of concern within the Organisation. Operating Unit Executive Directors are of the opinion that the current performance bonus system is flawed and consequently see no reason for sharing business opportunities or collaborating, if poorly performing Operating Units benefit and receive funds from the bonus pool as a matter of course. This view is contrasted with the view of 49% respondents that an appropriate difference do exists between the rewards for well and poor performing Operating Units.

4.4.4 Climate

The survey was designed by the researcher to measure organisational climate and cross-functional behaviour. In order to ensure that the statements were relevant to the operations of the organisations the 30 statements consisted of 28 positive statements and 2 negative statements.

The reason for having two negative statements in the survey is to assist with the integrity of the responses as sometimes respondents just answer and mark down one side without necessarily reading or attempting to answer the statement (Whitley, 2002).

From the data analysis the respondents responded as followed to 28 positive statements related to dimensions required for a positive climate and cross-functional behaviour.

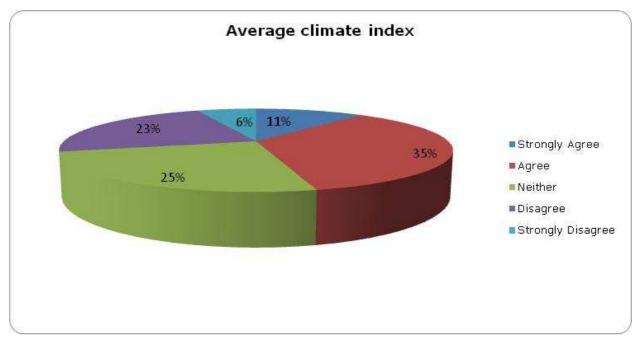


Figure 14: Average climate index

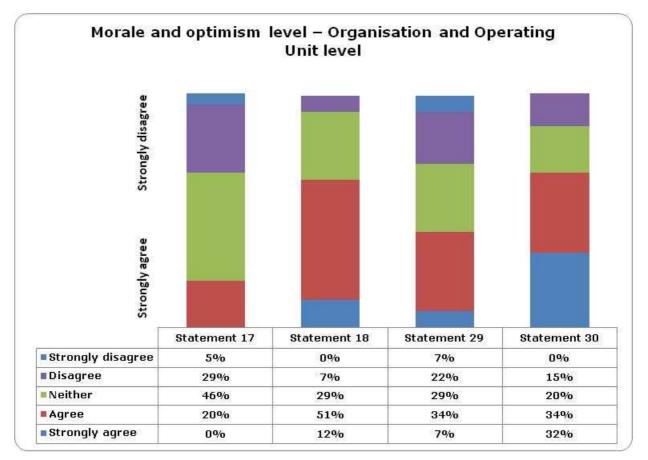


Figure 15: Results for statements related to morale and optimism

Statement 17 – Only 20% of the respondents agreed that morale is at organisational level; 46% of the respondents neither agreed nor disagreed while 34% of the respondents disagreed that morale at organisational level is high.

Statement 18 - 63% (12% strongly) of the respondents agreed that they are optimistic about the future of the organisation, while only 7% of the respondents did not feel optimistic.

Statement 29 - 41% (7% strongly) of the respondents agreed that morale is high within the respondents respective Operating Units, while 29% (7% strongly) of the respondents disagreed.

Statement 30 - 66% (32% strongly) of the respondents agreed that they are optimistic about the future of their respective Operating Units, while only 15% of the respondents disagreed.

Finding - From Figure 14, the research indicates that 46% of the respondents agreed with the positive statements related to the dimensions required for a positive climate and cross-functional behaviour, while 29% of the respondents disagreed with the statements.

Schein (1992) points out that in order to get commitment from employees, organisations need to create a positive climate which supports employees in their jobs. Although, respondents were optimistic about the future of the Organisation and their respective Operating Units on both Organisational and Operating Unit level, findings suggest that the current organisational climate within the Organisation is not overly positive. In fact, with regards to morale the research results indicated in Figure 14 (dimensions required for a positive climate and cross-functional behaviour) there is actually not a positive climate within the Organisation.

4.4.5 Culture

As mentioned, the respondents were asked to indicate their tenure to explore the relationship between tenure and employees' perceptions with regards to organisational culture where culture is historical in nature and climate is the prevailing 'atmosphere'.

For purposes of this research the impact of culture on cross-functional behaviour will analysed and discussed.

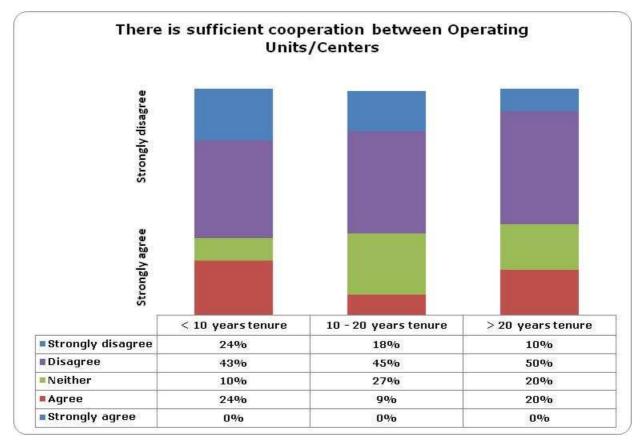


Figure 16: Results for statements related to morale and optimism

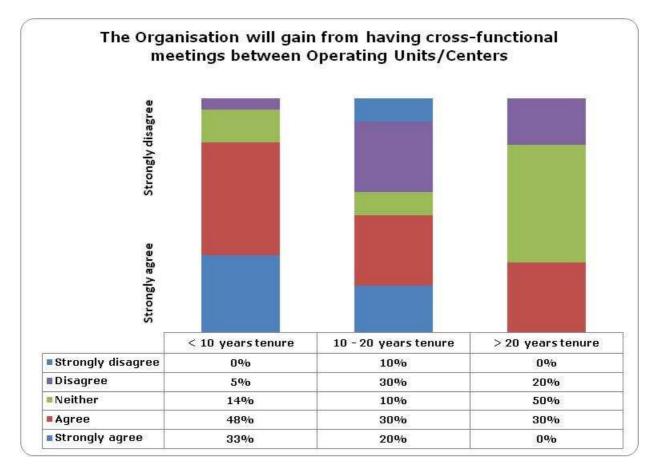


Figure 17: Results for statements related to cross-functional activities

Statement 10 (Figure 16) - Respondents that disagreed the most that there is sufficient cooperation (67%) had been employed fewer than ten years while employees with between ten and twenty years and more than twenty years of employment disagreed 63% and 60%, respectively.

Statement 14 (Figure 17) - Respondents with fewer than 10 years of employment felt the strongest that the Organisation will gain from having cross-functional meetings - 81% (33% strongly). Respondents who had been employed between ten and twenty years or more than twenty years agreed 50% and 30%, respectively.

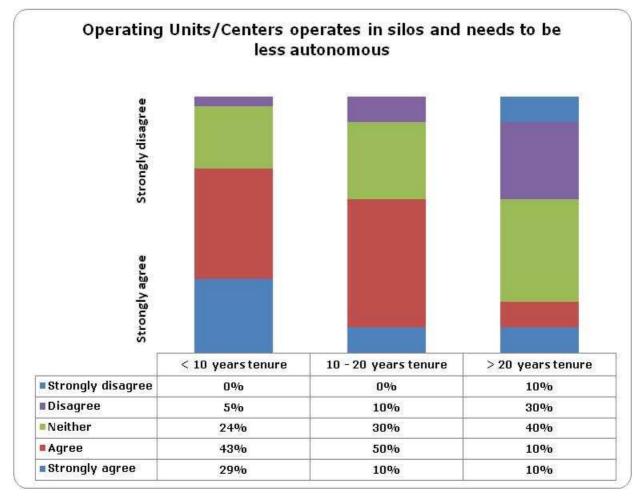


Figure 18: Results for statements related to silo-behaviour

Statement 16 - 72% (29% strongly) of the respondents with fewer than ten years employment, felt the strongest that the Organisation operates in silos and needs to be less autonomous; while respondents who had been employed between ten and twenty years and more than twenty years agreed 60% and 20%, respectively.

Finding - Culture is a pattern of shared basic learned assumptions that will be to be taught to new members of a group as the correct way to perceive, think, and feel in the Organisation and the Operating Units. As such, organisational culture is passed on from one generation to the next.

From the research results it became clear that the group of the respondents who had been employed with the Organisation the longest (more than twenty years), felt the strongest that the Organisation would not gain from cross-functional behaviour and activities.

This group also felt that the Organisation is not operating in silos, despite agreeing that there is insufficient cooperation between Operating Units/Centres. This illustrates a culture of non-cross-functional behaviour within this particular group e.g. no cooperation and no collaboration.

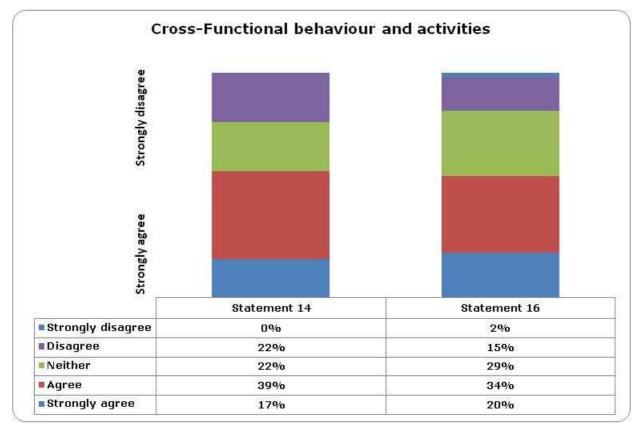
As culture is passed on from this generation (more than twenty years employed) to the next group (ten to twenty years employed) there are already indicators that attitudes/assumptions/beliefs are following the trend of not seeing the benefits of cross-functional behaviour and activities.

Three of the four Operating Unit Executive Directors interviewed has more than fifteen years employment within the Organisation. In response to the question: "How do you experience the culture within the organisation to support cooperation between Operating Units" the interviewees responded that:

a) Organisational measurements support silo-behaviour;

b) There is no perceived top-level understanding or appreciation for concepts of local optima vs. global optima; and

c) Such a culture supportive of cooperation is non-existent.



4.4.6 Cross-Functional behaviour and activities

Figure 19: Results for statements related to cross-functional behaviour and activities

Statement 14 - 56% (17% strongly) of the respondents is supportive of cross-functional meetings and that the Organisation will benefit from these.

Statement 16 - 54% (20% strongly) of the respondents support the statement that the Operating Units operates in silos and need to be less autonomous.

Finding – Currently, it seems the only viable organisation-wide forum to support cross-functional behaviour and activities, is the weekly OpCo (Operations Committee) meeting.

To the question on how effective the OpCo forum is, to support cross-functional behaviour, the interviewees responded:

Reply 1: "Merely a place where I must go and hear what things I must do to please staff functions."

Reply 2: "OpCo is totally dysfunctional in all respects."

- Reply 3: "The way in which OpCo is structured it is however not concerned with the "content" or substance of the Organisation' s core business of research and development but rather deals with rules and procedures governing this work with some attention to business results."
- Reply 4: "Not effective, no opportunity for learning about each others' business."

Considering the sample breakdown above, results indicate that that a majority of the respondents (56%) is supportive of having cross-functional meetings to counter the silo-behaviour in the Organisation. This finding may indicate a solution to remedy the issue of poor operating communication ("how" the corporate and business strategies are to be implemented and achieved). The only forum (OpCo) where this information can be communicated is not functioning as it is supposed to.

CONCLUSION

Preliminary findings indicate issues arising from negative organisational climate and silo-behaviour, as a result of organisational culture within the Organisation. This climate has implications for change, sharing of information, business opportunities and collaboration and cooperation, all of which have been used to interpret the results. A discussion of these findings, as well as conclusions, limitations and recommendations follows in the next chapter.

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this final chapter results are integrated and conclusions drawn on the concepts and the objectives of the research.

The objectives are to determine whether there is a relationship between culture and climate and consider the impact of this possible relationship on the cross-functional behaviour and activities at Organisation and Operating Unit level.

The limitations of the research are discussed, recommendations made regarding organisational strategy and finally possible further areas of research within the Organisation explored.

5.1 Conclusions

The aim of this research was to investigate the relationship between culture and climate and the impact thereof on cross-functional behaviour and activities at Organisation and Operating Unit level. The first phase of the research consisted of a literature review of the relevant concepts - culture, climate and cross-functional behaviour and activities. The relationship between these concepts was then empirically investigated through a statistical analysis of questionnaires and interview responses.

5.1.1 General Objective - Conclusions relating to the literature review

Conclusions will be drawn about the relationship between organisational culture and climate and the impact of thereof on cross-functional behaviour and activities at the Organisational and Operating Unit level with specific reference to the contextual framework of the research and the literature reviewed.

Objective 1: Conceptualise organisational culture

The first objective of this research to conceptualise organisational culture and determine its importance as part of successful strategy implementation was achieved in chapter 2 (see 2.1.1 - 2.1.3).

From the literature review it can be concluded that organisational culture is an integral part of successfully implementing strategy in organisations. Firstly, corporate resources, culture and employees, need to be aligned which in turn supports the alignment of the capabilities and competencies within the organisation. Once all these factors are aligned, the organisation is able to implement the organisation's corporate and business strategy successfully.

Culture is a popular concept but even though extensive research exists surrounding the concept, literature does not provide a single, widely accepted definition of the concept. However, researchers do agree on certain characteristics that describe culture and that it can be differentiated from other concepts within strategy implementation frameworks as highlighted in Table 1.

Some characteristics that delineate culture are the following:

- Culture is a system of shared values and norms, unique to an organisation;
- The shared values, norms, rituals and symbols of a specific organisation's culture have been formed over a number of years and culture is therefore historical in nature.
- Culture is created from a broad range of internal and external influences.
- Culture determines behaviour.
- It is possible to change culture over time, but it is a slow process.
- Culture is the 'personality' of an organisation and can therefore not be separated and examined separately and distinctly from the organisation.
- Permanently changing the culture of an organisation requires the 'personality' of the organisation to be changed and is usually met with resistance.

Objective 2: Conceptualise organisational climate

The second objective of this research, namely to conceptualise organisational climate was achieved in chapter 2 (see 2.2.1)

Various aspects, dimensions and levels of climate were investigated. Literature indicates that these dimensions can be used to establish which climate is specific to an organisation. Climate further exists on three different levels: organisational, group and individual. The research focused on the organisational level.

This research considered a generic approach to the investigation of organisational climate, using the dimensions listed by Schneider, *et al.*, (1996) which upon review acknowledged and exhibited aspects overlapping and interacting with culture and the role culture performs in relation to climate. The model also clarified the relationships between the various aspects of organisational climate. In addition, the model links the various aspects of cross-functional behaviour and activities with the various aspects of climate.

These dimensions were also then used to analyse the data collected from the survey, test the research hypothesis and present the results of the empirical research and the findings based on the results.

Lastly, the literature confirmed the pivotal role that climate plays in an organisation and it was concluded that climate has a significant influence on cross-functional behaviour and activities and as such on the implementation of an organisation's strategy, at both corporate and business level, which if not successfully implemented will lead to poor performance.

Some of the characteristics identified are as follow:

- Climate is generally considered to be the prevailing 'atmosphere' of an organisation.
- Climate is created from internal influences (organisational environment) e.g. interaction with one another and organisational policies, structures and processes.
- Climate in an organisation is multidimensional e.g. ownership of ideas, trust, openness, and risk-taking.

- Climate is a shared perception of employees of an organisation.
- Climate directly influences current behaviour.
- Climate can be used as barometer of employee satisfaction.
- A positive climate will cause employees to act in a similar fashion and vice versa where the climate is unfavourable.
- Climate can change over time, more easily than culture.

Objective 3: Determine the relationship between culture and climate

Objective 3 of this research was to determine the relationship between culture and climate, as achieved in chapter 2 (see 2.2-b)

It can be concluded that culture is in a sense a reflection of the climate in an organisation, but it operates at a deeper level. In essence, culture creates a specific climate of operations in an organisation.

A large number of studies found it problematic to differentiate between the concepts of climate and culture (McNabb *et al., 1995*). Sopow (2006) states "The failure of many corporate change processes can often be linked to a misunderstanding of the very distinct yet interrelated roles of culture and claimte within the organisation."

Culture and climate both represents the "feel of an organisation' and therefore a close yet sometime ambiguous relationship exists between these two concepts. Despite the difficulty to delineate culture and climate though, both concepts have distinctly identifiable, as wells as, overlapping elements.

Some of the overlapping characteristics identified are as follow:

- Both refer to the "feeling of an organisation".
- Both can potentially influence an individual's behaviour.
- Once established, both once established are difficult to change.

• Together, these concepts shape the nature, tone and focus of relationships and interactions in an organisation, not just internally but also externally with clients.

Culture and climate is the mould for the work attitudes and employee behaviour, which in turn affects an organisation's performance.

Objective 4: Conceptualise cross-functional behaviour and activities

Objective 4, namely to conceptualise cross-functional behaviour and activities, was achieved in chapter 2 (see 2.3).

Cross-functional behaviour and activities forms an integral part of strategy implementation and to increase performance. Human resources are an active element to positively drive change, but can also be resistant to change. Consequently, this leads to the non-implementation of strategy which may in turn decrease performance.

Key elements of cross-functional behaviour and activities as indentified in the literature review are:

- Communication
- Business unit autonomy
- Rigid processes/systems
- Team work
- Cooperation and Competition
- Tension

Where organisations fail to consider the importance of cross-functional behaviour (who, what and when) and activities (cross-functional teams and business sharing forums) it will more readily impact the performance of an organisation negatively rather than positively. However, organisations need to be mindful that cross-functional behaviour and activities could cause tension which may be interpreted as the action of a group of employees – for purposes of this research the group

employees in a specific Operating Unit or Competency Area or Research Group that act in specific way to ensure self preservation within the Organisation.

Objective 5: Establish how organisational climate can be measured

Objective 5, namely to determine how organisational climate can be measured was achieved in chapters 2 and 3 (see 2.2.1and 3.4). From the literature, it can be concluded that as climate is the perception of employees or the prevailing 'atmosphere' in an organisation, a subjective (perceptual) method of measuring and focusing on individual perception can be considered an appropriate measurement of organisational climate. Since this research studied how employees of the Organisation view the climate, it was concluded that in order to achieve the objectives of this research, subjective techniques such as adopted by Hofstede *et al.* (1990) e.g. survey and interviews, could be used to measure individual perceptions.

Objective 6: Integrate the concepts of organisational climate and crossfunctional behaviour and activities

Objective 6, namely to integrate organisational climate and cross-functional behaviour and activities was achieved in chapter 4 (see 4.3). Although both these two concepts have previously been researched (McNabb *et al., 1995*, Alpander *et al.,* 1995, Luo *et al.,* 2006) - both not as extensively as culture -, the current literature lacked research on 1) the explicit relationship between the two concepts, and 2) the impact of organisational climate and cross-functional behaviour and activities. One possible reason might be the shift from developing strategy to strategy implementation has only recently (from the 1990's) become a focus of study. This shift acknowledges the importance of human resources and employee empowerment and the impact of the soft S's (style, skills, employees, subordinate goals) when considering which factors play a critical role in succeeding to implement strategy, at both corporate, business and functional level.

Thus from the literature review it was established that the three key climate dimensions listed by Schneider *et al.*, (1996) also incorporate the six key elements of cross-functional behaviour and activities as indentified in this research study from the current literature.

5.1.2 Primary Research Objectives - Conclusions relating to the empirical study

Conclusions will be drawn on both the research objectives with specific reference to the empirical investigation in this study.

Both research objectives were achieved in chapter 4. The organisational climate survey with interviews were used to gather information on the climate and cross-functional behaviour and activities in the Organisation and the results were presented in chapter 4 (see Appendices A and B for the comprehensive results).

Research Objective 1: To investigate and identify to what extent the climate within the organisation inhibits cooperation between Operating Units

The first primary research objective of this research was to investigate and identify to what extent the climate within the Organisation inhibits cooperation between Operating Units as achieved in chapter 4.

The results indicate that the perceived current organisational climate is not positive and that silo -behaviour exists within the Organisation which is as a result of the culture of the organisation. The current culture, which existed prior to Beyond 60 process, is now creating a climate which is not conducive to change, sharing of information, business opportunities, collaboration and cooperation.

The literature review further indicated that a positive climate will cause employees to act positively and vice versa where the climate is unfavourable. From the perspective of morale, research results indicated in paragraph 4.4.4 - Figure 14 and 15, that the Organisation does not currently exhibit a positive climate.

As a direct result of the negative organisational 'atmosphere' as currently experienced by the respondents within the Organisation, the research results matched findings in the literature, that an unfavourable climate impedes successful strategy implementation and can lead to a decrease in organisational performance. The research results also suggest that there is no cooperation and collaboration between the Operation Units or employees within different Operating Units. The concerning factor is that the respondents are aware of the benefits of cooperation and collaboration (and wish more cooperation exists within the Organisation), yet they fail to get actively involved in behaviour and activities supportive of cooperation.

Research results indicate that the respondents employed with the longest tenure in the Organisation, were also the group that feels that the Organisation would not gain from cross-functional behaviour. This group also did not experience silobehaviour within the Organisation despite evidence to the contrary.

As climate follows culture, and the latter is slow to change, if at all, it can be foreseen that the current climate inhibiting cooperation within the Organisation, is bound to continue unless management actively practice and support crossfunctional behaviour and related activities and makes a serious attempt to change the culture within the Organisation.

Research Objective 2: To investigate and identify to what extent crossfunctional behaviour and activities are occurring within the organisation

The second primary research objective of this research was to investigate and identify to what extent cross-functional behaviour and activities are occurring within the organisation. This objective was achieved in chapter 4.

It was found that the weekly OpCo (Operations Committee) meeting seems to be the only organisation-wide forum to support cross-functional behaviour and activities. However, currently it is perceived by the Operating Unit Executive Directors interviewed that OpCo is totally dysfunctional. Another possible forum to support cross-functional are at the yearly strategic planning sessions but even there the Operating Unit Executive Directors do not even attend the sessions of other Operating Units.

Another finding was that the majority of the respondents are supportive of having cross-functional meetings to counter the silo-behaviour in the Organisation.

Lastly, there seem to be sufficient teamwork, cooperation and collaboration, between Competency Areas and Research Groups localised to and within specific Operating Units.

5.2 Limitations of the research

The limitations of the literature review and empirical study are discussed below.

5.2.1 Limitations of the literature review

With regard to the literature review, the following limitations were encountered:

- There is no consensus on the definition of organisational culture.
- There is no consensus on the definition of organisational climate, and there is debate about how the concept should be measured.
- Current research on organisational climate is limited, with many studies focusing on the concept of organisational culture.
- Certain elements overlap between culture and climate and at times they are used interchangeably, although they are clearly different concepts.
- There is no widely accepted set of organisational climate dimensions/key elements which makes it difficult to compare results from one study to the next.
- There is no generally accepted definition of cross-functional behaviour and activities and its measurement.
- There is no widely accepted set of cross-functional behaviour and activities dimensions/key elements which make it difficult to compare results from one study to the next.
- Of the three concepts, culture has been the most extensively researched while the climate and cross-functional behaviour to a lesser extent. Current literature especially lacks findings on 1) the explicit relationship between climate and cross-functional behaviour and activities, and 2) the impact of organisational climate and cross-functional behaviour and activities.

5.2.2 Limitations of the empirical study

Sample

- As the research was conducted in a single organisation, findings cannot be generalised to other research and development organisations.
- Only Operating Units were involved in the research, so results and findings cannot be generalised to the entire Organisation e.g. perceived climate in the functional units such as finance, procurement and human resources.

Survey

- The survey was customised for the Organisation consequently no previous reliability and validity data were available.
- The survey focused on a limited number of dimensions/key elements of climate. As indicated previously climate is multidimensional, the current results therefore exclude other dimensions/key elements that could be impacting the overall climate of the organisation.

5.2.3 Data gathering

- The period for conducting the survey coincided with the financial year end of the Organisation, thus the respondents were under more stress than usual. This timing might have impacted the response of the respondents to certain statements in the survey. The above also impacted on the available time and the perceived priority of returning the survey by employees; this is evident as three employees still submitted their completed surveys post financial year end.
- The research is limited to the period for which the research was conducted. More informed conclusions might be drawn if regular surveys investigating the relationship between climate and cross-functional behaviour and activities were to be conducted.
- No literature was found on research conducted on climate and crossfunctional behaviour and activities, in relation to each other or independently, in South Africa and more specifically on research and

development organisations in South Africa, thus making comparisons with this research impossible.

General Comments

Considering the Operating Unit performance as illustrated in Figure 2 - March 2011 Operating Unit Performance Scores based on Key Performance Indicators versus the participation of respondents within the Operating Units, it is interesting to note in passing that:

- The Operating Unit with the second lowest number of responses (two) is coincidentally also the Operating Units with the lowest performance score (3.1).
- The Operating Unit with highest number of responses (seventeen) is also the Operating Unit with highest performance score (1.5).
- The Operating Unit Executive Director of Operating Unit 5 that failed to respond to the invitation to be interviewed is the Operating Unit with the lowest number of participating respondents, only one.

5.3 Recommendations for further research

It is recommended that further research be conducted to investigate elements that overlap between culture and climate, as at times culture and climate are used interchangeably, although they are clearly different concepts. Further research will assist to gain clarity on the roles they play within organisations.

Further it is suggested that research be done to investigate the relationship between climate and cross-functional behaviour and activities in the South African context but also more specifically on research and development organisations in South Africa. Research of this nature will require larger samples, to include a number of organisations and more respondents.

The final recommendation is that further studies should be conducted to explore the importance of performance systems and processes. Processes like appraisals and rewarding systems and both the, positive or negative impacts of these on cooperation between business units which competes internally for resources and business opportunities, need more clarification.

5.4 Recommendations for the Organisation

Based on the study it is recommended that the Organisation conduct regular focused, formalised surveys that specifically include questions related to climate and culture. When combined, culture and climate provide a good indication of the Organisation's 'personality' and can therefore support managerial efforts to change the current silo-behaviour within the Organisation.

Employees are aware of the need for cooperation and collaboration between Operating Units which is an important organisational function required for survival in the current turbulent and ever-changing environments in which the Organisation operates. High levels of cooperation and collaboration would ensure that the Organisation remains adaptable but at the same time make the required changes to the organisational climate without severing ties with important stabilisers found in the current organisational culture.

The Organisation should continue focusing on the areas in which it is doing well, such as operating communications within the Operating Units, and expand these communication processes to other areas of communications at corporate level.

The results suggest that the longer employees are employed in the Organisation, the less likely and willing they might be to change the ways they cooperate and collaborate with each other and between their respective Operating Unit.

In order for change initiatives such as the Beyond 60 process to succeed, management must be aware of the major organisational culture and climate factors, positive or negative, as identified by the research. Focus groups and/or individual interviews with employees at all levels, (not just the upper three levels as in this research) would enable management to indentify and confirm the relevant factors.

As the culture of an organisation is historical in nature and transferred from one generation (longer serving employees) to newly appointed employees, it is suggested that management implement communication processes and systems that communicates their support of cross-functional behaviour and activities within and between Operating Units more clearly and unambiguously.

A final recommendation for the Organisation, is that the current reward and incentive programmes should be reconsidered for the various Operating Units, Operating Centres' and Support Functions in the Organisation, based on their particular needs and values.

CONCLUSION

The research objectives were to determine whether there is a relationship between culture and climate and what the impact of this relationship is on cross-functional behaviour and activities at the Organisational and Operating Unit level. The findings of the empirical research were presented in chapter 4, and the conclusions relating to general objective and the primary research objectives of both the literature and the empirical study was discussed in this chapter.

In conclusion, this research provides support that culture and more specifically climate do impact cross-functional behaviour and activities at the Organisational and Operating Unit level. The research results did not however indicate the level or extend of impact, low, medium or high, culture and climate have on cross-functional behaviour and activities. This may be as a result of limitations in the sample size, survey and period of information gathering.

The mere fact that the research confirms that culture and more specifically climate impact cross-functional behaviour and activities, could result in further insights into the dynamics between culture, climate and cross-functional behaviour.

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APPENDIX A

SURVEY AND RESEARCH RESULTS

Table 2: Research results Organisation Wide

	ORGANISATIONAL LEVEL	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
1	The organisation has a clearly defined strategy The strategy of the organisation is communicated	20%	54%	17%	7%	2%
2	well	0%	51%	24%	20%	5%
3	I understand the strategy of the organisation	12%	56%	24%	5%	2%
4	The organisation is managed well by leadership	0%	41%	41%	17%	0%
5	Communication of information is effective and open between OU's/Center's	2%	15%	27%	49%	7%
6	There is an appropriate difference between the rewards to good performing OU'S/Center's versus poor performing OU'S/Center's	5%	44%	22%	22%	7%
0	OU'S/Center's compete excessively for	570	44 70		22.70	
7	parliamentary grant funding OU'S/Center's collaborates well with other	17%	22%	29%	32%	0%
8	OU'S/Center's	0%	20%	37%	29%	15%
9	Competency Areas collaborates well with other Competency Areas in other OU'S/Center's	5%	22%	20%	39%	15%
10	There is sufficient cooperation between OU'S/Center's	2%	20%	15%	46%	17%
11	Competency Areas in different OU'S/Center's openly share business opportunities	0%	7%	20%	59%	15%
12	I know the business areas and service offerings of other OU's	0%	10%	29%	44%	17%
	Leadership equally support the various					
13	OU's/Centre's	5%	20%	24%	37%	15%
14	The organisation will gain from having cross- functional meetings between OU'S/Center's	17%	39%	22%	22%	0%
15	There is little competition between Competency Areas within different OU'S/Center's	5%	34%	22%	27%	12%
16	OU's/Center's operates in silos and is needs to be less autonomous	20%	34%	29%	15%	2%
17	Morale is high at organisational level	0%	20%	46%	29%	5%
18	I am optimistic about the future of the organisation	12%	51%	29%	7%	0%
	OPERATING UNIT LEVEL					
19	My OU has a clearly defined strategy	29%	51%	17%	2%	0%
20	The strategy of my OU is communicated well	12%	51%	22%	15%	0%
21	I understand the strategy of my OU	29%	44%	17%	10%	0%
22	My OU is managed well by the management team	29%	44%	15%	10%	2%
23	Communication is effective and open in my OU	12%	27%	37%	22%	2%
24	There is an appropriate difference between the rewards to good performing employees versus poor performing employees	12%	32%	27%	17%	12%
25	Competency Areas compete excessively within my OU	0%	27%	29%	39%	5%
26	My Competency Area collaborates well with other Competency Areas in my OU	10%	51%	22%	17%	0%
27	Competency Areas in my OU openly share business opportunities	5%	61%	15%	20%	0%

28	Sharing of business opportunities with other OU Competency Areas is encouraged by management of my OU	24%	44%	20%	12%	0%
29	Morale is high in my OU	7%	34%	29%	22%	7%
30	I am optimistic about the future of my OU	32%	34%	20%	15%	0%

	ORGANISATIONAL LEVEL	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
1	The organisation has a clearly defined strategy The strategy of the organisation is communicated	24%	52%	19%	5%	0%
2	well	0%	52%	29%	14%	5%
3	I understand the strategy of the organisation	14%	62%	19%	5%	0%
4	The organisation is managed well by leadership	0%	48%	38%	14%	0%
5	Communication of information is effective and open between OU's/Center's	5%	33%	10%	52%	0%
6	There is an appropriate difference between the rewards to good performing OU'S/Center's versus poor performing OU'S/Center's	5%	43%	14%	29%	10%
7	OU'S/Center's compete excessively for parliamentary grant funding	24%	29%	29%	19%	0%
8	OU'S/Center's collaborates well with other OU'S/Center's	0%	29%	33%	24%	14%
9	Competency Areas collaborates well with other Competency Areas in other OU'S/Center's	14%	10%	24%	38%	14%
10	There is sufficient cooperation between OU'S/Center's	0%	24%	10%	43%	24%
11	Competency Areas in different OU'S/Center's openly share business opportunities	0%	10%	19%	62%	10%
12	I know the business areas and service offerings of other OU's	0%	14%	29%	43%	14%
13	Leadership equally support the various OU's/Centre's	10%	24%	43%	19%	5%
14	The organisation will gain from having cross- functional meetings between OU'S/Center's	33%	48%	14%	5%	0%
15	There is little competition between Competency Areas within different OU'S/Center's	5%	33%	19%	33%	10%
16	OU's/Center's operates in silos and is needs to be less autonomous	29%	43%	24%	5%	0%
17	Morale is high at organisational level	0%	19%	48%	29%	5%
18	I am optimistic about the future of the organisation	14%	52%	24%	10%	0%
	OPERATING UNIT LEVEL					
19	My OU has a clearly defined strategy	24%	57%	14%	5%	0%
20	The strategy of my OU is communicated well	10%	57%	10%	24%	0%
21	I understand the strategy of my OU	29%	48%	10%	14%	0%
22	My OU is managed well by the management team	29%	43%	19%	5%	5%
23	Communication is effective and open in my OU	14%	14%	38%	29%	5%
24	There is an appropriate difference between the rewards to good performing employees versus poor performing employees	14%	14%	38%	29%	5%
25	Competency Areas compete excessively within my OU	0%	29%	33%	33%	5%
26	My Competency Area collaborates well with other Competency Areas in my OU	10%	62%	24%	5%	0%
27	Competency Areas in my OU openly share business opportunities	5%	57%	10%	29%	0%
28	Sharing of business opportunities with other OU Competency Areas is encouraged by management of my OU	33%	43%	10%	14%	0%
29	Morale is high in my OU	5%	29%	43%	14%	10%
30	I am optimistic about the future of my OU	38%	29%	19%	14%	0%

Table 3: Employees with less than 10 years of employment at Organisation

	ORGANISATIONAL LEVEL	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree
1	The organisation has a clearly defined strategy	20%	50%	10%	10%	10%
2	The strategy of the organisation is communicated well	0%	50%	30%	10%	10%
3	I understand the strategy of the organisation	10%	60%	10%	10%	10%
4	The organisation is managed well by leadership	0%	50%	50%	0%	0%
5	Communication of information is effective and open between OU's/Center's	0%	10%	30%	50%	10%
6	There is an appropriate difference between the rewards to good performing OU'S/Center's versus poor performing OU'S/Center's	10%	30%	40%	10%	10%
7	OU'S/Center's compete excessively for parliamentary grant funding	10%	30%	10%	50%	0%
8	OU'S/Center's collaborates well with other OU'S/Center's	0%	0%	50%	40%	10%
9	Competency Areas collaborates well with other Competency Areas in other OU'S/Center's	0%	20%	20%	40%	20%
10	There is sufficient cooperation between OU'S/Center's	0%	9%	27%	45%	18%
11	Competency Areas in different OU'S/Center's openly share business opportunities	0%	10%	0%	70%	20%
12	I know the business areas and service offerings of other OU's	0%	0%	10%	50%	40%
13	Leadership equally support the various OU's/Centre's The organisation will gain from having cross-	0%	20%	30%	40%	10%
14	functional meetings between OU'S/Center's	20%	30%	10%	30%	10%
15	There is little competition between Competency Areas within different OU'S/Center's	0%	40%	20%	30%	10%
16	OU's/Center's operates in silos and is needs to be less autonomous	10%	50%	30%	10%	0%
17	Morale is high at organisational level	0%	20%	30%	50%	0%
18	I am optimistic about the future of the organisation	10%	40%	40%	10%	0%
	OPERATING UNIT LEVEL					
19	My OU has a clearly defined strategy	20%	40%	40%	0%	0%
20	The strategy of my OU is communicated well	0%	30%	60%	10%	0%
21	I understand the strategy of my OU	0%	60%	30%	10%	0%
22	My OU is managed well by the management team	30%	20%	30%	20%	0%
23	Communication is effective and open in my OU	0%	20%	50%	30%	0%
24	There is an appropriate difference between the rewards to good performing employees versus poor performing employees	10%	30%	20%	10%	30%
25	Competency Areas compete excessively within my OU	0%	40%	10%	40%	10%
26	My Competency Area collaborates well with other Competency Areas in my OU	0%	40%	30%	30%	0%
27	Competency Areas in my OU openly share business opportunities	0%	50%	40%	10%	0%
28	Sharing of business opportunities with other OU Competency Areas is encouraged by management of my OU	10%	40%	30%	20%	0%
29	Morale is high in my OU	0%	30%	30%	30%	10%
30	I am optimistic about the future of my OU	20%	30%	20%	30%	0%

Table 4: Employees with between 10 and 20 years of employment at Organisation

				Neither		
	ORGANISATIONAL LEVEL	Strongly Agree	Agree	Agree / Disagree	Disagree	Strongly disagree
1	The organisation has a clearly defined strategy	10%	60%	20%	10%	0%
2	The strategy of the organisation is communicated well	0%	50%	10%	40%	0%
3	I understand the strategy of the organisation	10%	60%	30%	0%	0%
4	The organisation is managed well by leadership	0%	20%	50%	30%	0%
5	Communication of information is effective and open between OU's/Center's	0%	0%	50%	40%	10%
6	There is an appropriate difference between the rewards to good performing OU'S/Center's versus poor performing OU'S/Center's	0%	50%	30%	10%	10%
7	OU'S/Center's compete excessively for parliamentary grant funding	10%	10%	40%	40%	0%
8	OU'S/Center's collaborates well with other OU'S/Center's	0%	20%	30%	40%	10%
9	Competency Areas collaborates well with other Competency Areas in other OU'S/Center's	0%	50%	10%	30%	10%
10	There is sufficient cooperation between OU'S/Center's	0%	20%	20%	50%	10%
11	Competency Areas in different OU'S/Center's openly share business opportunities	0%	0%	40%	40%	20%
12	I know the business areas and service offerings of other OU's	0%	0%	40%	50%	10%
13	Leadership equally support the various OU's/Centre's	0%	10%	10%	60%	20%
14	The organisation will gain from having cross- functional meetings between OU'S/Center's	0%	30%	50%	20%	0%
15	There is little competition between Competency Areas within different OU'S/Center's	0%	30%	40%	10%	20%
16	OU's/Center's operates in silos and is needs to be less autonomous	10%	10%	40%	30%	10%
17	Morale is high at organisational level I am optimistic about the future of the	0%	20%	60%	10%	10%
18	organisation	10%	60%	30%	0%	0%
	OPERATING UNIT LEVEL					
19	My OU has a clearly defined strategy	50%	50%	0%	0%	0%
20	The strategy of my OU is communicated well	30%	60%	10%	0%	0%
21	I understand the strategy of my OU	60%	40%	0%	0%	0%
22	My OU is managed well by the management team	30%	70%	0%	0%	0%
23	Communication is effective and open in my OU	20%	60%	20%	0%	0%
24	There is an appropriate difference between the rewards to good performing employees versus	100/	6000	100/	100/	100/
24 25	poor performing employees Competency Areas compete excessively within my OU	<u> 10% </u> 0%	60% 20%	<u>10%</u> 30%	<u>10%</u> 40%	<u>10%</u> 10%
25	My Competency Area collaborates well with other Competency Areas in my OU	20%	50%	10%	20%	0%
27	Competency Areas in my OU openly share business opportunities	10%	80%	0%	10%	0%
~ /	Sharing of business opportunities with other OU Competency Areas is encouraged by	10 /0	00 /0	0.0	10 /0	0.0
28	management of my OU	20%	50%	30%	0%	0%
29	Morale is high in my OU	20%	50%	10%	20%	0%
30	I am optimistic about the future of my OU	30%	50%	20%	0%	0%

Table 5: Employees with more than 20 years of employment at Organisation

APPENDIX B

INTERVIEW QUESTIONS AND RESPONSES

What is the extent of competition between the Operating Units?	Biggest competition in the marketplace for OU product offerings currently comes from OU2 and OU7, competition however in a normal business is good and I like it the problem in the organisation is that is "underhand" it is a "holy cow" that are not debatable. Normal competitor we can outsmart this is like a faceless monster. Strong competition, because we compete for the same PG as well as for ad hoc Executive support. Cases where competition becomes unhealthy arise mainly where transparency and fairness is perceived to be compromised. Sensitive issues include: - Allocation of parliamentary grant and other resources - Overlapping mandates / focus between units especially when new units are created - Definition of cross-cutting thematic focus areas that have centre of gravity in a unit or that exclude some units - Moving of activities to OU without a model to compensate unit that build the capability and client base Not much, really only for PG funds, our markets are too
	different otherwise.
What is the extent of cooperation	Very artificial and mostly money driven and impact does
between the Operating Units?	not even enter the discussion.
	Almost nothing. It is being forced somewhat through the
	(currently still undefined) Flagship programme, but we
	cooperate more out of fear to miss out, than because of incentivisation or leadership from the top.
	This varies but generally works best where units have
	complementary expertise. An example is where OU4's
	capability is combined with OU5's capability to do things
	that neither unit can do alone.
	Not much, markets and skills too different, where
	necessary it happens.
How do you experience the culture	Organisation measurements support silo-behaviour no
within the organisation to support	perceived top-level understanding or appreciation for
cooperation between Operating Units?	concepts of "local optima" vs. Global optima Non-existent.
	The organisational culture provides some support for
	cooperation but business demands and measures will

	determine whether units actually cooperate or not.
	It is encouraged and supported in principle by executive.
To what extend do the	
To what extend do the	No evidence at the moment however I must say the
process/systems support cooperation	"flagships" create a wonderful mechanism to do this not
between Operating Units?	sure however if it will be experienced in practice
	The opposite is true - it discourages, and even tries to
	prevent it with the rules. The business model of the
	organisation certainly punishes cooperation. E.g. if I
	want to subcontract other OUs to work on our projects,
	I lose some of my PG, which is punished in the KPIs.
	Processes and system can in cope with collaborative
	activities. There is however limited support to initiate
	collaborative projects especially those that emanate
	from outside the organisation. Initiatives such as the
	Flagships, RIAs and SIGG may support such
	collaboration. If the Flagships and RIAs become mainly a
	mechanism for allocating PG it might however have the
	opposite effect with units competing for scarce
	resources rather than chasing bigger external
	opportunities that require them to cooperate.
	More focused on the units, but focus is good.
How efficient is flow of information	Not efficient at all very much based on individuals to do
between Operating Units?	as they see fit.
	Non-existing. Some information of all units (e.g.
	financials) shared at OpCo, but none of the R&D and
	impact projects. Some OU directors attend the business
	plan presentations of other OUs, but it is voluntary and
	very low cross-attendance.
	This is varying variable. Some competence areas in
	different units have a long history of working together
	and in some cases personal relationships between
	people across the organisation enable flow of
	information. Leadership training interventions that bring
	together up and coming leaders from across the
	organisation is an effective way in which such
	relationships are built. The old ALP programme was in
	my view for instance very effective at this. Another
	mechanism that may be under-appreciated is sport and
	recreational activities across the Organisation e.g
	Organisation club etc. There have at various stages
	been broader leadership foray that allowed leaders from
	project manager to CA level to interact. These seem to

	come and go and lose momentum. Currently this is
	defunct.
	Where people know each other and there is a need for
	flow, it is fine.
How effective is the OpCo forum to	Not at all in the past. We do however now have a plan
support cross-functional behaviour?	and commitment that this forum will deal with
	operational issues needed to implement the Strategy
	and it should add a lot. The past was merely a place
	where I must go and hear what things I must do to
	please staff functions.
	OpCo is totally dysfunctional in all respects.
	OPCO is effective in the sense that it allows a group of
	senior managers / leaders to get together on a regular
	basis. In that way a community is built. The way in
	which OpCo is structured it is however not concerned
	with the "content" or substance of Organisation' s core
	business of R&D but rather deals with rules and
	procedures governing this work with some attention to
	business results.
	Not effective, no opportunity for learning about each
	others' business.
Does the performance bonus scheme	
	Not at all. I do not think the performance bonus scheme
promote cooperation between	promotes performance very much welfare and units not
Operating Units?	even performing get Bonus pools??
	No, nothing with reference to collaboration is measured (KPIs) or rewarded.
	No. Changing the system to do so would have to be
	done very carefully so that it doesn't allow
	underperforming units to hide behind the success of
	high performers. One could experiment with measuring
	and rewarding cooperation as a KPI measure without
	detracting from the need for units to be sustainable.
	Not really, but it does not have to, cooperation could be
	but one KPI where it is so required.
Is active cooperation between	What do you mean by encourage if it mean people
Operating Units encouraged?	should say hi guys please work together then I
	suppose it is encourage if there are tangible measures
	to measure and give benefit if people work together
	then "no". If you try to work together you are on your
	own if things does not work out you get blamed if it
	does others take the 'praise"
	uves vullets take the plaise
	Lin-convice only by Executive, but no financial current
	Lip-service only by Executive, but no financial support given, or rewards in KPIs.

	To some extent, although there are no or little explicit measures to do this. There is certainly significant pressure to act as "one", but whether this is the right way to encourage cooperation is difficult to say. It may in fact be easier for units that are confident in their own identity and place within the Organisation and the broader system of innovation to collaborate. A measure that used to be in place was by measuring inter-OU income. Yes, in business plan review, information templates, thematic proposals, flagships etc, in fact probably too much
How autonomous is Operating Units	No reply to question
within the organisations strategy?	Medium. Executive tries to force alignment of the OUs to aspects of the Organisation strategy through the business plans, but it is on paper only. There is no well- defined Organisation strategy, though. We only have the Organisation mandate (in law), some descriptive documents called "RIAs", and the power-point and video presentations of the CEO of around Sept 2011 to guide us on what the "Organisation strategy" might be. Units have a relatively high degree of autonomy within the organisation's strategy. This is partly due to the very different circumstances experienced in the different markets and stakeholder environments served by different units. Fairly autonomous which suits the Organisation's operating philosophy - really a portfolio of entities addressing a portfolio of themes.
Is team work encouraged between	No
Operating Units?	No, only through the previous Thematic Funds, but in practice many operational obstacles. Yes, especially in pursuing goals that goes beyond the capability of a single unit. Yes, perhaps overly much. In my experience knowledge workers just need to be informed about where what capabilities are and they will make the links and do the involvement themselves. Beyond that it gets artificial and counterproductive since every optimised organisation structure will require that entities with most interaction be grouped together.
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