VALUE INNOVATION AT THE UNIVERSITY OF PRETORIA:
A CASE STUDY OF THE CLIENT SERVICE CENTRE

PRESENTED TO
THE GRADUATE SCHOOL OF BUSINESS
UNIVERSITY OF CAPE TOWN

IN PARTIAL FULFILMENT OF THE EXECUTIVE MBA

BY

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DECLARATION

I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is your own.

I have used a recognised convention for citation and referencing. Each significant contribution and quotation from the works of other people has been attributed, cited and referenced.

I certify that this submission is all my own work.

I have not allowed and will not allow anyone to copy this essay with the intention of passing it off as his or her own work.
ACKNOWLEDGEMENTS

Thank you to the University of Pretoria for the opportunity.

I would like to thank all my EMBA class mates for being such wonderful people. It was truly a joy to get to know all of you. A special word of thanks to Group1. Dave for his caring and mirth, Anne for her gentleness and wisdom, Andy for his insight and thoughtfulness, Steve for his humour and vibrancy and Alex for his entertaining reflections on life. Thank you for tolerating my quirks!

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Finally I would like to thank Cornie. Without her friendship and support I would probably not have survived the past few years. Also thank you to my mother and Charlotte for words of encouragement in times of darkness.

May God bless you
ABSTRACT

There is general consensus that innovation creates competitive advantage. However, little is known about how to innovate and how to sustain innovation. The purpose of this study is to explore the Client Service Centre (CSC) as an example of value innovation. It aims to generate possible solutions to current constraints in order to achieve long-term competitive advantage for the University. The CSC is an example of radical organisational innovation. It is also classified as an example of value innovation because its main purpose is to create value for clients. It manages innovation that occurs across the value chain of marketing, market research, sales, advertising, distribution and service. The matrix model of the CSC provides a holistic view of processes in the lifecycle of a student and positions the CSC to facilitate ongoing incremental innovation.

Client Service as concept is relatively new to higher education and to my knowledge there are no comparable published studies. This study makes a contribution to the field of innovation management generally and to innovation management in an educational client service environment and value innovation specifically.

Interview and survey results reveal that the CSC model works and the Higher Education Quality Committee (HEQC) commended it in a pilot audit report. However there are signs of a downward trend in service quality and client satisfaction. I used interviews, longitudinal descriptive statistics, survey results and systems tools to surface constraints that could jeopardise its competitive advantage and long-term sustainability. The key variable that seems to be influencing service quality is teamwork between the CSC and other departments. The unique positioning of the CSC makes it competitive but at the same time dependent on support departments and faculties to render quality service. Problems in support departments and faculties cause service failure in the CSC and frustration for clients. At the same time the CSC is not empowered to address service failure rapidly. Over the long-term this cycle could lead to reputation damage and a decrease in institutional ownership of client service. It threatens the viability and sustainability of the CSC and concomitantly value innovation at the University of Pretoria.

The importance of knowledge creation, sensemaking and decision making in innovation led to the identification of advocacy and enquiry as two communication strategies or speech enactments that could improve teamwork in a matrix structure and particularly in
an innovation environment. In search of an answer I discovered conflicting findings about values involved in teamwork and innovation. Innovation cannot occur without teamwork and therefore my initial premise was that team cohesion and cultural consensus (shared meaning) are desired values that improve teamwork and *inter alia* innovation. However certain studies indicate that team cohesion and cultural consensus actually inhibit innovation. I was subsequently faced with another problem: CSC staff members form the client-facing frontline of the University and need to be motivated and “happy”. Team cohesion and cultural consensus increase motivation and satisfaction and lessen conflict. Seemingly a frontline team cannot achieve quality interaction with clients and innovate at the same time because the respective actions require a different set of values.

In an attempt to find a more holistic and practical solution to the problem I reflected on small wins during the EMBA programme and my experience of managing innovation. I also held follow-up interviews with a select number of colleagues in which I posed the broad outline of the problem. I finally propose the implementation of matrix innovation teams as a possible solution to maintain competitive advantage and achieve long-term viability and sustainability.

The Virtual Campus of the University of Pretoria is used as a backdrop to the study to compare two different experiences of organisational innovation. As participant researcher the study is subjective by nature. I was the project leader for both innovations and am the director of the CSC.

A postmodern approach to grounded theory opposes any attempt at “discovering” truth, because reality is continually constructed and deconstructed. Therefore I do not try to solve a problem or discover an answer. I explore complex realities and share emerging patterns and possible solutions with the reader. This study discusses the elements involved in organisational innovation from a social perspective. It is constructivist in ontology and located in pragmatism in terms of epistemology. The case study design, grounded theory and action research are used as methodologies. Abductive reasoning is used to construct meaning.
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Chapter 1

1. Research methodology

“You cannot step twice into the same river, for fresh waters are ever flowing in upon you.” Heraclitus

“Our beliefs, assumptions, stories and interactions with others help us to bring order to what is going on, to make sense of our own reality” (Parry, 2003:240).

This chapter gives an overview of the research approach that is followed in the study.

This dissertation uses different systems approaches that are contextualised within a broader research framework of sociological paradigms. Systems thinking forms the overarching approach to explore the concern and problem. Systems thinking creates a holistic and creative view of complex organisational problems and combines various approaches in combination to handle complexity, change and diversity in organisations.

Qualitative research paradigms are often used in studies of management and organisation (Bogdan & Biklen, 1992:29-33). Sweeping in different perspectives offered by different sociological paradigms to view a “mess” improves critical and holistic thinking. In qualitative research the natural setting is the direct source of data and the researcher is the key instrument (Bogdan & Biklen, 1992:29-33). It assumes that reality is holistic, multidimensional, and ever-changing (Merriam, 1998:6-8, 202).

“It is a feature of the inductive, phenomenological approach that the data generates the theory, and that only at the end of that process are the results compared to established theory” (Parry, 2003:241).

Dewey (1910:9) highlights the characteristics of problem-solving behaviour: first, reflective thinking entails confusion, hesitation, perplexity, mental difficulty; in which thinking originates. Secondly, it involves an act of searching for further facts that serve to corroborate or to nullify the suggested belief. More recently, Mezirow (1991:110) distinguishes between “premise” reflection and reflection on the content or process of actions. “Premise reflection leads the learner to question the basic
assumptions that govern judgments and to consider the relative value of solutions to problems. Reflection at this depth of meaning requires deliberate appraisal and reappraisal of the schemes and frameworks that govern one’s sensemaking processes” (Schwandt, 2005:181).

It is important to critique the research methodology used by considering its limitations, underlying assumptions and alternatives.

1.1 Philosophical orientation

Philosophy deals with conceptions of life and the world and is neither theology nor science, but rather the gap between theology and science (Russell, 1991).

1.1.1 Epistemology: Rationalism versus Empiricism

The philosophical inquiry of knowledge is known as epistemology. The dominant Western epistemologies are rationalism and empiricism (Russell, 1991:101-584).

Rationalism essentially says that knowledge can be obtained deductively by reasoning, whereas empiricism holds that knowledge can be attained inductively from sensory experiences.

1.1.2 Ontology: Idealism versus Realism

The philosophical inquiry about “being” or existence is known as ontology. The dominant Western ontology is idealism and realism. The basic distinction is that between a subjective reality and an objective reality.

Idealism purports that there is no reality independent of the mind and mental states. Therefore people create their reality and it is subjectively constructed. Realism holds that objects in the real world exist independently of the mind – their meaning are inert and they can only be explored quantitatively. Positivism is a school of thought that purports that that which can be measured is true and exists.
1.1.3 Pragmatism

Pragmatism is a philosophy based on social human interaction. It is the sociological paradigm that forms praxis between epistemology and ontology. Pragmatism from an epistemological point of view inquires about the role that language plays in constructing meaning through negotiation. Pragmatism from an ontological point of view argues that we engage with reality through our senses, mind and language whilst being aware in our interactions that those we interact with have their own mental models and perceptions of reality. Pragmatist philosophers include James, Mead, Pierce and Dewey.

Locke (2003:21) notes “Pragmatism conceives of knowledge as an experiential process rather than a mirror of some independent reality. Because knowledge is experiential, the reality that is composed, whether by social researchers or other social actors, shifts as it is built up in transaction with the world and others in it. Thus, knowledge generated by social researchers can never be complete or confident, but when grounded in particular experiences, it can possess a limited authenticity”.

Figure 1.1 shows the relationship between the different philosophical dimensions.
1.2 School of thought: Reductionism versus holism

Systems thinking acknowledge the inter-relatedness between parts and focuses on the relationships between them. It combines a wide range of techniques, tools, methods and principles (Checkland, 1981). The field of systems thinking fits in the school of thought that promotes holism. Holism is thought to have been coined first by biologists who recognised that the whole is bigger than the sum of the parts and that the parts are all necessary and inter connected.

The field of systems thinking includes cybernetics and chaos theory, action science (Argyris, 1985), soft systems analysis (Checkland, 1981) and viable systems model (VSM) (Beer, 1979).

1.2.1 The modernist paradigm

“Modernism assumes a realist ontology. It supposes that an objective world exists as a knowable observable reality and that facts of and laws governing the world are given and independent of those who might observe them” (Locke, 2003:7). A modernist approach to research concerns itself with trying to map reality through creating hypotheses about the way the world likely works based on the discovery of empirical facts and universal laws of cause and effect that are embedded in an explanatory or theoretical framework. These theoretical frameworks are then tested against the world to understand the relationship between their discovered facts and the observable world that these purport to explain.

In order for these facts and relationships to become part of a theoretical framework, they must meet the following criteria:
Appropriateness for inclusion is evaluated by the extent to which:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Internal validity</td>
<td>The findings accurately map the aspect of the social world studied.</td>
</tr>
<tr>
<td>Generalizability</td>
<td>The findings apply to other social settings and actors that are similar to the one studied.</td>
</tr>
<tr>
<td>Reliability</td>
<td>The findings persist and are able to be reproduced and are free of bias.</td>
</tr>
</tbody>
</table>

Table 1.1 Modernist criteria by Locke (2003:8)

1.2.2 The Functionalist paradigm

The functionalist paradigm essentially looks at issues from the perspective of goal setting and creation of viability – for example achieving what the organisation’s purpose is (sense of purpose).

The functionalist methodology is a structured way of thinking. It uses systems ideas as the basis for its intervention strategy and will frequently employ methods, models, tools and techniques that also draw on systems ideas.

The functionalist methodology is characterised by the following:
Sense of purpose
Wanting to achieve an outcome
Efficiency, adaptation and survival

The use of systems methodology for problem solving according to the functionalist rationale must be guided by the following:
- an assumption is made that the real world is systemic
- an analysis of the situation is conducted in systems terms
- models aiming to capture the nature of the situation are constructed, enabling us to gain knowledge of the real world
• models are used to learn how best to improve the real world and for the purposes of design
• assumes that quantitative analysis can be useful since systems obey laws
• the process of intervention is systematic and is aimed at goal seeking and viability
• intervention is best conducted on the basis of expert knowledge
• solutions are tested primarily on the basis of their efficacy and efficiency (Jackson, 2003: 308)

The purpose of a Reductionist-Functionalist paradigm is goal seeking and viability in solving real-world problems. Methodologies and methods used in this paradigm aim to analyse a real-world problem by breaking it down into its different parts to either solve a problem or optimise a system. Actionable knowledge, hard systems thinking, operational effectiveness and the machine metaphor are examples (Morgan, 1998).

The purpose of a Structural-Functionalist paradigm is to understand the structure of complex problems and the feedback loops in dynamic systems where control and communication is part of the requisite variety of the system to remain viable. Cybernetics, Complexity theory, VSM and the organism and brain metaphors fit in this paradigm (Morgan, 1998).

1.2.3 The Interpretive paradigm

The interpretive paradigm sees the world as a process that is created by individuals. According to Rubin and Rubin (1995) interpretive social research “focuses on what events and objects mean to people, on how they perceive what happens to them and around them, and on how they adapt their behaviour in light of these meaning and perspectives”.

The interpretive systems methodology is focused on improving real world problem situations. Like the functionalist methodology, it also uses systems ideas as the basis for its intervention strategy and will frequently employ methods, models, tools and techniques that also draw on systems ideas. Weick’s enactment theory (1969) is
an example of the interpretive tradition because it emphasises the role that members in an organisation play in creating the organisation.

The interpretive methodology is characterised by the following:

- It is social by nature
- It concerns itself with purposes that people have
- Participative involvement
- It seeks the commitment of other stakeholders
- It encompasses political and cultural issues

Using systems methodology for problem solving according to the interpretive rationale must be guided by the following:

- there is no assumption that the real world is systemic
- analysis of the problem situation is designed to be creative and may not be conducted in systems terms
- models are created that represent possible ideal type human activity systems
- models are used to structure debate about changes that are feasible and desirable
- quantitative analysis is unlikely to be useful except in a subordinate role
- the process of intervention is systemic and is aimed at exploring purposes, alleviating unease and generating learning
- the intervention is best conducted on the basis of stakeholder participation
- changes are evaluated primarily in terms of their effectiveness and elegance

(Jackson, 2003:309)

Metaphors that are associated with the Interpretive paradigm are cultural and political system metaphors (Morgan, 1998). It is particularly appropriate when confronted with ill-structured problem situations where relationship building is as important as goal-seeking. It is achieved through interaction of groups or individuals with diverse values and it promotes stakeholder participation. Grounded theory, Soft Systems Methodology, Organism and Brain metaphors (Morgan, 1998) and Work Systems
(Hoebekke, 1994) fit in this paradigm because each of the concepts refers to a pluralist problem situation that requires multiple perspectives from a variety of stakeholders to design and co-create the most desirable outcome.

1.2.4 The Emancipatory paradigm

The emancipatory perspective deals with social order and looks at instruments of domination. It pays attention to discrimination and intends to emancipate those who are discriminated against in terms of for example gender, race, disability and age. It is critical of authority and promotes fairness.

A metaphor that is appropriate to use in an emancipatory paradigm is that of the Psychic Prison (Morgan, 1998).

In a management perspective power is normally associated with the control of scarce or valued resources.

Critical theory argues that power is about the ways in which dominant interests are protected.

Work systems, Strategic Assumption Surfacing and Testing (SAST) and Soft Systems Methodology (CATWOE) are included in this paradigm because they can all be applied to surface dominant and suppressed voices in relationships and aim to help solve or better understand coercive or conflictive problem situations.

1.2.5 The Postmodern paradigm

Postmodernism encourages critical thinking by continually questioning supposedly fixed assumptions, ideas, experiences and views. Through this ongoing displacement of meaning, diversity and difference is created and marginalised voices are surfaced.

The postmodern paradigm opposes the “modernist” rationality it sees as present in the other three paradigms (Jackson, 2003:39). It challenges their attempts to create
general, integrated, explanatory and predictive frameworks of how organisations function, contending that organisations are too complex to explain, partly because of its view that knowledge is essentially fragmented and unstable and that reality is not fixed. That which is presented as reality is simply subjective discourse about reality (Locke, 2003:11). Leading postmodern theorists include Derrida, Lyotard, Foucault and Baurillard.

A metaphor associated with the postmodern paradigm is the Carnival (Morgan, 1998).

1.3 Methodologies

Within each of the paradigms exists an option to apply a range of methodologies such as grounded theory and action research.

1.3.1 Case study as research design

Merriam (1988, cited in Bogdan & Biklen, 1992:62), defines a case study as "a detailed examination of one setting, or a single subject, a single depository of documents, or one particular event".

Yin (1994:13) describes a case study in terms of the research process: “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context …”

Merriam (1998) lists the case study as one type of qualitative research design that is particularly appropriate in the following instances:

- When one wants to advance a field’s knowledge base
- In applied fields such as education, in which the findings can improve upon existing practice
- In studying educational innovations
Lancy (1993:140) describes it as "the method of choice for studying interventions or innovations".

1.3.2 Grounded theory

Grounded theory can be located in the modernist paradigm, because prevalent terms like "emergence", "discovery" and theory grounded in "reality" point to an objective realist perspective (Strauss & Corbin, 1990). It can also be located in pragmatism because of its concern with subjective experience and fits most appropriately within the Interpretative paradigm (Locke, 2003:12). Grounded theory is an appropriate methodology for building theory on complex, dynamic social processes. Clarke (2005:32) provides a useful comparison of traditional/positivist grounded theory and postmodern/constructivist grounded theory as seen in Table 1.2.

<table>
<thead>
<tr>
<th>Traditional/positivist grounded theory</th>
<th>Postmodern/constructivist grounded theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positivist/realist</td>
<td>Constructivist/relativist</td>
</tr>
<tr>
<td>Dualism of subject and object</td>
<td>Continuities of subjects and objects</td>
</tr>
<tr>
<td>Discovering/finding</td>
<td>Constructing/making</td>
</tr>
<tr>
<td>Correspondence theory of truth</td>
<td>Constructionist theory of knowledge production</td>
</tr>
<tr>
<td>Naïve objectivity</td>
<td>Noninnocent subjectivity/reflexivity</td>
</tr>
<tr>
<td>(Over) homogenization, (over) generalisation</td>
<td>Multiple positions, heterogeneous representations</td>
</tr>
<tr>
<td>A priory rejection of contradiction as possible</td>
<td>Representation of contradiction(s) as analysed/interpreted.</td>
</tr>
<tr>
<td>Simplification desired</td>
<td>Complexity represented</td>
</tr>
<tr>
<td>Seeks to be conclusive</td>
<td>Tentative, opening, jarring, troubling</td>
</tr>
<tr>
<td>Authority of author/&quot;expert&quot; voice dominant</td>
<td>Multiple voices, perspectives, intensities, reflexivities</td>
</tr>
<tr>
<td>(False/overdrawn) clarity</td>
<td>Ambiguity of representation</td>
</tr>
<tr>
<td>&quot;Normal&quot;/average plus &quot;negative cases&quot;</td>
<td>Difference, range of variation, outliers, positionality</td>
</tr>
<tr>
<td>Tacitly progressive, linear</td>
<td>Doubtful, reads against the grain</td>
</tr>
<tr>
<td>Assumption of normativity</td>
<td>Assumption of positionality</td>
</tr>
<tr>
<td>Metaphors of normal curve</td>
<td>Metaphors of cartography</td>
</tr>
<tr>
<td>Goal: To delineate a basic social process and formal theory</td>
<td>Goal: To construct processes, sensitising concepts, situational analytics, and theorize</td>
</tr>
</tbody>
</table>

Table 1.2: Comparison of traditional and postmodern approach to grounded theory
1.3.3 Action research

Action research requires the researcher to actively participate in the research process through cycles of inquiry, action and reflection. It argues that understanding of a social system is best achieved through introducing change into it and then observing its effects (Lewin, 1951).

Table 1.3 summarises the multiple perspectives and approaches that I use in this study.

<table>
<thead>
<tr>
<th>Category</th>
<th>Perspectives and Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical approach</td>
<td>Qualitative, supported by quantitative</td>
</tr>
<tr>
<td>Paradigms and metaphors</td>
<td>Functional, interpretive, emancipatory, postmodern paradigms (Jackson, 2003)</td>
</tr>
<tr>
<td></td>
<td>Metaphors are used in a supporting role and appear in Annexure F: Machine, Brain, Organism, Cultural and political,</td>
</tr>
<tr>
<td></td>
<td>Psychic prison and Carnival metaphors (Morgan, 1998)</td>
</tr>
<tr>
<td></td>
<td>Metaphors of customer relationships: Transaction, Design, Network, Conversation (Bowey, 2002).</td>
</tr>
<tr>
<td>Methodologies</td>
<td>Action research (Argyris, Lewin), grounded theory (Glaser &amp; Strauss, Locke), Case study (Yin)</td>
</tr>
<tr>
<td>Data collection techniques</td>
<td>Surveys, interviews, statistics, theory</td>
</tr>
<tr>
<td>Systems methods</td>
<td>Rich picture, Causal Loop Diagram (CLD), Force Field Analysis, Behaviour over time (BOT)</td>
</tr>
</tbody>
</table>

Table 1.3: Overview of research approach

1.4 Data collection and analysis approach

Interviews and subsequently the views of CSC staff, deans, directors, heads of student administration in faculties and executive, surveys and non-technical data within general grounded theory guidelines (Strauss & Corbin, 1990) form the basis for incorporating stakeholder views. Statistics are used in a subordinate role.
According to a systems perspective, research is a way of holistically describing patterns among phenomena of interest that are continually changing (Hanson, 1995). The context of the study is dynamic and ever changing, therefore the purpose of research, as defined in this study, is to explore different realities in which the researcher is a participant in the interaction process within the system that is being investigated (Moore, 1997). Systems tools are used to illuminate interdependent relationships and to propose models of the ideal.

All interviews were captured verbatim and clustered into common themes that emerged from the interviews (Annexure E). The interviews were held in my office and in several instances in the office of the relevant interviewee.

A second round of interviews was held to sweep in multiple perspectives to generate possible solutions to the problem.

Metaphors were used to enrich understanding of the context of the study (Annexure F).

1.4.1 Sampling

I used purposeful and theoretical sampling. Purposeful sampling takes place when the researcher selects a sample from which the most can be learned (Merriam, 1998:31). The view on sampling expressed by Bryman (2001:393) is to stop when saturation has been reached, that is when no new categories are being generated. This concept is debatable, because people’s life-worlds are unique and the probability that no new concept would emerge from including more interviewees cannot be assumed. My sample was limited to available time.

1.4.2 Reliability and validity

Conventional criteria of reliability and validity cannot be applied to qualitative research and particularly not to a study that uses a postmodern approach to grounded theory. Lee (1999) explains that the findings of a qualitative study must be representative of the phenomenon of interest. In interpretive research there is more focus on credibility (trustworthiness). Prolonged engagement at one’s data site and
undertaking “persistent observation” (Lincoln & Guba, 1985); collecting comprehensive, descriptively rich data, ideally through “triangulation” in data sources and methods (Maxwell, 1996); and conducting “member checking,” a procedure in which “data, analytic categories, interpretations and conclusions are tested with members of those stakeholder groups from whom the data were originally collected” (Lincoln & Guba, 1985: 314) are ways to improve credibility.

Triangulation pre-supposes that the measurement of a phenomenon from a number of different sources improves the internal validation. This assumes that there is only one “true” view of reality that can be “discovered” if triangulation is applied.

Credibility was achieved through my involvement with the CSC over a period of five years – first as the project leader to create it and then as its director. It therefore meets the requirement stipulated by Lincoln & Guba, 1985 of “Prolonged engagement at one’s data site and undertaking “persistent observation”. As a participant researcher my research is naturally subjective. I made an attempt at triangulation by including the perspectives of different stakeholders, statistics and survey results.

The qualitative equivalent of reliability is dependability. I captured the interviewees’ narratives verbatim and clarified what I had written in cases where I was not sure. In this light Parry (2003:258) cautions “The data reflects the expressed views of the interviewee, the researcher’s interpretation and the interaction that took place in the interview”. The statistics on the CSC and the client satisfaction survey results are dependable. The statistics are official measurements and the market research unit of the University conducted the surveys in collaboration with the CSC.

In systems thinking no research method is protected from being influenced by the subjectivity and bias of the researcher. This should not be viewed as a constraint. The researcher brings tacit knowledge constructs and insight to the study. Both add value to the research findings. Yet in order to retain credibility it is required of the researcher to make subjectivity in the research process as visible as possible. Participative research is by nature subjective but it is necessary to state the
subjective nature of constructing meaning upfront. Including as many stakeholder views as possible makes the process more representative and richer in meaning.

Blaikie (1993) criticizes both inductive and deductive forms of research and proposes “abductive reasoning” in which theory, data generation and data analysis are developed simultaneously in a dialectical process. This is the type of reasoning followed in this study.

The next chapter discusses the concept of innovation and describes the particular perspective of innovation that is used in this study.
2. Innovation under the spotlight

I was seconded in March 2001 to establish the CSC. In 1999 I had successfully implemented a Virtual Campus at the University and therefore had experience of organisational innovation within the University environment and culture. The Virtual Campus and the CSC can be defined as *radical enterprise or organisational innovations*. Innovation refers to market adoption of any new concept or invention; a product, service or process (Utterback & Abernathy, 1975; Roberts, 1988, Girifalco, 1991; Betz, 1998). *Organisational innovation* is described as “the creation of new meanings about products/services, organisational arrangements, and interaction processes” (Steyaert *et al.*, 1996:67). Henderson and Clark (1990) describe *radical innovation* as innovation that impacts organisation-wide and often provide competitive advantage. It is accompanied by a high degree of change in human behaviour and paradigms. *Incremental innovation* is defined as the continuous improvement of products, processes and services (Henderson & Clark, 1990). A comprehensive list of types of innovation can be found in Annexure A.

Carrero *et al.* (2000:489) describe innovation as “an adaptable response that causes disorder in terms of ‘a creative tension in the system’”. They note that various methodological practices shaped the meaning of the innovation process as illustrated in Table 2.1.

<table>
<thead>
<tr>
<th><strong>Functionalist</strong></th>
<th><strong>Structuralist</strong></th>
<th><strong>Interpretative</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation as patterns of diffusion</td>
<td>Determinants of the propensity to innovate</td>
<td>Process of implementation</td>
</tr>
</tbody>
</table>

Table 2.1: Methodology and innovation adapted from Carrero *et al* (2000)

Researchers regard innovation as a “highly uncertain and complex process that has to be understood from the point of view of the actors involved” and hence studies by Cheng & Van de Ven (1996) shifted to data collection in the natural context. This
approach favours theory-building methodologies such as grounded theory that explains the movement of data over time. It has highlighted social processes involved in the implementation of innovation. In order to understand innovation as a social process it is necessary to discuss the concept of a social system.

2.1 Social systems

According to Stacey (cited in McElroy, 2003:107) “complex adaptive systems are driven by three control parameters: the rate of information flow through the system, the richness of connectivity between agents in the system, and the level of diversity within and between the schemas [i.e. knowledge bases] of the agents”. The purpose of doing this is to survive – hence there is a degree of determinism involved.

Stacey (2003) proposes a series of social system approaches ranging from those with a high degree of determinism to those with very little or arguably no degree of determinism.

![Figure 2.1: Scale of degree of determination of social systems (adapted from Stacey by Fuglsang & Sundbo, 2005:332)](image)

Fuglsang and Sundbo (2005:334) define a deterministic system as a system in which very precise procedures and representations dictate behaviour. There is an inverse relationship between determinism and complexity – the more complex and open the system; the less is the degree of determinism. The logical deduction at this point is
that innovation as a social system has a low degree of determinism. The authors provide an overview of the different systems and associated theoreticians:

<table>
<thead>
<tr>
<th>System</th>
<th>Definition</th>
<th>Classical authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine analogue</td>
<td>Simple and very deterministic.</td>
<td>(Parsons, 1951)</td>
</tr>
<tr>
<td>Cybernetic planning</td>
<td>Closed with strong planning and “loops that can be described and laws for its functions”</td>
<td>(Porter, 1990)</td>
</tr>
<tr>
<td>Rational strategic choice</td>
<td>The loops of activities and communications cannot be described exactly. Actions are analysed and consequences of actions are predicted with a fairly high degree of probability.</td>
<td>(Hamel &amp; Prahalad, 1994) (Tidd et al., 1997)</td>
</tr>
<tr>
<td>Open learning</td>
<td>Focus on knowledge creation and learning.</td>
<td>(Nonaka &amp; Takeuchi, 1995).</td>
</tr>
<tr>
<td>Complex autopoesis</td>
<td>Self-organising and typified by complex processes of interaction between the system, its agents (people) and environment.</td>
<td>(Maturana et al., 1980; Maturana &amp; Varela, 1987).</td>
</tr>
<tr>
<td>Interactive process</td>
<td>A system with extremely low determinism. High levels of unpredictability and creativity with traces of regularity.</td>
<td>(Weick, 1979, 1995)</td>
</tr>
<tr>
<td>Chaos</td>
<td>Exhibits certain recurring patterns in certain of its parts but there is no linear or deterministic development.</td>
<td></td>
</tr>
<tr>
<td>Anarchy</td>
<td>There are no rules. People act in a creative manner.</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.2: Summary of social systems
Complex adaptive systems theory “holds that living systems (i.e., organisations made up of living, independent agents, such as people) self-organise and continuously fit themselves, individually and collectively, to ever-changing conditions in their environment” (McElroy, 2003:27).

One perspective of innovation states that “innovative actions are a means by which the organisation learns to interact with its environment” (Carrero et al., 2000:492). The Organism metaphor illuminates this best: innovation is an organisation’s self-regulating capacity for learning and adapting (Carrero et al., 2000:489). It assumes that the environment leads to innovation and hence that the source of innovation is external to the system (Cheng & Van de Ven, 1996). The implication of this perspective is that the nature of innovation will differ according to its context and fits with the Complex autopoesis social system.

I had used my experience of managing the implementation of the Virtual Campus to construct two models of innovation. Figure 2.2 illustrates my perception of the innovation cycle as one in which the environment continually impacts and where processes are used to adapt/improve products and services on an ongoing basis. This concept is illustrated in Figure 2.2.
The model in Figure 2.3 adds another dimension and illustrates how the environment, processes, products and services are transformed into market adoption through knowledge, learning and management. I had constructed this model because innovation without market adoption is not innovation. Moreover, it is only through integration of knowledge, learning and management that market adoption occurs. The important distinction between the two models is the difference between reaction and creation. The model in Figure 2.3 implies a purpose (market adoption) and a focus (target market).

Figure 2.3: Dynamics of innovation (Lazenby, 2002:91)

2.2 Innovation as social system

Fuglsang and Sundbo (2005:335 – 342) regard innovation as a relationship between change agencies (actors/people) and social systems. They distinguish between
three modes of innovation. They use the AGIL value framework (Parsons, 1951) to analyse the three modes:

Adaptation
Goals
Integration
Latency

<table>
<thead>
<tr>
<th>Mode</th>
<th>Mode 1</th>
<th>Mode 2</th>
<th>Mode 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
<td>Entrepreneurial and value-based</td>
<td>Technology – based and functional</td>
<td>Strategic reflexive – change as a result of interaction processes</td>
</tr>
<tr>
<td>Social system</td>
<td>Anarchy and Process interactive</td>
<td>Rational strategic choice and Open Learning</td>
<td>Complex autopoiesis and Process interactive</td>
</tr>
<tr>
<td>Action</td>
<td>Entrepreneurship</td>
<td>Systematic development</td>
<td>Reflexive combination</td>
</tr>
<tr>
<td>Role</td>
<td>Charismatic – can get people following her/him</td>
<td>Professional credibility</td>
<td>Social intelligence</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Practical</td>
<td>Scientific and systematic</td>
<td>Interactive, transformative</td>
</tr>
<tr>
<td>Attitude</td>
<td>Entrepreneurial</td>
<td>Seriousness</td>
<td>Action-reflexive – initiates changes, but questions the change and the right way to do it</td>
</tr>
<tr>
<td>Latency (Value)</td>
<td>Deploy personal achievement</td>
<td>Institutionalisation of routines</td>
<td>Strategic reflexivity</td>
</tr>
<tr>
<td>Goal orientation</td>
<td>Create activity/organisation</td>
<td>Create goods and standardised services</td>
<td>Create services and experiences</td>
</tr>
<tr>
<td>Integrative mechanism</td>
<td>Person/charisma</td>
<td>Hierarchy, socialisation mechanisms</td>
<td>Strategy, roles</td>
</tr>
<tr>
<td>Adaptation mechanism</td>
<td>Trial and error</td>
<td>Trajectory, technological or professional</td>
<td>Reflected incremental differentiation</td>
</tr>
<tr>
<td>Creativity mechanism</td>
<td>Individual personality</td>
<td>Systematic technical routines</td>
<td>Interaction</td>
</tr>
</tbody>
</table>

Table 2.3: Modes of innovation adapted from Fuglsang and Sundbo, 2005
In **Mode 1** an entrepreneur drives innovation. The social value of an entrepreneur as change agent involves creativity, independence, risk taking, charisma and personality.

In **Mode 2** institutionalised routines such as organisational hierarchy drive innovation. Innovation results when a system wants to adapt to changes in the environment and depends on clearly identifiable trajectories of either technological or professional trajectories.

In **Mode 3** entire organisations drive innovation through strategy. Stakeholders within and around the organisation continuously deconstruct and rework this strategy in a reflexive way by interpreting client behaviour, testing new products and analysing general behaviour in the market. They explore new technology, management philosophies and tools and try to interpret the evolution of society and influence society at the same time. An interpretative strategy is followed in which practice is questioned on an ongoing basis. The change process does not follow a predetermined trajectory, but is reflective and reflexive in nature.

In the following section I reflect upon the Virtual Campus and compare my experience to the theoretical framework discussed above. I classify the Virtual Campus as a radical innovation because it changed the practice of Finance, Academic Administration, Academic Information Service, Telematic Learning and Education Innovation, Faculties and Technology Information Services and has made the University competitive in e-learning and e-services. To date approximately 30 000 students utilise its web-supported learning and service functions.

### 2.3 Virtual Campus case study

I would classify the implementation of the Virtual Campus as a combination of **Mode 1** and **Mode 3** innovation. There was no directive or prescription in terms of deliverables, time-scale or scope. Even the budget was left to my own devices. The wonderful thing about freedom is that it forces one to take responsibility and to create. Pinchot (1985:3) confirms that innovation requires flexibility and freedom to
act (no red tape and hierarchy). In a large bureaucracy freedom is inhibited by set rules and procedures and therefore the entrepreneur is not free to do as s/he wishes. The study of entrepreneurship within existing organisations has been coined as *intrapreneurship*. An *intrapreneur* is a person who is an entrepreneur within a large organisation (Pinchot & Pellman, 1999).

### 2.3.1 Project management

Project management (in its broad sense) was the main instrument to create the Virtual Campus. Although Fuglsang and Sundbo (2005) contend that an entrepreneur of innovation uses his/her personality as the strategy for innovation I believe that *intrapreneurship* requires personality, strategy and process interaction. This is particularly the case when an existing system is transformed as opposed to creating something from scratch that is self-contained and independent. The latter is easier because it is not constrained by a system with entrenched behaviour and beliefs. It follows that an *intrapreneurial* innovation system would exhibit more elements of Mode 3. Change management, knowledge creation, organisational learning and innovation management principles were intuitively woven into the implementation process (Lazenby, 2002).

The project team consisted of twenty-five middle managers from support departments and lecturers from faculties. My proposed project plan was accepted and implementation took approximately one year from conceptualisation to completion. It must be borne in mind that it was an iterative process. There was no initial feasibility study and because of the culture of an academic environment a flexible approach to project management was followed. Milestones could not be linked to penalties and were achieved through frequent project management meetings in which each team had to report about their progress. I learned that it is useful to set unreasonable, but achievable deadlines because it creates the necessary momentum required for such large-scale innovation. Inertia in any bureaucracy is huge. Bender *et al.* (2000:20) confirm the strategy of setting unreasonable deadlines.
The University has a hierarchical structure and bureaucratic culture; therefore visible support from top management was a critical success factor. A benefit of the University culture is that it is mostly collegial although not homogeneous. Ruben (2006:21) points out that the heterogeneous nature of higher education culture makes it more resistant to change initiatives. It consists of an array of cultures such as the academic culture, administrative culture and student culture.

2.3.2 Power and politics

Power and influence are inevitable in any organisation and can be described as the ability to bring about intended changes in the behaviour of others (Pfeffer, 2004:254). This is important from an emancipatory perspective: innovation cannot occur without politics. There was considerable covert conflict during the implementation of the Virtual Campus. At the time I was in a relatively junior position and had just joined the University. I therefore did not threaten the status of senior managers. I did, however, threaten their practice - the way they did things; and I engaged their resources (personnel) to co-create.

Pinchot (1985:3) describes the following characteristics of intrapreneurs:

- The intrapreneur is the general manager of a new business that does not yet exist.
- The intrapreneur has the ability to visualise the steps from creating the idea to actualisation.
- The intrapreneur can create order out of chaos.
- Intrapreneurs cross organisational boundaries and must cross the barriers that divide the organisation into functions.
- They have vision, imagination, courage and resilience.
- They are naturally action oriented and pragmatic.
- They are unwilling to accept no for an answer.
- They could be too task-oriented (putting objectives before people).
- They have well developed intuition, take initiative and are creative.
- They are often natural strategists.
Goffin and Mitchell (2005:27) note that innovation management requires a distinct mix of skills. It demands technical expertise, such as project management and technology, and soft skills in people management. They state that few managers are educated in both areas and that there is currently a lack of a clear methodology to assist managers develop innovation performance. It is hoped that this study will make a contribution to the field of innovation management.

Daum emphasises the role people play in innovation “investments in intangible assets, particularly those that enable enterprises to innovate, bring in returns that are significantly higher than costs of capital and than returns on fixed asset investments” (2001:4).

Oetinger (2005:30) contends that people with creative potential have the ability to identify and solve complex problems and are divergent thinkers – they are able to combine cognitive processes that were previously thought to be mutually exclusive. He cites the philosopher Jürgen Werner in pointing out that it is the human spirit that enables a person to contain and balance extremely different positions without “splitting apart”.

Duderstadt states that transformations “are frequently launched by a few remarkable people with unusual ability” (2000:267). He continues to explain that those who innovate new paradigms and who destabilise, are often very young or new in their field and disregard current disciplinary rules. This seems to suggest a possible difference between a “natural” ongoing process of adaptation and “intentional” desire to change.

The following section provides a different perspective on the notion of innovation. It provides a postmodern lens by creating diversity in meaning and deconstructing attempts in the previous section to propose an integrated, explanatory framework for innovation.
2.4 Debunking the myth

Hoebeke (2000:103 - 105) is sceptical about planning and about innovation in general, stating that planning is an artificial construct and that innovation is unnecessary. He bases his arguments on the premise that there is no distinction between thinking, planning and action and that innovation is simply a change in a work system that leads to new problems. Moreover that innovation arises from desire and not from need. Hoebeke also questions the relevance of planning in innovation projects:

“Planning normally means dividing a system of activities into definable subactivities and relating these subactivities to each other by means of a time axis. Now innovative activities, which in fact create their maps and paths during the exploration of an unknown territory, are missing the relevant criteria for division, and stages or key events are unpredictable in time” (2000:105).

This is an illuminating concept. What happened during the creation of the Virtual Campus was an example of interactive planning – project management that is flexible in the sense that although milestones and deliverables are indicated; creators are responsive to changes and adapt their plans and actions accordingly. Interactive planning consists of a design of the ideal future through involvement of stakeholders and the subsequent iterative creation of ways for resembling it as closely as possible (Ackoff, 1981).

The interesting fact is that I was not aware of Ackoff’s theory at the time of creating the Virtual Campus. This could indicate that “traditional” project management naturally evolved into and merged with organisational knowledge creation processes because of the unique environment. In other words, the interaction with the environment influenced and shaped the process that was followed, similar to Complex Autopoiesis and Process interaction social systems. The important distinction is that I never dictated how deliverables and milestones had to be achieved. We all agreed on what had to be achieved and the sub-project teams used their expertise to create the desired outcomes. Therefore there was shared purpose concerning the vision but no shared meaning on how to achieve the vision. This is an important concept that I return to later in this study.
The same argument could be raised about change management as an inherent aspect of organisational innovation – is it something that should be consciously managed or will the change occur through a natural interaction process?

2.5 Survival of the fittest

Weick (2002) takes a reflexive approach to change management that could be matched with Mode 3:

“In a way, any old prescription, any old change programme, any old mantra or guru or text will do, as long as that program (1) animates people and gets them moving and generating experiments that uncover opportunities; (2) provides a direction; (3) encourages updating through improved situational awareness and closer attention to what is actually happening; and, (4) facilitates respectful interaction in which trust, trustworthiness and self-respect (Campbell, 1990) develop equally and allow people to build a stable rendition of what they face.” (Weick, 2002:9).

Senge et al. (1999) echo the serious attitude inherent in Mode 2 innovation and recommend that the following elements are included in a change management plan:

- A broad statement of purpose that articulates the organisation’s ultimate goals and portrays what kind of organisation the change is intended to create.
- A description of core values that the organisation considers most important, such as quality, innovation and service.
- A statement of the core strategies, including a definition of businesses, markets, and offerings and a determination of particular bases for competition.
- A general explanation of the structures and processes used to coordinate management at the enterprise level (Governance).
- A broad framework for the architecture of the enterprise – the structures, processes, and systems that will enable people to perform the work required by the strategy and vision (Organisation).
- The patterns of behaviour required of people within the organisation over time, for example customer focused, responsive and empowering (Operating environment).
• The actions that will be taken to improve the effectiveness of the core operations, including process redesign, quality, cost reduction and service and product innovation (Operational performance).
• A plan for upgrading the organisation’s talent pool (Talent).

The authors caution against inadequate participation and poor implementation as the two most common reasons why organisations fail to redesign themselves successfully. Other reasons include complexity and capacity of people to absorb disruption – not only in terms of time available, but also personal traits such as resilience. Volume and momentum (speed) also have considerable impact. When the demands of change on people are too high they demonstrate dysfunctional behaviour, which leads to a loss in productivity.

Common symptoms associated with distressing change include confusion, anxiety, fear, defensiveness and withdrawal (Conner, 1998:29). People need to feel in control or at least need to have indirect control – for example knowing what is going to happen although they cannot influence what will happen.

According to Senge et al. (1999:5) the majority of change initiatives fail. They list the following challenges that occur when change develops:

• Time (we don’t have time for this stuff) – people involved in change initiatives need enough flexibility to devote time to reflection and practice.
• Personal mastery: Learning to cultivate the tension between vision and reality.
• Mental models: Developing awareness of the attitudes and perceptions that influence thought and interaction.
• Shared vision: Establishing a focus on a mutual purpose.
• Team learning: Through dialogue and skilful discussion, teams transform their collective thinking.
• Systems thinking: Understand interdependency and change.
Crego and Schiffrin (1995:56-85) argue that most people are never encouraged to change and that individuals, like nature, have an innate mechanism that resists change in order to maintain what is referred to as homeostasis – a relatively stable state of equilibrium. This idea echoes the social system of Cybernetic planning. Some individuals, on the other hand, naturally embrace change or continually strive to upset the equilibrium in order to grow. The authors (1995:59) mention that change in organisations threaten individuals on the following levels:

- loss of status
- loss of job
- loss of security
- loss of structure
- social disruption
- group transformation

Whereas the first three threats are self-explanatory, loss of structure refers to the chaos that ensues with change and innovation. It threatens the order and comfort zones of individuals. Social disruption refers to the fact that a social hierarchy exists in most organisations that is often linked to authority. A change can alter the social order and cause what the authors refer to as “disassociation” pain in those who are affected. Group transformation pertains to groups that are tightly knit and who have probably worked together for many years. These groups will resist change more than individuals or more loosely structured groups.

2.6 Culture

Crego and Schiffrin (1995:69) warn against a silo-based culture because it works actively against change “In the real world, in many organisations, each silo contains missiles pointed not at the enemy – the competitors – but at the other silos within the company”. The first corporate maxim is “Be true to your silo”. The second is “Protect your silo at all costs”. Another great barrier to change is bureaucracy - entrenched policies, procedures and unofficial rules that often no longer serve the institution and are not necessarily focussed on the needs of customers, but have been shaped
around the needs of individuals or departments. Owing to the complex nature of large organisations, such as universities, Duderstadt (2000:273) points out that universities become encrusted with policies, procedures, committees, and organisational layers that discourage risk taking and creativity. This could become a serious impediment to successful change.

In this light, Conner (1998:207) adds the following:

“Organisational renewal demands a re-examination and, if necessary, a significant modification to the basic assumptions, beliefs and behaviours serving as the cultural infrastructure for the enterprise. Without this type of cultural context to reinforce the innovations emerging from a learning environment, important changes tend to be initiated but not sustained”.

2.7 Awareness

Conner draws on organisational learning as a solution for successful change. The author terms it nimbleness, i.e.: “the ability for an organisation to consistently succeed in unpredictable, contested environments by implementing important changes more efficiently and effectively than its competitors” (1998:39). I believe these abilities apply equally to any individual – in fact Hoebeke (2000) argues that there is no such thing as organisational learning, because an organisation cannot learn. Only people learn. The continuum that Conner provides is significant for this study because it highlights the importance of embracing opposites and the need for variation, depending on the situation. This ability requires awareness.

- Trust logic…Rely on intuition.
- Zero defects…Learn from mistakes.
- Near-term results…Long-term vision.
- Tactful feedback…Frank dialogue.
- Patience…Urgency.
- Pride in accomplishments…Humility for what is left undone.
- Forgiveness for being human…Insistence on accomplishing important tasks, no matter what.
- Leading the whole…Managing the segments.
Attract unorthodox thinking…Eject destructive conflict.

According to Von Krogh (1998:133-136) the company's overall performance depends on the extent to which managers can mobilise all of the knowledge resources held by individuals and teams and turn these resources into value-creating activities.

2.8 Value innovation

Aiman-Smith et al. (2005:37) refer to value innovation as innovation that occurs across the value chain of marketing, market research, sales, advertising, distribution and service in an attempt to find new and improved ways to serve customers. The importance of value innovation is that it frames problems from a customer perspective.

The Virtual Campus was a forerunner of this concept by offering a seamless interface to learning, transactions and information. It is Internet-based and functions as a “self-service channel”. With the implementation of the CSC additional channels were introduced, namely voice, written and walk-in. Processes were re-designed and integrated across all four channels (web, voice, written and personal consultation). Berry and Lampo (2000:266) define service redesign as “the reconstitution, rearrangement, or substitution of processes that make up a service”.

2.9 Summary

This chapter provided a broad overview of innovation as a social system. It emphasised the role of project management and change management as strategies in innovation management and highlighted the impact of culture and politics on the innovation implementation process. I drew upon my experience of managing the implementation of the Virtual Campus to enrich the theoretical discussion. I alerted the reader to the fact that innovation has a low degree of determinism but that there are different views on whether it is a spontaneous process or whether it is driven as a conscious strategy. Fuglsang and Sundbo shed some light on this aspect by proposing three modes of innovation.
Chapter 3

3. The Client Service Centre in context

“Today, no one needs to be convinced of the importance of innovation...How to innovate is the key question” Peter Drucker

This chapter aims to provide the background and context of the object of this study, namely the Client Service Centre (CSC) as an example of value innovation. In the study there is continuity of subject and object (Clarke, 2005).

Chapter three is a dialogue with many authors whilst I reflect on my own innovation experience. It also focuses on the relationship between innovation and service quality as the defining frame of this study.

3.1 Client Service Centre as concept

The Client Service Centre (CSC) is a new department at the University of Pretoria. It is a contact centre for students (as its primary clients), parents, the public, staff of the University, alumni and prospective students. Services include application for study, student accounts, payments, study finance (bursaries and loans), course consultation, career placement, accommodation, parking and access cards. Its function is to recruit undergraduate students for the University and to render general student services in an integrated manner. It is the main point of contact and interaction between the University and its clients through multiple channels, namely voice (call centre), walk-in (personal consultation) and written (fax and email).

The CSC was created because of a new paradigm that students are the primary clients of the University and that they should not only have access to quality courses (products) but also to quality services. In the past students and other clients were often sent from pillar to post because student services were fragmented across various support departments and that led to poor customer service. Ruben frames it perfectly: “The various departments of an institution may all be working well in their
own silos, yet a student’s experiences can be fragmented, confusing, and disorienting because all the different services aren’t well integrated and attuned to the needs and expectations of users” (2006:19).

Customer service enhances brand image (brand equity) and creates customer affinity (customer equity) (Blattberg et al. 2001:7). Translated this means that good service enhances the image of the University and improves relationships with students and other clients. A study by the Financial Times (2000) rates customer service above global reach, marketing and organisational structure as a key variable that influences commercial success (cited in Ramirez, 2004:102). In a public funded institution it does not affect the “bottom line” directly, however the same principles apply. Ruben makes this clear by stating: “If we’re more service-oriented, our constituents think more highly of us, and the institution will enjoy a better reputation …And to the extent that our reputation improves, we can expect an increase in enrolment and eventually resources from proud and grateful alumni” (2006:21).

The idea behind the CSC was to create a seamless experience for students by establishing a semblance of a “one-stop service”. The requirement for a one-stop service was recommended in a PriceWaterhouseCoopers (PWC) report and was an idea that had evidently been raised by various individuals in the University many years before its materialisation.

“The key to the new proposal is the realignment of the organisation and support processes to deliver the needs of the customers of the University of Pretoria in a more effective, efficient and customer centric manner. This needs to be accomplished by a student service process that is streamlined, technology enabled and empowers the administrative staff to make decisions at source and take accountability for the process. This would necessarily require a change in culture as the focus of the organisation would need to shift from the current functional paradigm to a process focus that is aligned with the full life cycle of activities of the principle customer, being the student” (PWC, 1999:10).

I would like to point out the importance of decision-making. With both the Virtual Campus and the CSC a high level decision was made that put things in motion.

The key challenge was to integrate traditionally silo-based functions into a customer-facing value chain. Kanter (1988) notes that the crossing of organisational boundaries in which different units or departments are required to cooperate is a defining characteristic of innovation.
The next section explains the sense of the name of the CSC.

### 3.2 What's in a name?

The name “Client Service Centre” was chosen in consultation with the project team. The project team acted as domain experts and as stakeholders during the creation of the new department. The choice of *client* as opposed to *customer* was deliberate because a client “uses the services of a professional” (Sykes, 1989:173) and a customer is “one who buys regularly from a seller”. The term *client* was therefore deemed more appropriate in a university context than *customer*. *Service* is used in broad terms to refer to accessibility of information and resources, ease of conducting transactions, responsiveness with regard to enquiries, respect and caring.

Du Plessis (2005) notes the uneasiness when business terms are applied in the educational context. I encountered similar resistance from different layers of the organisation. The current Vice-Chancellor still wants to change the name to “Student Service Centre” but I have resisted for two reasons: (i) the name signifies a new paradigm and to change it carries the risk of undermining the very identity of that which makes it innovative; (ii) as main contact point for the majority of clients, the CSC is the face of the University and therefore interacts with many stakeholders apart from students.

I managed to persuade the decision makers at the time by using the following arguments:

“Innovation requires new metaphors to transform the prevalent negative image of ‘admin’. (We used the hotel industry, postmodernism and business as different metaphors to break the mould. The result is a vibrant and fun environment that aims to exhibit the same level of professionalism towards customers found in the business environment).”

“Universities are increasingly run as businesses in order to remain viable and sustainable. Student services form an integral component of value creation for the student as its main client and stakeholder.”
Gioia and Chittipeddi view “sensegiving” as an important leader behaviour during strategic change. They define it as “the process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organisational reality” (1991: 442). Other studies have shown how middle managers gain top management attention and influence organisational action through “issue selling” (Dutton & Ashford, 1993; Dutton, Ashford, Wierba, O’Neill, & Hayes, 1997). Similarly, Westley (1990) showed how middle managers could shape strategy through “strategic conversations” with their bosses, thereby influencing the way in which an issue was understood and “enacted.”

The importance of conversation in the construction of meaning, decision making, knowledge creation, customer relationships and innovation is a thread that runs throughout this study.

The following section describes the different components that were involved in creating the CSC. It provides clues on a history that continues to impact and it helps the reader to better conceptualise the CSC. It provides a partial answer to the question of “how” to create value innovation although it must be borne in mind that the nature of what was put in place was determined by a specific need and implemented within a specific cultural context. Hence the following innovation implementation processes are not necessarily transferable to any context and the reader can at best extract generic ideas that could be adapted to other cases.

3.3 Implementation processes

There is general agreement that innovation provides competitive advantage, but because of its high failure rate the question of how to innovate is the most relevant (Drucker). Hoebeke points out “Statistically, only 15% of innovative projects which are formally started come to fruition” (2000:52). He adds that institutional innovations [own emphasis] are the most difficult because of the innate and “healthy” immune response to change. Such large - scale change threaten stakeholders (2000:103).
An attempt to integrate functions across the lifecycle of the student is dependent on making existing processes visible and then to re-design them so that the student has a seamless experience.

Change management is one of the building blocks of organisational innovation. The reason is that organisational innovation affects a large number of individuals. Adapting processes at such a large scale implies that process owners need to be involved and that it cannot succeed unless there is sufficient shared purpose among those that have to implement and sustain the change.

Crego and Schiffrin (1995:78-85) point out that a shift has taken place from business process reengineering to customer process reengineering. The reason is that the latter focuses on organisational and cultural change as well as on business redesign. This is necessary for sustainable change because it addresses the human factor. A process orientation therefore requires that silos be broken down in the interest of the customer.

### 3.3.1 Process re-design

Conner (1998:100) states that change management deals with the human aspects of implementing major corporate initiatives such as business process reengineering and the introduction of new technology – especially on an enterprise scale. This definition shows the interface with innovation. Business process reengineering (BPR) and the introduction of new technology are closely related to technology innovation.

Stoddard *et al.* 1996 (cited in Woodside, 2000:14) describe business process reengineering (BPR) as a “cross-functional, business-process focused initiative including simultaneous change in organisation design, culture and information technology to enable radical performance improvements”. They note that there has been a lot of criticism against BPR in literature, mainly because of its high failure rate – estimated at approximately 60% - and concerns that its claims for improvements are exaggerated.
Bender *et al.* (2000:17) make the statement “Without effective process innovation, an organisation will stagnate and rapidly lose its competitive edge. Process innovation is one of the fundamental building blocks that enable a learning, changing organisation”. Flint *et al.* (2005:120) argue that most organisations fail to rise to the challenge of “identifying, defining, mapping, developing, and managing effective processes”.

The Business Process Analysis (BPA) and systems analysis were outsourced because of the magnitude of the CSC project. A Request for Proposal for the analysis and design phases of the project was sent out on closed tender and a major IT and business solutions company was subsequently contracted for this purpose. The first phase lasted a period of four months. Deliverables included a holistic BPA and systems analysis of all processes that touch a student, regardless of the process owner (specific support department or faculty). This phase was followed by a Functional Specification deliverable to map the “to be” processes.

The company used a methodology called AIM (Absolute Information Methodology) that provides strategic and operational views of all the processes in the student lifecycle. Throughout the year of implementation a task team consisting of all the relevant support departments participated in the analysis, design and development phases. A significant advantage of the outsourcing of these phases was that it created neutral territory. Also, for the first time all student administration processes and systems related to student services were made visible. Staff learned about processes that fall outside their departments but that are contingent to their own processes – in other words knowledge sharing took place and a systems perspective developed.

Bender *et al.* (2000:19-20) list the following critical success factors for process innovation (in order of importance):

- Team stability
- Vision stability
- Deadlines
- Information processing
The CSC project team remained stable during the implementation year and there was shared purpose about the vision. The deadlines were contracted with the particular company responsible for the BPA, systems analysis and design phases. Information processing was facilitated by the AIM methodology that was used and there was adequate vision support from top management.

Goffin and Mitchell (2005:79) point out that not all employees in a service organisation have contact with consumers. As a result certain organisations base their structure on a distinction between “front office” (customer sees all) and “back office” (customer sees none or some). They argue that front office staff is vital to directly affect how customers perceive the service and that back office staff is usually responsible for innovation.

This point raises the first question about the CSC model that was implemented. The model is based on the distinction between back office and front office, but its positioning is unique compared to the majority of contact centres. As a matrix it spans across all the support departments. Its holistic view of processes facilitates ongoing service improvement. It is therefore the only support department with a holistic (systems) view of client processes and that makes it the department that is best positioned to innovate.

### 3.3.2 Service Level Agreements

The CSC functions in a matrix. The divisions report to the CSC director, but execute the functional processes of the policy owners. Hence the “front office” and “back
office” distinction was used to pool all the front office/customer facing processes in the CSC. The other support departments remain the owners of policies and systems.

Service Level Agreements (SLA’s) were negotiated as a paper exercise prior to launching the CSC. These were drafted with every faculty and support department and serve the purpose of making responsibilities in the value chain visible. The SLA’s have since been refined based on operational experience. Looking back, they were particularly useful to manage service quality in the early stages of the CSC. Feedback from staff is that relationships with staff from support departments and faculties have become the critical success factor to ensure service quality (Annexure E).

The following figure illustrates the information flow between the CSC, the rest of the University structures and clients. The CSC acts like a funnel or buffer between clients and the University. Due to this positioning feedback loops are very important. Feedback loops play an important role in knowledge life cycles, complex adaptive systems and innovation to inform decision-making, determine action and create new knowledge (McElroy, 2003).

Figure 3.1 : CSC Information flow

The Service Charter of the CSC (Annexure B) indicates the service levels for each channel and communicates the values we support.
The CSC operates on a service level strategy of 80% resolution at first contact. General enquiry agents field the bulk of enquiries and therefore agents have to be multiskilled across application for study, entrance requirements, study finance, student accounts, payments and residence matters. The specialised consultants deal with more complex enquiries and should, in theory, absorb approximately 15% of enquiries. Problem situations that lie outside our authority or policies are escalated to support departments and faculties. This strategy is illustrated in Figure 3.2.

![Figure 3.2: Service strategy of the CSC](image)

### 3.3.3 Technology solutions

During the final phase spanning four months another Request for Proposal was put on closed tender to identify the appropriate contact centre technology. The University was inexperienced with regard to CRM at the time so we decided not to buy an expensive, “off the shelf” CRM solution, but to develop a customised system.
The customised CRM solution became known as the Interaction System and was developed in Java. Staff members have to capture important interactions and find it a tedious process because it is not fully integrated with the legacy student administration system. Logging interactions is compulsory because it is a measurement of interaction volumes across all channels and aims to inform client interaction. An “off the shelf” multimedia call centre software package (Apropos) was implemented to channel voice, email and fax enquiries. It is partially integrated with the legacy system so that the student profile appears on the computer screen of the agent if the caller (student) types in his/her student number. Call centre conversations are recorded for quality assurance purposes. After four years, staff feels that the technology solutions have become inadequate (Annexure E).

The involvement of all support departments in the analyses phases revealed the lack of a single master database that contains Frequently Asked Questions and answers (FAQ’s). All the departments were subsequently requested to submit spreadsheets with their existing FAQ’s. This meant that they had to solicit the information from their colleagues in cases where there was no record. Multiple sessions were held to consolidate the data and to clarify the correct answers. It became clear that staff in different departments had different answers and even staff in the same departments had different answers. One can imagine the confusion of students and parents when they get different answers from staff at the same University! To date the FAQ remains under - utilised because the search function is too basic and frontline staff members feel that the answers are too laborious. It is also challenging to keep track of dynamic information and we have not been successful in persuading the various owners of the information to update the FAQ on a regular basis. Although it is not a main focus of this study it is a practical aspect that could augment service levels significantly if resolved.

3.3.4 Workspace

By the time that I was asked to champion the project the architect had already started building. The building was designed based on aesthetics and with little regard for its practical function. A decision had been made that the walk-in facility be split into two areas separated by a walkway so that the particular architectural axis remains intact.
I requested the particular business solutions company to conduct a theoretical analysis of the envisaged traffic flow of clients between different service points. It predicted severe congestion and frustration by clients for they would have to enter one building for certain services and another for other services. This would undermine the very concept of a one-stop service. People who had been involved in the project prior to my involvement believed that they had made the correct decisions and resisted my attempts to change their decisions. I had to spend considerable energy to persuade different stakeholders to make the building more practical. The resistance stemmed partly from cost implications. The new incoming Vice-Chancellor eventually requested additional funding from the University council to bring about the changes.

To date the lack of physical workspace remains problematic (Annexure E).

3.3.5 People

A complex human resources stream ran parallel to the process, technology and building streams. No additional posts were given to “man” the CSC and therefore I had to devise a plan to migrate staff from other departments to the new department. The cue from the Vice-Chancellor at the time was that we had to work smarter with existing staff. A decision was made in consultation with unions that no staff would be retrenched. Retrenchment often occurs with large-scale BPR projects, but it was
never a consideration because the University of Pretoria has a ratio of approximately 30% support staff to 70% academics, which is lower in terms of support staff compared to other Universities. Managing the HR stream proved to be the most difficult experience owing to the high level of politics involved and the level of resistance to change. The implementation of the CSC was more official, more visible and had a bigger impact on particularly Marketing, Finance and Academic Administration compared to the Virtual Campus. The CSC threatened certain individuals on the following levels indicated by Crego and Schiffrin (1995:59):

- loss of status
- loss of structure
- social disruption
- group transformation

Although it is not the focus of this study the diverse reactions to the threat were enlightening. Some undermined my attempts and others supported the new initiative. Some adopted an approach of “let’s go with the flow”. Personality and people’s ability to cope with change are determining factors in how easily they adapt. Some staff members were excited about the change and regarded it as a new opportunity although they had no idea how it would materialise.

With the help of the business solutions company and University staff new business processes were translated into job descriptions. They were then compared with those of existing staff in various support departments. Those with a 50% and bigger match were moved to the CSC through a consultation process. It took three years to implement a management structure and to address anomalies in post levels that had resulted from the migration process. Staff had moved with their existing post levels and as a result there were team members doing the same work but on different post levels. This fact had a negative impact on staff morale - a risk for a client-facing department in its infancy.
3.3.6 Management model

The initial idea was that staff would continue to report to their line managers in different support departments. I made a strong case for a new department and new line management and was naturally accused of empire building. My rationale was based on change management principles – the chances for failure of such a huge project were high. I could not imagine that it could succeed with staff reporting to different support departments because it would perpetuate fragmentation and undermine the effort put into creating seamless, integrated and customer-facing processes. It would create an almost impossible task for the manager of the CSC to establish a new culture without line function. Staff had to learn new processes, master new technology and adopt a customer-focused paradigm. Team cohesion had to be created to cope with the huge amount of change. Top management approved the proposal on the new management model. I regard this decision as key to the viability of the CSC due to the reasons mentioned above.

In the first three years of the existence of the CSC, three additional divisions were incorporated to strengthen the value chain, namely student recruitment, career placement of students, and international students. In business terms these would translate into sales, value-added service and global service. The integration has led to improved retention of top students (application to registration) (Isaacs, 2005).

Figure 3.3 shows the integrated value chain of the CSC.

![Figure 3.3: Integrated value chain of the CSC](image)

If I reflect on my experience and compare it to the three modes of innovation I would classify the CSC as a combination of all three modes of innovation because as a
social system it contained elements of process interactive, rational strategic choice and complex autopoesis.

The next section explores the concept of a student-as-client.

3.4 Student-as-client

The field of “Customer Relationship Management” cannot be mapped onto an educational context without configuration. Students, their parents or bursars pay the University for a learning experience and hopefully a qualification is earned that carries value in the market. However, paying for studies is not a guarantee of obtaining a degree. Students have to create their own value. They are immersed in an environment that is conducive to learning, but the responsibility remains theirs to complete a degree. Unlike a client that pays for legal advice or a life insurance policy, students receive nothing tangible in exchange for their money. They pay for an experience that they have to bring to fruition themselves. In this light they pay for an environment that assists them to achieve a goal, rather than paying for a degree. Yet because the experience is intangible, students are not convinced of the value proposition. The University has to ensure that they have a positive experience and thereby provide better value than its competitors.

I make the assumption that students often tolerate poor service in the interest of obtaining their degrees. It pertains to the economic concept of opportunity cost – the student loses more money and time by cancelling her studies and transferring to another University than by enduring inconvenience and sometimes rudeness. However, there is a higher risk at stake, namely a relationship. If a student simply endures in order to complete a degree it is almost a given that she will not enrol for postgraduate studies and that she will think twice before recommending the University to a colleague, friend or family member. It is a well-known adage that people tell 25 people about bad experiences and a maximum of five people about good experiences. Therefore companies (and Universities) have to work harder to create positive experiences because their reputation is at stake.
Gartner (2001:7) define Customer Relationship Management (CRM) as “a business strategy whose outcomes optimise profitability, revenue and customer satisfaction by organising around customer segments, fostering customer-satisfying behaviours and implementing customer-centric processes”. In the private sector customer satisfaction is related to market share, revenues and competitiveness (Nelson et al., 2005:159).

Customer care is as old as the greengrocer who knew all his customers and knew exactly what they wanted and when they wanted it. The difficulty in today’s society is that there are often too many customers to know so intimately and it has become quite a challenge to track their consumer patterns. An important insight that I gained in the EMBA is that customer satisfaction does not necessarily translate into customer loyalty – people are far too complex! (Burgess, 2004). Nowadays customers can choose between many suppliers, providers, services and products. Long-term loyalty stems from a good relationship over time. There are therefore seldom, if ever, quick fixes to get loyal customers. In the following section I apply Bowey’s metaphors of customer relations (2001) to the concept of student-as-client.

### 3.4.1 Metaphors of customer relations

Bowey (2001) concludes that customer relationships can be explained through a narrative approach and that narrative can be used to influence and improve customer relationships – particularly in instances of asymmetrical power relationships. The reason is that stories reflect a number of different perspectives and therefore facilitate a richer understanding. He points out that relationship asymmetry is detrimental to customer relationships. An example is customers who are not knowledgeable about financial services and as a result have less power than the consultants that advise them. The customer is unable to ascertain the value of the purchase or service and is thereby disempowered.

Bowey (2001:32) draws a parallel between the abovementioned metaphors and the four perspectives that Mitroff (1998) proposes to view any problem. Mitroff (1998:58) recommends four perspectives from which any problem should be approached to
prevent correctly solving the wrong problem perfectly. These perspectives are listed below:

**Scientific or Technical:** Why things are the way they are?
**Interpersonal or Social:** How do we relate to each other?
**Existential:** Why am I here? What is my purpose?
**Systemic:** Do our actions and ideas in the small context hold up in the large?

<table>
<thead>
<tr>
<th>Scientific/Technical</th>
<th>Interpersonal/Social</th>
<th>Existential</th>
<th>Systemic</th>
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<tbody>
<tr>
<td>Transaction</td>
<td>Design</td>
<td>Network</td>
<td>Conversation</td>
</tr>
<tr>
<td>Short-term focus.</td>
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<td></td>
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</tr>
</tbody>
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Table 3.1: Mitroff and the metaphors of customer relationships (adapted from Bowey, 2002:32)

Bowey contends that it is not possible to “manage” customer relationships because the customer is independent and cannot be controlled. This makes particular sense in the educational environment in which students co-create value. They are the products that the University deliver to the market and that largely dictate its reputation and thereby creates value for the University. Students create value for themselves by broadening their skill set and knowledge and hopefully obtaining a degree that improves their career options. They “buy” the experience of co-creation.

The strategy in creating the CSC revolved around CRM. It has proven problematic to create ownership of client service on an institutional scale. Oetinger notes “finding something new is not the problem; getting rid of the old presents the real challenge” (2005:29).

It is an established notion that CRM cannot be driven in isolation and that it requires a fundamental shift in the way the customer is perceived.
3.4.1.1 Transaction metaphor

The transaction metaphor is useful because it emphasises that the customer is the source of value (Bowey, 2002:41). This concept applies partially to a University context. Without students there would be no University. Contrary to the private sector there is little consideration of the value of the exchange – particularly in terms of short–term profit or gain. This is due to the ethos and nature of Universities: students are there to learn and they certainly do not get a degree in exchange for payment. They earn a degree upon successful completion of certain requirements.

In its extreme form, the transaction metaphor reflects complete asymmetry in the power relationship between a University employee and a student. Professors wield considerable power over students and it is not uncommon to find administration staff members who exhibit the same behaviour.

For the most part Universities are better known for product (course) excellence and not for service excellence. In general University staff does not perceive students as clients and therefore there is no felt responsibility to “sell” the University or any aspect of it to a student.

Government restructured higher education in 2003 and 2004 to cut costs and to redress past inequality that was caused by the Bantu Education Act of 1953 (South Africa, 1997). This Act and the subsequent Extension of the University Act of 1959 divided education along racial/ethnic lines and excluded black students from quality academic and technical training. The 1996 Constitution of the Republic of South Africa finally addressed these disparities. The National Commission on Higher Education (NCHE) set the pace for large - scale transformation in higher education. Some of the major recommendations of the NCHE have already been implemented, namely the recognition of institutional forums and Student Representative Councils and the development of a subsidy formula that would direct funding in ways that support government’s goals.

These legislative changes have given students more power in the governance structures of the University.
3.4.1.2 Design metaphor

The establishment of the CSC signalled the commitment of the University to change the traditional paradigm about students. It has given a strong signal that students are valued.

In a sense a residential University is designed around the needs of a student. The infrastructure, resources, and products are designed in the interest of creating an environment that is conducive to educating a person. This includes learning, research, social life, sport, culture, and leadership. Only services are often not designed around a student.

Characteristics of a customer driven organisation are as follows (Prinsloo, 2002):

- They spend time meeting customers and listening to their problems.
- They benchmark competitor's products and seek 'best of class' solutions.
- They continuously improve and refine service offerings according to market feedback.
- They meet customer requirements for customisation where it can be done profitably.
- They study customer needs and wants in well-defined market segments.
- They measure company image and customer satisfaction continuously.
- They influence all employees in the organisation to be customer-centred.

The above characteristics resonate with Mode 3 innovation and have a high degree of strategic reflexivity.

Although the CSC is positioned to address the larger part of the service value chain, the concept that every employee is responsible for achieving customer satisfaction is implicit. I believe the mere presence of the CSC, combined with regular awareness training (seminars on CRM) contribute to a culture that values service to students.
During 2002 more than 600 staff members were trained to understand how they have to apply CRM in an academic environment. These training sessions were repeated in 2005, because an organisational strategy of this magnitude requires reinforcement in the hope of it becoming embedded in people’s mindsets and their behaviour.

3.4.1.3 Network metaphor

Relationship marketing can be defined as “The process of meeting customers’ needs on a continuous and repeating basis by developing a long-term, one-to-one relationship with individual customers” (Doyle, 2005:220). This type of marketing is more prevalent in service businesses and it is based on one-to-one contact and developing trust.

Christopher et al. (2002:4) state that relationship marketing includes the following elements:

- Emphasises a relationship, rather than a transactional, approach to marketing
- Understands the economics of customer retention and thus ensures the right amount of money and other resources are appropriately allocated between the two tasks of retaining and attracting customers
- Highlights the critical role of internal marketing in achieving external marketing success

The CSC captures interactions with clients in order to render a better service – to be more pro-active, to avoid duplication and to help the client at first contact (where possible). This includes a comprehensive database of potential clients (prospective students) with whom we interact to establish a relationship. This system is being deployed on an enterprise scale to facilitate a holistic and integrated way of interacting with clients. Surveys, interviews and feedback channels facilitate dialogue and provide clients with the opportunity to complain, make suggestions for improvement, to compliment us on quality service and to tell us what they need.

Another characteristic of the CSC that resonates with the network metaphor is that it is positioned in a matrix that absorbs all general information and services. The CSC
fulfils the role of coordinating and integrating the service experience of the student and acting as the hub of information. This greatly assists a seamless experience by the client.

3.4.1.4 Conversation metaphor

The different levels of *conversation* that take place between clients and the University are complex and multi-layered. Students, parents, the public, alumni and the media converse daily with different stakeholders of the University.

As institutions of learning the very nature of a university promotes inquiry through “enacted narratives” (Czarniawska, 1997:13). Particularly the teaching and research domains (core business of the University) facilitate conversations.

The CSC interacts with approximately 100 000 clients (20 000 prospective students, 50 000 current students and a very conservative estimate of 30 000 parents, the general public and alumni). This number seems small in comparison to companies that interact with millions of customers, but it should be borne in mind that there are only 78 employees in the CSC and that the processes, products and services are reasonably complex in terms of variety, exceptions and the dynamic nature of information. The frequency of interactions varies according to cycles in the academic year and the particular profile of the client – for example postgraduate students mostly interact with faculties and not so much with CSC staff.

The call centre agents and other general enquiries staff (written and walk-in) cannot use scripts or templates, because the questions and answers are seldom contained in simple and discrete granules. Clients usually enquire about a range of very different study-related aspects. For example, in the same enquiry the call centre agent will be requested to make an online credit card payment on behalf of the client (usually a parent who has children enrolled at the University); ask that the agent calculates her Grade 12 child’s M-Score (based on Grade 11 results and used as a measure to determine entrance suitability); advise whether the M-Score is high enough to provide entrance into a specific degree programme; and enquire about related study finance possibilities.
The CSC is an example of organisational innovation that resulted from a customer perspective. The following section analyses the concept of service quality applied to an educational context. Therefore the concept of client has been discussed and I now proceed to focus on what is meant by service.

3.5 Service quality

The competitive advantage of the CSC is that it provides a holistic view of processes that were previously fragmented between different departments. As a result we immediately pick up processes that are not client friendly. It has also eliminated wastage in the University by functioning as a filter for the majority of enquiries and transactions and it has improved service quality at the University. Ljungberg and Larsson (2001) state that organisations that fail to adopt a process orientation have difficulty in:

- thinking holistically
- keeping a customer focus
- involving employees in the learning process
- taking care of employee skills and motivation
- implementing strategy
- remaining flexible
- being efficient, and
- living up to increasing demands on their time and product/service quality

Goffin and Mitchell (2005:81) list five main characteristics of services that influence how they are managed:

*Intangibility* – therefore the perception of the quality of the service is more subjective than that of a tangible product such as a car.

*Customer contact* – divided into sub categories:
Interpersonal service, remote service and self-service
Three dimensions of customer contact – time, intimacy and information exchanged
**Inhomogenity** – the interaction is often variable because it is dependent on the employees responsible for service delivery and the consumer. Consequently there can be differences in the service levels between different employees. Companies that are customer focussed give their front office staff flexibility in that they can sometimes use their own discretion when customers have unusual requests.

*Services are perishable* in the sense that they cannot be stored. Therefore they must be accessible.

An excerpt from the mission statement of the University (that was constructed after the inception of the CSC) reads that the University “is committed to effective, efficient, caring and innovative approaches to teaching, research and community service; client-centred management and administration; and good governance”.

*Quality* is one of the main strategic drivers of the University and is aspired to in all aspects of the University – including *service quality*.

Grönroos (2000:109) provides the following lessons of service quality:

- Quality is what customers perceive to be quality
- Quality cannot be separated from the service process
- Quality is produced in a series of interactions between the customer and the contact persons of a company
- Everyone contributes to customer perceived quality
- Quality has to be monitored throughout the organisation by the whole organisation
- External marketing has to be integrated into quality management

*Service quality* is multifaceted – this means that quality depends on the perception of the customer.

The ethos of the CSC is that every interaction, regardless of the channel of choice of the client, must be friendly, courteous and professional. The paradigm considers the
student - as - client and therefore dictates that every interaction builds or erodes the experience that the client has of the University.

This is why it is imperative that clients experience the abovementioned qualities not only through their interaction with the CSC, but also in lecture halls and in their interactions with faculty administration.

Service quality is defined as “the match between what customers expect and what they experience (or perceived performance). Any mismatch between these two is a ‘quality gap’ (Christopher et al., 2002:175).

The service gaps are as follows:

- Gap 1 is not knowing what customers expect.
- Gap 2 is not selecting the right service design and standards.
- Gap 3 is not delivering up-to-service standards.

Figure 3.4: Conceptual model of service quality – the gap analysis model (Zeithaml et al. 1988:36).
- Gap 4 is not matching performance to promises.
- Gap 5 is the gap between customer expectations and customer perceived performance. This gap means that the perceived or experienced service is not consistent with the expected service.

(Christopher et al., 2002:177-178; Grönroos, 2000:102-105)

Parasuraman, Zeithaml and Berry (1988) made a contribution to studying Service Quality by framing the notion of Perceived Service Quality (PSQ) and designing an instrument to measure service quality known as SERVQUAL. They summarise the determinants of service quality as follows:

- **Tangibles** (appeal of facilities, appearance of personnel, equipment and material sued)
- **Reliability** (accurate service at first contact, delivers what was promised and agreed upon)
- **Responsiveness** (employees are willing to help customers promptly and keep them informed)
- **Assurance** (employees are courteous, knowledgeable, competent and the company is perceived to be credible)
- **Empathy** (convenient operating hours, personal attention and acts in the interest of customers)


These determinants were incorporated in a customer satisfaction survey that is administered every two years. The results of the survey provide clues about our performance and could also be used to assess if (and which) service gaps exist.

### 3.6 Customer satisfaction

Jones and Sasser (1995:97-98) argue that customer satisfaction is created by the following factors:
- **Product-related factors**
  
  Product quality, Availability, Service levels

- **Purchase-related factors**
  
  Importance of purchase, Timing, Inertia

- **Interaction-related factors**
  
  Responsiveness to client needs, Attitude, Promptness, Courtesy

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**Customer Satisfaction Model**

![Customer Satisfaction Model Diagram](attachment:diagram.png)

Service failure at the top level, i.e. the emotional level, results in the loss of the customer. In the case of the University, students who experience lack of caring, rudeness and neglect are likely to cancel their studies; unless the opportunity cost is
too high. The highest risk for the CSC is that clients experience frustration and confusion. The reason for this will be discussed in Chapter five.

3.7 Experience innovation

Prahalad and Ramaswamy (2004:48) note that a shift has taken place from the exchange of value to the quality of the interaction. The latter is characterised by a series of co-creation of experiences between the customer and individuals in the company. They frame the term “Experience innovation” to describe the type of environment that companies should establish for co-creation opportunities. “An experience environment facilitates a total experience for consumers. It includes products and services as well as the various interfaces for individual interactions with the company, including multiple channels, modalities, employees, and communities” (2004:54).

The authors recommend that the experience environment must:

- offer opportunities for consumers to co-construct their own experiences on-demand, in a specific context of space and time;
- accommodate a heterogeneous group of consumers, from the very sophisticated and active to the very unsophisticated and passive;
- recognise that every consumer (including the active, smart consumer) does not always want to co-create; sometimes they just want to consume passively;
- facilitate new opportunities afforded by the evolution of emerging technologies;
- accommodate the involvement of consumer communities;
- engage the consumer emotionally and intellectually; and
- explicitly recognise both the social and the technical aspects of co-creation experiences.

Prahalad and Ramaswamy (2004:54-55)

In a sense the University environment facilitates experience innovation, as explained by using the different metaphors to view the relationship between a University and a student.
The following table illustrates the difference between traditional innovation and experience innovation:

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<thead>
<tr>
<th>Migrating to experience innovation</th>
<th>Traditional innovation</th>
<th>Experience innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation goal</td>
<td>Products and processes</td>
<td>Experience environments</td>
</tr>
<tr>
<td>Basis of value</td>
<td>Product and service offerings</td>
<td>Co-creation experiences</td>
</tr>
<tr>
<td>View of value creation</td>
<td>Firm creates value; supply push</td>
<td>Value is co-created; individual-</td>
</tr>
<tr>
<td></td>
<td>and demand pull for firm’s</td>
<td>centric co-creation of value</td>
</tr>
<tr>
<td></td>
<td>offerings</td>
<td></td>
</tr>
<tr>
<td>Focus of development</td>
<td>Cost, quality, speed, and</td>
<td>Granularity, extensibility,</td>
</tr>
<tr>
<td></td>
<td>modularity</td>
<td>linkage, and evolvability</td>
</tr>
<tr>
<td>View of technology</td>
<td>Features and functions;</td>
<td>Enablers of experiences;</td>
</tr>
<tr>
<td></td>
<td>technology and systems</td>
<td>experience integration</td>
</tr>
<tr>
<td></td>
<td>integration</td>
<td></td>
</tr>
<tr>
<td>Focus of infrastructure</td>
<td>Support fulfilment of products</td>
<td>Support co-construction of</td>
</tr>
<tr>
<td></td>
<td>and services</td>
<td>personalised experiences.</td>
</tr>
</tbody>
</table>

Table 3.2: Migrating to experience innovation (Prahalad & Ramaswamy, 2004:54-55)

3.8 Organisational fit and stakeholder value

According to McCarthy “sustainable value creation requires strategy, capability, information, decisions, and actions to be aligned and focused on key drivers of value for an organisation” (2003:2).

Christopher *et al.* (2002:77) note that top management often fail to manage stakeholder relationships in an integrated manner. Different parts of the organisation interact with various stakeholders and the interaction often overlaps – causing fragmentation. One of the advantages of the CSC is that it communicates with a wide range of stakeholders in an integrated manner.

Students are acknowledged as the “lifeblood” of the University (University of Pretoria, 2002). The current Vice-Chancellor perpetuates this message in his communication with all stakeholders of the University, namely that students are considered as primary stakeholders of the University.
Prinsloo (2002) illustrates how stakeholder value is created.

![Stakeholder value creation model](image)

The diagram shows that happy employees equal happy stakeholders and positions culture at the centre of the value cycle. Christopher et al. (2002:12) make the point that “satisfied employees make satisfied customers”.

The stakeholders of the CSC are listed below in order to illuminate what the concept of value means to them.

The main external stakeholders of the CSC are as follows:

Alumni
Prospective students (national, international)
Employers
General public
The following section defines the value that external stakeholders expect from the CSC.

Alumni
The alumni are important ambassadors for the University and are also potential clients and donors. Alumni expect efficient and friendly service when they interact with the CSC.

Prospective Students
Students are the lifeblood of the University of Pretoria. The ability to attract quality students is a strategic focus. The University of Pretoria has to compete for a finite number of quality students and therefore the student recruitment strategy of the University has to be competitive. Prospective students expect efficient and friendly service, support and dynamic student recruiters and vibrant and informative marketing material.

General Public
As a public institution, the University has a responsibility towards the general public in terms of accountability, transparency and values. The public expects the CSC to provide efficient and friendly service.

Internal stakeholders
The main internal stakeholders are as follows:
Management
Current students
Support departments
Faculties

Management
Management expects value creation from the CSC. Value is created through portraying a positive image of the University, efficiency and effectiveness in processes that touch mainly students and recruiting the required market share of top students.
Students
Registered students expect the CSC to provide effective, efficient and friendly service.

Support Departments
Support departments expect the CSC to process the bulk of enquiries and transactions from clients, particularly students.

Faculties
Faculties expect the CSC to process the bulk of enquiries and transactions from clients, particularly students. They dovetail the generic student recruitment strategies of the CSC.

The Rich Picture below shows the role that the CSC plays to create value within the broader University.

Diagram 3.1: Rich Picture of the CSC
This section outlines the relationships between the different domains and explains the value they create (or should create).

The strategic drivers of the University as outlined in its strategic plan are as follows:

- Focus on academic endeavours
- Quality
- Local relevance
- Transformation
- International competitiveness
- Value-driven organisational culture
- Sustainability
- Innovation

(University of Pretoria, 2002-2005)

A cryptic interpretation of the Rich picture is given below.

The University Council, the Vice-Chancellor and Executive management are responsible for Corporate Governance. Senior management is responsible for policies, procedures and processes that position the University to achieve its strategic objectives.

The organisational structure of the University, combined with the abovementioned policies, procedures and processes create viability.

Stakeholder value builds confidence in the organisation and leads to long-term sustainability that feeds into the organisation’s core competencies and capabilities. Confidence in the University leads to brand and reputation equity and positions the University to retain its current market share of students (including top students).

Corporate governance underpins the foundation and parameters of the organisation. Leadership and the unique core competencies and capabilities are necessary
components of any business strategy. Both translate into the way in which the organisation will be leveraged to create value over the long term.

The quality of a company’s workforce is a core competitive advantage to create value. This pertains to intellectual property and to skills that individuals possess. McElroy refers to social capital as an “organisation’s social capacity to innovate (i.e. to produce and integrate new knowledge) as a component of its value” (2003:26).

It is endorsed in the following statement by McCarthy: “business success factors, real and perceived, tend to focus more on intangible assets, such as brand equity, technology, customer and channel relationships, and human capital/knowledge management” (2003:4).

Performance management is one mechanism to increase productivity and to align operational activities with the strategic drivers of the organisation. In order to create sustainability, incentives to managers should focus on value creation and not on short term profit (Ping, 2000:1).

The University must remain competitive in order to be sustainable over the long term. Competitiveness is defined as the ability of an entity to operate efficiently and productively in relation to other similar entities (Sykes, 1989). Quality and innovation are therefore crucial strategic drivers.

Innovation is an uncontested value driver in the knowledge economy. A lack of innovation in an organisation’s processes, products and services leads to stagnation and a shrinking market segment. The leadership of an organisation must understand and support innovation management. Apart from the financial benefits of innovation, it also generates market confidence and expectations of future success and long-term sustainability and viability.

In the University context the CSC fulfils the role of marketing the products of the University and of rendering student services. The client service strategy drives the value chain in the lifecycle of the student and includes the recruitment and retention of quality students to enrol for postgraduate studies and become loyal alumni.
Efficient throughput ensures that the economy benefits from graduates and brings about a cost saving for the student.

The value drivers at the University are the loyalty of students and alumni, transformation, innovation and quality. Efforts have been made to strengthen the value chain in the lifecycle of the student: from first contact with prospective students through graduation, career placement and alumni. The CSC is involved with retention until a student registers. After that there is no single owner to ensure that the student completes his or her studies in the minimum period. This highlights a current failure in the organisation, because the value chain pertaining to student recruitment and retention is not integrated and coordinated across the different departments and faculties.

Growth as a value driver in the University context relates to increasing the quality of student intake, increasing the quality of courses, growing our business ventures and improving services to retain quality students for postgraduate study. Growth can also be stimulated through strong international agreements with other universities, partnerships with business and industry and business ventures.

Transformation is a very complex value driver, because various stakeholder groups and specifically certain market segments within stakeholder groups have different and sometimes opposing expectations.

The University is a public institution and is therefore not profit-driven. However, financial acumen is required to keep the University sustainable. The University has always been financially viable and is known for its excellent financial control.

Long-term, sustainable value also depends on the confidence that important stakeholders have of the organisation. That means that an organisation cannot be driven by short-term profit motives, but has to ensure that stakeholder expectations and market trends are continuously interpreted correctly and communicated efficiently and effectively. This relates to stakeholder management—sustainable value creation requires a business strategy through which important stakeholder groups are identified and communication and relationship building strategies...
maintained to ensure that the organisation is in touch with their expectations and that the various stakeholder groups are always informed about important aspects of the organisation.

Quality control is essential to monitor core processes and to be proactive in ensuring a streamlined supply chain. Training and development of employees can improve operations and increase the level of skills and/or intellectual capital of an organisation. Organisational performance (integration of systems and culture) is an important value driver.

3.9 Summary

This section aimed to explore the concept of the student – as – client. It described the implementation processes of the CSC and explained the CSC service strategy and model. A theoretical discussion about CRM, service quality and customer satisfaction illuminated the nature and purpose of the CSC. A Rich Picture was used to illustrate where the CSC fits into the broader picture of value creation in the University and attempted to show how the CSC creates competitive advantage for the University.

In the next chapter descriptive statistics, survey results, interviews and systems tools are used to surface the concern and research question of the study.
Chapter 4

4. Surfacing the concern

The innovative model of the CSC has been commended in the Higher Education Quality Committee (HEQC, 2004) pilot audit report. Yet there are certain constraints that could jeopardise the competitive advantage that the CSC provides the University.

A comparison of a representative customer satisfaction survey that was administered in 2003 and 2005 respectively shows a slight decrease in client satisfaction (3%) (Annexure C). The table below shows the research sample for the 2005 survey.

<table>
<thead>
<tr>
<th>Client group</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current undergraduate residence students</td>
<td>880</td>
</tr>
<tr>
<td>Current undergraduate day students</td>
<td>900</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>500</td>
</tr>
<tr>
<td>Alumni</td>
<td>100</td>
</tr>
<tr>
<td>Prospective students</td>
<td>200</td>
</tr>
<tr>
<td>Black students</td>
<td>1250</td>
</tr>
<tr>
<td>White students</td>
<td>1330</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2 580</strong></td>
</tr>
</tbody>
</table>

Table 4.1: Research sample for 2005 survey

A brief overview of the survey results indicates that 64% of clients were satisfied in 2005, compared to 67% in 2003. (The survey results of 2003 actually indicated that 72% of clients rated our service as good to excellent, but it used a different scale because a different researcher was involved. The average changed as a result of calibration between the two surveys in an attempt to compare results). This is on par with international benchmarks in the private sector (LHI report, 2000). I could find no comparable studies at other Universities so it is difficult to make meaningful deductions from the results.
Comparison of results (2003/2005):

<table>
<thead>
<tr>
<th>Criteria</th>
<th>2005 Average score</th>
<th>2003 Average score</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are friendly in the way we greet and treat you</td>
<td>64.2%</td>
<td>65.2%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>We are quick in responding to your enquiries</td>
<td>62.0%</td>
<td>63.6%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>We provide relevant and comprehensive information as needed</td>
<td>65.2%</td>
<td>66.0%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Our building is clean, tidy, convenient and pleasant</td>
<td>76.0%</td>
<td>81.6%</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Our operational hours are convenient and meet the clients’ needs</td>
<td>63.6%</td>
<td>66.4%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>We are always accessible and available for service</td>
<td>63.2%</td>
<td>64.6%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Our staff members are professional in appearance and behaviour</td>
<td>63.8%</td>
<td>66.2%</td>
<td>-2.4%</td>
</tr>
<tr>
<td>We understand our clients’ needs and requirements</td>
<td>63.2%</td>
<td>63.6%</td>
<td>-0.04%</td>
</tr>
<tr>
<td>Average</td>
<td>64.0%</td>
<td>67.1%</td>
<td>-3.1%</td>
</tr>
</tbody>
</table>

Table 4.2: Comparison of survey results

The results indicate that the majority of respondents (64%) are satisfied with the service levels. This means however that 36% are either not satisfied or less satisfied.

4.1 Tangibles

The drop in satisfaction concerning the physical environment could be attributed to the fact that the novelty has worn off. Another factor is the space constraints that occurred because of the incorporation of three additional divisions. Yet in comparison the building and environment rate significantly higher than the other items.
The decrease in satisfaction with regard to the professional behaviour and appearance of staff is problematic.

4.2 Reliability

The rating of the construct “We provide relevant and comprehensive information as needed” has decreased slightly. This question is related to accurate service at first contact and delivering what was promised. Unpacking a systems view of the Responsiveness determinant below could also apply to Reliability because delivering on promises often depends on delivery by faculties or support departments as much as it depends on capacity.

4.3 Responsiveness

The relatively low rating for responsiveness (“We are quick in responding to your enquiries”) is also a reason for concern.

Responsiveness is normally associated with workload. Effective capacity improves response rate. Another concern is corroborated by statistics, namely that the gap between our resources (specifically staff) and the volume of interactions is increasing every year.

A comparison of the total number of interactions for 2003, 2004 and 2005 show a significant increase (22%) between 2004 and 2005 (Figure 4.1). If this trend continues our CSC service levels will decrease over time, because we have to manage the interactions with existing staff and the capacity shortage will increase.
The complexity of the interaction between the CSC and internal role-players and the concomitant impact it has on service quality is worth exploring. The question about capacity (ability to cope) will also be accounted for.

Grönroos argues: “It is important for a firm to manage service quality well, but it is essential for it to manage service failures even better” (2000:97).

Rapid and efficient resolution of problems requires a mandate (power) and flexibility. This is an important consideration for the CSC model. CSC staff is not empowered to resolve certain service failures, because other departments are the owners of the business processes and systems. This has a domino effect that affects the client: if there is inefficiency in the systems or processes of a support department it causes service failure in the CSC. We then have to rely on our relationships with staff in the relevant department/s to facilitate changes to prevent it from happening again. The most successful attempt to date was to change the back office structure of the study finance division. Study finance used to cause the most client dissatisfaction and frustration and generated unmanageable interaction volumes. It took almost three years of discussions, proposals and negotiation to change it.
This cycle is reminiscent of Handy’s (1989) Wheel of Learning. Figure 4.2 illustrates the sequence and relationships, whereas Figure 4.3 is a simplification that is captured in a Causal Loop Diagram. Causal Loop Diagrams are often used in systems thinking and is a tool that aids understanding of the causal relationships between concepts (Sherwood: 2003).

![Figure 4.2 Learning from service failure](image)

Figure 4.2 shows two possible outcomes when service failure occurs. The cycle on the left illustrates the consequences if the negotiation process with the “back office” or “process owner” is either unsuccessful or a lack of learning occurs and the mistake is repeated. This leads to a repetitive loop that increases the workload of particularly CSC staff because interaction volumes increase when service failure occurs.

The cycle on the right hand side shows the positive effect of learning from service failure. This is a positive cycle because service failure is utilised as an opportunity to refine and improve processes. Service quality is improved and clients are satisfied. Satisfied clients and streamlined processes reduce workload and stress.

Figure 4.3 simplifies the concept and illustrates the abovementioned outcomes in one CLD.
Figure 4.3 Simplified model for learning from service failure

If this learning cycle is managed correctly it could become a model for ongoing service improvement and therefore a model to manage incremental innovation.

The level of customer satisfaction dictates the nature and volume of customer feedback. Therefore if customer satisfaction is low it will generate a high level of feedback (complaints). The systemic inverse relationship is marked by an “O” for Opposite. A high level/volume of complaints activates learning because it generates a need for change, marked by an S for Same to indicate symmetry. The premise is that few complaints are not always sufficient to mobilise change and learning. An increase in learning leads to an improvement in service quality (S). The better the service quality the lower the workload (O). This is because effectiveness and efficiency reduces workload. A reduction in workload improves customer satisfaction (O) because staff members have more capacity to cope.

The primary innovation management strategies that are used to address service failure are negotiation and Service Level Agreements. There is currently a lack of a mechanism to ensure that learning takes place. Service failures are dealt with on an ad hoc basis and as a result double loop learning does not take place. In organisation learning theory, it is generally accepted that learning consists of two types of activity. These two types of learning have been termed ‘single-loop’ and ‘double-loop’ learning (Argyris, 1977). The former is obtaining knowledge in order to solve specific problems based upon existing premises and the latter is establishing
new premises (i.e. schemata, mental models, paradigms or perspectives) to override the existing ones.

4.4 Assurance

The lack of courteous behaviour is a concern that has been raised over the past years of the existence of the CSC. Although it is termed “racism”, my experience of specific incidents and the examples that emerged from client feedback and interviews point to deeply embedded value systems of staff. I have discovered that these individuals are often oblivious of their behaviour and the effect it has on other people. Therefore there seems to be a lack of awareness and sensitivity, both of which are vital attributes to have in a client service environment. The CSC is the most transformed support department in the University – sporting 45% black staff and 55% white staff. Three quarters of the staff are female. Yet because of the unique history of the country and the transformation that the University is experiencing, people in general are very sensitive about diversity and language issues.

It is interesting that white and black students rate the CSC overall almost identically in terms of their experience of service excellence. The assumption is made that if there was a serious racism problem that it would have reflected in the results of the surveys and that it would have skewed the results of either the black or white respondents. I show the factor with the closest contingency to the emotional and attitudinal quality of interaction below:

Factor 1: We are friendly in the way we greet and treat you

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>3%</td>
<td>6%</td>
<td>47%</td>
<td>42%</td>
</tr>
<tr>
<td>Black students</td>
<td>6%</td>
<td>11%</td>
<td>48%</td>
<td>36%</td>
</tr>
<tr>
<td>Total</td>
<td>4%</td>
<td>9%</td>
<td>47%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Table 4.3: Excerpt from survey results (2005)
Although there is no significant difference, it has to be said that the difference between the races is the highest in this factor compared to the other factors.

4.5 Empathy

The dissatisfaction about the operational hours can be attributed to a change in operational hours from 7:30 - 18:00 during the week and 8:00 - 12:00 on Saturdays to 8:00 - 16:00 during the week and being closed on Saturdays. This decision was made as a result of budget cuts in 2004. We could not maintain acceptable service levels over extended hours with existing staff.

4.6 Summary

A functionalist perspective of comparative survey results and longitudinal descriptive statistics signals a possible downward trend in customer satisfaction. Concomitant systemic relationships were explored to understand the complexity of the system and surface the constraints that could fuel a downward spiral if not curtailed or transformed.

The CSC depends on a number of support departments and faculties to render quality service. Negotiation and Service Level Agreements are the main strategies that are currently used to create the necessary action/behaviour change to address service failure and thereby improve service quality and customer satisfaction. The problem is that there is no mechanism or strategy to address service failures in a holistic and structured manner. There is also an increasing and alarming gap between the capacity in the CSC and the workload.

The following chapter frames the research question of this study by adding more perspectives of interviewees and the use of systems tools.
Chapter 5

5. Formulating the problem and research question

In order to improve triangulation, or rather credibility, I include the voices of fellow directors, deans, CSC staff and heads of faculty administration to enrich the emergent problem. The interviews were open ended and not structured. Interviewees were requested to share their impressions of the CSC. I did not ask leading questions because I did not want to contaminate or influence the data.

I interviewed seven of the nine deans, five of the ten directors, 67 of the 78 CSC staff and eight of the nine heads of student administration in faculties.

5.1 Emergent themes and patterns

The data collapsed into the following themes:

Diversity
Relationships
Values and culture
Processes
Technology systems
Service quality
Innovation
Marketing
Communication
Resources
Training
Workspace and environment
Productivity
These emergent themes are particularly relevant from an Interpretative perspective. They represent the mental models that a total of 87 people have constructed about the CSC. The themes are the things that they think about when they think about the CSC. Critique could be that I projected my mental model by choosing the particular labels/themes for the narratives. A degree of confirmability was achieved by discussing the emerging themes with the ten managers of the CSC who also participated in the interviews.

Significant patterns that emerged are as follows:

- The CSC model works
- A lack of consistency in back office business rules causes service failure.
- A lack of systems thinking ability among staff causes fragmented service rendering to clients.
- Certain staff members within the CSC have a silo mentality and lack initiative.
- There is conflict among staff within the CSC and between CSC staff and staff of other departments.
- CSC staff has good relationships with staff in other departments.
- There is a lack of ownership of client service in the broader university.
- Faculties and support departments support the CSC and believe it is critical for the university.
- There is a lack of capacity in the CSC.

Some of the patterns reveal multiple positions and ambiguity in representation (Clarke, 2005), for example the claim of conflict between CSC staff and staff of other departments and the claim that the CSC has good relationships with, and support from, other departments.

Figure 5.1 attempts to clarify the relationships between some of the themes.
The figure shows that inconsistency in back office rules moves in the opposite direction of capacity; the number of staff in the CSC (headcount), their relationships with departments and faculties and training move in the same direction (S for Same) as effective staff capacity. The arrows show a cause and effect relationship, in other words an increase in the former leads to an increase in the latter.

Effective staff capacity moves in the same direction as the coping ability of staff and therefore exhibits an “S”. An ability to cope increases service quality and in turn leads to customer satisfaction. Customer satisfaction causes effective staff capacity (S) because it creates institutional support – a causal loop that is illustrated later in the section.

The volume and variety of transactions move in the same direction as workload (S), however workload moves in the opposite direction of the coping ability of staff and is therefore indicated by an “O” for Opposite. Similarly, the ability to cope has an
inverse relationship to service failure – a decrease in the ability to cope causes an increase in service failure rates. Service failure moves in the same direction as complaints and problems (S), which effects workload. An increase in complaints and problems causes an increase in workload (S).

A lack of adequate IT systems emerged as a prominent theme from the interviews with CSC staff and therefore effective IT systems are included to show that it reduces workload (O).

5.2 Identifying the key drivers

The CLD in Figure 5.1 shows the four core drivers that influence the capacity of CSC staff to render quality service:

- Inconsistency in back office rules
- Headcount
- Relationships with departments and faculties
- Training

The lack of consistency in back office rules is a significant cause of service failure because it creates frustration among clients. It manifests in different answers by different constituencies of the University.

Annual budget rounds are used to request and defend proposals for more posts but have not proven to be that successful. Considering the ratio of 30% support staff to 70% academics it is difficult to get more posts to increase headcount.

I argue that “Relationships with departments and faculties” is the Achilles’ Heel of the CSC. This driver deals with human relationships and is therefore the most volatile. It is also the driver that influences the other three drivers as will be shown later in this chapter. The CSC plays a major role in the University to manage incremental innovation and – as is the case with radical innovation – it could stand or fall through
relationships that are key to its success. Reflection on my experience of implementing radical innovations and the emphasis in theory on change management and the role of culture and politics confirm this claim.

Training forms an integral part of the CSC. Staff members are trained weekly because of the magnitude of information that has to be communicated as well as the dynamic nature of the information. A limitation in the training strategy emerged from the interviews. There should be more training by experts in support departments and faculties. The lack of time was raised as a constraint but at the same time effective planning was suggested as a solution.

In Table 5.1 I use a situational framework provided by Clarke (2005:90) to enrich the concern through a postmodern perspective. The table is informed by data generated by the interviews, survey results and my experience.

<table>
<thead>
<tr>
<th>Individual human elements/actors</th>
<th>Nonhuman elements/actants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students, staff, colleagues, alumni,</td>
<td>Information technologies</td>
</tr>
<tr>
<td>parents, managers, academics</td>
<td>Work processes and systems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collective human elements/actors</th>
<th>Implicated/silent actors/actants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departments, universities, faculties</td>
<td>Staff, clients</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discursive constructions of individual and/or collective human actors</th>
<th>Discursive constructions of nonhuman actants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students as a nuisance, students as necessary evil, students as children, students as clients, management as heartless, staff as furniture, universities as ivory towers, academics as drama queens, academics as egotists, academics as upper class, support staff as lower class, universities as the incubators for future leaders, service as</td>
<td>CRM technology as fad and failure, work processes and systems as enablers and disablers in performance</td>
</tr>
<tr>
<td>Political/economic elements</td>
<td>Sociocultural/symbolic elements</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Rising costs of higher education, limits on resources</td>
<td>Client service as symbol of commercialisation of education “making money out of students by viewing the student as client”. Client service as positive signal that students are valued. Variations of expectations by different stakeholders.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temporal elements</th>
<th>Spatial elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time spent on different interactions, overtime issues, service hours, longitudinal patterns</td>
<td>Divisions situated/located based on business model. Limited office space and lack of hygienic environment (windows).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major issues/debates ( Usually contested)</th>
<th>Related discourses (historical, narrative, and/or visual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client ownership, the value created through client service, “the other” silo mentality, the CSC must not pull away resources from faculties.</td>
<td>The increased focus on stakeholders</td>
</tr>
</tbody>
</table>

| Other key elements | |
|-------------------||
| Emotions of staff, myself, clients | |

Table 5.1: Situational framework

The framework is helpful to shed light on different cultures and values in the University. One narrative reflects service as a necessary evil – similar to the way in which students are regarded. Ambiguity results from the difference between appearance and reality: those who pay lip service to client service but their actions do not support it. One narrative signifies suspicion: the CSC signals the intent of the University to make money out of students. Power structures are revealed through narratives in which support staff is regarded as second class.
5.3 Long term sustainability and viability

The lack of institutional ownership of client service that emerged from the interviews and the use of Clark’s situational, postmodern lens is captured in a Behaviour Over Time (BOT) graph to make the threat explicit. The previous section focused on variables that are impacting on the CSC’s ability to render quality service and achieve client satisfaction. The reputation of the CSC is another important factor that influences client satisfaction and the long-term viability and sustainability of the CSC. A decline in institutional ownership of client service will lead to a decrease in the efficiency and effectiveness of client service processes and ultimately to decreased client satisfaction. Client satisfaction feeds into institutional ownership because if client satisfaction is low it will result in reputation risk for the CSC and subsequently fewer resources and less institutional support.

Figure 5.2 shows the concern as Behaviour Over Time.
The level of institutional ownership of client service will reinforce the level of the efficiency and effectiveness of client processes. The level of the latter will in turn reinforce the level of client satisfaction and the level of institutional ownership of client service. The reinforcing feedback loop can be positive or negative and the concern is that over time it is becoming negative because the “honeymoon period” is over and inertia is kicking in again. This is combined with decreasing funds and a personnel capacity shortage that is increasingly inadequate to deal with the increase in interaction volumes.

In the following section I use CLD’s to unpack the variables that were included in the BOT. The first loop illustrates the perceived cause and effect.

Figure 5.3 Influence of institutional ownership on client satisfaction
Adding the second loop of my attempt to explore the concern: In Loop 2 Institutional ownership of client service reinforces the level of resources and the subsequent level of productivity. The level of productivity has a direct reinforcing influence on the level of efficiency and effectiveness of client processes.
Adding the third loop of client value highlights the fact that the level of efficiency and effectiveness reinforces the level of client value, which in turn reinforces the level of client satisfaction.

Internal marketing is one way of fostering ownership of customer service and is defined as “the creation, development and maintenance of an internal service culture and orientation that will help the organisation achieve its goals” (Christopher et al, 2002:12). The authors note that it is inextricably linked to the culture and values of the organisation—entrenched behaviour, attitudes and beliefs. The need for more internal marketing also emerged in the interviews.

The most vulnerable area in my constructed model is “Team work across departments”. In other words team work dynamics with support departments and
faculties determine the efficiency and effectiveness of client processes. This is similar to the driver that was identified in the previous section, namely relationships with departments and faculties.

A specific research question can now be formulated:

**What strategies could enable the CSC to manage innovation more effectively?**

### 5.4 Summary

In Chapter five I defined the problem and research question of this study by sweeping in more perspectives from stakeholders (interviews) and through the use of a BOT and CLD's.

The interdependence of some of the emergent themes was illustrated and significant patterns were made visible. The key drivers that influence the ability of CSC staff to render quality service were identified as *inconsistency in back office rules, headcount, relationships with departments and faculties* and *training*.

The importance of institutional ownership of client service was highlighted to show its long-term impact on client satisfaction and the sustainability of the CSC.

I argued that relationships with staff in other departments and teamwork are the Achilles' heel of the CSC.

I would like to return to the value creation model of Prinsloo (Chapter three). She placed culture at the centre of the value cycle. As mentioned in Chapter two, *culture* plays a crucial role in change management and change is necessary for innovation to occur.

The next chapter tries to find answers in literature about the role of culture and values in teamwork and innovation.
Chapter 6

6. Culture and values in teamwork and innovation

Culture is defined as “a broad aggregation of people who share the same appreciative system; the same value language” (Hoebke, 2000:79). According to O’Reilly and Chatman, (1996:166) it can be understood as a “system of shared values (that define what is important) and norms that define appropriate attitudes and behaviours for organisational members (how to feel and behave)”. Organisational culture is defined as “a set of shared values that help organisational members understand organisational functioning and thus guide their thinking and behaviour” (Jaskyte & Dressler, 2005:30).

Cultural consensus measures the level of agreement in an organisational culture as well as the content of agreement (2005:31). Flynn and Chatman (2004:236) differentiate between “the extent to which members agree and care about values and norms (culture strength); and the extent to which these norms and values differ across the settings (culture content)”.

The literature contains paradoxical findings about culture and innovation. Some researchers maintain that a strong culture inhibits innovation although it may enhance other aspects of organisational performance (Sorensen, 1999). The reason is that an increase in group cohesion leads to a decrease in the ability of the group to tolerate deviation (Nemeth & Staw, 1989). Group cohesion is defined as “the degree to which members of the group are attracted to each other “(Shaw, 1981:213). Flynn and Chatman (2004:238) point out that it depends on the content of the norms and values that groups adhere to and not on the cohesion (strength). They raise the examples of the norms of “we agree to disagree” and of diverse thinking. In other words the content of values influences innovation and not the strength of the culture. At the same time though, the level of group cohesion could influence the level of agreement among its members. Homogeneous groups tend to be highly cohesive and often fail to provide the necessary criticism of one another’s ideas and pose alternatives (Hogg & Hains, 1998).
The advantages of cohesion include clearer guidelines for team members under ambiguous circumstances and less need for control due to embedded organisational goals (Flynn & Chatman, 2004: 241). In this light cohesion aids the implementation of innovation. Kanter (1988) describes the implementation of innovation as “an ambiguous process requiring extraordinary commitment, conviction, and enthusiasm by ‘champions’, who attempt to manage the disruptive process and guide members’ efforts in the desired direction. The crux of the argument developed by Flynn and Chatman (2004:242) is that process agreement is important for innovation to complete tasks successfully and efficiently, but not intellectual agreement. Diverse perspectives are important to foster creative thinking.

Jaskyte and Dressler (2005:27) cite authors who have proposed that transformational leaders use charisma, individualised consideration, inspiration, and intellectual stimulation to foster creativity and improve employees’ ability to innovate. Moreover “they are future-oriented, open-minded, dynamic, and concerned about planning”. They present an interesting finding from their own analysis of 19 (relatively small) organisations in the public sector, namely that transformational leadership is not strongly correlated to innovation. The reason they give is that the results of multiple regression analysis indicate “the four practices of transformational leadership, namely inspiring a shared vision, enabling others to act, encouraging heart, and modelling the way – were positively correlated with cultural consensus, which was characterised by stability and teamwork, and was inversely related to organisational innovativeness”.

“Such values as cohesion, teamwork, stability, security, cooperation, and lack of conflict do not foster but hinder innovation efforts” (Jaskyte & Dressler, 2005:26). Aggression, risk taking, willingness to experiment and accepting mistakes are some of the values that encourage innovation. They cite Janis (1972) in that “cohesive groups with strong directive leaders are most likely to seek uniformity. In this situation, individuals choose not to express differing views out of fear of ridicule or rejection”.

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This finding contradicts the assumption that shared values and meaning lead to innovation. The problem is that people tend to be happier when there is shared meaning and limited conflict. Team members that cooperate are usually perceived as an effective team. Heterogeneous groups experience more conflict, poorer communication, more attrition and more social fragmentation (Jackson et al., 1991; O'Reilly et al., 1989; Zenger and Lawrence, 1989). Therefore as much as diversity promotes creativity, it could at the same time obstruct successful implementation.

This is an example of sensemaking, because dissonance is created through seemingly contradictory findings in literature. A different view of what appears to be contradiction is to take the same construct and place it in different contexts. For example, perhaps a distinction should be made between a team that innovates as opposed to a team that maintains. The rationale is that a maintenance team does not require the stimulation created by conflict to achieve change. Maintenance has to do with routine and therefore needs little momentum from the team. The question then is about cohesion. Is cohesion necessary for both maintenance and innovation teams? Maybe innovation teams have lapses of cohesion or less cohesion than maintenance teams. If the values differ between a maintenance team and an innovation team it surfaces a possible contradiction in the CSC. CSC staff do mainly routine and maintenance work, but at the same time they are involved in an ongoing process to improve service quality through innovation. Also, whilst their work is routine-based it is far more complex than regular frontline environments. In this sense the frontline workers in the CSC actually engage in what Flynn and Chatman (2004:244) refer to as “routine innovation”.

This is a topical and relevant issue in the CSC. As the customer-facing department of the University, CSC staff members need to be motivated and happy. Cultural consensus (content) and cohesion in teams tend to foster motivation and happiness. Moreover in order to render quality service they need to work effectively in teams with a large number of staff from various support departments and faculties. Seemingly the same attributes that improve service quality inhibit innovation.
6.1 Values and teamwork

In Module 2 in 2004, dealing with Normative Management, I wrote a Code of Conduct for the CSC based on the Code of the University, the strategic plan and the nature of a client service environment. The University published a Code of Conduct in February 2000. Rossouw (2002) states that a Code of Conduct is one example of a Code of Ethics. In terms of the different purposes of a Code of Ethics purported by Rossouw, the University Code serves an “internal purpose to achieve institutional goals; establishes agreement about morally acceptable behaviour…and facilitates moral decision-making”.

Being a new department meant that the CSC did not have a cultural history to fall back on. We were in the process of creating our own culture and obviously the different cultures of the staff coming from different departments spilled into one department, causing confusion and resentment. The lack of consistency created unhappiness among staff comparing the behaviour of different managers and colleagues.

I distributed the draft to the deputy directors and managers for input and requested them to discuss it with their staff. It generated very little discussion at the time.

It is interesting that the Code of Conduct resurfaced in 2005 when one of the managers picked up confusion among staff about ethics and its meaning in practice. She made all the staff write a test on the Code – much to their chagrin.

Certain contexts can be very complex and when this is the case a person must understand the values of the organisation and know where to turn for guidance if he/she is uncertain. Hoffman et al. (2001:581) identify the values of Integrity, Innovation, Commitment, Care and Responsibility as relevant values to guide behaviour of employees. These values guide decision-making by emphasising consistency, the creation of new products, services and processes, dedication, caring for the institution and for colleagues and placing the responsibility with the employee to “do the right thing”.
During Module 2 of the EMBA I had constructed the following model for creating a value-based culture.

Figure 6.1: Model for a values-based culture

The starting point of the model is to assess existing institutional guidelines and to ensure that all employees are informed. This will lead to knowledge creation so that employees are informed about ethical conduct and are equipped to deal with complex situations. Knowledge creation leads to shared meaning, in other words similar mental models inform decision making. Knowledge creation can take place through discussions, training and workshops. Shared meaning increases the level of learning and innovation and is particularly important in organisations that have staff from diverse cultures. The reason is that learning is a social phenomenon and that innovation depends on more than one person to succeed (Lazenby, 2002).

Organisational learning and innovation contribute to reaching institutional goals, which in turn leads to long term sustainability and competitiveness. Increased competitiveness will feed into the Ethos, Code of Conduct and Equity requirements because it will attract the right staff and students to the University – diverse, innovative and people who exhibit the values of the University.
In order to test the assumptions underpinning the model it is necessary to unpack the concepts of culture and values and how they feed into innovation.

“For many organisations, achieving competitive advantage means eliciting superior performance from employees on the front line - …whose work has an enormous effect on customers. That's no easy task. Frontline workers are paid low wages, have scant hope of advancement, and – not surprisingly – often care little about the company's performance” (Katzenbach & Santamaria, 2001:105).

The authors raise the relevant question of how companies succeed in keeping low level staff motivated – engaging the hearts and minds of employees. They use the US Marines as an example of how to activate emotional energy in frontline staff. The US Marines train new incumbents for twelve weeks. The difference is that they focus the training on the core values of the organisation – honour, courage and commitment - and not on policies, skills and procedures. The organisation’s most talented and experienced people conduct the training and they also train the frontline staff to lead. They build collective pride by forming non-hierarchical teams that share responsibility for failure and success and they create mutual trust by keeping their word. They use the Marriott as an example where service failures and customer complaints are posted for employees to see because it fosters self- and peer enforced discipline. In the CSC compliments by clients are posted on an internal listserv, but service failures caused by our staff are sent to the individual and her/his manager only.

In the Marines a focus on the organisation’s “noble purpose” or “rich legacy” creates collective pride. They encourage a culture of self-control and group control that enhances performance and creates pride (Katzenbach & Santamaria, 2001:108-110). According to the authors the Marines rely predominantly on nonmonetary rewards and they aim to keep their recruits for four years. This could be relevant to public institutions where performance is normally not linked to remuneration. They point out that the front lines of the Marines and of business seek to achieve the same objectives of speed, responsiveness, and flexibility.
Aiman-Smith et al. (2005:38) echo this notion as follows:

“We know that individuals whose work is meaningful, and who have autonomy to make decisions and speak out about issues, are more innovative. We know that being open to change contributes to innovation. Cultures where it is permissible to take risks and learn from failures contribute to innovation. Business planning, business intelligence and decision making affect innovation in organisations, while organisational structures that support communication and facilitate learning also contribute to innovation”.

This surfaces another constraint in the current model – the fact that CSC staff members are not empowered to make decisions hampers innovation and decreases their motivation levels. Being in a real-time environment means there is immediate service failure.

Burnett (2001:284-285) points out that humans tend to lean towards a negative attitude and that fear of failure surpasses the desire to improve. He recommends that customer teams establish an empathetic and positive environment where colleagues and customers can offload negative reactions. CSC staff is generally experienced as friendly and helpful, as evident from survey results. However the environment is stressful and seemingly boring for some and as a result it requires considerable effort to always be empathetic and positive. The discussion on the interview results show that certain staff members are bored and that they lack stimulation. Several individuals independently used the phrase “I need a new challenge”.

Add to this their lack of freedom to make decisions and the inherent tension between innovation values and teamwork values and it becomes almost surprising that the model is intact.

Muthusamy et al. (2005:57) cite Hackman and Oldham (1975) “work high in task variety, autonomy, identity, significance, and feedback facilitates high performance and satisfaction”.

Burnett (2001:307-308) provides the following comparison of good teamwork as opposed to poor teamwork:
<table>
<thead>
<tr>
<th>Characteristics of good teamwork</th>
<th>Characteristics of poor teamwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open and honest self expression</td>
<td>Wrong balance of skills and abilities</td>
</tr>
<tr>
<td>A group with balanced skills and abilities</td>
<td>Limited self-expression and job satisfaction</td>
</tr>
<tr>
<td>Mistakes used as learning experiences</td>
<td>Interdepartmental political bickering</td>
</tr>
<tr>
<td>Conflict is used constructively</td>
<td>Focus on recrimination and blame</td>
</tr>
<tr>
<td>Open confrontation of difficult situations</td>
<td>Protectionist attitudes</td>
</tr>
<tr>
<td>Collaborative relationships</td>
<td>Burying difficult situations and creation of an unofficial grapevine</td>
</tr>
<tr>
<td>Pride in team success</td>
<td>Line-drawing – not my job</td>
</tr>
<tr>
<td>Personal development is rated highly</td>
<td>Stampede to the exit at finishing time</td>
</tr>
<tr>
<td>Team ownership of decisions</td>
<td>Isolation of the leader</td>
</tr>
<tr>
<td>Agreement of clear objectives</td>
<td>No personal development plans</td>
</tr>
<tr>
<td>External help and advice are welcomed</td>
<td>Rejection of external advice or help</td>
</tr>
</tbody>
</table>

Table 6.1: Comparison of good versus poor teamwork (Burnett, 2001:307-308)

The Force field analysis is used to look at variables involved in determining effectiveness when implementing a change management program. The driving forces tend to initiate a change or keep it going, while restraining forces are forces that restrain or decrease the driving forces (Lewin, 1948).

```
Enabling forces                               Disabling forces

Shared culture and strong cohesion enhance quality of service interaction
CSC is positioned to identify service failures immediately
Front line staff members are in the best position to innovate because of proximity to the client
Holistic view of processes facilitates proactive reengineering of processes to be more efficient, effective and customer focussed

Shared culture and strong cohesion inhibit innovation
CSC lacks power to address service failures
Front line staff members are not empowered to innovate because they execute the rules of other departments
Lack of power to utilise competitive advantage of holistic view to rapidly reengineer processes
```

Table 6.2 Forcefield analysis of enabling and disabling forces concerning the CSC
6.2 Reflection: Is the wand just a stick?

Although my experiences of creating the Virtual Campus and the CSC were fraught with conflict I always assumed that the success of both innovations was as a result of intuitively doing the “right things” such as the four transformational leadership elements of *inspiring a shared vision, enabling others to act, encouraging heart, and modelling the way*. Especially organisational innovation requires a diverse team to achieve a common goal. I suddenly realised that the conflict that I had experienced set the stage for innovation to occur. Therefore it was possibly a necessary, albeit unpleasant, ingredient for success.

This sensemaking experience was triggered by discovering inconsistency in literature pertaining to critical success factors for innovation and my experience of driving innovation. I always associated innovation with the metaphor of a conductor and his orchestra. The wand of the conductor creates the magic of the masterpiece that is performed. However, perhaps the wand is just a stick. By this I mean that it is possibly an illusion that the leader is the glue that keeps everything intact and that inspires people to change and achieve results. Katzenbach and Santamaria (2001:121) frame it succinctly by stating “a real team … draws its motivation more from its mission and goals than from its leader”. Everyone is clear on his/her role and work together as peers and they can shift roles depending on the situation.

In this light the metaphor of a jazz band would be more appropriate. Band members improvise in real-time and the music is a result of dynamic interaction between different tunes – just like a diverse team that constantly creates new knowledge through dynamic interaction between different and often, conflicting voices. Yet they share a common goal – they want to make music. However if one considers the tremendous resistance to large-scale change that was described in Chapter two it is unlikely that innovation will occur spontaneously or naturally as suggested by the jazz band metaphor. Perhaps the stick signifies the means one has to use to bring about change.
6.3 Knowledge creation, sensemaking, and decision making

The Virtual Campus experts in the project team designed their own new processes based on the desired outcome. There was relative consensus or shared meaning concerning the outcome and they had the freedom to craft a solution to reach the outcome – provided it was integrated. In hindsight I believe this is an important element in organisational innovation. Nonaka and Takeuchi (1995:127) talk about the ‘middle-up-down’ management model. They purport it to be more effective than either the ‘top-down’ or ‘bottom-up’ management model, because it best describes the iterative process by which knowledge is created: “Simply put, knowledge is created by middle managers, who are often leaders of a team or task force, through a spiral conversion process involving both the top and the front-line employees (i.e. bottom). The process puts middle managers at the very centre of knowledge management, positioning them at the intersection of the vertical and horizontal flows of information within the company” (Nonaka & Takeuchi, 1995:127). They believe middle managers to be “the key to continuous innovation”. This claim is supported by Borins (2001:312) who lists several studies that show that it is mostly middle managers or front-line workers that innovate.

Experts understand their environments and (provided that they have bought into the vision) should have the freedom to co-create. The leader, in my opinion, plays the role of inspiring people and facilitating conversations and actions in order to reach the desired outcome. This includes resilience to channel many different perspectives, conflict and political battles. Huzzard purports an economic role of the project leader “A degree of domination is required in projects to shape and direct learning processes in line with the project remit and its financial and time constraints” (2004:357).

Bakhtin (1981) coined the term “dialogical” communication to describe the continuous development of several perspectives simultaneously. Each perspective constitutes a “voice” and the diversity of and difference in voices fuels the dialogue. Voices inevitably tend to move between old and new logic. "Logic" is social-relational and refers to “the interpretive frames of reference participants used to enact the ongoing innovation process they are immersed in” (Steyaert et al., 1996:85). Through this “multi-voiced” conversation a rich magic carpet of new meaning is woven. The
critical role of conversation in organisational innovation is best exemplified through
the knowledge creation model of Nonaka & Takeuchi (1995). Figure 6.2 illustrates the process of organisational knowledge creation that is reminiscent of the innovation process that was followed to create the Virtual Campus.

The knowledge enabling conditions can be explained as follows. **Intention** can be defined as an organisation’s efforts through various strategies to achieve its goals. The next condition is **autonomy** – individuals should be given sufficient autonomy as far as circumstances allow within their working environments. **Fluctuation** is described as a breakdown of routines, habits or cognitive frameworks due to external forces and is believed to foster the creation of new concepts. Chaos results from crises, either real or evoked by intention. **Redundancy**, as the fourth condition, means that there is intentional overlap of information about business activities, management responsibilities, and the company as a whole because it helps build unusual communication channels and brings about learning by intrusion.
An interpretation of the internalisation process is, for example, if a new product needs to be created, team members come together and share their insights and experience. Part of this process is negotiation of meaning as participants attempt to arrive at synergy and convince others of their ideas. This process results in a new, or adapted concept. The best concepts need to emerge through individuals’ arguments that their beliefs are more appropriate. It often requires justification, explanation and persuasion and requires delicate facilitation.

McElroy makes the point that innovation is a natural human social process in the sense that people instinctively try to fill the gaps between their current states and their goals by formulating solutions that they test with those around them for validation. Sometimes these knowledge claims are adopted on a wide scale and shared meaning occurs. This cycle repeats itself infinitely as new gaps arise due to a changing environment (2003:206).

There is merit in this statement except that organisational innovation requires a plan, a team and conviction. The underlying premise in McElroy’s argument appears to be that knowledge claims are sometimes adopted “as is” - in other words there is consensus with the proposition.

The process of testing a new concept for validation purposes is mostly done through language – in other words conversation or written communication is required to achieve adoption. Often this process leads to a change in the knowledge claim. Therefore “that which is adopted” is different to the original concept as indicated by Nonaka and Takeuchi (1995:86).

Adoption without change in the knowledge claim could be the case if the proposition is non-threatening, but large-scale innovation is usually experienced as threatening. In fact people will resist even if they stand to benefit from the proposed change. The reason is simple: people feel secure in their comfort zones and security is a deeply embedded human need. Hence the question arises whether one needs a plan to bring about change or whether “natural” interaction is sufficient?
6.4 Power and teamwork

McElroy (2003:23) mentions a normative model for openness in the knowledge life cycle – namely a system where knowledge production, claims and decision by managers are open for review by all stakeholders and where all stakeholders can express their views constructively, regardless of whether they differ radically from the managers' viewpoint. One would imagine that managers that engage in sensegiving and sensemaking activities do not always meet with consensus.

A definition of a team improves understanding of the line of argument: “A team is a group of two or more people who must interact cooperatively and adaptively in pursuit of shared, valued objectives (Cannons-Bowers et al., 1993)".

The point is that shared meaning refers to the outcome and not to the process. This is a critical distinction because leaders often use coercive behaviour to create shared meaning on how to achieve the outcome instead of focusing their energy on ensuring that sufficient diversity or requisite variety is present to facilitate a rich (viable and sustainable) outcome.

The process to achieve the outcome is usually characterised by conflict: power play, negativity, personality clashes, different agendas and different perspectives.

Although conflict forms only one layer of these elements it is worthwhile to define it: “Conflict involves the interaction of two or more independent parties who perceive incompatibility in goals, interests, value or ideas" (Folger & Poole, 1984). According to Schwenk (1988) cited in Muthusamy (2005:61) difference in opinions fosters creative thinking and improves the quality of a team’s decision making. The authors touch on the relation between negotiation (knowledge construction) and decision-making.

Martin et al. (cited in Bowey, 2002:69) touch on power dynamics in conversations and state that “symmetrically significant conversations are intended to produce benefits that are judged as fair and more or less equal for each of the parties".
McElroy (2003) suggests that the issue of power is dealt with by suggesting that an independent Ombudsman is employed by, for example, stockholders. The responsibility of the ombudsman is to ensure fairness and that peers or subordinates are not punished for voicing opposing views. Although this seems like a good proposal, human behaviour is in my opinion too complex to regulate in this fashion. Pfeffer (2004:256) makes the valid point that more emphasis should be placed on implementing decisions and dealing with the consequences, rather than wasting too much time on the decision making process. The rationale is that it is relatively easy to make a decision, but much more difficult to implement it. Moreover, the quality of a decision is most often only known once the consequences of the implementation of the decision become known. Consequently it is more productive to spend time on improving the results of a specific decision than on trying to assign blame or credit. This does not imply that one should not learn from “mistakes” – mistakes are a natural result of decision making and innovation. What is probably associated with this notion is how decision making and power link to leadership and innovation.

Kanter (2005) identifies confidence as the key ingredient for innovation. A leader requires confidence to innovate against considerable odds and also to make and implement difficult decisions and bear the consequences. She argues that a “winner” is someone with the confidence to commit money, time, reputation, emotional energy, or other resources to an unknown outcome. Perhaps her most salient point is that success stems from perseverance - the process of weathering adversity and resolving crises hones resilience.

Choo (2001:2000) draws a synthesis between knowledge creation, sensemaking and decision making in his model shown in Figure 6.3.
What I find interesting about Choo’s model is that it includes both *shared meaning* and *shared purpose* as drivers of knowledge creating and decision making.

My argument is that shared purpose is a driver but not necessarily shared meaning as discussed before.

It is at this point that I would like to introduce Hoebeke’s concept of the *work system*. He defines it as “a purposeful definition of the real world in which people spend effort in more or less coherent activities for mutually influencing each other and their environment” (2000:6).

Hoebeke distinguishes between four domains of a work system as illustrated below.
Hoebeke emphasises that there is no hierarchical power relation between the activity domains (2000:27). He uses Beer’s (1979) concept of a recursion level, which is defined as follows: “In a recursive organisational structure any viable system contains and is contained in a viable system”. The Innovation domain and the Added value domain are of interest to this study. Hoebeke describes the innovation domain and the added value domain as follows:

"Changes in values in the environment in which the work system in the innovation domain is embedded are sensed and transformed into new products, services and processes. The work system is involved in the discovery and the creation of the added-value of the future" (2000:50).

“The value-systems domain is involved in the permanent creation of the elements of a new culture by creating new languages and new descriptions and prescriptions about the world through a permanent debate between carriers of different worlds, traditions and cultures” (2000:69).

In a sense Hoebeke’s distinction between the two work systems could be used to explain the dilemma of the same team having to maintain and innovate. CSC staff is active in the innovation domain and in the value – systems domain. They continually
improve service quality whilst creating new organisational vocabularies about service quality in a higher education institution. Similarly they conduct routine tasks that become tedious once they have mastered particular skills and knowledge.

Narratives are one of the main carriers of knowledge in modern societies toward the end of the twentieth century (Czarniawska’s, 1998:21). Von Krogh et al. (2000:129) give the following useful matrix in which the connection between knowledge enablers and knowledge-creation steps is indicated. It emphasises the critical role of conversation in knowledge creation.

<table>
<thead>
<tr>
<th>Knowledge-creation steps</th>
<th>Knowledge enablers</th>
<th>Sharing tacit knowledge</th>
<th>Creating a concept</th>
<th>Justifying a concept</th>
<th>Building a prototype</th>
<th>Cross-levelling knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instill a vision</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Manage conversations</td>
<td>✓✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mobilise activists</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create the right context</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Globalise local knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 6.3: The 5x5 Grid: Conversations affect all five knowledge-creation steps (Von Krogh, et al., 2000:209).

Wittgenstein (1958) stated that knowledge is in the eye of the beholder, and that you give meaning to the concept through the way you use it. A generation later than cognitive science and philosophy, the “constructivist perspective” emerged. It holds that cognition is a creative act of construction or creation. Constructivism places emphasis on the mental processes involved in establishing meaning. Cognitive
constructivists regard knowledge as internally represented in the mind of the learner, built in interaction with the surrounding environment (Bonk & Wisher, 2000:7). It requires self-regulation and the building of conceptual structures through reflection and abstraction and is known as **cognitive constructivism** (Dick, 1991:41).

**Constructionism** is a theory that locates meaning in language and the implied socio-cultural context and is also referred to as **social constructivism** (Steffe & Gale, 1995). Both theories endorse problem-based experiential learning to promote critical thinking. **Constructionism** is the concept that it is through language, communication and social constructs that meaning is derived. It emphasizes the social aspects of learning and cognition such as collaboration, negotiation and dialogue. In short, if people privately determined what words meant, communication would become very difficult, because we rely heavily on words, whether it be written or spoken, to establish meaning within specific contexts. According to Boisot *et al.* (1995), an act of communication is always incomplete because a person consciously or unconsciously knows more than he or she can ever express.

The concept of mental models is an important element in trying to understand learning. Jensen (1995:33) affirms this by stating “we never really understand something until we can create a model or metaphor derived from our unique personal world “. Nonaka and Takeuchi (1995:60) define mental models as “working models of the world by making and manipulating analogies in [their] minds”. Mental models “represent a person’s view of the world, including explicit and implicit understanding” (Kim, 1998:45). People use mental models such as paradigms, perspectives, beliefs and schemata to interpret their world (Merrill, Li and Jones, 1990). Mental models provide the context in which to view and interpret new material, and they determine how stored information is relevant to a given situation.

In essence the process of knowledge construction in a constructionist paradigm is an ongoing process of negotiation of meaning. In a value innovation environment **advocacy** and **inquiry** are useful elements to promote teamwork across departments. **Advocacy** is similar to the **justifying** step in creating organizational knowledge. It is also reminiscent of the **sensegiving** concept mentioned in Chapter 3.
Advocacy is about influencing others through rational arguments or through emotional tactics such as threatening, manipulating or inspiring. An example would be to convince the back office to change their processes by threatening to route all the customer complaints to them.

In the current model back office staff is removed from customer complaints and this could lead to complacency on their part. Add to this the prevalent silo culture in a bureaucracy and it becomes challenging to instigate change rapidly enough to prevent repetitive service failure.

Inquiry is self-explanatory and is a valuable skill in any relationship. Inquiry can be useful to draw in different perspectives in order to arrive at an appropriate solution. It also fosters introspection by inviting the views of others. The philosopher Karl Popper adhered to the notion of “critical rationalism” – a concept echoed in the work of Charles Sanders Peirce who advocated inquiry as a means to foster critical thinking (McElroy, 2003:21).

The use of advocacy and inquiry is proposed as one strategy to improve value innovation.

Weick’s theory about sensemaking falls within a constructionist paradigm:

“People need to act in order to discover what they face, they need to talk in order to discover what they think and they need to feel in order to discover what it all means. The ‘saying’ involves action and animation, the ‘seeing’ involves directed observation, the ‘thinking’ involves the updating of previous thinking and the ‘we’ that makes all of this happen takes the form of candid dialogue that mixes together trust, trustworthiness and self-respect.” (Weick, 2002:9).

Schwandt, 2005:185 points out the following:

“Adult learning, especially the cognitive, humanist, and constructivist orientations place the focal imperative on the individual and the role of cognition in change. For them, self-knowledge and critical inquiry into basic assumptions are the drivers of the learning process, while action and experience are seen only as necessary, but not sufficient, ingredients for the process to achieve human meaning and change. The sensemaking construct, although associated with identity building, places action and
experience at its focus. Its characteristics of enactment, plausibility, and social-environmental context have placed an imperative on the pragmatic nature of meaning making and cognition, especially with respect to collective or organizational goals”.

Weick (1995) claims that “Sensemaking” is a critical organisational activity in dynamic and turbulent contexts, where the need to create and maintain coherent understandings that sustain relationships and enable collective action is especially important and challenging. For top managers, sensemaking activities such as environmental scanning and issue interpretation are key tasks that significantly influence organizational decisions and strategic change” (Maitlis, 2005). This explanation implies that sensemaking creates shared meaning and that shared meaning is necessary to create the desired change.

I would like to unpack this notion. It has been established that changes in an environment lead to changes in a system. System changes are brought about by individuals and increasingly by teams because problems are too complex to solve independently. Once again the premise is that a team with shared meaning improves chances of bringing about change.

Weick goes further to argue that sensemaking frameworks [interpret as frameworks that create shared meaning] are operationalized through language and can be influenced by “organizational vocabularies” (1995) that enable the organization to function efficiently and effectively as long as the information entering the organization is consistent with the existing sensemaking frameworks. When the information is inconsistent with the current vocabularies, individuals experience a sense of dissonance that requires an examination of the present framework’s assumptions (Weick, 1995) and that could result in changing perspectives (Mezirow, 1991), basic assumptions, or dominant logics (Prahalad & Bettis, 1986) (Schwandt, 2005:186). Herein Weick acknowledges the dynamic influence of the environment on a system.

The aspect that has not surfaced pertains to the dynamics involved in a team that engages in knowledge creation, sensemaking and innovation (although I do not regard these concepts as discrete units). We know that dissonance in the information from the environment creates new frameworks, but it is not clear what the
relationship between shared meaning and dissonance is when people work together in a team. The premise is once again stated that teamwork in some form or other is a requirement for organisational knowledge creation, sensemaking and innovation to occur.

6.5 Matrix magic is the answer

The emerging patterns from the interviews, the descriptive statistics on interaction volume, survey results and theory assisted me to construct models that illuminated the interdependency between different systems and that propose an ideal system.

The force field analysis highlighted the constraints preventing us from achieving the ideal. A further analysis of literature surfaced different values applicable to team work and innovation respectively.

I set out in search of a culturally feasible and economically viable answer to the complex problem and subsequently had interviews with more colleagues to enrich the perspectives that were captured in the previous round of interviews. They were chosen with a purpose because of their experience of the CSC during different phases of its existence.

I capture their views below:

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deputy director of Academic Administration</td>
<td>Move staff with more specialised knowledge from faculties to the CSC so that clients can be assisted at first contact during peak times.</td>
</tr>
<tr>
<td>Director of Academic Administration</td>
<td>Hold monthly meetings with middle managers of key support departments chaired by the CSC director.</td>
</tr>
<tr>
<td>Director of Information Technology Systems</td>
<td>Separate innovation from routine work. Allocate innovation projects to specific staff members within the department.</td>
</tr>
<tr>
<td>Assistant Director of</td>
<td>Make a Vice-Principal or person on Executive accountable</td>
</tr>
<tr>
<td>Role</td>
<td>Task</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Academic Administration</td>
<td>for service quality and let the CSC report monthly to this person. Use a Balanced Scorecard. Directors of support services must be accountable to this person for service quality. Make service failures visible to all.</td>
</tr>
<tr>
<td>Vice-Principal</td>
<td>Create a CSC forum across all support departments to improve communication and thereby service quality.</td>
</tr>
<tr>
<td>Executive director: Finance</td>
<td>The CSC must report about service quality to top management.</td>
</tr>
<tr>
<td>Deputy director of the CSC</td>
<td>Empower staff in the CSC to make decisions concerning “grey” areas.</td>
</tr>
</tbody>
</table>

Table 6.4: Follow-up interviews with selected colleagues

Their suggestions are economically viable but not all of them are culturally feasible.

In Module 3 a small win came about by creating a forum with representation from all faculties, the CSC and Corporate Communication and Marketing to align and integrate student recruitment initiatives at the University. Through the application of a VSM I realised that System 4 – the intelligence/forward looking function – was lacking in formal mechanisms. The central pool of student recruiters of the CSC shared their market intelligence with the management of the CSC, but not horizontally across the institution. At the same time faculties had their own specialised student recruiters and shared their market intelligence with their deans. As a result this function lacked requisite variety and the necessary control to make it viable. The forum has become standard practice and is particularly effective in fostering relationships and sharing information.

Similarly in 2005 the CSC project leader responsible for the Admission Brochure of the University incorporated the feedback from first year students (Annexure D) and followed the approach of the Student Recruitment forum. She assembled a large team with representation of all the support departments and faculties and set out to improve upon the existing brochure. The team succeeded and as a result of their experience reported positively about the project and the CSC. There was shared purpose because all of them wanted to improve the brochure and especially their part in it. The process contained conflict about content issues but there was sufficient
team cohesion to achieve the shared goal. They appreciated the fact that they were involved right from the start and could therefore contribute throughout the process. The project leader mentioned in her interview that the CSC should increasingly involve more stakeholders in its tasks and activities because it strengthens relationships and builds goodwill.

The same approach was followed successfully with the production of a prospective student CD and improving Faculty brochures.

The success of these two initiatives reminded me of the matrix project team approach that I followed with the implementation of the Virtual Campus and CSC. One of the factors that aid successful innovation is putting the institution or client first. This way the team is focused on a higher vision that transcends interpersonal or interdepartmental conflict. Moreover innovation needs a leader to manage the process. Innovation does not happen out of its own accord because there are too many obstacles in its path.

In light of the line of argument and taking into account the suggestions from colleagues I propose that cross-functional innovation teams are established that are headed by middle managers in the various departments, faculties and the CSC. This way the focus will fall on process improvement and not on silos and turf battles. The amount of change involved will be low (staff do not have to move to a different department) and therefore non-threatening. Moreover the teams will act as a mechanism to bring about double-loop learning in a holistic, structured and sustainable manner.

Frontline CSC staff can alert these teams when they identify service failure. The innovation teams will be responsible to resolve processes in a particular area and empower frontline staff to make real-time decisions. They have to be given the necessary freedom to take risks within the broader parameters of the University. Awareness training about the values of conflict, aggression and risk taking will equip them with a better understanding of an innovation environment. Training in advocacy and enquiry would also be useful. It is further recommended that a team award be introduced as incentive as opposed to individual awards for performance. Innovation
cannot occur without a leader, but the leader cannot innovate without a team. Team members can be selected based on personal development plans and expertise. The teams can report to the suggested Vice-Principal or Executive member accountable for service quality. This model is illustrated in Figure 6.5. I recommend certain focuses for the teams based on my experience.

Figure 6.5: Matrix innovation teams

The matrix innovation teams will improve the following aspects that promote incremental innovation:

- Shared purpose
- Communication
- Team stability
- Conflict arising from diverse perspectives
- Systems knowledge

6.6 Summary
This chapter explored the role of the leader in teamwork and innovation. An overview of knowledge creation, sensemaking and decision making emphasises the crucial role that conversations play in innovation. It is argued that *advocacy* and *enquiry* are two communication strategies that could prove useful in a matrix management and value innovation environment.

In an attempt to find a more holistic solution to the problem I consulted a select number of colleagues in in-depth follow-up interviews. Their suggestions were economically viable but not all of them were culturally feasible. I synthesised their suggestions into a holistic framework and then reflected on small wins that had come about during the EMBA by establishing matrix teams to manage cross-cutting projects. The matrix project team also proved successful with the radical organisational innovations of the Virtual Campus and CSC.

From an ethical perspective the proposed solution of implementing matrix project teams should benefit all concerned. It would also benefit clients by improving interaction quality and empower frontline staff.

It is my contention that the use of matrix project teams is an innovation management strategy that could benefit any business with a focus on innovation.
7. Conclusion

This study explores the Client Service Centre at the University of Pretoria as an example of value innovation. It provides a comprehensive overview of important aspects that should be addressed when establishing a Client Service Centre in a higher education environment. The purpose of the study is to generate innovation management strategies that could improve the long-term sustainability and viability of the CSC. It explains why the unique positioning of the CSC gives the University competitive advantage and shows that its positioning also contains embedded constraints that could jeopardise the long-term sustainability and viability of the CSC.

The study is conducted from a perspective of innovation as a social system. Relationships and teamwork are subsequently identified as the most critical variables that influence the level of service quality, client satisfaction and reputation of the CSC. A model is also constructed that shows that effective learning from service failures reduces workload. The lack of double loop learning is identified as a limitation in the current strategies that are used to address service failure.

No similar studies could be found and therefore this particular study makes a contribution to the field of innovation management in an educational client service environment.

Chapter One outlines the qualitative research approach that was followed in the study. Grounded theory, action research and the case study are drawn upon as research methodologies. Abductive reasoning is used in which theory, data generation and data analysis are developed simultaneously in a dialectical process. Multiple paradigms (Functionalist, Interpretive, Emancipatory and Postmodern) and metaphors (Machine, Brain, Organism, Cultural and political, Psychic prison and Carnival) provide lenses to improve the quality of the reasoning process by sweeping in multiple perspectives. Surveys, interviews, statistics and theory are used as data collection techniques and systems methods are used to interpret and portray data generation over time.
Chapter Two describes innovation as a social system with emphasis on implementation processes. It thereby provides a macro view of the situation and a rationale for choosing a qualitative approach to conduct the research. Social processes are best understood by including the views of people in the natural setting. A discussion on different modes of innovation informs on the various attributes and varying levels of determinism involved. This chapter also describes organisational and radical innovation as an introduction to the case of the CSC.

Chapter Three explains the rationale for establishing the CSC and interprets the concept of CRM in a higher education environment. Theory on service quality and customer satisfaction clarifies the purpose of the CSC and explains why it provides a competitive advantage for the University of Pretoria. A description of the implementation processes makes a contribution to the field of management innovation by indicating how the different streams were managed concurrently.

Chapter Four compares client satisfaction survey results of the CSC for 2003 and 2005 respectively. A slight decrease in client satisfaction is interpreted as a reason for concern and a CLD is constructed to illustrate the interdependence of the CSC on faculties and support departments. The CLD highlights the importance of learning from service failures and the effect that it has on workload and service quality.

Chapter Five incorporates the views of more stakeholders to enrich the concern. CLD’s are used to capture the concern and key drivers that are influencing the ability of CSC staff to render quality service. A BOT diagram illustrates the risk to the long term sustainability and viability of the CSC. The research question is formulated as “What strategies could enable the CSC to manage innovation more effectively?” Relationships and teamwork are identified as the most critical variables that influence the ability of CSC staff to render quality service and for the CSC to remain sustainable and viable.

Chapter Six turns to theory to provide answers on the values that foster teamwork and innovation. The fact that innovation cannot occur without teamwork is emphasised. The literature review uncovers contradictory findings on the values involved in teamwork and innovation and prompts a revisit of the problem.
Seemingly the same values that encourage teamwork inhibit innovation. Knowledge creation and sensemaking are described as paramount to innovation and the use of inquiry and advocacy are proposed as strategies that will enable the CSC to manage innovation more effectively. It is however not adequate as a holistic mechanism to ensure that double loop learning takes place and follow up interviews are held with specific colleagues to generate more solutions. The proposed solutions are economically viable but not all of them are culturally feasible.

The argument that shared meaning is not as important as shared purpose in innovation is supported by findings that strong cultural cohesion and content facilitate teamwork but have the inverse effect on innovation. A process of abductive reasoning is used to illustrate why this is problematic in the CSC. Frontline staff has to be motivated and happy to achieve the desired quality of interaction with clients. They are also positioned to pick up service failure immediately. Research indicates that frontline staff or middle managers are usually responsible for innovation in companies. Yet the values that promote innovation, namely aggression, risk taking, willingness to experiment and accepting mistakes are not conducive to motivated and happy staff. Moreover, frontline staff in the CSC is not empowered to take risks and experiment because they execute the policies of other departments. I therefore propose the use of matrix project teams as a holistic strategy to achieve sustainable innovation in the CSC.

The study is considered to be relevant because of the high failure rate of innovation projects and particularly large scale CRM and BPR projects. A limitation of the study is that it does not directly address ways to manage matrix project teams. The fact that the leader of such teams does not have line management function makes it a challenging task – particularly in organisations with a hierarchical culture.

The validity of my contention that matrix project teams could be beneficial for any business with a focus on innovation could be questioned. However theoretical and practical evidence is provided that matrix project teams improve incremental innovation. It is therefore considered to be an innovation management strategy that can be used wider than the CSC and that is transferable to other environments such
as a business environment. The strategy of using inquiry and advocacy is also considered to be transferable to any environment because it is context independent.

The contribution of the study is that it provides strategies for innovation management. In Chapter Two it was mentioned that there is currently a lack of a clear methodology to assist managers develop innovation performance. The proposed strategies are not methodologies but are grounded in theoretical frameworks that are discussed in the study. The strategies are not new to management studies and in that sense this study simply serves to support their relevance for innovation management.

Critique is that a case study cannot be generalised and its credibility and confirmability could be compromised by my involvement as participative researcher. I made an attempt at triangulation by incorporating a wide range of data sources. Member checking contributed to confirmability.

The study achieves its purpose of analysing a complex situation in an organisation and generating possible solutions to an emerging concern. Further research could be conducted on values involved in teamwork and innovation and the role of cultural content and cohesion.
Bibliography


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### Annexure A: Types of Innovation

<table>
<thead>
<tr>
<th>Type of innovation</th>
<th>Author/s</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radical/Revolutionary/</td>
<td>Marquis, 1969 Henderson &amp; Clark, 1990, Henderson &amp; Clark, 1990</td>
<td>Establishes a new dominant design, which is embodied in components that are linked together in a new architecture of which no increase in scale, efficiency or design can make what it impacts upon competitive with the new. Impacts organisation-wide and often provide competitive advantage. Is accompanied by a high degree of change in human behaviour and paradigms.</td>
</tr>
<tr>
<td>Incremental/Evolutionary/</td>
<td>Marquis, 1969 Henderson &amp; Clark, 1990</td>
<td>Refines and extends an established design, but underlying concepts, and the links between them, remain the same. Continuous improvement of products, processes and services</td>
</tr>
<tr>
<td>Disruptive</td>
<td>Christensen, 1997</td>
<td>Results in worse product performance in the beginning – have attributes that (generally new) customers value</td>
</tr>
<tr>
<td>Sustaining</td>
<td>Christensen, 1997</td>
<td>Improved performance of established products – could be radical or incremental.</td>
</tr>
<tr>
<td>System</td>
<td>Marquis, 1969</td>
<td>Ideas that require several resources and many labour-years to accomplish.</td>
</tr>
<tr>
<td>Architectural</td>
<td>Henderson &amp; Clark, 1990</td>
<td>Existing knowledge or hardware in a product is arranged differently, resulting in a different product and possibly a new market. Often small changes that lead to significant competitive advantage.</td>
</tr>
<tr>
<td>Modular</td>
<td>Henderson &amp; Clark, 1990</td>
<td>Usually represents a radical innovation of a certain part of a total product and often takes place in complex products or processes with many sub units and functions.</td>
</tr>
<tr>
<td>Process/Procedure</td>
<td>Utterback &amp; Abernathy, 1975</td>
<td>Improving current procedures and processes used in the production of products.</td>
</tr>
<tr>
<td>Product/Service</td>
<td>Utterback &amp; Abernathy, 1975</td>
<td>Often associated with new product development. In a service organisation the product is supplying a service to the client.</td>
</tr>
</tbody>
</table>
Annexure B: Client Service Charter

University of Pretoria

*Client Service Centre (CSC)*

Client Service Charter:

Foreword:
This charter describes what you can expect from the University of Pretoria’s Client Service Centre, and what you can do to help us provide better service.

We will provide you with:

- the access to information resources or services that are convenient to you,
- assistance in using these resources or services
- and support you when entering into an interaction with any relevant University department.

This charter informs you of the standards of service that you can expect from us. This charter will also explain the process of what to do if you believe we are not meeting our service standards.

What you can expect from us:

1. Respect for diversity of any kind – language, culture, race, religion or gender
2. We will strive to be informative, helpful and efficient in response to your inquiries
3. We will also be easily identifiable in all our dealings with you, displaying our name tags at all times
4. We will strive to answer all your inquiries with clear, accurate information.
5. We will attend to you within 10 minutes of you being in any queue
6. We will see you within 10 minutes of the time of a scheduled appointment.
7. When calling the call centre we will strive to answer 80% of all our calls within 20 seconds
8. When using our written channel (e-mail fax or post) we will strive to fully resolve your query within four working days
9. We will respond to any message you leave for a specific member of staff, in no longer than 24 hours
10. Respect for diversity of any kind – language, culture, race, religion or gender
11. We will listen to your concerns with empathy and take appropriate action.
12. We will conduct an annual survey to ascertain directly from you your view on certain service offerings.
13. We will deal with you courteously, sensitively and according to the policies of the University of Pretoria

What you can do to assist us
1. Give us accurate and complete information about your particular needs and circumstances
2. Have your student number and up to date contact details, with you at all times.
3. Provide all required documents and information within the specified times.
   If you cannot do so, then tell us straight away. Delays in providing information may delay a decision on your application or enquiry.
4. If you cannot make an appointment please let us know as soon as possible, so that we can continue assisting other clients.
5. Treat our staff assisting you with courtesy.
6. Respect the other clients in the centre.
7. Complete all official forms and official documents using a black pen.
8. Be honest and fair in your dealings with us.

Feedback on our performance
Please let us know should you be satisfied or dissatisfied with the service you receive. It is important that you tell us, so we can use this information to continually improve.

You can either:
- Discuss the matter with one of the Client Service Centre managers
- Hand a letter to one of the managers
- Or e-mail the CSC management at feedback@up.ac.za.

All matters will be treated in confidence and we will provide you with a response to your feedback within 48 working hours.
Annexure C: Client Satisfaction Survey

Client Service Centre Survey Results 2005 compared to 2003

1. Introduction

As stated in the strategic plan of the University of Pretoria, the students of the University are seen as important clients and management is committed to deliver a quality service to them. The Client Service Centre (CSC) plays a vital role in ensuring service quality and in providing a professional service to all clients. In order to continuously improve and to expand the services rendered by CSC it is important to measure the level of client satisfaction amongst the major customer groups on a regular basis. An extensive client satisfaction measurement survey was conducted in 2003 and the recommendations of this survey were implemented over the past two years. It was decided to repeat the client satisfaction measurement survey during August 2005. The results of this survey are summarized in this report.

1.1. Aim of the survey

The main aim of the survey is to measure the level of client satisfaction amongst the major customer groups and to identify the areas of client services with which our clients are satisfied and dissatisfied.

The survey results are also compared with the previous survey results to establish whether previously identified problems have been addressed and whether service levels have increased or decreased.

1.2. Research methodology

The research was done by means of personal interviews with clients. The following methods were used to obtain respondents.

Parents and prospective students were contacted telephonically. The calls were made from the Call Centre in the Client Service Centre.
Undergraduate and postgraduate students were interviewed on campus by the field workers, and questionnaires were completed in an interview situation where the questions were asked and completed by the field workers.

The final research sample was constituted as follows:

Table 1.1
Research sample

<table>
<thead>
<tr>
<th>Client group</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current undergraduate residence students</td>
<td>880</td>
</tr>
<tr>
<td>Current undergraduate day students</td>
<td>900</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>500</td>
</tr>
<tr>
<td>Alumni</td>
<td>100</td>
</tr>
<tr>
<td>Prospective students</td>
<td>200</td>
</tr>
<tr>
<td>Black students</td>
<td>1250</td>
</tr>
<tr>
<td>White students</td>
<td>1330</td>
</tr>
<tr>
<td>Total</td>
<td>2580</td>
</tr>
</tbody>
</table>

1.3 Report structure

Apart from the introduction, the report is structured as follows:
Chapter 2 gives an overview of the total service performance of the Client Service Centre. Chapter 3 gives a summary of the survey results.

2. Total results

The results of the research study will be portrayed according to the different questions that were asked in the questionnaire.
2.1 Channels

Question 2 and 3 of section A determined which channels in the CSC are used by the respondents and for which services the respondents visited the CSC.

Table 2.1
Service channels used in the Client Service Centre

<table>
<thead>
<tr>
<th>Channel</th>
<th>2005 Percentage</th>
<th>2003 Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice channel (Call Centre)</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>Written channel (E-mail, fax and post)</td>
<td>14%</td>
<td>24%</td>
</tr>
<tr>
<td>Walk-in services (general enquiries, payments, parking, access cards etc.)</td>
<td>59%</td>
<td>55%</td>
</tr>
<tr>
<td>Online applications</td>
<td>13%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Table 2.2
Services used at the Client Service Centre

<table>
<thead>
<tr>
<th>Services</th>
<th>2005 Percentage</th>
<th>2003 Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application for admission</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Student card</td>
<td>15%</td>
<td>8%</td>
</tr>
<tr>
<td>Payments</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>Academic record</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Student account</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>General enquiries</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>Accommodation</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Proof of registration</td>
<td>11%</td>
<td>8%</td>
</tr>
<tr>
<td>Documentation request</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Study financing</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Student online services</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Online application</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Degree certificate</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Career placement centre</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>
From the above tables it is evident that the majority of students who participated in the survey used the “walk-in” service channel at the Client Service Centre. The services that are most frequently used by students include the following:

- Student cards
- Payments
- Proof of registration
- Application for admission
- Study financing
- Academic record

### 2.2 Service quality

The quality of services delivered in the Client Service Centre was measured according to eight service quality factors in seven different market segments.

#### 2.2.1 Results per market segment

The results are given per market segment.

**Factor 1: We are friendly in the way we greet and treat you**

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>7%</td>
<td>11%</td>
<td>43%</td>
<td>39%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>5%</td>
<td>10%</td>
<td>49%</td>
<td>37%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>4%</td>
<td>7%</td>
<td>40%</td>
<td>49%</td>
</tr>
<tr>
<td>Residence students</td>
<td>6%</td>
<td>10%</td>
<td>49%</td>
<td>36%</td>
</tr>
<tr>
<td>Day students</td>
<td>5%</td>
<td>9%</td>
<td>49%</td>
<td>37%</td>
</tr>
<tr>
<td>International students</td>
<td>4%</td>
<td>7%</td>
<td>43%</td>
<td>46%</td>
</tr>
<tr>
<td>Alumni</td>
<td>10%</td>
<td>14%</td>
<td>42%</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4%</td>
<td>9%</td>
<td>47%</td>
<td>39%</td>
</tr>
</tbody>
</table>
11% of the total respondents indicated that they do not perceive the staff to be friendly in the way they greet and treat the clients.

The majority of clients (47%) felt that the service can improve.

Only 39% of the clients were totally satisfied with the service, with international students being the most satisfied.

Factor 2: We are quick in responding to your enquiries

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>24%</td>
<td>6%</td>
<td>38%</td>
<td>32%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>5%</td>
<td>14%</td>
<td>47%</td>
<td>34%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>3%</td>
<td>11%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Residence students</td>
<td>3%</td>
<td>13%</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>Day students</td>
<td>5%</td>
<td>14%</td>
<td>48%</td>
<td>33%</td>
</tr>
<tr>
<td>International students</td>
<td>3%</td>
<td>13%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Alumni</td>
<td>7%</td>
<td>7%</td>
<td>46%</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td>5%</td>
<td>13%</td>
<td>47%</td>
<td>35%</td>
</tr>
</tbody>
</table>

30% of the prospective students indicated that they were not satisfied with the responding time on enquiries.

The majority of the current students indicated that the service is average and can improve.

Only 35% of the clients totally agree with the statement.

Factor 3: We provide relevant and comprehensive information as needed

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>7%</td>
<td>11%</td>
<td>44%</td>
<td>38%</td>
</tr>
<tr>
<td>Market segment</td>
<td>Disagree</td>
<td>Disagree to some extent</td>
<td>Agree to some extent</td>
<td>Totally agree</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>-------------------------</td>
<td>----------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Prospective students</td>
<td>1%</td>
<td>1%</td>
<td>7%</td>
<td>91%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>2%</td>
<td>1%</td>
<td>12%</td>
<td>86%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>2%</td>
<td>1%</td>
<td>12%</td>
<td>86%</td>
</tr>
<tr>
<td>Residence students</td>
<td>2%</td>
<td>1%</td>
<td>12%</td>
<td>86%</td>
</tr>
<tr>
<td>Day students</td>
<td>1%</td>
<td>1%</td>
<td>13%</td>
<td>85%</td>
</tr>
<tr>
<td>International students</td>
<td>2%</td>
<td>2%</td>
<td>16%</td>
<td>81%</td>
</tr>
<tr>
<td>Alumni</td>
<td>3%</td>
<td>3%</td>
<td>14%</td>
<td>79%</td>
</tr>
<tr>
<td>Total</td>
<td>2%</td>
<td>1%</td>
<td>12%</td>
<td>86%</td>
</tr>
</tbody>
</table>

The majority of prospective students want more comprehensive and relevant information from the Client Service Centre. Alumni indicated that the service levels were not excellent.

Factor 4: Our building is clean, tidy, convenient and pleasant

The majority of clients in all the target groups indicated that they were satisfied with the conditions and appearance of the building.
Factor 5: Our operational hours are convenient and meet the clients’ needs

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>1%</td>
<td>15%</td>
<td>29%</td>
<td>54%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>5%</td>
<td>15%</td>
<td>35%</td>
<td>45%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>8%</td>
<td>19%</td>
<td>38%</td>
<td>35%</td>
</tr>
<tr>
<td>Residence students</td>
<td>7%</td>
<td>17%</td>
<td>36%</td>
<td>40%</td>
</tr>
<tr>
<td>Day students</td>
<td>4%</td>
<td>13%</td>
<td>37%</td>
<td>46%</td>
</tr>
<tr>
<td>International students</td>
<td>8%</td>
<td>18%</td>
<td>31%</td>
<td>43%</td>
</tr>
<tr>
<td>Alumni</td>
<td>11%</td>
<td>26%</td>
<td>30%</td>
<td>33%</td>
</tr>
<tr>
<td>Total</td>
<td>5%</td>
<td>16%</td>
<td>35%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Especially students and clients who are not regularly on campus indicated that the new office hours of the CSC were inconvenient.

Factor 6: We are always accessible and available for service

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>2%</td>
<td>4%</td>
<td>24%</td>
<td>70%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>3%</td>
<td>14%</td>
<td>45%</td>
<td>37%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>2%</td>
<td>17%</td>
<td>46%</td>
<td>36%</td>
</tr>
<tr>
<td>Residence students</td>
<td>3%</td>
<td>16%</td>
<td>44%</td>
<td>36%</td>
</tr>
<tr>
<td>Day students</td>
<td>3%</td>
<td>14%</td>
<td>48%</td>
<td>34%</td>
</tr>
<tr>
<td>International students</td>
<td>2%</td>
<td>18%</td>
<td>39%</td>
<td>40%</td>
</tr>
<tr>
<td>Alumni</td>
<td>4%</td>
<td>11%</td>
<td>57%</td>
<td>29%</td>
</tr>
<tr>
<td>Total</td>
<td>3%</td>
<td>15%</td>
<td>45%</td>
<td>37%</td>
</tr>
</tbody>
</table>
70% of the prospective students rated the availability of the staff as good. Current students and especially alumni were less satisfied with the availability of staff.

Factor 7: Our staff members are professional in appearance and behaviour

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>2%</td>
<td>3%</td>
<td>24%</td>
<td>71%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>5%</td>
<td>12%</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>5%</td>
<td>13%</td>
<td>47%</td>
<td>35%</td>
</tr>
<tr>
<td>Residence students</td>
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<td>15%</td>
<td>42%</td>
<td>37%</td>
</tr>
<tr>
<td>Day students</td>
<td>5%</td>
<td>11%</td>
<td>44%</td>
<td>41%</td>
</tr>
<tr>
<td>International students</td>
<td>5%</td>
<td>14%</td>
<td>46%</td>
<td>35%</td>
</tr>
<tr>
<td>Alumni</td>
<td>4%</td>
<td>4%</td>
<td>59%</td>
<td>33%</td>
</tr>
<tr>
<td>Total</td>
<td>5%</td>
<td>12%</td>
<td>42%</td>
<td>41%</td>
</tr>
</tbody>
</table>

On average, 41% of the clients experienced the behaviour and appearance of staff as professional while 42% were of the opinion that it can improve. The prospective students appear to be more impressed with the appearance and behaviour of the staff than the other client groups.

Factor 8: We understand our clients’ needs and requirements

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective students</td>
<td>2%</td>
<td>2%</td>
<td>20%</td>
<td>75%</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>5%</td>
<td>13%</td>
<td>45%</td>
<td>37%</td>
</tr>
<tr>
<td>Postgraduate students</td>
<td>4%</td>
<td>14%</td>
<td>42%</td>
<td>40%</td>
</tr>
</tbody>
</table>
The majority of the prospective student market totally agrees that the CSC understands their needs and requirements. The other client groups were less convinced and the majority only agreed to some extent with the statement.

### 2.2.2 Results per race

The results per race are as follows:

#### Factor 1: We are friendly in the way we greet and treat you

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>3%</td>
<td>6%</td>
<td>47%</td>
<td>42%</td>
</tr>
<tr>
<td>Black students</td>
<td>6%</td>
<td>11%</td>
<td>48%</td>
<td>36%</td>
</tr>
<tr>
<td>Total</td>
<td>4%</td>
<td>9%</td>
<td>47%</td>
<td>39%</td>
</tr>
</tbody>
</table>

#### Factor 2: We are quick in responding to your enquiries

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>4%</td>
<td>12%</td>
<td>49%</td>
<td>36%</td>
</tr>
<tr>
<td>Black students</td>
<td>5%</td>
<td>14%</td>
<td>47%</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>5%</td>
<td>13%</td>
<td>47%</td>
<td>35%</td>
</tr>
</tbody>
</table>
Factor 3: We provide relevant and comprehensive information as needed

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>3%</td>
<td>10%</td>
<td>47%</td>
<td>41%</td>
</tr>
<tr>
<td>Black students</td>
<td>3%</td>
<td>8%</td>
<td>43%</td>
<td>45%</td>
</tr>
<tr>
<td>Total</td>
<td>3%</td>
<td>9%</td>
<td>45%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Factor 4: Our building is clean, tidy, convenient and pleasant

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>2%</td>
<td>1%</td>
<td>14%</td>
<td>83%</td>
</tr>
<tr>
<td>Black students</td>
<td>1%</td>
<td>1%</td>
<td>9%</td>
<td>88%</td>
</tr>
<tr>
<td>Total</td>
<td>2%</td>
<td>1%</td>
<td>12%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Factor 5: Our operational hours are convenient and meet the clients' needs

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>5%</td>
<td>16%</td>
<td>36%</td>
<td>43%</td>
</tr>
<tr>
<td>Black students</td>
<td>6%</td>
<td>15%</td>
<td>35%</td>
<td>44%</td>
</tr>
<tr>
<td>Total</td>
<td>5%</td>
<td>16%</td>
<td>35%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Factor 6: We are always accessible and available for service

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>4%</td>
<td>15%</td>
<td>46%</td>
<td>35%</td>
</tr>
<tr>
<td>Black students</td>
<td>3%</td>
<td>14%</td>
<td>44%</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>3%</td>
<td>15%</td>
<td>45%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Factor 7: Our staff members are professional in appearance and behaviour

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>4%</td>
<td>10%</td>
<td>43%</td>
<td>42%</td>
</tr>
<tr>
<td>Black students</td>
<td>6%</td>
<td>13%</td>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>5%</td>
<td>12%</td>
<td>42%</td>
<td>41%</td>
</tr>
</tbody>
</table>
Factor 8: We understand our clients' needs and requirements

<table>
<thead>
<tr>
<th>Race</th>
<th>Disagree</th>
<th>Disagree to some extent</th>
<th>Agree to some extent</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>White students</td>
<td>4%</td>
<td>12%</td>
<td>46%</td>
<td>38%</td>
</tr>
<tr>
<td>Black students</td>
<td>5%</td>
<td>14%</td>
<td>44%</td>
<td>37%</td>
</tr>
<tr>
<td>Total</td>
<td>4%</td>
<td>13%</td>
<td>45%</td>
<td>37%</td>
</tr>
</tbody>
</table>

It is evident from the above results that there is almost no difference in the service quality levels experienced by Black and White students.

2.3 Comparison with 2003 results

In Table 2.3 the results of the 2003 and 2005 surveys are compared.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>2005 Average score</th>
<th>2003 Average score</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are friendly in the way we greet and treat you</td>
<td>64.2%</td>
<td>65.2%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>We are quick in responding to your enquiries</td>
<td>62.0%</td>
<td>63.6%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>We provide relevant and comprehensive information as needed</td>
<td>65.2%</td>
<td>66.0%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Our building is clean, tidy, convenient and pleasant</td>
<td>76.0%</td>
<td>81.6%</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Our operational hours are convenient and meet the clients' needs</td>
<td>63.6%</td>
<td>66.4%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>We are always accessible and available for service</td>
<td>63.2%</td>
<td>64.6%</td>
<td>-1.4%</td>
</tr>
</tbody>
</table>
Our staff members are professional in appearance and behaviour | 63.8% | 66.2% | -2.4%
---|---|---|---
We understand our clients' needs and requirements | 63.2% | 63.6% | -0.04%
Average | 64.0% | 67.1% | -3.1%

If the performance results are compared with those of the 2003 survey it is evident that there has been a decrease of 3% in the performance results.

3. Conclusions

Given the study results the following important conclusions can be made:

There has been a decrease in the general level of service quality offered by the Client Service Centre. The service criteria where a notable decrease in service quality was experienced include the following:

Staff members are professional in appearance and behaviour
The building is clean, tidy, convenient and pleasant
Operational hours are convenient and meet the clients’ needs

Prospective students seem to be particularly less satisfied with the following services:
Response time on enquiries
The provision of relevant and comprehensive information

It also evident that the general service offerings to the alumni target market are not on standard and can improve.

Particular problem areas include the following:

- The provision of relevant and comprehensive information
- Operational hours
- Understanding and addressing clients' needs
The study results also showed that there is almost no difference in the service quality levels experienced by Black and White students.

It can finally be concluded that there are no serious service problem areas within the CSC and for the majority of students the service levels are acceptable. It is, however, clear that overall the CSC should increase the quality of its services to all its clients.
Annexure D: Recruitment and Information Publications for the Prospective Student Market

INTRODUCTION

Background to the research study

The prospective student market is very competitive and there exists fierce competition between the various universities to recruit quality students in this market segment. In order for the University of Pretoria to maintain and grow its market share in the prospective student market it continuously needs to monitor the market and adapt its market strategies to fit the needs of its potential clients.

The current marketing material that UP is using - the admission requirements brochure and the various faculty brochures - are very important marketing tools in the recruitment process as in many cases it is the first and only connection that potential students have with the university. Very often these potential students form their impressions and make their final decision to study at an institution based on the perceptions and information of the brochures provided.

It is therefore very important to get a clear understanding of the needs and requirements of prospective students regarding the admission requirements brochure as well as the various faculty brochures.

Scope of the research study

A qualitative market study was conducted amongst the current first year students to determine the following aspects regarding the admission requirements brochure as well as the various faculty brochures:

The role and function of the different brochures during the decision making process
The brochures’ contents and comprehensiveness
The brochures’ look and feel and perceptions regarding possible alternatives
The availability of the faculty brochures
The following factors were also discussed in the questionnaire:

Applications to other universities
UP’s recruitment methods versus other universities
Views and perceptions regarding the Innovation Generation logo

Methodology

The information was gathered by means of focus group discussions with current first year students in the various faculties. Both male and female students were chosen randomly and formally invited to the discussions. A total of 110 students were interviewed representing a 38% black and 62% white ratio.

Admission Requirements BROCHURE

The admission requirements brochure contains comprehensive information regarding the different fields of study offered by the University of Pretoria, how a prospective student can qualify for admission, how and when to apply for admission, related information regarding loans, bursaries and fees, relevant contact details and many more valuable information.

The results of the research study will be portrayed according to the different questions that were asked in the questionnaire.

Question 1

Did you use the admission requirements brochure during your decision making process?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>98%</td>
<td>2%</td>
</tr>
<tr>
<td>Humanities</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Race group</td>
<td>96%</td>
<td>4%</td>
</tr>
<tr>
<td>------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>White</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Even though the results show that 4% of the black students that were interviewed did not use the admission requirements brochure during their decision making process, the University’s attention should be focussed on the 99% of students that did make use of the admissions requirements brochure during their decision making process.

**Question 2**

Which information in the admission requirements brochure was most important to you?

The study results indicate that the following factors are most important to prospective students when using the admission requirements brochure:

- The m-score (how to calculate it and how it varies for each curriculum)
- Academic requirements
- Grade 12 subjects needed
- Cost to study
- Different fields of study (courses)
- Bursaries

It is very important to remember that the admission requirements brochure is often the first contact that a prospective student has with the University of Pretoria. All the initial information that a Grade 12 pupil could possibly need in order to determine whether he or she will qualify for admission to the University of Pretoria has to be compiled into this specific brochure.
Question 3
Were you able to find the necessary information in the admission requirements brochure?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>Humanities</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>EBIT</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>Natural and Agricultural Sciences</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Education</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>Law</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>Theology</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>65%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Race group

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>White</td>
<td>66%</td>
<td>34%</td>
</tr>
</tbody>
</table>

It is interesting to note that although 99% of prospective students use the admission requirements brochure only 65% were able to find all the necessary information they were looking for. The following factors are the primary information that the prospective students could not find in the admission requirements brochure:

- More detailed information regarding residences and other accommodation options
- A better explanation of what the different specialisations within each faculty entail
- The subjects related to each curriculum
- Postgraduate study options
- Explanations of the SAT and administration tests
- Information regarding the foundation course as well as the extended programme

Question 4
Was there any other information that you were looking for and could not find?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Humanities</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>EBIT</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Natural and Agricultural Sciences</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Education</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>Law</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>Theology</td>
<td>10%</td>
<td>90%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>39%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Race group

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>White</td>
<td>66%</td>
<td>34%</td>
</tr>
</tbody>
</table>
During the in-depth interviews the following factors were identified as other important information that are currently not in the admission requirements brochure:

Bursaries offered by external companies
Mentorship programmes offered by external companies
More information regarding campus and student life
Information regarding the orientation programme
Detailed information regarding the opportunities for international students
Explanations regarding selection processes for specific fields of study

Question 5
Would you have liked to receive the admission requirements brochure electronically (e.g. via e-mail or on a CD)?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>56%</td>
<td>44%</td>
</tr>
<tr>
<td>Humanities</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>EBIT</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>Natural and Agricultural Sciences</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Education</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Law</td>
<td>57%</td>
<td>43%</td>
</tr>
<tr>
<td>Theology</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>Race group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>White</td>
<td>72%</td>
<td>28%</td>
</tr>
</tbody>
</table>

The majority of current first year students that were interviewed indicated that they would have enjoyed receiving the admission requirements brochure via e-mail or on a CD. Should a recruitment CD be distributed to prospective students it would have to be very comprehensive as well as interactive. The CD will have to give the user an in-depth look into the University of Pretoria as an institution, student life on campus as well as in the residences and also still be able to provide the user with all the necessary academic information.
A great concern however is the limited computer literacy and access of black prospective students; therefore the admission requirements brochure cannot be discontinued. Many of the students that were interviewed and indicated that they would prefer the CD also said that they would appreciate still having the brochure in book format, as they are then able to take it with them wherever they go and can also quickly refer back to it should it be required.

**Faculty brochures**

Each faculty has a brochure providing specific and comprehensive information to a prospective student. These brochures contain information regarding what school subjects are needed for each field of study, the different degrees and courses offered within the faculty, postgraduate options, contents of the degrees, etc.

The results of the research study will once again be portrayed according to the different questions that were asked in the questionnaire.

**Question 6**

When did you use the faculty brochure?

According to the study results the faculty brochures are most often used in the following instances:

- When choosing a specific field of study within a faculty
- When more information regarding a specific curriculum is required
- To compare various courses within a faculty

It is very important to realise that the faculty brochure need to reach the prospective student once he or she is accepted at the University of Pretoria. Many respondents complained that they either received the faculty brochure too late or did not receive it at all. A large number of respondents mentioned that they did not even know about the faculty brochures. Once they had the opportunity to look at the faculty brochures (during the in-depth interviews and further discussions) they stated that the faculty brochures would have been a very useful tool during their decision making process.
Question 7
How did you manage to get the faculty brochure?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It was posted to me</td>
<td>29%</td>
</tr>
<tr>
<td>I had to phone and ask for it</td>
<td>14%</td>
</tr>
<tr>
<td>I received it at my school</td>
<td>25%</td>
</tr>
<tr>
<td>Other (At open day, during orientation, on my first day at UP, from a friend, expo’s etc.)</td>
<td>32%</td>
</tr>
</tbody>
</table>

It is very interesting to note that one third of the current first year students that participated in the research study indicated that they did not originally receive the faculty brochure at one of the three options that were given in the questionnaire but by other means which they then specified under option four.

Question 8
Which information in the faculty brochure was of great use to you?
The following factors were mentioned as being of great use to the prospective students:

Future career opportunities
The duration of a course in order to get a degree
The cost related to the different fields of study
Possible subject choices
Postgraduate study options

It is extremely critical to ensure that the faculty brochures contain all the extra information that is not provided in the admission requirements brochure. The faculty brochures need to provide a prospective student with all the additional information he or she is looking for before coming to the campus of the University of Pretoria as an undergraduate student. Each faculty brochure should be a portrait of the faculty in order to give the prospective student the best possible idea of what to expect when arriving at the University of Pretoria.
Question 9
Would you prefer a summary of the faculty brochure in a pamphlet format other than the current book format?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td>Humanities</td>
<td>23%</td>
<td>77%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>EBIT</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Natural and Agricultural Sciences</td>
<td>13%</td>
<td>87%</td>
</tr>
<tr>
<td>Education</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Law</td>
<td>14%</td>
<td>86%</td>
</tr>
<tr>
<td>Theology</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>Race group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>White</td>
<td>21%</td>
<td>79%</td>
</tr>
</tbody>
</table>

According to the research survey 79% of the current first year students that were interviewed indicated that they would not prefer a summary of the faculty brochure in a pamphlet format. The main reason for this result is that the students want as much information as possible. They do not want any vital information to be excluded, which is likely to happen should the pamphlet replace the faculty brochure. They are however in favour of having the pamphlet at open days and other big university recruitment and/or information events.

Question 10
What type of information should be provided in the faculty brochure?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible career choices and study fields</td>
<td>16%</td>
</tr>
<tr>
<td>Faculty bursaries</td>
<td>5%</td>
</tr>
<tr>
<td>International liaison</td>
<td>1%</td>
</tr>
<tr>
<td>Companies that work with the faculty and offer possible internship</td>
<td>5%</td>
</tr>
<tr>
<td>All of the above</td>
<td>72%</td>
</tr>
</tbody>
</table>

As the results indicate the students are very interested in all of the above-mentioned options. However one aspect that is very critical to the majority of respondents are possible future career opportunities. There exists a significant need for more information regarding future career prospects and possibilities after completing a degree at the University of Pretoria. This is definitely an area worth exploring in
order to ensure that the various faculty brochures are as comprehensive as possible in future.

**Question 11**
What type of information need to be in the faculty brochure that is not provided in the admission requirements?

The following factors are the most important information that prospective students would like to find in the various faculty brochures:

The admission requirements for postgraduate studies
Detailed bursary and study loan information, also stipulating the necessary procedures
Possible career choices and opportunities
Detailed information regarding the cost to study
Everything relating to subject choices and subject possibilities
More information regarding selection courses as well as the selection procedures
Information regarding community service and internships in specific fields of study
Other activities that take place within each faculty that is not academic related

Applications at other universities, recruitment methods and perceptions regarding the innovation generation logo

**Question 12a**
Did you apply at any other university?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Humanities</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>EBIT</td>
<td>57%</td>
<td>43%</td>
</tr>
<tr>
<td>Natural and Agricultural Sciences</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Education</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Law</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Theology</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Race group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>White</td>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>
According to the research results it is very interesting to note that 47% of the current first year students that were interviewed only applied at the University of Pretoria. This type of information should be used intelligently as far as recruitment strategies are concerned in order to ensure that this percentage continues to grow.

**Question 12b**
Please indicate at which other university you applied:

<table>
<thead>
<tr>
<th>Faculty</th>
<th>US</th>
<th>Potch</th>
<th>UCT</th>
<th>RAU</th>
<th>Wits</th>
<th>UFS</th>
<th>UKZN</th>
<th>Rhodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>E &amp; M</td>
<td>14%</td>
<td>---</td>
<td>71%</td>
<td>---</td>
<td>29%</td>
<td>---</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Human</td>
<td>36%</td>
<td>18%</td>
<td>9%</td>
<td>18%</td>
<td>---</td>
<td>9%</td>
<td>18%</td>
<td>9%</td>
</tr>
<tr>
<td>Health</td>
<td>60%</td>
<td>24%</td>
<td>20%</td>
<td>20%</td>
<td>---</td>
<td>39%</td>
<td>18%</td>
<td>---</td>
</tr>
<tr>
<td>EBIT</td>
<td>---</td>
<td>---</td>
<td>27%</td>
<td>10%</td>
<td>63%</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>N &amp; A</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>51%</td>
<td>22%</td>
<td>---</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Edu</td>
<td>37%</td>
<td>63%</td>
<td>---</td>
<td>---</td>
<td>22%</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law</td>
<td>14%</td>
<td>29%</td>
<td>29%</td>
<td>14%</td>
<td>57%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Theo</td>
<td>---</td>
<td>16%</td>
<td>---</td>
<td>37%</td>
<td>16%</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>16%</td>
<td>16%</td>
<td>20%</td>
<td>18%</td>
<td>28%</td>
<td>13%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Please note that in the above table some students named more than one university and other students did not answer the question at all. The information is also not statistically representative of each faculty.

**Question 13**
Are there other universities that have more informative brochures and better recruitment methods than the University of Pretoria?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Management Sciences</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Humanities</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>39%</td>
<td>61%</td>
</tr>
<tr>
<td>EBIT</td>
<td>57%</td>
<td>43%</td>
</tr>
<tr>
<td>Natural and Agricultural Sciences</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Education</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Law</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>Theology</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>51%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Even though the results indicate that only 51% of prospective students feel that there are other universities with more informative brochures and better recruitment
methods than the University of Pretoria, this is not a matter to be under estimated or to be taken lightly. The University of Pretoria will definitely have to re-evaluate their recruitment personnel as well as their recruitment material as it was repeatedly mentioned during the interviews that the University of Pretoria’s recruitment strategies are not modern and vibrant enough. The university is sure to loose valuable and excellent students should the recruitment strategies not be revised and drastically improved. Unfortunately recruiters have the ability to influence prospective students and leave them with a certain perception about an institution. The power of direct marketing should not be underestimated in this regard. It is suggested that the comprehensive comments in appendix 1 relating to this question are studied in order to understand the prospective student’s views.

**Question 14:**
What is your view and opinion regarding the Innovation Generation logo?

The majority of interviewed first year students mentioned that the Innovation Generation logo is very vibrant, colourful and eye catching. Most students indicated that they noticed the logo and that it made them curious. The only significant problem is that the meaning of the logo and the idea behind the original concept was never explained to the students and therefore the logo has no value or meaning to them as first year students

**Recommendations**

**Admission requirements brochure**

Given the study results it is evident that the admission requirements brochure play a vital role in providing a prospective student with the initial and critical information he or she is looking for in order to become acquainted with the University. This brochure should mainly help a prospective student to know what is required from him or her to apply to the University of Pretoria.
Faculty brochures

The research study shows that the various faculty brochures are very important to prospective students that are admitted to the University of Pretoria. The faculty brochures should be the source of all other significant and critical information that is required by the prospective student in order to be fully prepared for his or her undergraduate studies. It is very important that the faculty brochure reach the prospective student before he or she arrives at the University for the start of their tertiary education.

Students have to be aware of the fact that there are faculty brochures and that it is significantly different from the admission requirements brochure as far as information is concerned.

Alternative recruitment and information material

During the research study it became evident that alternative recruitment and information material (e.g. an interactive cd) has great potential amongst the majority of the University’s prospective student market. A large number of students would still prefer the information in the brochure format since it can be taken with them wherever they go and because many students still do not have computer and/or Internet access at home. Therefore an interactive CD can be introduced to the white prospective student market as soon as possible, but it should be gradually phased in within the black prospective student market as the need continues to grow.

An interactive recruitment CD will be a very vibrant way to attract prospective students’ attention but it can never replace the existing value of the admission requirements brochure or the various faculty brochures.

As far as the faculty pamphlet is concerned it is a great concept to use during open days and other big information and/or recruitment events.
Competitors

The study results clearly indicate that there is much room for improvement as far as our recruitment methods and material are concerned. The current first year students indicated that many other universities have much more exciting recruitment videos, CD’s, and other material as well as vibrant personnel that visit their schools. The students are very sensitive to the information they receive from the representatives of the various universities. It is critical to remember that often the recruiters that visit the schools are the first source of contact that the prospective students have with the university and they definitely compare the various recruiters and universities with each other. The University of Pretoria’s recruitment team will have to work on a new and modern recruitment strategy in order for the University of Pretoria to maintain its highly acclaimed image and status as a first class university.

The University of Pretoria is a very prestigious and well-known institution. It is vital not to forget that we are in a very competitive environment as far as the recruitment of potential students are concerned and therefore we should optimise our resources and ensure that we stay ahead of modern times and never under estimate our competitors.

Innovation Generation logo

Should the University of Pretoria decide to keep the Innovation Generation logo and concept a definite action plan will have to be established in order to specifically inform all students about the original idea behind the concept as well as the meaning of the logo. As long as students are aware of the logo but do not understand or know the meaning the concept has no value at all.
### Annexure E: Themes from individual interviews (September – November 2005)

<table>
<thead>
<tr>
<th></th>
<th>Deans (7)</th>
<th>Directors (5)</th>
<th>Heads: Student administration (8)</th>
<th>CSC staff (67)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diversity</strong></td>
<td>CSC staff must possess the requisite variety and diversity to interact with all the different market segments – particularly with regard to race, culture and language.</td>
<td>Subtle racism (white and black).</td>
<td>There is still subtle racism in faculties and in the CSC.</td>
<td>Some call centre agents talk down to rural students and provide a better service when the client has status.</td>
</tr>
<tr>
<td><strong>Relationships</strong></td>
<td>Good.</td>
<td>Good. Room for improvement.</td>
<td>Good. Collaboration is very good. We fully support the CSC.</td>
<td>Good with clients. Room for improvement in terms of relationships with support departments (Back office).</td>
</tr>
<tr>
<td><strong>Values and culture</strong></td>
<td></td>
<td></td>
<td>CSC staff is always enthusiastic and willing to learn. Attrition leads to knowledge gaps – particularly general enquiries agents. Positive attitude of CSC staff. People are always friendly</td>
<td>Other departments do not share the values of customer service and innovation. Very happy. Low morale. Need a new challenge. No promotion opportunities. Lack of team</td>
</tr>
</tbody>
</table>
and helpful. work. Conflict among staff. Enjoy environment and wants to work in the CSC. Low morale because of vacancies and absence of director.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems</td>
<td>Inadequate to support service levels we aim for.</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>Continuous training by experts in faculties is required. Lack of in-depth knowledge of staff is problematic</td>
<td>Training is sufficient but the timing is not always good</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Innovation</td>
<td>The model works.</td>
<td>The model works and is critical for any University. Leader in South Africa.</td>
</tr>
<tr>
<td>Marketing</td>
<td>Market CSC functions in the University to create more awareness.</td>
<td>Improves the image of the University.</td>
</tr>
<tr>
<td>Communication</td>
<td>Remains a challenge.</td>
<td>Generally good, but remains a</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>Concerned that the CSC will draw funding away from faculties.</td>
<td>Need additional staff. Student recruiters need better laptops.</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Work space and environment</strong></td>
<td>Nice environment / space</td>
<td>Lack of physical work - space. Clean and vibrant. High stress levels. Too much noise.</td>
</tr>
<tr>
<td><strong>Productivity</strong></td>
<td>Impressed with the scope and work -load that the CSC handles.</td>
<td>The inception of the CSC has reduced the work load in faculties. Some colleagues do as little as possible.</td>
</tr>
</tbody>
</table>
Annexure F: Using metaphors as lenses to view the CSC

<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Characteristic</th>
<th>Outcome</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine</td>
<td>Tasks are straightforward.</td>
<td>Mostly.</td>
<td>Student recruitment, student accounts, payments, residence placement, study finance, course consultation, cards.</td>
</tr>
<tr>
<td></td>
<td>Same basic product.</td>
<td>No. Enormous and complex range of business rules related to different products (programmes) and services.</td>
<td>550 different programmes with permutations, different rules and exceptions in all services.</td>
</tr>
<tr>
<td></td>
<td>Precision and efficiency at premium.</td>
<td>Yes.</td>
<td>All services have to be executed within the framework of the CSC service charter and Key Performance Indicators.</td>
</tr>
<tr>
<td></td>
<td>Procedures, routine and bureaucracy.</td>
<td>Yes.</td>
<td>The majority of processes have been made explicit and occur on a daily basis.</td>
</tr>
</tbody>
</table>

Table 7.1: Machine metaphor
<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Characteristics</th>
<th>Outcome</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organism</td>
<td>Responsive to environment.</td>
<td>Yes.</td>
<td>Feedback loops for majority of processes.</td>
</tr>
<tr>
<td></td>
<td>Decentralised/diffused leadership.</td>
<td>Yes.</td>
<td>Deputy directors and managers can make decisions within broader guidelines.</td>
</tr>
<tr>
<td></td>
<td>Learning culture with emphasis on training.</td>
<td>Yes.</td>
<td>Weekly training for staff.</td>
</tr>
<tr>
<td></td>
<td>Strong sense of survival.</td>
<td>Yes.</td>
<td>Has grown from 30+ staff in 2002 to 70+ in 2005. Operational for three years.</td>
</tr>
</tbody>
</table>

Table 7.2: Organism metaphor
<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Characteristics</th>
<th>Outcome</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain</td>
<td>Operating norms and assumptions are continually questioned (double loop learning)</td>
<td>Sometimes</td>
<td>Frequent review of business processes</td>
</tr>
<tr>
<td>Redundancy</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requisite variety</td>
<td>Limited</td>
<td></td>
<td>Indications a lack of requisite variety concerning social and racial aspects</td>
</tr>
<tr>
<td>Environment scanning</td>
<td>Yes</td>
<td></td>
<td>Prospective student market</td>
</tr>
<tr>
<td>Creates a space in which many possible actions and behaviours can emerge</td>
<td>Yes</td>
<td></td>
<td>Evolution of the CSC over past four years</td>
</tr>
<tr>
<td>Holistic teams and diversified roles</td>
<td>Mostly</td>
<td></td>
<td>Holistic teams yet there are indications of silos within the CSC</td>
</tr>
</tbody>
</table>

Table 7.3: Brain metaphor
<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Characteristics</th>
<th>Outcome</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural/political/power</td>
<td>Strong team cohesion</td>
<td>Yes</td>
<td>Interdependence of team members</td>
</tr>
<tr>
<td>Class, racial and other social divisions</td>
<td>Yes</td>
<td></td>
<td>Talking down to rural students</td>
</tr>
<tr>
<td>Enactment of a shared reality</td>
<td>Yes</td>
<td></td>
<td>Client focus</td>
</tr>
<tr>
<td>Influence of values and leadership style</td>
<td>Yes</td>
<td></td>
<td>Client focus, innovation</td>
</tr>
<tr>
<td>Influence of gender</td>
<td>Yes</td>
<td></td>
<td>Mostly female</td>
</tr>
<tr>
<td>Sub culture exists</td>
<td>Yes</td>
<td></td>
<td>Smokers, victims,</td>
</tr>
<tr>
<td>Department has shared meaning</td>
<td>Yes</td>
<td></td>
<td>The majority of CSC staff is committed to client service.</td>
</tr>
<tr>
<td>(cultural content)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processes are viewed as political process</td>
<td>Partly.</td>
<td></td>
<td>Processes have “process owners” that resort in various support departments and faculties.</td>
</tr>
<tr>
<td>Conflict is a natural aspect</td>
<td>Yes</td>
<td></td>
<td>The matrix model sometimes creates conflict due to control and power battles.</td>
</tr>
</tbody>
</table>

Table 7.4: Cultural/political metaphor
<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Characteristics</th>
<th>Outcome</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychic prison/power</td>
<td>Blinded by groupthink</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voices are suppressed or not heard</td>
<td>No</td>
<td>Open culture in which every person has an opportunity to voice his/her opinion and is heard.</td>
</tr>
<tr>
<td></td>
<td>Staff are exploited</td>
<td>Yes</td>
<td>In some cases staff are exploited because of the lack of resources. The question arises whether they are exploited when they do it voluntary out of loyalty towards the University. Staff is supported emotionally in the CSC – which offsets stress (Hardy &amp; Palmer, 2004).</td>
</tr>
<tr>
<td></td>
<td>Coercion</td>
<td>Yes</td>
<td>Power structures are embedded owing to the hierarchical structure of the University.</td>
</tr>
</tbody>
</table>

Table 7.5: Psychic prison metaphor
<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Characteristics</th>
<th>Outcome</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carnival</td>
<td>Fun</td>
<td>Yes.</td>
<td>Known for its “vibe”.</td>
</tr>
<tr>
<td></td>
<td>Diversity</td>
<td>Yes.</td>
<td>Most diverse staff profile of all departments at the University. Widest range of different processes.</td>
</tr>
<tr>
<td></td>
<td>Complexity</td>
<td>Yes.</td>
<td>Matrix model implemented in a hierarchical and bureaucratic organisation.</td>
</tr>
<tr>
<td></td>
<td>Change</td>
<td>Yes.</td>
<td>Three additional divisions have been incorporated since the CSC became operational (three year period).</td>
</tr>
</tbody>
</table>

Table 7.6: Carnival metaphor

The use of the metaphors helps to paint a picture of the CSC. Morgan (1998) warns that whilst metaphors highlight certain characteristics of an environment, it also hides others at the same time. Therefore it makes sense to use a variety of metaphors to create a kaleidoscope of impressions.
### Annexure G: Glossary

<table>
<thead>
<tr>
<th>Theoretical field/concept</th>
<th>Definition</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (epistemology)</td>
<td>Epistemology is the theory of the method and nature of knowledge. <strong>Knowledge Management</strong> addresses the issues of organisational adaptation, survival and competence in face of increasingly discontinuous environmental change. It embodies organisational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative and innovative capacity of people (Malholtra, 2000).</td>
<td>Knowledge forms the foundation of learning and feeds into innovation. One cannot innovate without knowledge. Moreover, knowledge is the core competence of a higher education institution and is therefore the appropriate springboard for this study.</td>
</tr>
<tr>
<td>Individual learning</td>
<td><strong>Learning theory</strong> deals with the way in which people learn. Learning is generally regarded as the acquiring of knowledge or skill (Brown &amp; Duguid, 2000). There is a close relationship between individual learning and organisational learning (Argyris, 1977).</td>
<td>How a person learns, is important to understand if your innovation product, process or service involves learning. Various learning theories are explored, and later applied to the case.</td>
</tr>
<tr>
<td>Organisational learning</td>
<td><strong>Organisational learning</strong> refers to the way in which people in organisations create and share new skills and knowledge that lead to an increased capacity for effective coordinated action (Kim, 1998:41). Nadler and Tushman (1999:96) mention that the most important business development in the twentieth century “is the pursuit of competitive advantage in an uncertain world through new approaches to organisational design”.</td>
<td>How people learn in teams is important to understand in the innovation process. Change impacts on people and innovation often occurs in a team – especially on an enterprise level. Thus, an organization is an epistemological system containing mental models that have to change in an innovation process.</td>
</tr>
<tr>
<td>Theoretical field</td>
<td>Definition</td>
<td>Motivation</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Knowledge creation</td>
<td><strong>Knowledge creation</strong> arose because of a perceived lack in knowledge management. It involves the ability to deal with situations, events, information and contexts (Von Krogh <em>et al.</em> (2000:19)).</td>
<td>How knowledge is created in an organization is important if one wants to better understand the innovation process, because everyone involved continually builds on the knowledge that exists. Knowledge is tacit and explicit and especially tacit knowledge is important in innovation. Different models of knowledge creation are explored within a context of innovation.</td>
</tr>
</tbody>
</table>
| Change management     | **Change management** is self-explanatory, because it refers to the management of change. Change is a continuous process, which has to be managed. Change management is part of leadership and the learning organisation. According to Nickols (2002) change management refers to the following:  
- systematic and planned management of internal, controlled changes within an organisation, or  
- responses to changes that lie outside the control of the organisation  
Hence one type of change management is proactive and the other is reactive. | The magnitude of change involved in an enterprise wide and crosscutting innovation process makes it important to understand the dynamics of change management. Different change management strategies are briefly explored. |
<table>
<thead>
<tr>
<th>Theoretical field</th>
<th>Definition</th>
<th>Motivation</th>
</tr>
</thead>
</table>
| Technology innovation    | **Innovation** is defined by Schumpeter (cited in Jansen, 2000:3) as the commercialisation of all new combinations based upon the application of:  
  - new materials and components  
  - the introduction of new processes  
  - the opening of new markets  
  - the introduction of new organisational forms.  
  Hence, innovation is the commercialisation of a new technology or combination of technologies introduced to meet a user or market need (Utterback, 1994). Innovation only takes place when market adoption occurs. | The case of the Virtual Campus consists of product and service innovation that are both examples of technology innovation. Process innovation relates to the structures, procedures and infrastructure that were created to support the Virtual Campus and that were used to create new products and processes. |
<p>| Meaningful work          | Individuals who experience their work as meaningful – i.e. work that makes a contribution to the organisation and to customer experience are more likely to be innovative and intrinsically motivated (Aiman-Smith et al., 2005:38). |                                                                                                                                            |
| Customer satisfaction    | Can be defined as a state of mind set that customers have about their expectations over the lifetime of a product or service (Nelson et al., 2005:160) |                                                                                                                                            |</p>
<table>
<thead>
<tr>
<th>Theoretical field</th>
<th>Definition</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer loyalty</td>
<td>The ability to retain customers and to keep them buying what is on offer over a longer period of time than competitors (Doyle, 2005:113).</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>An amount, as of goods, services, or money, exchanged that considered to be a fair and suitable equivalent for something else; a fair price or return. In a profit organisation “Value” means Economic Value and is the After Expenses Tax profit – Opportunity cost of using capital.</td>
<td></td>
</tr>
<tr>
<td>Economic Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Value</td>
<td>The client, purchaser or consumer considers it to be a fair and suitable equivalent for something else (goods, services, or money).</td>
<td></td>
</tr>
<tr>
<td>Creating Value</td>
<td>The ability to enhance services or products that give clients, purchasers or consumers solutions that they are willing to pay for.</td>
<td></td>
</tr>
<tr>
<td>Value Drivers</td>
<td>Procedures or processes that when acted upon deliver better performance.</td>
<td></td>
</tr>
<tr>
<td>Customer Relationship Management (CRM)</td>
<td><strong>CRM</strong> is a business strategy whose outcomes optimise profitability, revenue and customer satisfaction (Gartner, 2001:7)</td>
<td>Innovation requires adoption by the market, or put differently, diffusion. An understanding of CRM can assist diffusion.</td>
</tr>
</tbody>
</table>