SYNERGISING THE BALANCED SCORECARD AND THE VALUE CHAIN TO REDUCE WASTAGE WITHIN THE WESTERN CAPE EDUCATION DEPARTMENT

JEFFREY GUSTAV MARTIN

THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS
OF THE
CAPE PENINSULA UNIVERSITY OF TECHNOLOGY

BUSINESS FACULTY

FOR THE DEGREE

DOCTOR OF TECHNOLOGIAE
(HUMAN RESOURCE MANAGEMENT)

SUPERVISOR : PROF. A. SLABBERT
ASSISTANT SUPERVISORS : PROF. FOX
DR. CILLIERS

DECEMBER 2005

CONTENTS

DISCLAIMER

The views, opinions, conclusions and recommendations made in this thesis are solely those of the author and do not necessarily represent the views, opinions, conclusions or recommendations of either the Western Cape Education Department or the Cape Peninsula University of Technology.

DECLARATION

I DECLARE THAT "SYNERGISING THE BALANCED SCORECARD AND THE VALUE CHAIN TO REDUCE WASTAGE WITHIN THE WESTERN CAPE EDUCATION DEPARTMENT" IS MY OWN WORK WHICH WAS NOT SUBMITTED IN ITS ENTIRETY OR PARTIALLY TO ANY TERTIARY INSTITUTION LOCALLY OR ABROAD FOR THE OBTAINING OF A DEGREE AND THAT ALL THE SOURCES WHICH I USED OR QUOTED WERE INDICATED AND ACKNOWLEDGED BY MEANS OF COMPLETE REFERENCES.

SIGNED

2005: 12 : 27

DATED

DEDICATION

This dissertation is dedicated to:

My Dad, Erich Gloub Martin

1929 July 27 - 2003 November 06

ABSTRACT

The image of the Western Cape Education Department (WCED) is influenced by its ability to handle and to develop a system whereby not only will the perceived gap between the expectation and satisfaction of the customers be closed, but the customer will also be able to derive value from the services rendered. In order for this to come to fruition, as well as the fact that the employees know the true picture of the flow of work within the WCED, it is crucial that the employees be involved in the mapping of the strategy, which in turn would be utilised to attain the vision.

A key challenge is getting all the parts of the WCED in line with its strategies, which in turn impacts on the mission and vision. Maximum value requires an understanding of its creation and a proactive approach. These are not easily accomplished.

Not only is the "education industry" presently confronted with many changes, its stakeholders and customers are making greater demands. As a result of this, the WCED needs to be more efficient, but importantly also to be aware of the "efficiency trap". A decrease in the net operating result of the WCED would result in dissatisfied customers. In order for this not to be an option, the synergy of the balanced scorecard and the whole value chain within a lean environment should be considered as the reduction of occupational crime i.e. human activity absorbing resources, but not creating value or non-value creating / adding activities or muda has become a priority. Also by focussing on an occupational crime reduction flow of work, the WCED will be seen as a system of processes and not as a system of separate functions.

This thesis focused on the Public Service with the WCED as its main focal point. The aim was to create an understanding and to develop a model that would assist the WCED to drastically reduce occupational crime. To attain this aim, the research problem defined as:

> How can the value chain and the balanced scorecard be synergised, within a lean thinking environment, to reduce occupational crime within the WCED?

and the research hypothesis

Wastage	**is a function of**	**(value chain + balanced scorecard + lean thinking)**
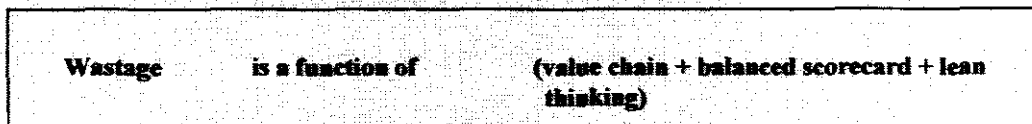
were answered via four research questions and four hypotheses.

The approaches of Kaplan and Norton (1996–2001), Porter (1985 and 1998) and Womack and Jones (2003) pertaining to the balanced scorecard, value chain and lean thinking respectively were deemed to be extremely valid in the creation and delivery of value.

The non-laboratory data collection methods, which were utilised, were focused group discussions, structured and semi-structured interviews, and questionnaires. The questionnaires pertaining to the value chain were issued to a control group, two experimental groups and an "other" group; and the questionnaires pertaining to the balanced scorecard, the document-related crisis and the performance management systems were issued to the staff at the seven Education Management and Development Centres (EMDCs) and Head Office. The two strata comprised of the employees at the levels of assistant director and below and above assistant director. Only one experimental group received information prior to the workshops, but both experimental groups were exposed to workshops that dealt with the development of a value chain within the internal business processes perspective (i.e. satisfaction of customers while meeting budgetary constraints) and how this impacted on the creation of value for the customers of the WCED.

The result of the data analysis revealed that the awareness of wastage i.e. occupational crime in conjunction with a "functional" knowledge of the balanced scorecard, value chain and lean thinking would be effective in the reduction of occupational crime. The statistical tests indicated that the rating of the respondents, pertaining to H_{O-1} and H_{O-3} (prior to the workshops), did not exhibit any significant differences, but the rating of the respondents, pertaining to H_{O-2}, H_{O-3} (after the workshops) and H_{O-4}, exhibited significant differences. The findings of the statistical analysis were corroborated by the findings of

the measures of central tendency viz. modes and means as well as the sign tests. This in turn justified the research hypothesis i.e. as wastage decreases, knowledge of the value chain, the balanced scorecard and lean thinking increases.

Based on the analyses of the data, the following are recommended: lean thinking, the balanced scorecard and the value chain must be discussed in detail; the causes of occupational crime must be identified; options must be generated for the 7 wastes; management practices (pertaining to the reduction of occupational crime) must be optimised; the synergy of the balanced scorecard and the value chain must be communicated in a language which makes sense to the employees.

Whilst interpreting the data, cognisance was taken of the following research limitations: convenience samples could contain unknown amounts of variable and selection errors; and other variables could have impacted on the perceptions of the employees.

The following areas lend itself for continued empirical research: the effects of lean thinking on the value chain; the impact of the strategy map (balanced scorecard) on the derivation of value by the customers from the services rendered; development of a competitive impact strategy; and an investigation into how the customers perceive the unique and or differentiated values of the services rendered.

ORTHOGRAPHIC CONVENTIONS

For the sake of clarity and consistency, the researcher observed the following conventions:

- **Research**

    o The Harvard referencing method was used within the text and within the list of references.

    o The referencing, author and year, was used within the text since:

        ▪ the content, which was derived at as a result of the interpretation of the researcher and used within the research, does not appear on a specific page, but appears throughout the secondary source.

        ▪ the content used within this research was derived at as a result of the interpretation of the researcher of the content as it appeared on the website.

        ▪ the content was deduced from various audiences.

        ▪ the figure was adapted by the researcher.

- **Interviews**

    o The actual words used by the interviewees and the workshop participants were italicised.

    o The specific request of the interviewees to remain anonymous was acceded to.

- **Workshops**

    o The information forwarded to one of the experimental groups (Experimental 1) is in a different font.

- **Acronyms**

    o An acronym was used only once it was explained e.g. Western Cape Education Department (WCED) and thereafter WCED would be used.

- **Seminal concepts**

    o Terminologies were used once it was explained e.g. total productivity training, lean thinking, muda and balanced scorecard.

    o Customers and stakeholders were used interchangeably.

- **Statistical analysis**

    o When the term "hypothesis" was used it referred to the null hypothesis (H_O).

- **Terminology**

    o Occupational crime, muda and wastage were used interchangeably.

ACKNOWLEDGEMENTS

LIST OF ACRONYMS

EMDC   Education Management and Development Centre

WCED   Western Cape Education Department

PSMDS   Public Servants Management Development System

IQMS   Integrated Quality Management Systems

ROCE   Return on Capital Employed

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

Chapter 1   Introduction

1.1   Background

The tragedies of the terrorist attacks of 11 September 2001 highlighted the importance of capturing, updating, analysing and effectively sharing value-adding information and executing value adding activities as soon as possible and in turn also effectively allocating the appropriate resources. This and the significant budget constraints of the Western Cape Education Department (WCED) increased the need to eradicate non-value adding activities (Martin, 2003). The potential loss of WCED employees through restructuring and HIV/AIDS requires the development of integrated processes to enhance, develop and retain institutional knowledge. From articles and journals it became apparent, in many institutions, that although employees were encouraged to perform well, the focus shifted, as a result of the skills of the employees, to those employees who will and do play an important role in the creation of customer value.

Also, the amalgamation of the previous 4 main education departments of the old Cape Province into the Western Cape Education Department (WCED) led to the imposition of steep budget cuts and a new era of fiscal constraint. In addition to this were the demands from the legislature to curb mounting education costs, to deliver more value for taxpayers' investment and to increase productivity. Since 1994, it was seen that the management systems which supported the rise of the previous 19 education departments were no longer suited for the demands of the new-found democracy of South Africa. The future administrative functions of the WCED necessitated it to become more innovative; customer-oriented e.g. learner-centred; streamlined e.g. applying rationalisation; encouraged gender equity as well as affirmative action; and decentralised e.g. introduction of Education Management and Development Centres (Martin, 2003:11).

Despite the terms: rationalisation, downsizing, rightsizing and restructuring, the basic aim of the WCED is to increase productivity and efficiency with fewer employees (Sadri,

1996:56-59). As a result of the continuing process of rightsizing, within the WCED, the negative effect of the 'survivor syndrome' (Bramley, 2004) is still plaguing the WCED (Pietersen, 2004). Depression, anxiety, decreased motivation, distrust and a degree of insecurity were some of the repercussions experienced by survivors of post-rightsizing (Miti, 2003). The restoration of the same trustworthiness and operational efficiency would be very difficult if not impossible.

According to Bramley (2004), rightsizing is usually a strategic decision in which the organisation undertakes to reduce wastage and inefficiency (i.e. reduce muda); and to employ lean thinking (Womack and Jones, 2003). From the address of Bramley (2004) it was deduced that strategies only focusing on rightsizing could not assist in the generation of sustainable increase in customer value, employee satisfaction, operational efficiency and financial performance. Growth, as opposed to layoffs, creates increased market value as growth and the net operating result go hand in hand (Bramley, 2004). Bramley (2004) intimated that there is an interrelationship between psychological (anger, commitment and perceived fairness) and behavioural (absenteeism, resistance to change and work performance) reactions of employees throughout the rightsizing process; and these could be attributed to being the symptoms of wastage of human potential (Bicheno 2000, as cited by Davies and Greenough, 2001:37-42). The overcoming of wastage, i.e. occupational crime, effective communication and even over-communication (Appelbaum and Donia, 2001:11 and Sadri, 1996:58) would be imperative in the endeavour to increase the net operating result of the WCED and in doing so not only would value be created for the customers, but customers would be creating value from the services rendered by the WCED.

From articles in newspapers such as the Sunday Times and Mail and Guardian it is evident that organisations, even the WCED, face greater challenges than ever before, including a tough and rapidly changing labour market; a dearth of talent as well as obstacles to keep existing employees productive, i.e. reducing the 7 wastes (Bicheno 2000, as cited by Davies and Greenough, 2001:37-42); challenges in adequately training

2

and developing employees, i.e. total productivity training; and the ongoing task of making employees smarter, more relevant and more meaningful.

Presently within the WCED there is an increase in the use of temporary employees, consultants and part-time employees. According to Slingers (2004), outsourced labour is changing the way both employers and employees view tasks, loyalty and the pursuit of goals. Hence the challenge is to build synergy between the management process, i.e. lean thinking; the value chain; management tool, i.e. the balanced scorecard; teamwork; and a cohesive organisational culture in which the net operating result will be enhanced. In so doing occupational crime will be reduced.

While addressing the principals of the Central Metropole Education Management and Development Centre (EMDC), on the draft 2020 vision of the WCED, the Superintendent-General (S-G) of the WCED intimated that extraordinary business innovation would be made possible by a fundamental transformation in the way value is created, i.e. value must not only just be added, but it should be reinvented. Value creation should be the striving towards a better and even better fit between relationship and knowledge. The focus of the strategic analysis should be on the value-creating system and not on the organisation. Swartz (2005), the S-G, also stated that the underlying strategic goal should be the creation of an ever-improving fit between customers and competencies.

From this address of the Superintendent-General of the WCED to the principals of the Central Metropole EMDC, the following could also be deduced:

- there are high levels of failure demand, i.e. a demand caused by a failure to do something or to do something right for the customer;

- gaps and deficiencies in skills and competencies translate into mediocre and even poor service delivery;

- there should be a movement from a task-based model of human resources administration to one which is competency-based;

- communication is imperative, as the goal is to prevent expertise from "walking out the door" with employees when they leave the WCED;

- waste and inefficiency must be driven out of the value chain;

- this is the "age of the customer";

- there should be a balance between customer satisfaction; employee satisfaction i.e. innovation, learning and growth; operational efficiency i.e. internal business processes and financial performance; and

- there is a document-related crisis.

This section of the address of the Superintendent-General of the WCED ended with: "What should we do to fundamentally improve service delivery?"

The WCED should not merely be regarded as a link on a value chain, but the centre of a constellation of services and design (customers as well as suppliers are encouraged to think about value in a different manner) where the customers are also suppliers (of time, information and labour) and suppliers are also customers (of technical services). Bearing this in mind, the WCED would also endeavour to succeed in the creation of more value per person [customer (internal and external), supplier and employee] and in so doing an increased net operating result would be secured. (Leibolt, 2002).

In line with the draft 2020 vision of the WCED, another goal could be, not only to create value for customers, but also to encourage customers to create their own value from the services rendered by the WCED. Due to this, the success of the WCED would be the ongoing discourse between competencies and customers. Also, the satisfaction of the customers is becoming more and more complex and the "education industry" is characterised by the many different directorates involved in the attainment of satisfied

4

customers. The interfacing (i.e. striving for seamless boundaries) between the different directorates have to be clearly defined and well communicated as to reduce miscommunications and misunderstandings which could arise as a result of a lack or insufficient transference of knowledge. Continuous changes would occur within the WCED as this learning organisation adapts to new situations. It is however imperative to remain humble and to understand that the implementation of changes can be a changeover for the employees concerned. Hence it is important that everybody understands why changes are being instituted.

Presently, as a result of the glut of documents, there is an undeniable document-related crisis within the WCED (Pietersen, 2004). This crisis is draining the energy and time of highly paid knowledge workers in document-related tasks that have little or no value i.e. their core business is not receiving the required attention. Employees have been complaining that they are working harder than at any time in their careers, yet it seems as if they are producing less, even though they may be more productive in some respects. This has highlighted the magnitude of this document-related crisis.

From the addresses of the Vice-Chancellor of the University of the Western Cape (O'Connel, 2005) and the Superintendent-General of the WCED (Swartz, 2005) it can be deduced that performance criteria need to be utilised in order to create a magnificent organisation, e.g. WCED. Innovations, such as the creation of intelligent and perpetually accurate models, which may seem to come from a business unit, e.g. Operational Education Management Directorate, could impact on another business unit whose goal may be for operational efficiency and financial performance. Models or tools alone will not make a magnificent WCED. The satisfaction of customers could be positively affected through the increased collaboration between different departments and improved communications during and after projects, which have been undertaken.

Performance criteria correlate in a sense with the following perspectives: customer satisfaction; employee satisfaction, via innovation, learning and growth; operational efficiency, i.e. internal business processes and financial performance (Kaplan and Norton, 2001).

For each of these perspectives would objectives, measures, targets and initiatives need to be established and the quantification thereof would assist in the deployment of best practices for the internal and external customers.

From the audience with the Superintendent-General (S-G) of the WCED (Swartz, 2005), the importance of customer relationship management (CRM) also emanated. CRM systems need to be in place in order to track detailed data of individual customer interactions and relationships (Swartz, 2005). The S-G also suggested that if strategic alliances between directorates of the WCED (which improve the responsiveness of suppliers to the needs of internal and external customers) are in place, occupational crime could be driven out of the value chain system.

Porter's value chain (Porter, 1998), in relation to the WCED, can be seen as a network of activities centred on the functions of teaching and research which in turn involve educational design, educational delivery and assessment. These processes each add value to the total educational package, which will ultimately be provided to the learners. Supporting these processes are the activities such as, recruitment and administrative functions at the head office of the WCED and its EMDCs.

The balanced scorecard (Kaplan and Norton, 1992) relies on collaboration, strategic thinking and continuous improvement. The strategic agenda viz. the alignment of the achievable goals and objectives must be well communicated and well understood. Hence if the strategy is not well aligned, then the balanced scorecard will not assist the organisation to succeed. The balanced scorecard can also be utilised to indicate to the

employees where and how they fit into the "bigger picture", as well as to motivate and to get feedback when data is shared on performance.

The balanced scorecard (Kaplan and Norton, 2001) evaluates both financial and non-financial measures so that the organisations would have a balanced view of how they are performing. Each business unit contains measures which are common (e.g. customer satisfaction) and which are unique to that business unit (Lipe and Salterio, 2000:283-298). Zhang and Markman (2001:13-27) suggest that knowledgeable decision-makers (familiar with the balanced scorecard) should entertain both common and unique measures prior to making judgements, even though there would be a tendency to place more emphasis on the common measures. The balanced scorecard may contain many measures categorised within the four perspectives. Decision-makers using the balanced scorecard may be faced with information overload, which could be overcome by focusing on a subset of the information (Chewning and Harrell, 1990:527-542). Research indicated that people could make sense of increased amounts of information as they become more experienced and familiar with the task and stimuli (Mason and Lind, 1996).

It must however be borne in mind that the Balanced Scorecard is not a static list of measures, but a framework for strategic management. A strategy is a shared understanding about how a goal is to be reached (Johnson and Scholes, 1999:10). The strategy anticipates and addresses the needs and wants of customers; constantly improves the operations that give rise to services which are demanded; and creates an organisation which is characterised by innovation, teaching, knowledge-sharing (tacit and explicit knowledge), personal growth and organisational growth. An effective and efficient management of human resources may be pursued through incentive-based payments and could foster the motivation of employees as well as the co-operation of internal strategic business units (Becker, Huselid and Ulrich, 2001; Johnson and Scholes, 1999).

The measures in each perspective of the balanced scorecard indicate the total strategic business unit. The cause-and-effect relationship between the data elements in each perspective can now be analysed (Kaplan and Norton, 2001). When choosing a limited number of key performance indicators (within each perspective), the balanced scorecard will assist in keeping one focused, allocating scarce resources appropriately and maintaining a strategic mindset. Limiting the number of measures can prevent the overload of information, and this in turn focuses attention on the measures that matter most. Bramley (2004) intimated that the mindset of leadership is conveyed via the organisation's performance measurement system. The measures must be carefully chosen, as progress will be based on the ability to show improvement in the measures chosen, i.e. measure the items one can directly influence through one's employment of efforts and do not measure things that cannot be influenced. However as a performance measurement system the balanced scorecard: is derived from the vision and strategy; reflects the most important aspects of the organisation; supports strategic planning and implementation; aligns the actions of all the business units of the organisation around a common understanding of the goals; facilitates the assessment and upgrades the strategy; and links results to the operating activities (Martin, 2003).

"Wastage" (wastage, waste, muda and occupational crime were used interchangeably) can be defined as activities or outcomes, which do not link to the provision of value to the customer (i.e. the internal and external customers). Most people believe that wastage is inevitable (Petersen, 2004). From literature and discussions it could be deduced that in even the best managed organisations, wastage could be as high as 20% of the operating costs and in poorly managed organisations, wastage could be as high as 40%. According to Petersen (2004) it is imperative that learning organisations take cognisance of the 7 wastes (Bicheno 2000, as cited by Davies and Greenough, 2001:37-42), i.e. over-production; waiting; transportation; inappropriate processing; unnecessary inventory; unnecessary motions and defect in striving to satisfy the customers as well as striving to meet the expectations of the customers.

In the endeavour of the WCED to cope with the challenges of the 21st century, pertaining to lean thinking and the eradication of occupational crime in its endeavour to maximise the net operating result, there is, according to the Superintendent-General of the WCED, an urgent need for ethical behaviour and transparent reporting. If this is complied with, then the WCED will be enacting the concept of Tirisano, as well as the Batho Pele principles. Hence, as stipulated in Memories of the Future: South Africa Scenarios 2014 (Simeka, 2004), employees of the WCED will be striving for Shosholoza, i.e. a diverse and tolerant society. However, the employees of the WCED will also have to bear S'gudi S'nais, i.e. assumptions of South Africa existing in a more accommodating and accepting environment; Dulisanang, i.e. pondering what the future would look like; and Skedonk, i.e. deep social divisions in mind.

1.2 Rationale

During the first decade of the newfound democracy of South Africa, management and stakeholders have become increasingly aware of escalating occupational crime within the WCED. In some cases this led to stakeholder outrage as reflected in principals' meetings as well as at top management meetings at the Education Management and Development Centres (EMDCs). At the core of occupational crime, i.e. non-value adding activities and processes is the deception to obtain something of value, misrepresentation, and lying, deceit and betrayal of trust. Occupational crime is a serious obstacle to efficient and effective service delivery.

Motivation and opportunity must be present for occupational crime to occur (Bramley, 2004). Hence an opportunity (i.e. structural cause) must become psychologically possible (i.e. motivation available) to employees for occupational crime to occur or it will remain a theoretical possibility. The roots of the employee's motivation could be as a result of the personality of the employee e.g. fear of losing, fear of not having the appropriate skills and because of habit, organisational culture and structure of the organisation (Bramley, 2004).

9

In audiences with principals and members of top management it has come to the attention of the researcher that the following could have contributed towards occupational crime:

- The WCED professed a code of conduct, which is contradicted by internal practices.

- Violators are protected and the reprimand (after the exposure of the violators) is mostly lenient.

- Courageous whistleblowers are not being protected from retaliation and prospective whistleblowers are intimidated and forced into silence.

- Investigators of occupational crime rarely act and when they are instructed to do so, would indicate that these are isolated and rare incidences.

- After the exposure of the occupational crime, the WCED makes gestures towards reform and for a period gives the impression of eradicating it, but once the publicity is over, the employees revert back to the old practices.

Occupational crime could increase division among employees and in the organisational culture. From literature it can be deduced that further research is required in diversity and organisational conflict. This conflict could be deemed as an overt expression of tensions between the goals or concerns of the employees and the WCED (Cox. 1994). According to Whetton and Cameron (1998:333), the most effective manner to resolve conflict is to adopt different strategies that are dependent on the nature of the conflict.

1.3 Problem Statement

Synergising the Balanced Scorecard and the Value Chain to reduce occupational crime within the Western Cape Education Department.

Every organisation which endeavours to be successful in future is striving towards the reduction of muda i.e. wastage/occupational crime. The reduction of muda is a hot issue and is affecting every type of organisation as they attempt to improve efficiency (Petersen, 2004).

For the past decade managers have been preoccupied with improving operational effectiveness, providing customer satisfaction and striving to achieve best practices via programmes such as total quality management, time-based competition, matrix management and benchmarking. However, this is not necessarily sufficient, since the needs of customers and technologies are changing. Hence employees need to understand that customers are demanding greater value (Ehrenrich, 2004). 'Value' can be thought of in terms of the total value offered to the customer less the total cost to the customers. Total customer value includes 'service value', 'people value' and 'image value'. The total customer cost, amongst others, comprises of 'time cost', 'energy cost' and 'psychic cost'.

Gemba Research LLC (2003) stipulated that in order to satisfy the needs of the customers, an organisation must have a lean administration where lean tools must be applied to the office environment. In doing so, Office Kaizen (Johnson and Scholes, 1999: 454) can be utilised to eliminate waste by empowering employees to bring about fast and sustained improvement to administrative processes. Contributors of successful lean transformations in administrative and information transaction organisations could be:

- office Kaizen must be data-driven, i.e. information processing work flow should be mapped ;

- internal and external customers must be identified;

- the value added by each transaction must be defined and it must be ascertained which quality and labour costs have been incurred;

- value stream focus must form the foundation of Office Kaizen, i.e. matrixes and affinity charts could be utilised to identify similarities in flow of processes;

11

- customer demand units must be ascertained; Pareto analyses (Slack, Chambers, Harland, Harrison and Johnson, 1998: 460) of the frequencies of the various transactions must be formulated; and the focus should be on the process and not on the person, i.e. training must be provided;

- the understanding of lean principles must be developed; and

- the process "owners" must be involved and employees must be given a "way out" in order that the mistakes of the individuals are not "swept under the carpet".

According to Slingers (2003), there is still a lack of understanding as to how the value chain and the balanced scorecard can assist organisations to increase the net operating result, especially in the public service. The net operating result can be enhanced by not only satisfying the needs of customers, but by enabling the customers to create value from the offerings of a lean organisation.

1.4   Aims

1.4.1   General Aims

The overarching aim of this research was the imposition of a model of excellence in which the synergy of the balanced scorecard and the value chain would reduce occupational crime within the WCED. This in turn would contribute towards the WCED becoming and remaining a lean, strategy-focused and measurement-managed learning organisation; as well as ascertaining the obstacles and activities that would prevent "fluent" service delivery from being executed. By creating a more efficient "pull" service delivery, the WCED would be able to attain increased productivity, better quality and a reduced number of "reworks". When these demands have been achieved, it could be said that a new way of thinking within the organisation has been created (Seddon, 2005).

12

1.4.2 Specific aims pertaining to:

1.4.2.1 Questionnaire

To ascertain from Top Management; Deputy-Directors; Circuit Managers; Staff at Head Office and EMDCs; and Principals whether:

- The WCED is making a concerted commitment to performance management (**Figure 4.3**)

- The WCED has a document-related crisis re – glut of documents (**Figure 4.4**)

- The WCED is making a concerted commitment to service delivery by enhancing customer trust and confidence via a functioning value chain (**Figure 4.5**)

- The WCED is a strategy-focused and measurement-managed organisation (**Figure 4.6**)

1.4.2.2 Structured interviews

To ascertain (via the posing of questions, which were forwarded to the prospective interviewees prior to the interview) from consultants to the WCED and senior management at head office and the EMDCs whether the WCED is a measurement-managed and a strategy-focused lean learning organisation, which strives to reduce occupational crime. The questions posed, attempted to establish whether:

- value was created and whether the value creation process can be measured;

- internal business processes satisfied the needs of customer;

- learning, growth and innovation improved productivity and whether it was measurable;

- resources were acquired and allocated to achieve the mission; and

- how the staff could be motivated and how the skills of the staff could be developed.

1.4.2.3 Semi-structured interviews

Interaction with members of senior management at the head office of the WCED; and managers at Old Mutual and Medscheme pertaining to the creation of a model of excellence in which the synergy of the balanced scorecard and the value chain would contribute towards the reduction of occupational crime.

1.4.2.4 Focus group discussion

To ascertain from the focus group, comprising of an engineer from Caltex; a chartered accountant; and one manager each from Medscheme, Cape Span, Health Services, Social Services and the Cape Metropolitan Council; how, through the adding of value within the internal business processes, a document-related crisis within learning organisations could be managed.

1.4.2.5 Field observation

To ascertain what procedures, if any, are in place to reduce inefficiencies within the WCED, Departments of Social Services and Health; Cape Town Municipality, Old Mutual and Medscheme. Also whether the balanced scorecard is being utilised and whether the employees know what their value chain is.

1.5 Long-term objective

- The balanced scorecard and the value chain must:
    - o be utilised to eliminate wasteful activities; and
    - o become a communication mechanism for implementing strategic plans in the endeavour to reduce inefficiency and to improve the levels of service delivery.

- Each employee must be able to understand and to design a value chain.

- To allow each employee to buy into the concept of the balanced scorecard and in doing so will see that it is:
    - o a strategy-based management tool;

14

o a communication mechanism for the entire organisation; and

o a change initiative.

1.6   Research Method

The research was be based on:

- exploratory studies, i.e. to gather basic knowledge within the problem area in order to clarify the researcher's understanding of the problem.

- descriptive research, i.e. to ascertain and to be able to describe the characteristics of variables from an individual and organisational perspective.

- explanatory/causal research, i.e. studying the problem in order to explain the relationships between variables (Tull and Hawkins, 1993:57).

1.7   Research Approach

The empirical research was qualitative, quantitative and contained elements of a case study approach. A case study approach focuses on an enquiry around a specific topic. Hence in this research the case study allowed the researcher to concentrate on specific instances in an attempt to identify detailed interactive processes which have been crucial to understanding, but which have also been transparent to other research methods such as focus group discussions and in-depth interviews. The aim of the case study was to provide a multi-dimensional picture of the situation that has been studied. Yin (1994) defines a case study as an empirical enquiry that investigates a contemporary phenomenon within its real life context, where boundaries between the phenomenon and context are not clearly evident and in which multiple sources of evidence are used.

Since little information seems to exist on the topic, a qualitative research approach was explored. The qualitative research encompassed field observations, focus group discussions, structured interviews and semi-structured interviews. In order to achieve the specific objectives of the structured interview, the questions posed during the interview were all the same. The qualitative approach assisted the researcher in acquiring a deeper

understanding of the document-related crisis, the performance management system, the balanced scorecard and the value chain with particular reference to the reduction or the elimination of occupational crime.

Quantitative research strives to utilise a consistent and logical approach towards what is being investigated and utilise statistical inferences and mathematical techniques for processing the data (Saunders, Lewis and Thornhill, 2003:327-369; Mason and Lind, 1996 and Creswell, 2003). Hence the quantitative research was executed via questionnaires. The questionnaires were answered via the use of four and five point rating scales as well as divergent responses. The use of a four point rating scale forced the respondents to make a choice.

1.8 Definitions

Kaizen - change for the better. (Kai = change and Zen = good)

Lag indicators – outcomes of actions previously taken

Lead indicators – outcomes that need to be achieved

Learning organisation – organisation with powerful capacity to collect, store and transfer knowledge; thereby continuously transforming itself to be successful i.e. it empowers people to learn as they work and utilises technology to optimise both learning and productivity

Market-space – customers do not have to be in a dominant location e.g. parents of learners attached to the WCED (customers) can be living in the Eastern Cape

Muda – waste

Occupational crime – human activity absorbing resources, but creating no value

Service – an integral component of value to the customer

Total Productive Training – training to increase efficiency i.e. to be productive

16

Wastage – muda/non-value adding activities and processes viz. inclusive of waste of human potential, overproduction, waiting, transporting, processing, inventory, motions, defects and customer time

1.9 Limitations of Study

The research was subjected to the following limitations:

- The stratified population of the research was confined to the Education Management and Development Centres of the Metropoles of Central, East, South, and West Coast/Winelands, as only the Directors of these EMDCs have afforded the researcher the opportunity do the research.

- The time-on-task policy of the WCED negatively impacted on the number of participants attending the workshops.

- This thesis described the initial step in a long and continuous process to achieve a more efficient WCED. Hereafter it will be the task of the WCED to develop the structure and finally map all the activities within all processes i.e. in the core processes as well as support processes.

1.10 Ethical Statement

The participation of the prospective respondents was voluntary. In order to ensure confidentiality and anonymity, the names of the respondents were not listed (as specifically requested) and they were not associated with the findings of this research. The results of this study have only been available (on request) to the respondents of the study. Hereafter it would be available to the Superintendent-General of the WCED and the Minister of Education.

1.11   Exposition of Chapters

This thesis comprises of eight chapters in order to allow the aims of the study to be revealed.

- Chapter 1 focuses on a relatively broad description in which the reader is provided with a background and a discussion of issues relating to the thesis statement.

- Chapter 2 provides a conceptualisation and a frame of reference based on the literature review. The research problem and the research questions were posed here.

- Chapter 3 presents the literature review with theories relevant to the thesis statement encompassing lean thinking, the value chain and the balanced scorecard.

- Chapter 4 discusses the research design and the methodology utilised.

- Chapter 5 reflects the interpretation and the data gathered from the interviews, focus group discussions and field observation.

- Chapter 6 reflects the analyses of the empirical findings with reference to the questionnaires.

- Chapter 7 encompasses the concluding remarks pertaining to the research.

- Chapter 8 reflects the conclusion that encompasses a brief summary of the findings, discussion of the recommendations, limitations of the research and suggestions for future research.

Chapter 2   Frame of reference

2.1   Prelude

In chapter 1, the research area pertaining to the reduction of wastage or occupational crime, i.e. non-value adding activities with lean thinking via the synergy of the value chain and the balanced scorecard were developed and concluded. The relevant literature relating to the research area will systematically be elaborated within chapter 3. In chapter 2 the research statement will be discussed; the research questions will be developed; and the frame of reference will be presented. The research area of the study is:

**Synergising the balanced scorecard and the value
chain to reduce wastage within the WCED.**

2.2   Interlude

Donaldson and Preston (1995:65-82) made reference to three theories viz. descriptive/empirical, instrumental and normative. The description of an organisation as a constellation of co-operative and competitive interests was classified as being descriptive/empirical theories. Within this research the instrumental approach was characterised as focussing on the empirical connections between the practice of synergising the value chain and the balanced scorecard and the occupational crime reduction within the WCED. This approach was also instrumental as a result of the lack of explicit theoretical bases. Normative theories are ethically based and due to this, the managerial relationships with the stakeholders within the WCED are based on moral commitments. This statement is based on the assumption that the present operating result of the WCED is a zero-sum game i.e. where somebody's gain is someone else's loss. Since Donaldson and Preston (1995:65-82) indicated that an organisation that functions effectively within a dynamic market will have a plus-sum game, hence the envisaged net operating result of the WCED should be a plus-sum game. Here new value is created via the improvements in the manner in which it is executed, i.e. internal efficiency and/or via the creation of new forms of utility, i.e. external effectiveness, which the heads of the

19

directorates could invent in their endeavour to enhance the net operating result of the respective directorates. This perceived rivalry between the directorates will sooner or later eliminate this type of disequilibria and the customer will become the "profit taker" in the form of the receipt of "improved services". The more intense this process is, the faster the process of upcoming and appearing states of equilibrium will be (Petersen, 2005); and in turn the customer will derive value from the offerings of the directorates.

Porter (1996 and 2001) contends that superiority is a prerequisite for this state of disequilibria and also of the creation of value. This superiority is achieved via operational effectiveness (doing the same things as the other directorates, but doing them more effectively) and strategic efficiency (doing things differently from the other directorates in a manner which renders a unique type of value to the customers). Hence the participants of the value chain of the WCED would wish to attain a relatively higher output (more utility out of the process) than what they have put into it (disutility) and also to bear in mind that the satisfaction of customers can only be expected if the customers experience the positive state of the imbalance (Frans, 2005).

The primary objective of the WCED is to maximise its net operating result in which not only the needs of the customer are satisfied, but the customer actually derives value from the offerings of the WCED. The secondary objective is the satisfaction of the other stakeholders, e.g. local government and the trade unions. It could be interpreted that the primary objective (which is monitored by the administrator of the value chain) is attained through the exploitation of the above-mentioned imbalances (Atkinson, Waterhouse and Wells, 1997).

From secondary sources it could be deduced that the balanced scorecard (Kaplan and Norton, 1992) is based on the notion that the administrator of the value chain places "sensors" along the value chain. Within the balanced scorecard the measurement of the customer as well as the satisfaction of the employee are captured within the customer -,

the learning and growth - and the internal business perspective respectively. The measurement of the employment of the budget is captured within the financial perspective. The extent of the satisfaction of all the stakeholders engaged within the value creation process of the WCED would emphasise the role of the balanced scorecard as a tool of supervision via the linkages of the balanced scorecard strategy and its logical cause and effect (which describes the hypothesis of the strategy) as well as the strategy map (Kaplan and Norton, 2001).

2.3   Research Problem

With reference to competitive advantage, which will be elaborated on in chapter 3, there are various approaches and broad dimensions according to different schools of thought. Porter (1998) states that within competitive markets (where occupational crime has drastically been reduced), competitive advantage is central to the performance of an organisation. It is also intimated that there are two ways to achieve a competitive advantage viz. operational effectiveness (i.e. Are the right things being done?) and strategic positioning (i.e. Are the right things being done right?). Chaston (n.d. and 2001) proposes that the creation of a perception in the mind of the customer that the organisation is different can be achieved via promotion, i.e. promotion of an organisation through the service, i.e. bearing the enablers of the strategy map (Kaplan and Norton, 2001) in mind, which is being rendered. Various authors have indicated that if technology could easily be duplicated, then there is no advantage to having something that can easily be duplicated.

Based on the aforementioned discussion and the endeavour of the WCED to have a competitive advantage via the reduction of wastage by synergising the balanced scorecard and the value chain within a lean environment, the research problem was concluded as being:

> How can the value chain and the balanced scorecard be synergised, within a lean thinking environment, to reduce occupational crime within the WCED?

21

2.3.1 Research questions and conceptual framework

After the derivation of the research problem, the research questions were developed.

2.3.1.1 Research question 1

Since the performance management system (e.g. the Public Servants Management Development System, viz. PSMDS of the WCED) is deemed to be a resource of value (devoid of waste), and as such it needs to be assessed on a regular basis. It is imperative that the assessment of the performance management system be executed as this ensures that it is aligned with its organisational culture and organisational strategy. On the basis of this, the below-mentioned research question was developed.

> **Is the Western Cape Education Department making a concerted commitment to performance management?**

In the endeavour to answer research question 1, the following hypothesis has been formulated:

> **The views of the assistant director and below; and above assistant director, pertaining to the level of commitment of the WCED to performance management, would be similar to each other.**

2.3.1.2 Research question 2

Western Cape Education Department (WCED) was forced to enter a lean environment and became obsessed with efficiency and value creation. In the attempt of the WCED to remain professionally productive and to ascertain whether employees are overwhelmed by a proliferation of documents which distract them from executing their core business in their endeavour to satisfy the needs of the customer as well as the mission and vision of the learning organisation, it is imperative to ensure that the most valuable and scarcest

resource, viz. time, be utilised optimally. In order to ascertain the above-mentioned, the question below was formulated.

> Does the Western Cape Education Department have a
> document-related crisis?

In the endeavour to answer research question 2, the following hypothesis has been formulated:

> The views, pertaining to the perceived document-
> related crisis, of the different management levels are
> not the same.

2.3.1.3 Research question 3

In the endeavour to be a lean organisation, the goal of the WCED is to create a system by which customers pull value from the organisation through a stream of activities that has no waste. Service delivery in the WCED is always about much more than just service. The customers of the WCED are not just customers of the services rendered, but the customers are usually also taxpayers as well as citizens with rights within the newfound democracy in South Africa. It must be borne in mind that the value to the customer is the customer's assessment of the service rendered, i.e. the overall capacity to satisfy the needs of the customer. Since the customers of the WCED form an impression, whether positive or negative, of its effectiveness and efficiency, a value chain could assist to extend this insight of external service delivery and internal possibilities.

The question below was formulated in order to ascertain the afore-mentioned.

> Is the Western Cape Education Department making a concerted
> commitment to service delivery in enhancing customer trust and
> confidence via a functioning value chain?

23

In the endeavour to answer research question 3, the following hypothesis has been formulated:

> The workshop has had no influence on the views of the experimental group pertaining to the enhancement of the net operating result of the WCED via the value chain, balanced scorecard and lean thinking.

2.3.1.4 Research question 4

In the endeavour of the WCED to ascertain whether it has progressed from the initial foci of only cost-cutting and down-sizing (i.e. occupational crime and inefficiency have given rise to excessive and unnecessary costs); and re-engineering and re-structuring towards growth, innovation and the seizing of new opportunities, the WCED should realise that a measurement system has to be associated with its strategy and that it has many implications for other management processes. Cognisance has not only been taken of tangible assets, but the importance of intangible assets, such as teamwork; customer relationships; and skills and knowledge of employees have been realised. The balanced scorecard is being proposed since the WCED requires not only a means in which to measure performance; but a management system that would be long-term mission-driven and less driven by short-term results, as well as a communication mechanism that bridges the gap between high-level goals (e.g. the elimination of defects; reduction of excess costs and time wastage out of the "production" system) and front-line employees who are responsible for attaining them.

In order to ascertain whether the critical success factors, pertaining to the above-mentioned, have been attained, the below-mentioned question was posed.

> Is the Western Cape Education Department a strategy-focused and a measurement-managed organisation?

24

In the endeavour to answer research question 4, the following hypothesis has been formulated:

> The views of the different strata within the WCED,
> pertaining to whether the WCED is strategy-focused
> and measurement-managed, would not be similar to
> each other.

2.4 Overall conceptualisation of the framework

The research problem and the research questions have been formulated in chapter 2. Furthermore the frame of reference of this research has been conceptualised. The frame of reference is graphically depicted in **Figure 2.1**. **Figure 2.1** attempts to assist in supplying answers to the research questions and solving the research problem. The framework is a guide to synergising the value chain and the balance scorecard through lean thinking to allow the WCED to attain and to sustain a competitive advantage via the reduction and in time the elimination of muda.

COMPETITIVE ADVANTAGE
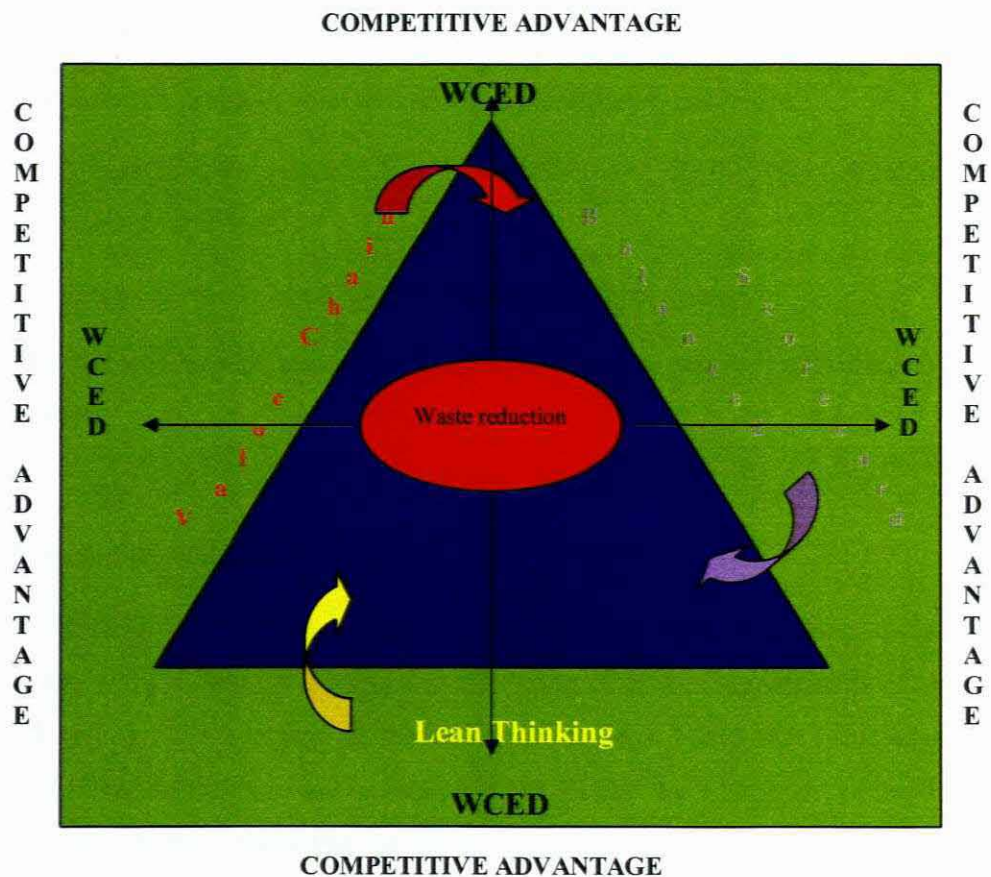
Figure 2.1   Overall frame of reference

2.5   Research hypothesis

With reference to the research problem, the researcher developed the below-mentioned research hypothesis:

| Wastage | is a function of | (value chain + balanced scorecard + lean thinking) |
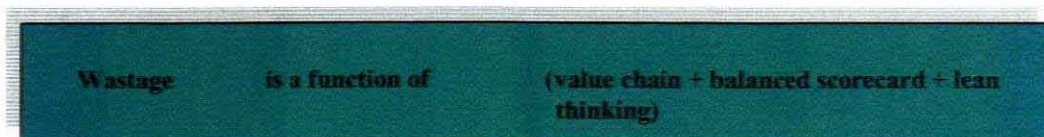
Indicating that as wastage (occupational crime) decreases, knowledge of the value chain, the balanced scorecard and lean thinking increases.

2.6   Conclusion

2.6.1   The research problem was derived from the research statement.

2.6.2   Four research questions and four hypotheses were developed in order to answer the research problem.

2.6.3   The frame of reference of this research was conceptualised.

2.6.4   The research hypothesis was developed to allow the research statement to come to fruition.

2.7   Concluding remarks

Since the WCED is operating within an era of complexity and contradiction, bold strategies are being sought for leading and managing. A powerful management tool could be crafted through the synergy of the balanced scorecard and the value chain. This synergy could be used effectively to focus the WCED on the attainment of the reduction of wastage and in the process the net operating result will be enhanced. If so, then by implication the customer would derive value from the services, which have been rendered. The cause and effect on performance of the value chain and the balanced scorecard must also be borne in mind.

Hence the relevant literature incorporating the balanced scorecard, the value chain and lean thinking and which pertains to the research area, will systematically be elaborated within chapter 3.

Chapter 3 Literature Review

3.1   Background

"Without the guiding hand of a clear strategy, we cannot be sure that we are allocating our resources properly, managing our critical businesses and rewarding the right performance" (Swartz, 2005).

During the time of Frederick Taylor (the Taylorism era), the leader of the scientific management movement (where decision-making was separated from work, i.e. command and control thinking), organisations subdivided complex manufacturing jobs into sequences of simpler tasks. Managers set efficient work methods and performance standards in order to monitor delivery. However this way of working is virtually obsolete. Today employees need to understand and be able to implement the strategy of the organisation, i.e. referring to systems thinking (**Table 3.1**), in which thinking about the design and management of work is diametrically opposed to command and control (Seddon, 2005). Automation has reduced the proportion of employees performing manual labour within the organisation (Womack and Jones, 2003). Restructuring has also contributed towards the reduction in the labour force of the organisation. Due to the downsizing processes, the challenge for the organisations would be to acquire committed employees. Presently employees are performing more discretionary tasks (**Table 3.1** – e.g. measurement and attitude to customers) such as marketing and customer relations.

28

Table 3.1   Command and control versus systems thinking

Command and Control thinking		Systems thinking
Top-down, hierarchy	**Perspective**	Outside-in, system
Functional	**Design**	Demand, value & flow
Separated from work	**Decision-making**	Integrated with work
Output, targets, standards: related to budget	**Measurement**	Capability, variation: related to purpose
Contractual	**Attitude to customers**	What matters?
Contractual	**Attitude to suppliers**	Co-operative
Manage people and budgets	**Role of management**	Act on the system
Control	**Ethos**	Learning
Reactive, projects	**Change**	Adaptive, integral
Extrinsic	**Motivation**	Intrinsic

Source : Womack and Jones, 2003

Seddon (2005) stipulated that with a systems thinking view, the value chain made it easy to detect:

- the occupational crime caused by the presently employed organisational design;

- the opportunities for improvement; and

- the manner in which to realise the reduction of occupational crime.

Bearing the above-mentioned in mind, as well as the notion that the customer sets the nominal value (i.e. customer-shaped demands), the labour force of the organisation must

29

continually strive to improve quality and to reduce costs (not bearing the customer in mind adds to costs) while meeting the expectations of the customer and to remain competitive (Johnson and Scholes, 1999:455). In making this statement, it must be borne in mind that the employees should know who the customers are and then to find innovative ways to create and to add value as well as to manage the processes and activities (Leibolt, 2002).

Becker, Huselid and Ulrich (2001:85-156) advanced that many companies monitor employee satisfaction in the endeavour of the company to attain customer and stakeholder trust and confidence. They also contend that satisfaction is not the same as commitment. Although employees may feel well compensated and well treated, this however does not imply that the employees understand the goals of the organisation and are committed to achieve it.

The most successful organisations understand the importance of engaging all their employees and consulting them in the strategic process (May, 2002). Proactive organisations look to the front-line and back-office staff for new ideas and information about opportunities, as well as competitive threats and technological possibilities (Frans, 2005). The labour force of the organisation will ultimately be implementing the strategy.

3.2   Introduction

Martin (2003) advanced that conceptual definitions are those typically found in a dictionary and usually represent generalisations. On the other hand, operational definitions are very specific. Operational definitions contain sufficient clarity and as such it cannot be misinterpreted. Therefore, conceptual definitions and operational definitions are at opposite ends of a continuum. For example, a conceptual definition of clean is "free from dirt." It may be said that the carpet is clean after vacuuming and a visual inspection. But suppose reference is made about cleaning the instruments that are required for surgery then another operational definition would be required. A more relevant example

in the public service is the term "net operating result". Conceptually, net operating result is defined as the difference between the services rendered and the expenses incurred in order to render this service, but this is just a generalisation. Net operating result has no operational meaning until it is exactly known how the services and the expenses, which are incurred to render this service, are measured.

Lodge (as cited by Stanford, 2005) indicated that many organisations display a combination of individualism and communitarianism. However, organisations in the United States with its so-called "lazy man's work ethic approach" tended to be mainly individualistic while in Japan they tended mainly to be communitarian (Mentoor, 1993). **Table 3.2** briefly indicates the key concepts, characteristics and assumptions underlying individualism and communitarianism. Many authors use the terms collectivist and collectivism rather than the terms communitarian and communitarianism, however within this research the latter terms was used.

3.3   Optimisation of the performance of a system

Perhaps the most important philosophical difference between the two variants, individualism and communitarianism, is the assumption concerning the optimisation of the performance of a system. In communitarianism there must be co-operation between individuals, departments, union, and other stakeholders. Mentoor (1993) contended that the source of this philosophy is not entirely clear, but it was promoted by W. Edwards Deming and practiced in Japan since the 50's.

Table 3.2   Assumptions and concepts - Communitarianism versus Individualism

ASSUMPTIONS & CONCEPTS	* COMMUNITARIANISM	INDIVIDUALISM
How to optimise the performance of a system:	Cooperation at all levels will optimise the system.	Competition at all levels will optimise the system.
The key driving force	The desire to build for the future.	The desire for current consumption and leisure.
Motivation for work	Work provides utility. Individuals live to work.	Work provides disutility. Individuals work to live.

Source : Wagner, J. A. III. 1995:152-167.

Collective efforts within a communitarian system contribute toward success; and success in an individualistic system is believed to come from the efforts of individuals seeking self-interest (Mentoor, 1993). In an individualistic system it is assumed that while optimising the parts, the whole is also being optimised (Senge, 1990); and the assumption in a communitarian system is that optimising the parts will automatically produce sub-optimisation of the whole because of the interdependences among individuals and groups within the system (Mentoor, 1993).

Table 3.3 refers to the main concepts, attitudes and practices within communitarianism and individualism. The organisational structure of communitarian organisations could be equated with that of an employee empowerment organisation i.e. where self-regulated

teams make consensus decisions at the work level. Van Niekerk (2002) advanced that so-called bottom-up organisations, with relatively few levels of management, tend to be horizontal, flat and lean. In contrast, individualistic organisations tend to be structured vertically in a top-down manner with a hierarchy of levels of management. Specialised jobs involving a few simple repetitive tasks were designed at the work level using the concepts of scientific management. Even so, the individualistic system included a relatively large number of supervisory positions to compensate for the "lazy man" work ethic (Stanford, 2005).

Table 3.3   Attitudes and practices – Communitarianism versus Individualism

MAIN CONCEPTS ATTITUDES AND PRACTICES

CONCEPTS ATTITUDES & PRACTICES	COMMUNITARIANISM	INDIVIDUALISM
Dominant objective and focus:	Building for the future with long-term focus.	Net operating result maximisation with short-term focus.
Organisational Structure:	Horizontal, flat or lean with relatively few layers of management. Bottom up consensus decisions.	Vertical with many layers of management. Top down autocratic decisions.
Hierarchy of organisation's constituencies:	1. Employees 2. Customers 3. Stakeholders	1. Stakeholders 2. Customers 3. Employees
Employment and job security:	Lifetime employment promotes bonding.	Uncertain employment discourages bonding.

Responsibility for training after employment:	Companies provide cross training and job rotation.	Individuals are mainly responsible for their own skills.
Management attitude toward teamwork:	Teamwork and cooperation are essential for optimising the system.	Teamwork is risky. Individual performance will optimise the system.
View of leadership:	A leader manages processes or work.	A leader manages results.
Management attitude toward problems:	Understands the variability within the system and tends to blame the system first.	Specialist has less understanding of the system and tends to blame employees.
Tools of management:	Employee empowerment, group praise and profit sharing. Statistical control. Managers facilitate, counsel, teach and provide resources.	Management by objectives, merit ratings, incentive pay, quotas, standard rates and quantities, piecework and annual ranking of employees. Count results.

(Source: Anon, 2003)

After the Enron crisis and other similar corporate scandals, Value Based Management.net (2004) suggested the following ideas in order to prevent further crises:

- corporate governance must be improved;

- business ethics and corporate social responsibility require in-depth attention;

- rules for executive remuneration;

- the interests of stakeholders need to be taken cognisance of; and

- value creation should be long-term orientated.

The complexity of the internal and external environment of organisations has been magnified by these suggested ideas, thereby causing organisations to re-look their holistic approach towards value based management in its endeavour to ensure their core value creating processes (corporatedecisionmanagement.net.2004). Hence the challenge and in particular for the WCED is to build synergy, teamwork and a cohesive culture among all the departments within the organisation.

From the economy route i.e. from an implicit value based management (1800 – 1890), through an explicit value based management (1890 – 2000) to an holistic value based management (2000 – present) and since information and knowledge are deemed to be the cornerstones for success, it can be deduced that the gaps and the deficiencies in the skills and competencies translate into poor performance (Van Niekerk, 2002). It was also intimated that organisations are striving towards a competency-orientated model, where innovation is encouraged and organisations are stimulated to move from a task-orientated model of human resources administration. In doing so the "hard" model, emphasising the integration of human resources with business strategy, and the "soft" model, emphasising human resources as valued assets, must be borne in mind (Swartz, 2005).

Innovation is deemed not to be easy because relationships and behaviours are disrupted (Bramley, 2002). Therefore innovation needs imagination and courage. Innovations coming from one sector, e.g. corporate management branch of the WCED, often impacts somewhere else, e.g. on the operational education planning branch. Hickman (2002) states that Postnikoff, the Vice-President of Global Professional Services, indicated that the creation of matrices and models may be the objective for operational efficiency and financial performance, but it could also positively contribute towards customer satisfaction. Amongst others, customer satisfaction could be achieved via enhancing

collaboration between directorates and the improvement of communicative approaches during and after activities.

In the private sector, innovation can often result in large financial rewards. Hence the private sector values, promotes and invests in innovation. According to a senior official within the Research and Development Department of the WCED, *this is not being done* since the increase in the net operating result, as a result of an innovation, accrues to the WCED.

All innovations do not jump-start growth. It must be established at which level (incremental, substantial or breakthrough) and the type (product, process or strategy) of innovation, which is being utilised (Tucker, 2002:1-169).

Redesigning the education department for the tasks of the 21st century definitely does not imply that the education department should become larger, but the emphasis should rather be on competence and quality (of the service delivered), i.e. the difference between customers' expectations and the perceptions of the quality of the service (an integral component of value to the customer) actually delivered (Teas, 1994:132-139); and by implication, lean thinking. According to Skweyiya (2004), the public service for the 21st century is based on the idea that efficiency is about attitude and perspective.

Every employee knows where occupational crime occurs, knows the possibilities for improvement and is knowledgeable of how to reduce occupational crime. The labour force of the organisation would be more amenable to strategic and radical change, as directed from top management, if their contributions and the sharing of their views are taken cognisance of.

The synergy of the management process (the value chain) where not only the needs of the customers are satisfied, but where the customers should be able to create value from the offerings of the organisation; and the management tool (the balanced scorecard) should increase the net operating result and in turn contribute towards the reduction of occupational crime (non value adding activities) by means of, among others, total productive training (focused training surrounding the needs of the employee in order to be productive).

3.4   Lean Thinking

In audiences with the directors of the Central Metropole EMDC and the North Metropole EMDC, it has become evident that the WCED is *presently busy getting work done,* i.e. meeting goals and objectives; and striving to initiate activities in the search for occupational crime. This needs to be done, as the elimination of occupational crime is instrumental in the establishment of a lean operation, while also bearing the causes of occupational crime in mind. In the endeavour of the WCED to strive towards and then to remain a lean organisation, in the true sense, it should, among others, consider whether to focus on results and measures or to analyse the systems that drive performances.

The directors, within of the various directorates of the WCED, should also be aware that bad habits need to be managed away. If these directors wish to be instrumental in eradicating occupational crime, they should take into account the twelve behaviour patterns (Waldroop and Butler, 2000:89 and n.d.), which contribute towards career problems. The psychologists, as referred to by Waldroop and Butler (2000:89), have stipulated that managers can definitely and positively influence the six behaviour patterns, viz. the Hero (doing too much and pushing too hard); the Meritocrat (not perceiving the relevance of loyalty); the Bulldozer (running roughshod over any opposition); the Pessimist (worrier, saying no out of fear); the Rebel (wants attention instead of the focus being on results); and the Home Run Hitter (always swinging for the fences, i.e. someone who strikes out most of the time). Managers should also realise that

assisting employees to change a behaviour pattern will definitely not be achieved overnight, but that the efforts of management will assist valued employees to become more effective and in so doing contribute towards the eradication of occupational crime. Managers should establish where in the career cycle (viz. induction, competency building, enthusiastic and growing, career frustration, career stability, career wind-down or career exit) the employees are.

According to Lucey (n.d.), the ability to recognise and understand systems, which create results, is not a natural ability. If the delivery of the service is analysed from the critical perspectives of the customer and the employee then lean thinkers were developed i.e. lean thinking is seeing value through the eyes of the customers and recognising that non-value adding activities are deemed to be occupational crime (Womack and Jones, 2003).

From the literature, i.e. secondary sources, it can be deduced that being lean (doing more with less) is a way of skilling employees and giving the employees a shared means of thinking to systematically eradicate occupational crime by improving ways of working. Within the lean thinking scenario, occupational crime could be defined as any human activity, which absorbs resources, but creates no value. Prior to 2003, the WCED has concentrated on the improvement of productivity, whilst sub-consciously ignoring the elimination of occupational crime (Beukes, 2004). The tireless pursuit of the eradication of occupational crime is at the heart of lean thinking.

3.4.1 Lean principles

The lean principles of banishing occupational crime are defining value in terms of the product (identify and create services that add value to customers' objectives, ensuring full customer satisfaction – closure of the gap between expectation and satisfaction); identification of the value stream (identify the vital steps that facilitate an efficient service and also the unnecessary steps that result in occupational crime); making the product flow (eliminate steps in the work-flow that potentially cause interruption, delay or back-flow);

supply at the pull of the customer (produce only when the customer pulls, so that no resources are wasted); and the pursuit of perfection (by continually removing successive layers of occupational crime as they are uncovered) (Womack and Jones, 2003:16-26).

The basic principles of developing a lean organisation are:

1. Add nothing but value (occupational crime must be eliminated). Employees need to understand what value is and where activities and resources are necessary to create value; and anything else that does not directly add value would be deemed as waste. Since employees would not accept that what they are doing could be deemed as being waste, top management of the WCED would need to determine what value is and not what the employees interpret value to be; and to ascertain what adds value. If there were a way of doing without an activity, this activity would be deemed as waste.

2. Concentrate on the persons who add value. If the WCED claims that their employees are important, then in turn it is accepted that employees who add value are the centre of resources, information, process design, decision-making and organisational energy. Skills of employees are upgraded via the innovation perspective and the learning and growth perspective of the WCED. Managers are there to support the employees functioning as a team (whilst not only allowing the employees to design value-adding processes, but also to address problems in totality), instead of constantly telling the employees what to do.

3. Flow value from demand (delay commitment). The flow of value (the adding of value) only commences once it is "pulled" by demand, i.e. when the customer requires value-adding services. "Pull" could be interpreted as doing nothing unless and until a downstream process requires it. Hence commitment is delayed until it is known what the customer wants.

4. Practices must be optimised across organisations. The barrier to the adoption of lean practices could be deemed as being organisational because a gap normally develops when one directorate within the WCED functions optimally according to

its own performance measurements, which are unrelated to the performance measurements of other directorates. This in turn could lead to a sub-optimising measurement since one directorate creates "directorate optimisation" (local optimisation) at the expense of "WCED optimisation" (overall optimisation). This could be due to the fact that the deputy director-generals of these directorates are measured on earned value, i.e. measuring performance. A manner in which to avoid this could be to inculcate awareness that the downstream directorate is a customer and that not only must the customer be satisfied, but the customer must also derive value from the services rendered; and in so doing, be the ultimate performance measurement.

In the endeavour of the WCED to streamline its value stream (in order to improve productivity, quality and customer service), it is imperative that Ohno's 7 types of waste (Womack and Jones, 2003:351-352) are recognised within the administrative processes.

Table 3.4   7 Wastes within the Western Cape Education Department

Occupational crime	Definition	Example
Overproduction	Generating more information the than the customers needs now	More information than next process needs Create reports no-one reads Make extra copies
Transportation	Movement of information that does not add value	Retrieving and storing files Carrying documents to and from shared equipment Taking files to another person Going to get signatures
Motion	Movement of persons that do not add value	Searching for files Clearing away files on the desk Gathering information Looking through manuals Handling paperwork
Waiting	Idle time when information, employees or equipment is not ready	Waiting for:- Faxes The system to come back on Photocopying Customer response A handed off file to come back
Processing	Efforts that create no value from the customer's point of view	Creating reports Use of inappropriate software
Inventory	More information on hand that the customer needs right now	Files waiting to be worked on E-mails waiting to be read Unused records in the database
Defects	Work that contains errors, re-work, mistakes or lacking something	Data entry wrong Missing information Missed specifications Lost records

(Source: Ohno, 1985 and adapted by Martin, 2004)

Bearing the above-mentioned wastes in mind, lean-thinking managers should continuously ascertain how many of the activities in the value stream really add value, i.e. meeting the needs of the customers. However, the most important part of implementing lean principles is having an organisational commitment to improve. Top management within the WCED must emphasise the importance of the changes required to achieve a lean WCED and must also be willing to commit resources towards the implementation of these changes. It is critical to have a structured approach to the implementation of lean concepts. Results should also be measured and communicated throughout the organisation. The value of being lean must constantly be communicated throughout the organisation.

The intention of "lean" is to instil a culture where lean thinking is the norm and doing things better, faster and without error, defect or omission become the only performance standard, i.e. a way of life (Womack and Jones, 2003).

Being a lean organisation is not easy (Parks, 2002). Developing a lean organisation could be a difficult process, which in turn requires discipline and time. Parks (2002) also indicates that the creation of a lean working environment, within the WCED, requires a robust management strategy (being less dependent on one individual) in changing the organisational culture [incorporating the spiral of knowledge creation which encompasses socialisation, externalisation, combination and internalisation (Johnson and Scholes, 1999:178)] to accept the different way of rendering a service which is devoid of occupational crime.

The transformation of the WCED into a lean organisation (where empowered employees eliminate waste as a way of life) would definitely need a change in the way things are being done, i.e. a change in the mindset of the employees. Gemba (innovation in the workplace) Kaizen (change for the better) has been successfully utilised within the manufacturing industry (Coop, 2002). According to Womack and Jones (2003), office

42

kaizen has been successfully utilised to bring about sustained improvement to administrative processes. Office kaizen is data driven and based on value stream focus and where the focus is on the process and not on the employee.

From secondary resources it can be deduced that "lean" cannot be implemented and the gains cannot be sustained by the organisation unless management is willing to change both their attitudes and skills. Hence the WCED needs to advance from a traditional bureaucracy to becoming a lean learning organisation.

Employee flexibility is a major benefit claimed by lean philosophers (Koteinikov, n.d.). Koteinikov (n.d.) also states that the creation of productive multifunctional employees assumes a serious commitment to cross-functional training. Whatever type of cross-functional skills is being managed, this training takes time and is critical to operational success and long-term employee satisfaction. The importance of the flexibility assumptions should not be minimised or ignored as it could create labour problem risks, which in turn could have negative consequences on the implementation of the lean concepts. Employees could change if benefits are being perceived. If not, employees would resist the implementation of being lean and in turn lean becomes a failed management process. However if "leaning" is done right, then the lean implementation could result in a disciplined and orderly work-environment that continually improves.

The creation of a win-win situation by the WCED for customers, stakeholders, employees and suppliers is dependent on the manner in which occupational crime is eliminated and whether attention has been paid to the voice of the customer.

3.4.2 An alternative point of view

Green (2004) intimates that the lean rhetoric of flexibility, quality and teamwork is persuasive. An extensive body of critical opinion states that the application of lean methods is dependent on the hegemony of management over labour. Green (2004)

43

advances that little attention has been given to the externalities, which are situated beyond the narrow confines of technical efficiency and that funding agencies have exerted insidious pressure on the activities of the researchers that were seemingly shaped and controlled by prevailing ideology of neoliberalism. It is also claimed that the failure to challenge the propaganda, leads to the disempowerment of the workforce as well as the eroding of the intellectual capital of the industry.

Green further states that the dissemination of the managerialist propaganda is unquestioned and it was progressively replacing the democratic values of pluralism with a dominant single ideology.

3.4.3   Conclusion

The concept and use of lean thinking refers to the total organisation and is aimed at adding value to an organisation through the elimination of occupational crime. The service delivery function is expected to add value through its activities and processes; hence greater management integration is required within the organisation.

It is evident from literature, research and a management perspective that service delivery would benefit from a lean approach to align with the objectives of the organisation. Being lean could also be deemed as being a contributor towards the achievement of an organisation's net operating result. Hence there is a need for service delivery to improve efficiency.

The transformation to becoming a lean organisation requires a careful strategy. Lean is a totally different system. Being lean does not refer to the application of a few tools and techniques, but rather to a change in the organisation's social system, i.e. the whole organisation (a change in the corporate culture); change necessitates strong leadership, vision and persistence; visible support from top management; and patience. Hence

implementing a lean workplace is indeed a proposition that is daunting. Lean must be thought of as a journey instead of a project or an event.

The changing of the corporate culture using a robust management strategy means that a different way of doing business is being embraced and which is inclusive of the reduction of the fear of change.

The organisation's social system is inclusive of the sub-systems which encompass information technology, human resources management, supervisory functions, communication, measurement, finance and organisational culture; and must at all times strive towards the attainment of the same lean goal, viz. the satisfaction of the customer. If the catch phrase of the employees is "Eyes on Waste" then all the customers know that all the employees are striving to acquire and to apply lean principles whilst being vigilant of waste.

From Parks (2002) it can be deduced that the main reasons for the success of the organisations implementing lean are extra-ordinary leadership; there is urgency around change; there is an understanding that lean pertains to systemic change; and there is a constancy of purpose. Parks (2002) has also indicated that the main pitfalls that need to be avoided in the implementation of lean are: thinking of lean as a "plaster", doing training for the sake of training, not being careful of delegation and not to allow the terminology to be a barrier.

It can also be deduced from various secondary sources that becoming lean is the only way to become competitive and to remain competitive.

3.5 The Value Chain

3.5.1 Competitive Advantage

According to Porter (1998), competitive advantage describes the manner in which an organisation chooses and implements a generic strategy and sustains competitive advantage, i.e. putting the generic strategies into practice. Welsh (2004) suggests that competitive advantage addresses the interplay between the types of competitive advantage, viz. cost and differentiation and the scope of the activities of an organisation. Welsh (2004) also contends that the diagnosis of competitive advantage as well as the ascertaining of ways of enhancing it can be achieved by the value chain.

Differences in the value chains of competitors (e.g. the various provincial education departments) are deemed as the main source of having a competitive advantage. Porter (1980) also claims that simply improving operational effectiveness does not lead to competitive advantage. Organisations only acquire advantages if and when they are able to attain and sustain higher levels of operational effectiveness than their competitors. From secondary sources it can be deduced that this is a difficult proposition. Rivals tend to copy the best practices of organisations and this in turn eventually lead to competitive convergence, i.e. with many organisations doing the same things in the same way. An organisation only outperforms its rivals if it delivers greater value to its customers (Porter, 1998). Here the total value offered to customers includes services value, product value, people value and image value. In order for growth to be sustained, it is imperative that competitive advantages be created (Bailey and Dandrade, 2004).

Chaston (2001 and n.d.) proposes that the core attributes of many products and services are often very similar. The customer would find it rather difficult to distinguish any differences between the performances of products offered by various suppliers in a market sector. Bearing this in mind, one way of differentiating the WCED from other provincial education departments, i.e. its competition is to utilise promotion to create a perceived difference in the minds of its customers.

46

The route to a competitive advantage in the market, as proposed by Chaston (2001 and n.d.), is via the:

1. Conservative-transactional competitive advantage that is achieved through the offering of a quality standard product that is superior to that of the competition and/or a superior service through excellence in production and distribution logistics.

2. Conservative-relationship competitive advantage that is achieved through the offering a product/service combination that delivers a superior customer-specific solution.

3. Entrepreneurial-transactional competitive advantage that is achievable through the offering of a new product delivering features and performance that is unavailable from standard goods producers.

4. Entrepreneurial-relationship competitive advantage that is achievable through the offering of a new product that has been developed in partnership with the customer and in so doing contributing towards the ability of the customer to launch new, innovative products or services.

Porter (1998) also states that competitive advantage actually provides the architecture in which the strategy is described, assessed and linked to organisational behaviour as well as understanding the sources of competitive advantage. Competitive advantage commences with the premise that it can arise from many sources; indicates how all advantages could be connected to specific activities; and the manner in which activities relate to each other, to supplier activities and to customer activities. From the paper tabled by Heintzman and Marson (2003) at the European Group of Public Administration, it can be deduced that the competitive advantage, which organisations could gain, has to do with attitude and perspective. This in turn could lead to employee satisfaction and commitment; customer service satisfaction; and customer trust and confidence in the WCED.

3.5.2 Value System

From Porter (1998) and Shank and Govindarajan (1993) it can be concluded that the value chain is the basic tool for diagnosing competitive advantage and that an organisation could enhance its competitive advantage by not only striving to understand its own value chain, but also to gain an insight into how the organisation's value activities fit into the value chains of the supplier and the customer respectively. Payne (1993) claims that the value chain is the tool that could be utilised when the delivery of superior value is being considered and that the ultimate reason for value chain analysis is the systematic identification of appropriate ways of differentiation for an organisation in the delivery of superior value to its customers. As indicated in **figure 3.1**, the value chain is a subset of the larger value system.
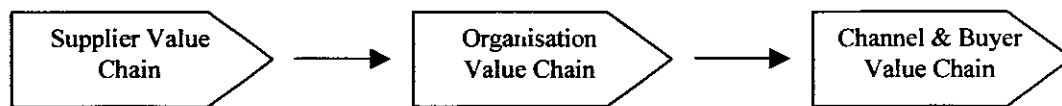
Figure 3.1   The Value System
(Adapted from Shank and Govindarajan, 1993)

3.5.3 Composition of a generic value chain

Every organisation's value chain comprises of nine generic categories of activities, viz. inbound logistics, operations, outbound logistics, marketing, service, infrastructure, human resource management, technology development and procurement and the links of the chain could be deemed as being communication. Porter (1998) distinguished between primary activities and support activities as reflected in **Figure 3.2**
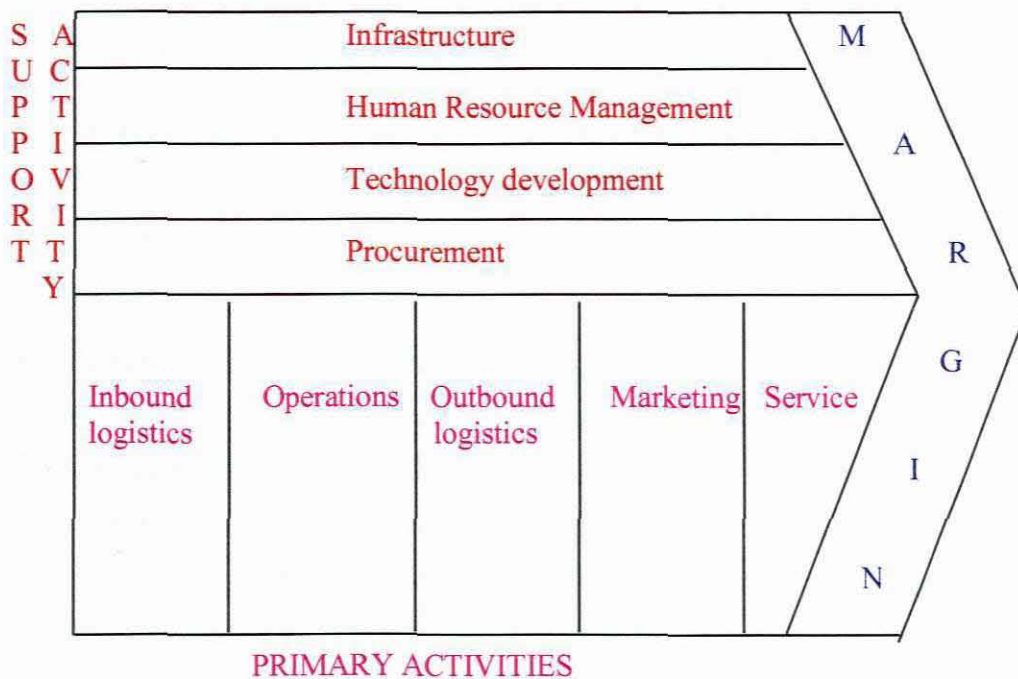
Figure 3.2   Generic Value Chain

(Source: Kotler, 2000:44)

3.5.3.1 Primary activities

Within the WCED, the primary activities are directly concerned with the actual delivery of the service in which the need of the customer should not only be satisfied, but the customer must be able to derive value from the manner in which the service has been rendered. The five generic categories of the primary activities, which will be present in some way in order for the WCED to attain a competitive advantage, are:

- Inbound logistics – activities associated with the receipt and dissemination of items which are necessary to satisfy the needs of the customers e.g. receipt of applications for the appointment of educators and forwarding the documentation

49

to the appropriate directorates e.g. records section, leave section, salary section and appointment section.

- Operations – activities associated with transforming inputs as to satisfy the needs of the customers, e.g. leave section – checking on the types of leave the educator has utilised, whether paid or unpaid leave.

- Outbound logistics – activities associated with the collation, storing and distribution of the finished product, e.g. leave section – collating the information, filing the information and forwarding the information to, e.g. the appointment section.

- Marketing – activities associated with the provision of a manner e.g. availability of front office staff at the client services department of the WCED where the customers can collect the documentation informing them that an educator has been appointed and a manner in which the customer could acquire the product (appointment of the educator) as well as facilitating and inducing them (selection of channels such as electronic mail) to meet the expectation of the customer and allowing the customer to trust and have confidence in the WCED.

- Service – activities, e.g. total productivity training associated with the rendering of a service in order to enhance or maintain the value of the service and the image of the WCED by bearing employee satisfaction and commitment; customer service satisfaction; and customer trust and confidence in mind.

3.5.3.2 Support activities

The categories below of support activities not only support the primary activities, but also each other (Johnson and Scholes, 1999: 156 – 158).

- Infrastructure – comprises of activities, which include legislative affairs, management, planning, finance, quality management and support the entire value chain.

- Human resource management – supports the entire value chain; comprises of a range of activities involved in recruitment, training and compensation; and affects the competitive advantage of the WCED, since it determines the level of skills; the motivation of the employees; and the cost of hiring and training.

- Technology development - not only comprises of activities such as research, design and servicing procedures that improve the product and the process; but every value activity embodies technology, whether it is "know-how" or procedures.

- Procurement – refers to the function of the acquisition of inputs utilised within the organisation's value chain and not to the acquisition of the inputs themselves. A given procurement activity can normally be associated with a specific value activity or activities which it supports.

Total value is displayed by the value chain, which encompasses the above-mentioned nine value activities. After ascertaining the needs of the customers, these value activities are the "building blocks" which are utilised to satisfy the needs of the customers. The margin or in the case of the WCED, the net operating result, is the difference between the total value created and the collective costs of executing these value activities. The net operating result of the WCED is dependent on its ability to manage the linkages between the activities of the value chain (Johnson and Scholes, 1999).

3.5.4 Linkages

The value chain is not only a collection of independent activities, but also rather a collection of interdependent activities, which are linked (primary – primary e.g. inter-departmental co-ordination; primary – support e.g. computer-based operational systems and support – support e.g. managing innovation through people). Linkages (internal e.g. primary - support and external e.g. strategic alliances) could be defined as the relationship between the way one value activity is being performed and the performance of another (Johnson and Scholes, 1999:171-174). Linkages can contribute towards the competitive

51

advantage of an organisation in two ways, i.e. optimisation (reflected in the strategy of the organisation) and co-ordination, which enhances differentiation (Petersen, 2004). It must however be borne in mind that linkages could often reflect trade-offs among these activities in order to attain the same overall result.

Within the value system **(figure 3.1)** vertical linkages are found between the value chains of the organisation, supplier and channels/buyers. Linkages within the value chain are crucial to the attainment of a competitive advantage and are seldom recognised, but if recognised it often yields a sustainable source of competitive advantage. Exploiting linkages usually requires information or information flows that allow optimisation or co-ordination to take place (Johnson and Scholes, 1999:455-457).

3.5.5 Market Turbulences

Changes from low and high market turbulences (**Table 3.5**) i.e. changes that were occurring during the 90s and presently continuing (Coop, 2001) are characterised by demand (changes in customer value expectations) and structural (market induced changes) factors.

Table 3.5   Low versus High Market Turbulences

Low market turbulence	High market turbulence
Demand factors	
Stable and predictable demand levels	Unstable and unpredictable (e.g. Labour disputes)
Easily defined needs and wants	Uncertain needs and wants
Slowly changing needs and wants	Rapidly changing needs and wants
Low level service requirements	High level service requirements
Low quality concerns	High quality concerns
Structural factors	
Low rates of technological change	High rates of technological change (Scenarios on the website of the WCED - resolving disputes)
Slow/medium response to requests	Requests for rapid response

(Adapted from Pine, 1993)

3.5.6 Market-driven organisations

Organisations are dealing with these turbulences (low market and high market) in the market, by being market-driven. According to Kotler (2000), amongst others, the elements of a successful market-driven organisation are:

- being knowledgeable about the markets in which organisations function, the ability to form close relationships with customers and devising strategies which involve both customer and suppliers;

- a structure enabling the organisation to anticipate and respond to the continually changing customer requirements and market conditions, whilst bearing in mind that there has been a transition from the market-place to a concept named a market-space e.g. customers of the WCED do not have to be within the Western Cape, hence there is no need for dominant location.

The differences between market-driven organisations and traditional or self-centred organisations are, amongst others, as follows:

Table 3.6   Market-driven organisations versus self-centred organisations

Market-driven organisations	Self-centred (traditional) organisations
All decisions commence with the customer	Customers receive what has been developed
Quality is customer defined	Quality is conformance to internal standards
Best ideas come from interacting with the customer	Customers do not know what they require
Knowledge about customers is an invaluable asset	Customer data are a control mechanism
Marketing channels are value adding partners	Marketing channels are conduits
There are no sacred cows; check, change and adjust the value being offered	Protect the existing structures
Learn from mistakes	Avoid mistakes

(Source: Day, 1999)

Many authors of the post Taylorism era have indicated that the co-ordination of the "new success factors" viz. speed (response to customer requirements); flexibility (multi-skilled workforce and the ability to render services to new customers in new and different ways); integration (organisational ability to create mechanisms that pull together diverse activities if and when required) and innovation (creation of networks, processes and organisational structures which stimulates creativity) have influenced organisational

success in the 1990s and is still influencing organisational success, i.e. binding these factors into a successful holistic structure.

Many post Taylorism era authors also share the same point of view, i.e. that market-driven organisations should be flexible and responsive. Johnson and Scholes (1999:10-13) differentiate between strategy and operational effectiveness; and in doing so imply that strategic effectiveness is about doing the right things and operational effectiveness is about doing the right things right. This in turn coincides with Kotler's (2000) view of market-driven organisations that monitors the value creation process throughout the value chain and uses these observations to modify the value proposition and the value chain configurations. Hence the net operating result can be enhanced through the collaboration of suppliers, customers and competitors.

3.5.7 Value chain as a model for strategic analysis and decision-making

Lai (2000) introduced the "customer-focused value chain" and deemed the traditional value chain (**Figure 3.**3) to be redundant because it was product-focused and commenced with the core competencies and the assets of the organisation; then proceeded to consider other inputs, to a product offering through marketing channels and then to the end-user, viz. the immediate customer.

Figure 3.3   Product-focused value chain

(Source: Lai, 2000)

55

Within customer-centric thinking, the value chain (**Figure 3.4**) commences and ends with customer, i.e. it is customer-focused.

Figure 3.4 Customer-focused value chain

(Source: Lai, 2000)

Norman and Ramirez (1993:65-77) view the value chain as an analytical tool that facilitates strategy. Here the strategic analysis focus is not on the organisation or the industry, but on the value creating system in which the suppliers, stakeholders and customers work together to co-produce value. The underlying goal is the creation of an ever-improving fit between competencies and customers. Hence strategy decisions are not only intra-organisational, but also inter-organisational and extra-organisational. Strategic operations ensure that opportunities are identified; relevant value is created; and competencies are sourced, integrated and co-ordinated (Leibolt, 2002). In doing so, the interests of all stakeholders are met.

3.5.8 Value

Value is a term that is frequently used, but infrequently understood (Lalla, 2003). Value implies stakeholder satisfaction. Stakeholders, among others, encompass customers, employees, suppliers, the community and government. The value proposition of an organisation is the response to the expectations of the customers. The external value statement is the means by which the organisation, e.g. WCED renders its service to the relevant customer. Internally the value statement identifies how the value is produced, communicated, delivered and maintained. The rendering of services has cost implications

and hence cognisance must be taken of "value drains", i.e. the rendering of a service costs more than the value it is adding to the customer.

3.5.9 Primary objective of value chain analysis

The primary objective of value chain analysis is the ensuring that the resources of the WCED function in a co-ordinated manner, but also bearing in mind that the WCED has limited access to resources. In the endeavour of the WCED to optimise the usage of resources, the expectations of the customer must be established; the necessary resources and structures need to be identified; and the appropriate systems that will be utilised to render the expected value need to be structured.

From various secondary sources it was deduced that the purpose of the value chain is to:

- identify the value chain stages which transform inputs into outputs;

- identify commonalities and interdependences between stages;

- identify costs within the organisation together with cost advantages that do or could exist;

- choose the organisation's positioning e.g. where it would like to be; and

- identify alternative value chain delivery structures e.g. when occupational crime is perceived.

It was also deduced that the value chain executes the following:

- chooses the value, i.e. process of ascertaining the customers and the needs of the customers;

- provides the value, i.e. the development of the service response and the marketing strategies of distribution, costing and service, where service encompasses availability, frequency and reliability;

- communicates the value, i.e. completion of the value chain processes through the implementation of the marketing strategy in which the emphasis is on communicating with the customers.

3.5.10 Value chain progression

- Porter (1985) proposed the value chain as a means to identify the transformation of inputs into outputs and to ascertain commonalities and interdependences.

- Brown (1997) emphasised that cognisance must taken of the links or relationships between activities in the value chain; members of the value chain and its value chains; as well as the competitive scope of the organisation.

- Slywotzky and Morrison (1997) indicated that the value chain should commence and end with the customer.

- Scott (1998) indicated that co-ordination across the value chain is necessary.

Hence the value chains of the organisation, e.g. the WCED and its strategic business units (the various directorates and EMDCs) are merged. Here the importance of information management, which provides the co-ordinating activity, is highlighted. The value chain is an integral component in the strategy process, the assessment of the organisation's core competencies and its fit in the overall creation of value (Norman and Ramirez, 1993:65-77).

Since Day (1999) stated that value creation is an ongoing process and centred on the customer, a value cycle (**Figure 3.5**), encompassing value identification; value creation; value communication; and value delivery and service (value maintenance), was proposed.

58
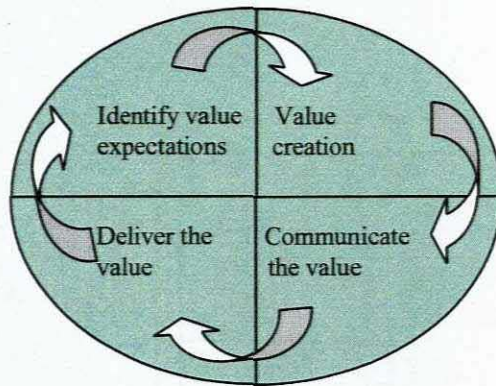
Figure 3.5   Co-ordination of value creating activities within the value cycle

(Source: Adapted from Day, 1999)

In the development of value-based strategies, the value cycle could be deemed as being a *philosophical approach and the value chain could be deemed as the way by which value*-based strategies are implemented (Day, 1999). Day (1999) also suggested that not only must the value chain be seen as rendering a service to the customers, but must also, within a market-driven environment, be seen as interacting with the customers.

3.5.11 Processes and activities of a generic value chain

The processes (customer and stakeholder expectations; design and development; production; marketing; service; customer value delivery perceptions; procurement; inbound and outbound logistics) and activities (identification of value expectations; creation of value; communication of value; delivery of the value; and servicing the value) of a generic value chain are reflected in **Figure 3.6.**
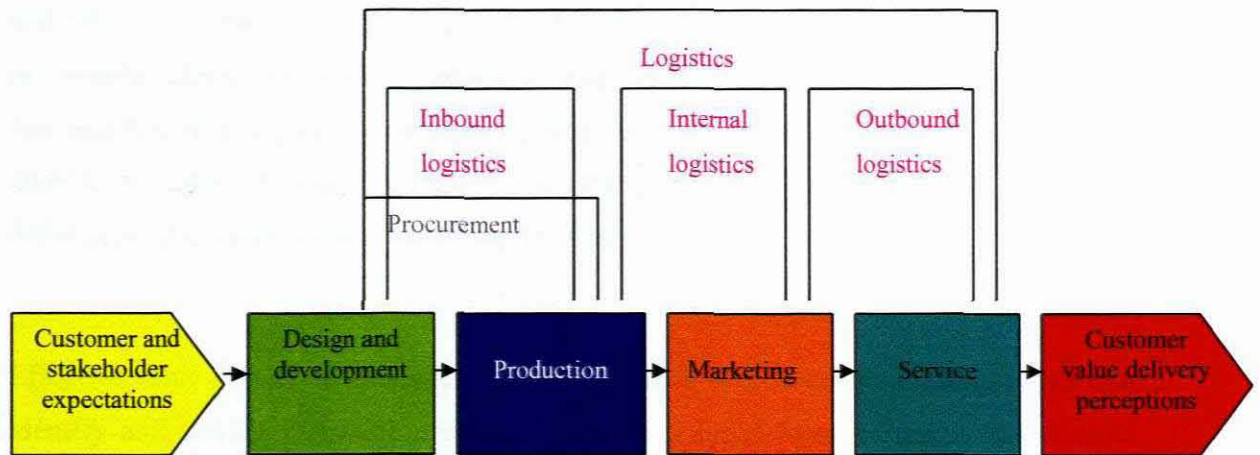
Figure 3.6   Generic Value Chain

(Source: Porter, 1985)

In most cases, the roles and tasks of each process are specific and value creation occurs across the entire range of processes (Johnson and Scholes, 1999:156-160). In the endeavour of the WCED to maximise its net operating result, it would indeed be interesting to ascertain whether it would be viable for the WCED to outsource certain processes within the value chain. Outsourcing may be accompanied by unacceptable risks and these risks could be offset by partial ownership. No matter what is being done, it is important that effective (strategic) and efficient (operational) planning, co-ordination and control are executed throughout the value chain.

The value chain of the organisation comprises of the supply chain and the demand chain. The previous emphases, which were bestowed on the supply chain (value delivery network), have subsequently been replaced with value chain strategy and management (O'Brien, 2004). Supply chain management could be deemed as assuming the role of a

facilitator because of the manner in which a product is differentiated. Petersen (2004) stated that since value chain management is customer-centric, the value chain can be deemed as functioning as an innovator, integrator and operations co-ordinator. Efficient and effective supply chain management could be deemed as the result of the integration of supply chain activities (production and service management; communications management and logistics management) and the combination of service delivery (the adding of value through availability, reliability and flexibility); supply chain co-ordination; and supply chain operations (O'Brien, 2003).

Effective value delivery of demand chain management is achieved through processes that identify and service the value process. It can be deduced from literature that demand chain management identifies customer and stakeholder expectations and that supply chain management is the response to customer and stakeholder expectations. **Figure 3.6** indicates that logistics is an important cog in the value creation machinery since it bridges customer and stakeholder expectations with customer and stakeholder value delivery perceptions via the processes, viz. procurement (encompassing design and development; and production), marketing and services. Hence the value chain will not be able to meet the objectives of customers and stakeholders if the importance of logistics management, in ensuring, among others, accuracy and the efficient flow of information, is not accepted.

The identification of investment requirements and the levels of performance expectations will ensure that the net operating result of each process "owner" within the value chain is maximised (Gadiesh and Gilbert, 1998:149-162). However it must be borne in mind that a strategy of the WCED might be to maximise marketing of a particular directorate and this in turn could result in sub-optimal performance. As "products" flow from one section of a directorate of the WCED to another, a big gap could often develop, especially if each section has its own set of performance measurements which are unrelated to the performance measurements of another directorate, i.e. this could lead to the internal customer, e.g. the staff not being satisfied. Hence the holistic value chain approach could contribute in minimising or sharing the risks involved, but it must also be borne in mind

that there are costs in the form of co-ordination and communication; and this in turn could be offset by flexibility, integration and innovation of the lean operations of the WCED.

Petersen (2005) intimated that since the impact of the availability of information and its concurrent decrease in cost has encouraged many "boundary-less" organisations to reconsider what it is actually being rendered to the customers; how it is produced and what the costs are. Bearing this in mind, the thinking of top management of the WCED should commence with, e.g. the problems of the customers (internal and external); ascertain the value drivers (needs and priorities); and then to identify ways of meeting them, i.e. top management should identify:

- the needs of the customers;

- the inputs required in the creation of "product/services" (scope of business of the WCED); and

- the assets (tangible, e.g. systems and infrastructure and intangible, e.g. human resources) and the core competencies required.

The attributes of the "product" which is being "acquired" invariably represents the value to the customer and the value proposition (customer expectations and core competencies, viz. capabilities and capacities) of the WCED incorporates the identification of the benefits and costs for the customer as well as the internal processes necessary to "produce" the benefits/values. Once the WCED ascertained its value expectations, then it can derive its value position which encompasses knowledge management (organisational capability, viz. among others, whether the WCED is a learning organisation and how research is perceived), relationship management (requirement of the WCED pertaining to the identification, establishment and reinforcement of relationships with customers and partners with complementary capabilities and capacities) and technology management (achievement of the objectives of the WCED through the integration of process and "product").

The derivation of the value position of the WCED goes "hand-in-hand" with the changing of organisation structures and management philosophy as well as the acceptance that value strategy is an important cog within the corporate strategy process. The interdependent interaction of knowledge; relationship and technology management would influence the ability of the WCED to meet the changes within the "education – environment". In the optimisation of the value delivery of the WCED, i.e. the closure of the customer satisfaction gap, then the operations strategy of the WCED need to be proactive instead of being reactive.

The value production of the WCED is dependent on:

- the organisational structure which needs to cope with:

  o market or stakeholder management – WCED has a number of "markets" which encompass customers, referral organisations (e.g. computer training organisation and psychological services), influencers (unions) and investors (corporate partnerships).

- the organisational structure which specifies operations management which encompasses production management ("who" is responsible for "what" processes), logistics management (enhancing the perceived value of the product-service to the customer) and service management (incorporating aspects pertaining to "pre-transaction", "transaction" and "post-transaction" which emphasises the involvement of the customer).

Hence a value chain could therefore be deemed as a "string" of players working together to satisfy market or stakeholder demands for a particular service, e.g. within the WCED information is received; value is then added through various processes and activities; and this in turn leads to the satisfaction of the customer via the closure of the gap between the expectation of the customer and satisfaction of the customer by the employee. From

secondary sources it can be deduced that the idea of the value chain (**Figure 3.2**) is based on the process view of organisations.

The McKinsey Classic on Business System Analysis (**Figure 3.7**) was deemed to be the foundation for the subsequent development of the value chain (**Figure 3.8**) concept (Bales, Chatterjee, Gluck, Gogel and Puri, 1980).

Supplier   Customer
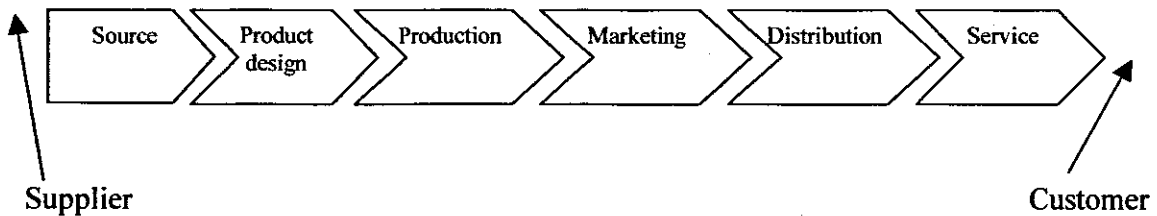
Figure 3.7   McKinsey Classic – Business System Analysis

From **figure 3.7** it can be deduced that the McKinsey Classic is an integrated set of activities. This concept is based on a sequential chart indicating the main ingredients of the system whereby an organisation delivers services or products to the market segment or market and commences with the supplier and terminates with the customer. At each link, management has the option of how to conduct its business, i.e. managers are encouraged to pose questions (such as: Whether there are better and alternative ways of doing it? How the external environment will impact on the way the function is executed? Who does what and how it is being done?), which could generate options concerning each stage within the business system.

Whether management endeavours to build "new game" strategies, to assess acquisitions, or to build a decisive superior cost position, the business system is a very strong tool that assists the organisation in the creation of an integrated strategy where activities at each link of the system are aligned with the overall strategic direction of the organisation (Buaron, 1980).

64

The solution to the WCED's challenge of the command-and-control management of the era prior to 1994 could be the conversion to a process-managed organisation. Here the process-managed organisation would support, empower and energise employees. In doing so employees would be encouraged to initiate and to perform process work. Van Niekerk (2002) has intimated that the transition to knowledge-based economies made the establishment of effective employee empowerment mechanisms imperative and crucial. This is also in line with the propositions of the young and new democracy of South Africa.

According to Moodley (2004), process work is work that is focused on the customer; work that is directed toward achieving results rather than being an end in itself; and work that follows a disciplined and repeatable design. With the continuously changing demands of the customers of the WCED, process work could be deemed as work that delivers the high-level of performance that customers demand.

The one-on-one relationships that individual employees, e.g. the head of the Institution Management and Governance pillar at the EMDCs have with seniors, e.g. the EMDC Director, trust and respect; and the daily consideration that the seniors show toward the employees could be deemed as the core of an energised labour force. Getting the best out of the employees is above all a product of the "softer side" of management, i.e. how individuals are treated, inspired and challenged to do their best. If the WCED treats the employees as the most valuable assets, not only by word, then employees will bring their best thinking and ideas to their place of work. These employees would also do what needs to be done without being told and in turn they would feel that they have a significant impact on their jobs (Miti, 2003). Miti (2003) also intimated that identity (everybody in the WCED must understand the goals and the need to satisfy the customer and stakeholder through amongst others, trust and confidence) participation (everyone must be afforded the opportunity to influence decisions within the WCED), competence (everybody must continually improve his/her abilities) and equity (the net operating result

must be shared with the employees) are the principles of empowering and energizing employees.

Value chain leadership requires the cultivation of a shared vision (Senge, 1990: 9) by all the employees who in turn would provide organisational learning, personal motivation and the provision of a common goal. The cultivation of a shared vision entails the:

- communication of views honestly and directly during audiences with employees;

- explicit communication of the vision;

- ensuring that all employees have the appropriate information pertaining to their task;

- consideration and careful listening of the opinion of others open-mindedly before assessing it; and

- informal communication of high personal standards by ways of day-to-day contact, conversation and "pat-on-the-back" interactions.

3.5.12 Value chain of lean organisations

The vertical (the various directorates of the WCED are connected from one end of the service delivery process through other steps to where the value delivery gap of customers is closed) and horizontal (the various sections within a directorate of the WCED working together to consolidate "supply") alliances of the value chain must collaborate, i.e. different directorates of the WCED discuss issues, work and troubleshoot problems together, viz. action learning (Marquardt, 1999:4) in order to deliver the required value to the customer. Value chain collaboration is not an all-or-nothing proposition. The first step toward collaboration is the recognition of the existence of value chains and that all directorates within the WCED are links within these relationships (Taninecz, 2000). According to Taninecz (2000), the key to collaboration is reliability, but reliability has a different meaning to both the customers (involving attributes such as deliverability, quality and service) and the suppliers (sharing sound data). It must however be borne in

mind that directorates might have to sacrifice some of their independence in order to make the value chain work via their interdependence. Value to the customer (as reflected in **Figure 3.8**) includes service attributes, image and relationship that encompass functionality, quality cost and time.

VALUE CHAIN and "PRODUCTION" SYSTEM
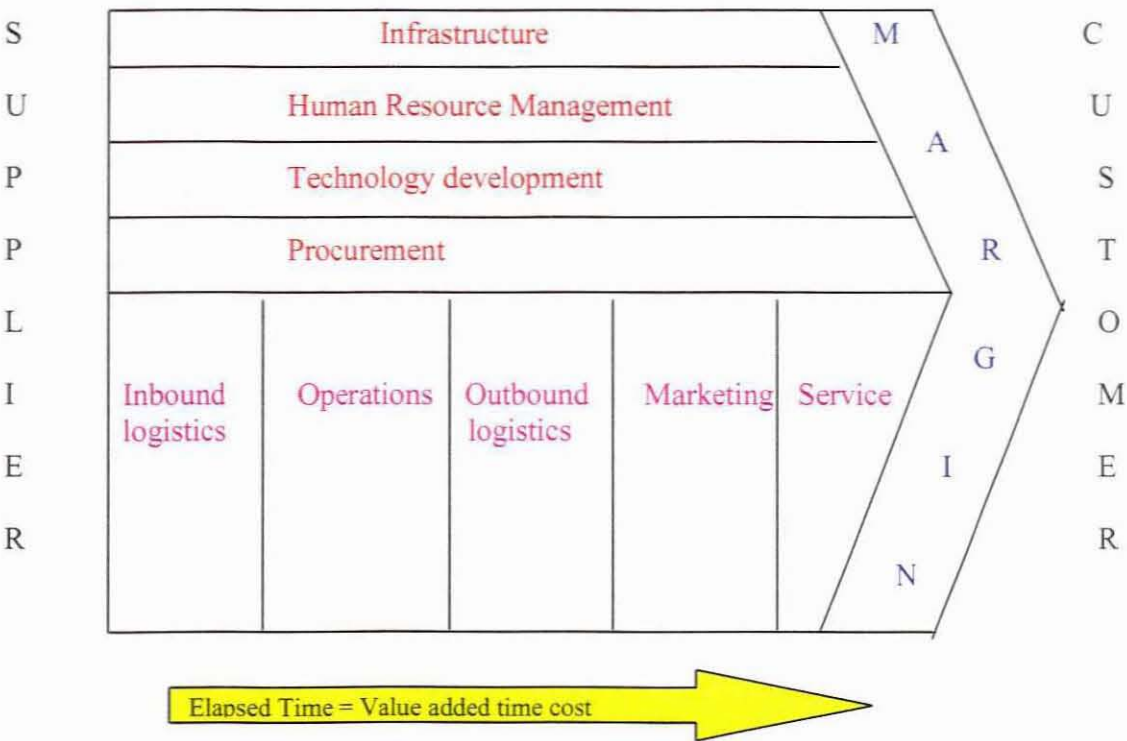
Figure 3.8.1 Value Chain and "Production" System

Figure 3.8.2 Activities encompassed within the value chain of a lean organisation

(Source: 1000 ventures.com)

With reference to **figure 3.8.2**:

- Value chain for product development – collaboration on product design and development among the vertical and horizontal alliances and measured by product development cycle time

- Supply chain – supply-based mutual benefits, enabled, among others, by electronic data interchange (EDI) and measured by lead-time

- Value chain for manufacturing – collaboration of all value chain members and the application of lean techniques would allow the value chain to respond rapidly in a continuously changing market; e.g. enabled by a document tracking system; and measured by the reduction of cycle time, on-time delivery of documents and productivity

With reference to **figure 3.8.1**, it can be deduced that the lean organisation includes the entire production system within its value chain, bearing in mind that any lean organisation is dependent on the needs of its customers and the reliability of its suppliers. Encompassed within the lean supply chain, lean product development, lean manufacturing or order fulfilment and lean customer relationships are the activities of waste reduction, employee empowerment and the customer; and this impacts on the product development which in turn gives rise to improved quality and increased flexibility in the endeavour of the organisation to allow the customer to derive value from the offerings of the organisation. The time which has elapsed between the determination of the needs and the satisfaction of the needs of the customer, value has been added, but at a cost.

3.5.13 Service-Net Operating Result Chain

The below-mentioned Service-Net Operating Result Chain is a powerful phenomenon that stresses the importance of both employees and customers. **Figure 3.9** implies that the WCED can leverage performance when employees and customers are linked. The links

can be equated with communication. Communication is imperative in the establishment of a customer partnership (Moodley, 2004).

ENHANCING CUSTOMER AND STAKEHOLDER TRUST AND CONFIDENCE IN THE WCED

VISION

MISSION

WCED Employee satisfaction & commitment

WCED Customer & stakeholder service satisfaction

Customer & stakeholder trust & confidence in WCED

Potential Drivers
- career path
- fair pay/benefits
- value to customers
- work environment
- perception of management

Drivers
- timeliness
- competence
- courtesy
- fairness
- outcome

Potential Drivers
- social & cultural factors
- political factors
- administrative factors
  * service satisfaction
  * service benefit
  * service adequacy

Figure 3.9   Enhancing customer and stakeholder trust and confidence

(Source: Adapted from Heintzman and Marson, 2003)

The creation of a partnership with customers will assist the WCED to maintain the focus required to make informed decisions as well as to harness the power and commitment which is essential to weather the present turbulent times of rapid and chaotic change (Moodley, 2004). Not only is customer partnership definitely more than just "putting customers first", or ascertaining mutually satisfactory resolutions to shared problems or a dedication to excellence in every service delivery encounter (O'Connell, 2004), but it is also the commitment to the creation of synergies of knowledge and adaptability through the formation of long-term relationships of both employees and customers.

The study group 2, at the 2003 Annual Conference of the European Group of Public Administration, has, amongst others, indicated that certain types of satisfaction influence commitment; and that there is definitely a distinction between attitudes/feelings and behaviours. This group has also stated that employee satisfaction is primarily an attitude or feeling, whereas employee commitment tends to express patterns of behaviour. It has also been deduced that job satisfaction was found to be a driver of commitment, but commitment was not found as being a driver of satisfaction. Hence in order to improve service delivery, it is imperative to ascertain what drives service satisfaction.

In the WCED "moment of truth" (term coined by Carlson, the former CEO of Scandinavian Airlines), i.e. a service experience, the customer forms a positive or negative impression of the effectiveness of the WCED. Service delivery of the WCED is more than just service since the customers as well as involuntary customers (i.e. customers not by choice) are usually also taxpayers with civic and public interests.

If service quality is determined by the difference between the expectations of the customers and their perceptions of the service actually delivered (Parasuraman, Zeithaml and Berry, 1985:41-50), then customers, as indicated by authors of secondary resources, may experience difficulty to indicate their expectations. As such, more research needs to be done pertaining to:

- customers' expectations and management perceptions;

- management perceptions and service specifications;

- service specifications and service delivery;

- service delivery and external communication; and

- customer expectations and customer perceptions.

Continuous monitoring of customer satisfaction could identify whether the objectives are being met or if under or overachieving is occurring, i.e. whether a value delivery gap exists. Underachieving of customer satisfaction refers to the exact needs of the customer and it also indicates that the customer/value chain fit is strategically wrong. Overachieving of customer satisfaction refers to a lack of understanding customers and hence it could be deemed as a waste of value chain resources.

The closure of the value delivery gap of a lean organisation, such as the WCED (which is striving to become a lean learning organisation) could be achieved by the realising what its value proposition is. The value proposition must, amongst others, identify:

- how the customer expectations will be met?

- the roles and tasks of the various, e.g. directorates within the WCED.

Often within a lean organisation, there is the misconception that lean should be implemented "top down" in its endeavour to generate meaningful results, viz. the maximisation of the net operating result. Since employees (with their primary concerns of, amongst others, employment continuity; fair remuneration; and job satisfaction) are encouraged to be elements of the set named "family", opportunities to apply lean concepts are in abundance. The identification of these opportunities could be learnt by the WCED when its value-adding chain is sketched. From the perspective of the customer (whose value expectations are for service performance which meets their performance

expectations in which service is of paramount importance), the sketching of the value-adding chain can probably reveal a significant amount of occupational crime, i.e. non-value adding activities which are embedded within the current value-adding chain. Invariably these non-value adding activities "eat up" financial and human resources and in doing so prolonging the throughput time and hence disallowing the customer from deriving value for the services rendered. Although some of these activities are vital within the processes of upstream and downstream partners, e.g. the expectations of the "partner" and alliance directorates and EMDCs of the WCED will be based upon mutually beneficial relationships, it must however also be borne in mind that the strategic objective is to eliminate or to minimise the impact of these non-value adding activities and that the sketching of strategies could be utilised to achieve this.

Petersen (2004) intimated that although the performance of alliances is difficult to measure, as partners might not make all information available (which pertains to the alliance); and performance measurement is a critical tool for managing an organisation. It was also indicated that the balanced scorecard is ideal for alliances.

3.5.14 Conclusion

There would be much interest in understanding the impact that value chain alignment would have on the WCED. One of the challenges of this is that it becomes more difficult to define or to even classify the directorates of the WCED, as their roles could be changed by the new relationships. Traditionally, directorates would be defined in terms of their function, i.e. what they do; their domain, i.e. the sphere of activity or influence; and their boundaries. Vertical alignment re-defines the roles of the participants of the value chain and in doing so the traditional lines, which have been utilised to define the directorates, are blurred.

There is an array of possible dimensions, which could be considered when striving to gain an understanding of the WCED head office, the EMDCs or the directorates, which

are engaged in a co-ordinated value chain. The dimensions below could be utilised to assess and to describe the "non-traditional" value chain (**Figure 3.10**) of the WCED, which could be deemed as the value chain of the future, viz. the customer-centric value chain:

- Value creating activities

    Value creating activities relate to their contribution of value to the overall value adding process. The formation of new relationships within the value chain could provide new opportunities for value creation.
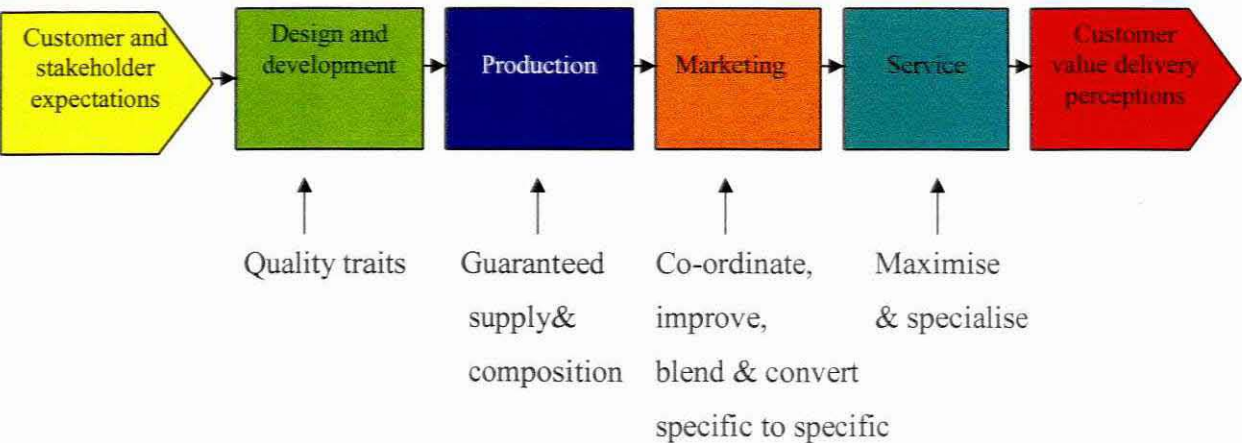
Figure 3.10   Future/Customer-centric value chain

(Source: Adapted from Porter, 1985)

    Within the customer-centric value chain the measures of contribution need to be extended as to include the value, which might be realised from the issuing of advance information pertaining to product quality or gains derived from, among others, improved co-ordination of timing of delivery. However in the past it was sufficient only to measure the value that has been added in terms of, among others, processing efficiencies.

- Flow of financial information

    Due to budgetary constraints, within the WCED, it is necessary that financial performance information be shared across the processes and activities of the value chain. Typically the assumption is that this information is proprietary, but more

transparent sharing of financial information among the value chain participants may indeed be critical to the optimisation of the financial and physical performance of the value chain.

- Flow of information

The information flow across the value chain would assist the value chain to focus on needs and intensions as a manner in which to drive quality and co-ordination. The information flow dimension encompasses timing and accuracy of messages; and the assurance that potentially sensitive information is only forwarded to participants of the value chain who requires it to improve the functionality of the value chain.

- Incentive systems

Another important dimension of the value chain is the incentive systems, which are utilised to reward performance as well as to share the risks. As the participants of the value chain build new relationships across the value chain and commence to adopt and to utilise new technologies, new incentive mechanisms need to be allowed to evolve as to accommodate these changes. It must however also be borne in mind that conflicts may be encountered with regards to the incentive systems.

- Governance

The choice of governance or co-ordination system such as strategic alliances and joint ventures will have an impact on how risks and rewards will be shared as well as who has the power and control within the value chain.

In order to understand the changing roles of the participating members of the aligned customer-centred value chain, not only will new tools and approaches be required, but the following questions also need to be answered:

- What controls are required in order to give the assurance that information will not be utilised inappropriately?

- What governance systems need to be developed as to enable aligned value chains to be instituted and then to be sustained?

- What is the scope of the knowledge which will be required in order to give the entire value chain members a broad understanding of the entire value chain (from ascertaining the needs of the customer to where not only the needs of the customers are satisfied, but where the customer will be able to derive value from the services which have been rendered - customer expectations to customer value perceptions)?

These and other questions could be answered via a strategy map (Kaplan and Norton, 2001: 69) and by bearing the cause and effect, as well as the enablers, in mind. The innovation, learning and growth perspective, the internal business processes perspective, financial perspective and ultimately the customer perspective of the WCED is of particular interest.

3.6   The Balanced Scorecard

3.6.1   Strategic perspectives – corporate sector and public service

Since the inception of the balanced scorecard (Kaplan and Norton, 1992) for the corporate sector (**Figure 3.11**) and the public service (**Figure 3.12**) has the balanced scorecard transformed from a performance measurement tool to a strategic management and a communication tool (**Figure 3.13**) (Kaplan and Norton, 2001).

BALANCED SCORECARD
STRATEGIC PERSPECTIVES
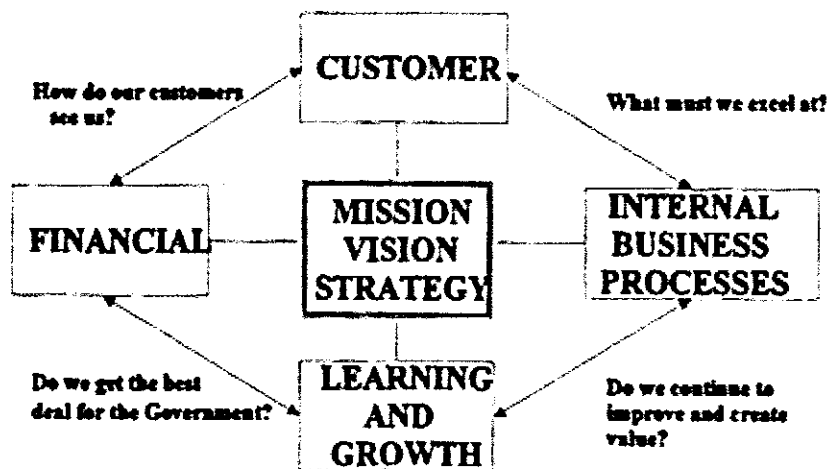
Figure 3.11   Balanced Scorecard strategic perspectives

(Source : Kaplan and Norton, 1992)
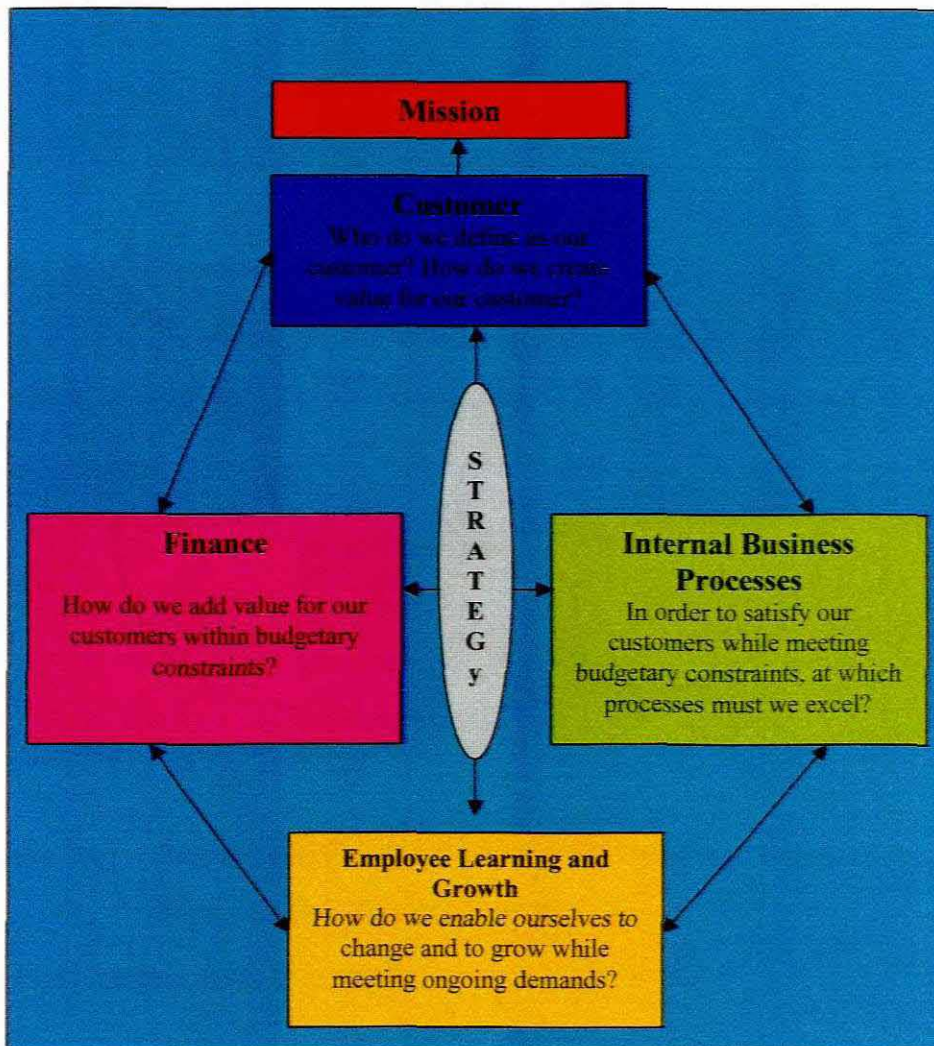
Figure 3.12   **Balanced Scorecard Strategic Perspectives of the Public Service**

(Source : Niven, 2002:297)
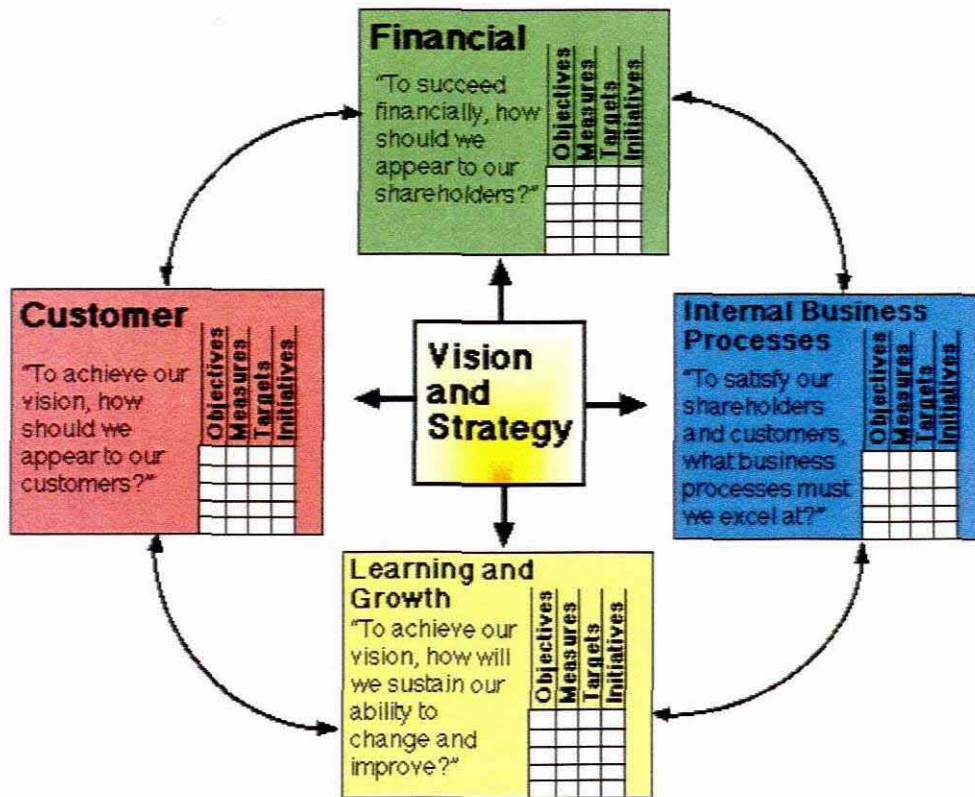
Figure 3.13   Balanced Scorecard framework - Using the Balanced Scorecard as a Strategic Management System

(Source : Kaplan and Norton, 1996)

3.6.2   Strategy map

Much of the transformation was done through the introduction of a strategy map (**Figure 3.14**), i.e. a focus on managing change.
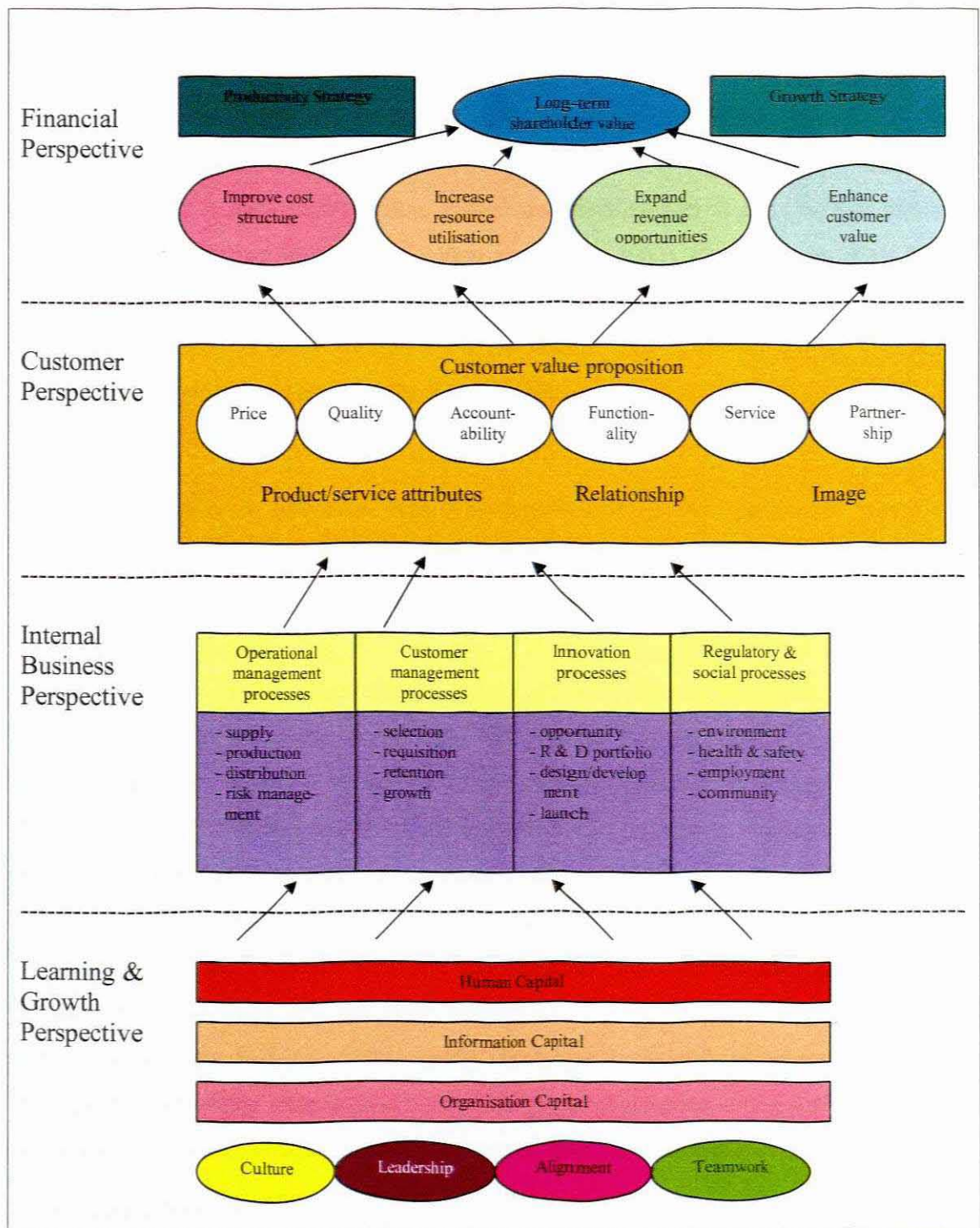
Figure 3.14   Strategy Map – Private Sector

(Source: Kaplan and Norton, 2001)

The transformation of an organisation to become lean requires a carefully planned strategy from only focussing on cost-cutting and restructuring to shifting mind-sets toward growth, innovation and the seizing of new opportunities. Accompanied with lean thinking comes a significant change in corporate culture; and a change from top management which necessitates strong, patient and visible leadership. As well as making realistic and productive demands (Womack and Jones, 2003), i.e. managers must focus on the right things which would improve the dimensions of service delivery which matters, it must also be borne in mind that the changing of the corporate culture requires a robust change in management strategy (Leibolt, 2002).

A strategy map is a schematic representation describing the manner in which an organisation, e.g. the WCED creates value by linking the strategic objectives of the different directorates of the WCED through explicit cause-and-effect relationships with each of the objectives, targets, measures and initiatives of the four perspectives (customer, finance, internal business processes and innovation, learning and growth) of the balanced scorecard to the overall corporate vision. It is the cause and effect notion that separates the balanced scorecard from other performance management systems (Niven, 2002: xii). Strategy maps link shareholder value creation, customer management, process management, quality management, core capabilities, innovation, human resources, information technology, organisational design and learning with each other. It also assists with the formulation of the strategy and then communicating the strategy among top management and the other employees. Hence alignment could be created around the strategy and this in turn could make the successful implementation of the strategy more smoothly (Kaplan and Norton, 2003), if cognisance is taken of the possible barriers to the implementation, viz. vision, people, management and resource barriers:

- vision barriers
    o a vast number of employees do not understand the vision and strategy of the organisation and as a result of it the employees cannot interpret or align with it;

81

- o management forgets that value is created from intangible assets such as "know-how" (knowledge-based assets), relationships and organisational cultures; and

- o employees become accustomed to the organisation and believe that they are only doing the right and proper things.

- people barrier

  - o incentives are not linked to strategy, i.e. rewards are mainly provided for the achievement of short-term targets.

- management barrier

  - o discussions pertaining to remedying the results not meeting budget expectations (not enacted);

  - o strategy discussions invariably do not venture beyond the analysis of defects to a deeper understanding of value creation; and

  - o strategy discussions also just remain discussions and are not necessarily implemented or resourced.

- resource barrier

  - o human and financial resources are "zoned" into short-term financial targets and not long-term strategy, viz. having separate processes for budgeting (capital budgets for the coming year) and strategic planning (strategy which will lead organisation into the future).

(Niven, 2004)

3.6.3 The balance scorecard as a measurement, management and communication tool

The balanced scorecard balances the historical accuracy of financial measures (lagging indicators) with the drivers of future performance (leading indicators) and in doing so

assisting organisations in the implementation of their strategies. Hence financial measures must be supplemented with data that would reflect customer satisfaction; internal business processes; and the ability to learn and grow (Kaplan & Norton, 1992). The balanced scorecard does not only assess corporate performance from the four perspectives.
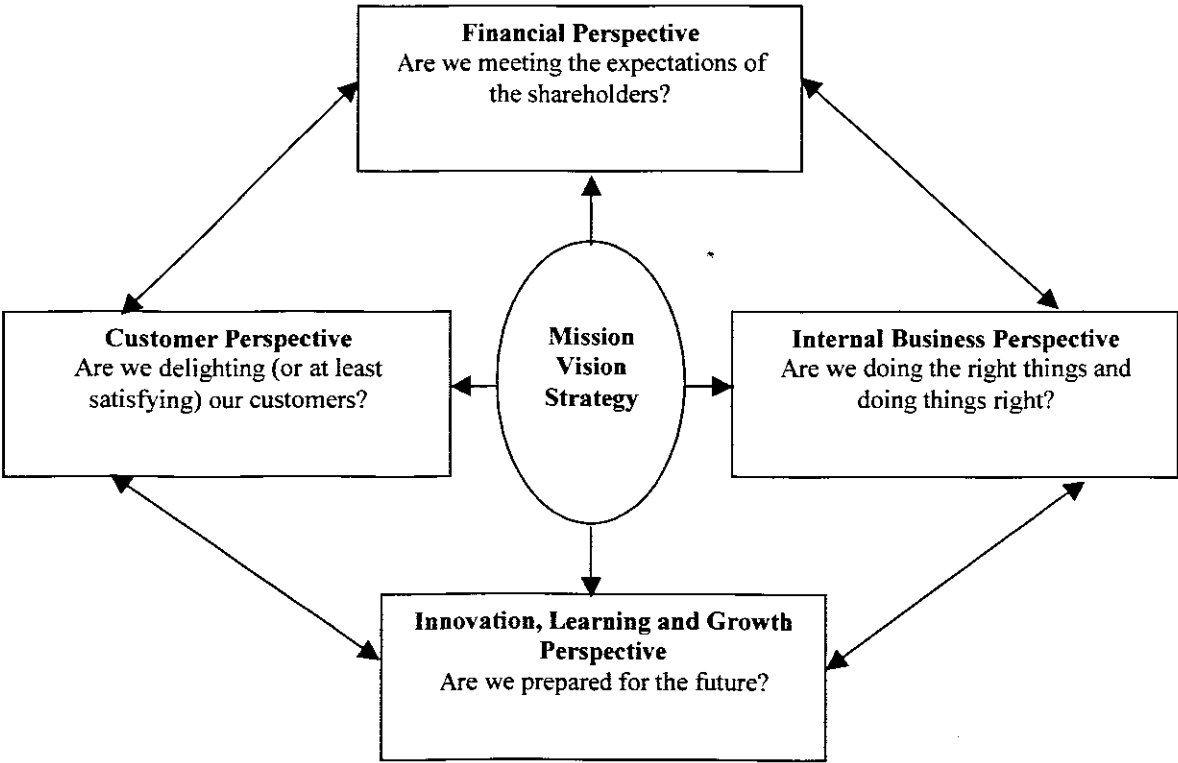
Figure 3.15   The Balanced Scorecard

(Adapted from Kaplan and Norton, 1992)

Figure 3.15 not only indicates that the balanced scorecard could be utilised to ascertain whether an organisation has a motivated and prepared workforce (innovation, learning and growth perspective); effective processes (operational/internal business perspective);

and delighted customers (customer perspective); but it also communicates the strategies through the measures (**Figure 3.13**) that have been selected.

The balanced scorecard can therefore be viewed as a set of quantifiable measures derived from the strategy of the organisation. These measures can be utilised as a tool to communicate the outcomes and performance drivers, which assists the organisation to achieve its mission and strategic objectives, to the employees and the external stakeholders. The balanced scorecard could be seen as a measurement system; a strategic management system and a communication tool.

- The balanced scorecard as a measurement system:

    o financial performance measures (lag indicators) provide an excellent review of what has transpired in the past;

    o financial performance measures are inadequate in relating to the real value creating mechanisms such as knowledge and networks of relationships, i.e. intangible assets;

    o the lag indicators are being complemented by the lead indicators (drivers of future economic performance, i.e. customer; internal business processes; and innovation, learning and growth) via the balanced scorecard;

    o both performance measures (lag and lead) are translations of the strategy of the organisation;

    o the measures, objectives, targets and initiatives chosen translate the vision and strategies of the organisation via the balanced scorecard.

    o Customer perspective

        ▪ Immaterially what the value proposition/s is/are, the measures chosen, whether customer satisfaction, customer loyalty, customer acquisition or market share, should be able to supply answers to

the following questions:

- Who are the target customers of the WCED?

- What is the value proposition of the WCED in serving the customers?

■ The "all things to all customers" strategy should not be employed as the endeavour should not only be to satisfy the needs of the customers, but the customers should be able to derive value from the services rendered.

■ Treacy and Wiersema (as cited by Kaplan and Norton, 2001:90-92) stated that many organisations will in most cases only choose one of the following value propositions (refer to **Figure 3.18**):

- Operational excellence – These organisations will focus on low, price, convenience and, in most instances, no frills.

- Customer intimacy – Customer intimate organisations go the proverbial extra mile in their endeavour to satisfy the individual needs of the customers. By doing so these organisations are striving to focus on long-term relationships with the customers, instead of one-time transactions.

- Product leadership – These organisations are innovative and constantly strive to have the best product in the market and then to push this product to the customers.

o Internal business perspective

Since the organisation's value adding processes of the customer focussed value chain commence and end with the customer, the processes must serve the customers and directly satisfy their value propositions. In doing so, the endeavour of the organisation is the setting of measures to track the progress of the organisation. Also bearing in mind that instead of

85

incrementally improving the internal activities, entirely new internal processes might be utilised.

o Learning and growth perspective

Gaps between the present organisational infrastructures of employee skills, information systems, and the levels required to attain results could be perceived once the measures, initiatives, targets and objectives in the customer and internal business perspectives have been indicated. The plugging of the perceived gaps would contribute towards sustainable future performance if the measures of the learning and growth perspective have been customised. Hence the measures, which have been developed for the innovation, learning and growth perspective, could be deemed to be the enablers of the measures of the other three perspectives.

o *Financial perspective*

From the information derived from the measures in this perspective, it could be deduced whether the bottom line has been improved via the execution of its strategy. In the endeavour of the organisation to reduce the non-value adding activities and to enhance its bottom line, not only should the focus be on the improvement of customer satisfaction, quality and on-time delivery, but the focus should also be on their effect on the financial returns of the organisation.

- The balanced scorecard as a strategic management system

Originally the balanced scorecard was utilised to balance historical financial information with the drivers of future value for the organisation. Since then and according to articles from Kaplan and Norton as well as from organisations utilising the balanced scorecard, e.g. Cape Span, has the balanced scorecard evolved from being only a measurement tool to a tool which is being deemed to be a strategic management system. Hence as a strategic management system the

balanced scorecard could be utilised to eradicate or overcome the barriers to the execution of the strategy of the organisation (Kaplan and Norton, 2003).

- o Niven (2002: 17-20) intimated that barriers which impede the execution of the organisation's strategy could be overcome via:

  - ▪ The translation of strategy

    - • The utilisation of the balanced scorecard should essentially be developed via a shared translation and understanding of the vision and strategy of the organisation to overcome the vision barrier. This in turn is translated into the objectives, measures, targets and initiatives of each of the four balanced scorecard perspectives. This communication could lead employees to focus on value adding activities instead of wasting time on striving to interpret the vision and strategy.

  - ▪ The cascading of the balanced scorecard

    - • Since every organisation strives to implement strategies successfully, the people barrier could be overcome by affording the employees the opportunity to understand the vision and strategies and then to allow them to execute these strategies, e.g. within all the directorates of the WCED. By cascading, i.e. by communicating the balanced scorecard down to the employee's individual level, each employee would then be able to develop their own personal balanced scorecard which in turn should indicate how they contribute towards the achievement of the overall goals of the strategic business units or teams which could encompass vertical and horizontal alliances. Cognisance will also be taken of the non-value adding activities of the employees and then bearing in mind that only value adding activities are necessary to achieve the goals of the strategic

business units or teams. All employees are encouraged to focus on future performance drivers, actions and decisions that in turn are necessary to achieve strategic effectiveness and operational efficiency. The awarding of incentives and rewards to individuals only are being minimised as the endeavour of organisations is to award teams or business units for the achievement of goals within the areas in which they exert influence.

- The strategic allocation of resources

  - Many organisations perform budgeting and strategic planning processes separately, but organisations that have developed their balanced scorecards have executed these processes concurrently. Whilst creating the balanced scorecard, not only have the objectives, measures, and targets of the four perspectives been borne in mind, it is imperative that initiatives be considered which are necessary in order to attain the balanced scorecard targets. If long-term – [Big Hairy Audacious Goals (BHAGs), e.g. the WCED should commit itself to achieve the goal of the total eradication of occupational crime by 2020] and midrange targets (stretch goals, e.g. increasing customer loyalty from 30% to 65% by 2010) are been utilised to attain the targets then a process should be used whereby incremental steps (short term targets are goals which are established annually to gauge the progress of the WCED in attaining its stretch goals and ultimately the BHAGs) would be employed. The foundation for the development of the annual budget should be the appropriate human and financial resources required to attain the balanced scorecard targets.

In order for an employee not to comment by saying: "Not another new initiative", the development of the balanced scorecard would afford the organisation the opportunity to ascertain whether the initiatives, which are currently being employed, are of cardinal importance to the fulfilment of the strategy and in turn attaining the vision of the organisation or whether the initiatives are just using up the scarce and invaluable resources.

- Strategic learning

  - Niven (2002:19) has indicated that in order for learning organisations to make informed strategic decisions one requires more than just the analyses of the actual and budget variances. Kaplan and Norton (2001) have stated that the balanced scorecard translates the vision and strategies into a coherent set of measures in the four balanced perspectives. As a result of this more information need to be considered than just financial data. Niven (2002) has indicated that the balanced scorecard results can, among others, be utilised as the starting point for action learning (Marquant, 1999) in its endeavour to ultimately attain the vision of the organisation. Initially any strategy, which is being pursued, represents an hypothesis of how to attain success. Hence strategic learning will overcome any management barrier that may exist.

- The balance scorecard as a communication tool

From deliberations and presentations of other authors and especially from Olve, Roy and Wetter (1999); Niven (2002); and Kaplan and Norton (1992 – 2003), it can be deduced that the balanced scorecard as a communication tool is the most basic and most powerful attribute of the entire system, i.e. the balanced scorecard

89

evolving from a measurement system to a strategic management system. They also indicated that a well-developed balanced scorecard will eloquently communicate the strategies to the employees and this in turn would eradicate the vague and incorrect interpretations of the vision and strategies of the organisation.

3.6.4   Composition of the Balanced Scorecard

David Norton (Balanced Scorecard Collaborative) and Robert Kaplan (Harvard Business School) introduced the balanced scorecard in 1992. It was stated that financial measures were not adequate for managing complex organisations. The balanced scorecard provides a means of linking the different strategies of different business units within the organisation to the overall mission and vision. Long-term strategies are linked with short-term actions.

Organisations require a more balanced view of how they are performing, instead of just looking at the financial indicators. Strategy-focused organisations (Kaplan and Norton, 2001) need a balanced scorecard to align their employees to their strategy in three ways viz. *through communication and education; personal and team objectives as well as incentive and reward systems.*

Kaplan and Norton initially described the Balanced Scorecard as a performance *measurement system (Kaplan and Norton, 1992:71-79). Subsequently they have shown* its usefulness as a tool for implementing and managing organisational strategy (Kaplan and Norton, 2000:167-176). The balanced scorecard is an innovative and practical management philosophy providing the framework for analysing strategic and tactical processes as they relate to and affect financial results. The benefits of the balanced scorecard are enhanced in numerous ways as well as being linked to a reward system (Kaplan and Norton, 2001b:147-160).

From literature it can be deduced that the balanced scorecard retains traditional financial measures. Financial measures tell the story of past events. Indeed an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate for guiding and evaluating the journey that organisations, e.g. information age must travel in order to create future value through investment in customers, suppliers, employees, processes, technology and innovation.

In line with this statement:

1   financial measures are not enough to ascertain the "health" of an organisation and that a one-minded pursuit of financial objectives could lead to the ruin of the organisation in the long run.

2   it focuses on process and not on metrics and is forward-looking (proactive training of school governing bodies) instead of backward-looking (e.g. number of workshops held pertaining to the training of school governing bodies)

Kaplan and Norton, as cited by Bieker and Gminder (2001), maintained that competitive organisations in an era of information technologies and facing modified conditions of competition were requiring specific financial management and controlling systems. It has also been indicated that organisations were lacking management techniques for the intangible assets (such as employees, infrastructures or technologies) utilised.

Public sector organisations, that only a few years ago focussed on growth, innovation and seizing new opportunities, have been forced to shift their mindsets towards cost-cutting, more re-engineering and additional structuring (Niven, 2002:294-306). Amongst others, it can be ascribed to operational constraints imposed by legislation. Forward-thinking executives, in both the public and private sectors, have realised that they have to lead their organisations into new areas of efficiency in order to remain viable and continue to enhance value. Sedera, Gable and Rosemann (2001) advanced that with the present

volatile economic climate, many organisations are turning to the balanced scorecard to assist them in keeping their organisations on the right track.

The balanced scorecard relies on collaboration, strategic thinking and continuous improvement. The strategic agenda, viz. the alignment of the achievable goals and objectives must be thoroughly communicated and properly interpreted. Hence if the strategy is not well aligned, then the balanced scorecard will not assist the organisation to succeed. The balanced scorecard can also be utilised to indicate to the employees where and how they fit into the "big picture", as well as to motivate and to get feedback when information is shared on the performance of each employee.

The balanced scorecard evaluates both financial and non-financial measures, i.e. the organisations have a balanced view of how they are performing. Each business unit (e.g. Operational Education Management Directorate) contains measures which are common (customer satisfaction) and which are unique to that business unit (Lipe and Salterio, 2000:283-298). Zhang and Markman (2001:13-27) suggest that knowledgeable decision-makers (familiar with the balanced scorecard) should entertain both common and unique measures prior to making judgements, even though there would be a tendency to place more emphasis on the common measures.

The balanced scorecard may contain many measures, which are categorised within the four perspectives. Decision-makers using the balanced scorecard may be faced with information overload (Chewning and Harrell, 1990: 527-542) and this could be overcome by initially focusing on a subset of the information, i.e. information quantity, information quality or information format (Ho and Tang, 2004). Research has indicated that people can make sense of increased amounts of information as they become more experienced and familiar with the task and stimuli (Alba and Hutchinson, 1987: 411-454).

It must however be borne in mind that the balanced scorecard is not a static list of measures, but a framework for strategic management. Also, a strategy is a shared understanding about how a goal is to be reached Johnson and Scholes, 1999). Amongst others, strategy: anticipates and addresses the needs and wants of customers; constantly improves the operations that give rise to services which are demanded, i.e. "pulled"; also creates an organisation which is characterised by innovation, teaching, knowledge-sharing (tacit and explicit knowledge), personal growth and organisational growth. Also an effective and efficient management of human resources is pursued through incentive-based payments and should foster the motivation of employees as well as the co-operation of internal strategic business units (Kaplan and Norton, 2001:253-271; Becker, Huselid and Ulrich, 2001; and Johnson and Scholes, 1999).

The measures in each perspective refer to the total strategic business unit. The cause-and-effect relationship between the data elements in each perspective can now be analysed. In choosing a limited number of key performance indicators (within each perspective), the balanced scorecard offers assistance in the endeavour of the organisation to remain focused whilst allocating scarce resources appropriately and maintaining a strategic mindset. Limiting the number of measures can contribute towards the prevention of an overload of information and this in turn can divert attention to the measures that matter most. The mindset of leadership could be conveyed via the performance measurement system of the organisation. The measures must be carefully chosen as progress will be based on the ability to show improvement in the measures chosen, i.e. measure the activities that can be directly influenced by efforts and do not measure activities that cannot be influenced. However as a performance measurement system the balanced scorecard: is derived from the vision and the strategy; reflects the most important aspects of the organisation; supports strategic planning and implementation; aligns the actions of all the business units of the organisation around a common understanding of the goals; facilitates the assessment and upgrades the strategy; and links results to the operating activities (Niven, 2002 and Kaplan and Norton, 1992: 71-79)

In an effort to provide information-age organisations with efficient planning tools, Kaplan and Norton (1992) introduced the balanced scorecard and by implication suggest that metrics are developed, data is collected and is analysed relative to each of the following perspectives:

- the financial perspective: how the organisation is viewed by shareholders (what the organisation provides for its shareholders) and where the tangible results are obtained through the decrease of "re-work" time;

- the customer perspective, i.e. how do customers perceive the organisation viz. the value that is being added to their success and efficient internal business processes increases customer satisfaction which amongst others lead to retention and acquisition. Customer value proposition is developed by operational excellence e.g. short lead times and timely delivery.

- the customer perspective: how do customers perceive the organisation, viz. the value that is being added to their success and efficient internal business processes increases customer satisfaction which amongst others lead to retention and acquisition. Customer value proposition is developed by operational excellence, e.g. short lead times and timely delivery.

- the internal business process perspective, i.e. what internal business processes must the organisation excel at (what actions need to be performed), viz. with better skills, processes take shorter cycle time, better quality and less rework, whether or not you are perceived as exceeding expectations and furthering the organisation's strategic objectives by enhancing standards of compliance. The balanced scorecard usually identifies new processes that the organisation must master in its endeavour to meet its financial and customer objectives.

- the learning and growth perspective (organisational development), i.e. how can objectives continue to improve and create value, viz. continually broadening employee skills which contribute to employee input that boosts employee morale as well as to accept new challenges and to capitalise on new opportunities. The gaps which have been revealed by the other three perspectives, pertaining to the

94

organisation's capabilities and those it must achieve, can be closed by re-training/re-skilling employees and improving its systems. Strategy-focused organisations use the balanced scorecard to align their employees to their strategy in three ways viz. through communication and education; personal and team objectives; and incentive and reward systems (Kaplan and Norton, 2001: 7-17).

Incentive compensation is a powerful tool for getting employees to think about the objectives of the organisation and the strategic business units. When employees share in the rewards, i.e. if the organisation has been successful, they should also experience the pain when the organisation has been unsuccessful. Among others, the following questions are important when applying compensation as a reward system:

- Will the compensation-based measures be objective and based on outcomes or will it be subjective and based on tasks and activities?

- Will the compensation-based measures be for the individual or the team?

Each perspective provides the organisation with a measurable goal to monitor. These goals are the real work of the balanced scorecard. In essence the balanced scorecard proceeds beyond measurement into actual change. It is a process whereby the scores of the organisation, from top to bottom, are gathered, reviewed, analysed, decisions are made and then changes are made, if necessary, so that the scores can continuously improve (**Figure 3.16**). **Figure 3.16** could be deemed as the "rudder" by which the organisation changes.
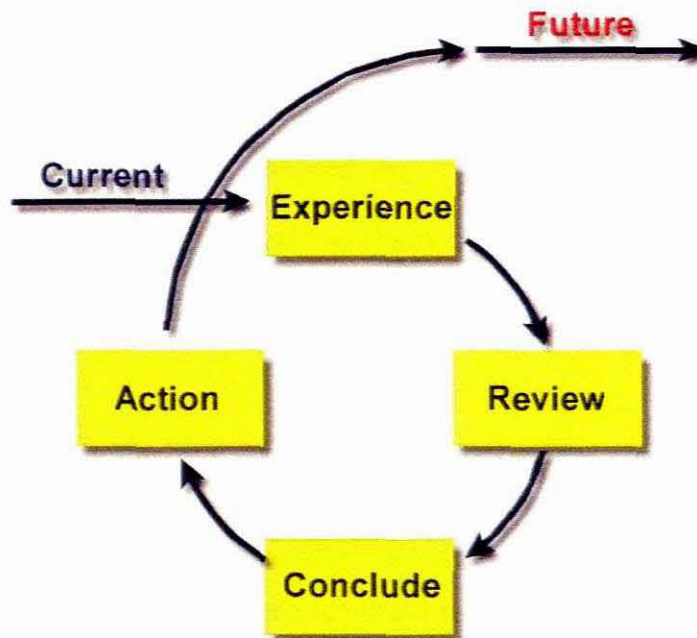
Figure 3.16   Rudder by which organisations change

(Source: Adapted from Marquardt, 1999)

Kaplan and Norton (2001) state that strategy is everybody's job viz. sharing the strategy and aligning the workforce (a top-down process) and internalising and executing the strategy (bottom-up process) in a balanced scorecard environment. It is not a once off customer and performance "ticking off", but a continuous process. **Figure 3.16** indicates that in order to attain the "future", it is imperative to know the "current" situation. Benchmarks must be established and then evaluated over time. Hence the scoring process has to be comprehensive.

The balanced scorecard, as an instrument, would allow management to achieve an equilibrium between:

- financial and non-financial measures;

- short and long-term objectives;

- lagging (consequences of actions previously taken, e.g. improvements in customer satisfaction) and leading indicators ("drivers" of lagging indicators e.g. spending more time with valued customers);

- external (financial and customer) and internal (internal business processes and employee learning and growth) perspectives;

- quantitative, financial hard facts and non-financial, qualitative soft facts.

(Kaplan and Norton, 1996).

It could be indicated that the sum of these four perspectives equals the balanced scorecard. However it must be borne in mind that the weighting of the perspectives may not be equal as the needs of the organisation or external-operating environment are subject to change. The crux of the balanced scorecard method is that it must be seen as a systematic process to motivate, to measure and to reward employees for their performance in accordance with the strategy of the organisation. It also gives management the opportunity to continually learn about, refine and in turn adapt the organisation's strategy to the changing environment. In doing so, the competitive advantage of the organisation is preserved.

The balancing of the internal and external perspectives, encompassing financial and non-financial measures, allows management to translate the strategy into a clear set of objectives. In doing so, management is assisted to align action, change and innovate at every level with the strategy that has been set. In turn these objectives are translated into a system of performance measurements that effectively communicates a powerful, forward-looking and strategic focus to the organisation as a whole. Hence the balanced measures will galvanise the organisation's focus on future success, i.e. the organisation will remain focused and moving in a common and desired direction when measures are directly linked to strategic corporate initiatives.

A balanced scorecard can be described as an instrument, viz. a scorecard consisting of four perspectives (financial, customers, processes and learning and growth) comprising of leading and lagging key performance indicators which in turn are linked to each other by the design of chains of cause and effect. Hence this instrument is used to define and record the cause/effect relationship between key measures, processes or functions. These causalities are not only important in one perspective, e.g. the total productivity training of staff enables increased motivation and better skills of management, but also between perspectives, e.g. the better qualification of employees within the learning and growth (organisational development) perspective enables the organisation to improve its internal business processes.
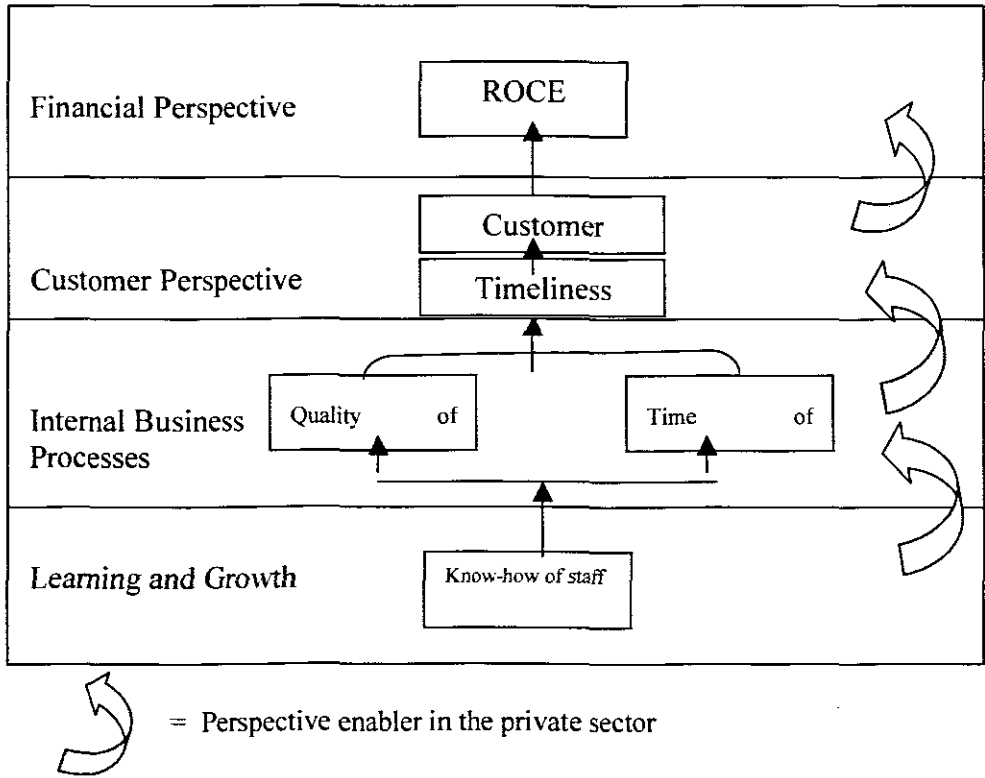
Figure 3.17   Strategy map: cause-and-effect relationship

(Source : Norton and Kaplan, 2000)

98

The balanced scorecard incorporates feedback around internal business process outputs, as in total quality management, but adds a feedback loop around the outcomes of business strategies.

Hence the balanced scorecard is an analytical framework for translating the vision and strategies of the organisation into specific, quantifiable goals and for monitoring performance against those goals. In addition to the financial "hard facts", it provides sufficient potential to the integration of soft, qualitative performance indicators. The strategies are sub-divided into objectives, measurements, targets and initiatives (**figure 3.13**).

The balanced scorecard is also a method of translating strategies into action i.e. strategic goals into operating goals (Sparks, 2001). Financial reporting is no longer the only way to chart the course of organisations. The focus is on value drivers, which amongst others incorporate intangible assets, viz. know-how and skills of employees and technologies employed (Becker, Huselid and Ulrich, 2001).

The existing management systems of the organisation must not be discarded. The balanced scorecard must be integrated into the existing management system and in so doing will overcome traditional problems of management systems (Kaplan and Norton, 1996). According to the findings of Rodenberg (Director of Public Relations and Marketing at Techarch Consulting Group), as cited in CIO Magazine (2002), the balanced scorecard will:

- ensure that corporate strategies are clearly communicated throughout the organisation;

- provide a common framework for strategy planning;

- provide key information by measuring the results of the strategic plans and assess the quality of tactical plans;

- focus management on cause and effect relationships between processes and key performance indicators;

- increase the importance of non-financial measures and how they impact on organisational health;

- instil a high performance culture, creating value for customers, employees, suppliers and stakeholders; and

- provide the means to closely monitor the status of the organisation and perform interactive analysis of underlying data analysis.

3.6.5 Evolution of the Balanced Scorecard

From the above-mentioned it is interesting to note how the mystery surrounding the balanced scorecard was demystified through the evolution and the development of the balanced scorecard since its inception with the private sector in the early 1990s. Cobbold and Lawrie (2002) indicated, at the Balanced Scorecard conference in Washington in July 2002, that the balanced scorecard evolved through a first generation balanced scorecard and second generation balanced scorecard to a third generation balanced scorecard.

In essence the balanced scorecard remained unchanged since its introduction, viz. that by combining the financial measures and non-financial measures, the managers are provided with a wealth and more relevant information pertaining to the activities of the organisations, which they are managing than is provided by financial measures only. Kaplan and Norton (1992 and 1993) have also advanced that the number of measures on the balanced scorecard should also be constrained and should be clustered into four perspectives (learning and growth, internal business processes, customer and financial). Hence from the onset it was clear that the selection of measures, both in terms of filtering (organisations have access to many more measures than were required by the balanced scorecard) and clustering (deciding which measures should be with which perspective) would be imperative. Kaplan and Norton (1993: 134– 49; 1996: 75-85; 1996 and 2000: 167-176) have proffered that the selection of measures should be focused on the

information that is relevant to the implementation of strategic plans. They have also indicated that simple attitudinal questions should be used to ascertain the appropriate allocation of measures to the appropriated perspectives.

3.6.5.1 First Generation Balanced Scorecard

Initially the balanced scorecard was described as a simple "4 box" (**figure 3.11**) approach to performance management (Kaplan and Norton, 1992).

Managers were not only encouraged to look at the financial measures, but also at the measures of the other three perspectives (Mooraj, Oyon and Hostettler, 1999:481-491). During this generation, the definition of the balanced scorecard was focused on the high level structure of this tool, the balanced scorecard, and the simple causality between the four perspectives was only illustrated, but it was not used for any particular purpose. Originally the focus was on the selection and reporting of a limited amount of measures in each of the four perspectives (Kaplan and Norton, 1992). The selection of measures (which will be utilised) was assisted by the posing of attitudinal questions, which related to the vision and goals of the organisation.

During this generation of the balanced scorecard no specific observations were made pertaining to the improvement of organisational performance by the balanced scorecard. By implication it is implied that the provision of accessible relevant measurement data, will initiate improved organisational performance that emanated from the changes in behaviour via the establishment of goals, but the assumption was that persons would adopt whatever behaviour and would take whatever appropriate steps required to achieve the established goals (Cobbold and Lawrie, 2002). Initially the proponents (Kaplan and Norton) of the balanced scorecard mentioned very little about the development of the balanced scorecard beyond a general assertion that design of the balanced scorecard, as a measurement system, involved the placement of the vision and strategy of the organisation at the centre of the balanced scorecard (Kaplan and Norton, 1992).

Olve, Roy and Wetter, (1999), Kaplan and Norton (2000) and Niven (2002) suggested that the First Generation Balanced Scorecard is still being developed and this is being corroborated by recent publications of the advanced representations of the balanced scorecard.

It can be assumed that the first generation balanced scorecards of the early 90's revolutionised the thinking of organisations pertaining to corporate performance, i.e. instead of focusing only on backward looking financial metrics (lagging indicators), the focus can now also be on the leading indicators (predictors of future success: customer, internal business processes and learning growth perspectives). However, it must also be borne in mind that a discussion pertaining to the importance of metrics to an organisation cannot be entertained without discussing strategy. All along the development process of the balanced scorecard has been about strategy.

3.6.5.2 Second Generation Balanced Scorecard

The design of the First Generation Balanced Scorecards was initially very vague and this in turn led to many different interpretations. Filtering (the process of choosing specific measures to report) and clustering (deciding how to group measures into the four balanced scorecard perspectives) were deemed to be two areas of concern.

According to the proponents of the balanced scorecard, the most significant early change was the translation of the attitudinal approach to the selection of measures: financial perspective (private sector) – to succeed financially, how should the organisation present itself to its shareholders into a process that yielded a few appropriate key measures of performance in each perspective. Initially the essence of the strategic objectives attached to each of the four perspectives, were represented as short sentences. In turn measures (relating to initiatives) were selected that reflected the achievement of these strategic objectives within targets.

A further development was that of causality. In the first generation balanced scorecard causal links were simply highlighted. Subsequently various forms of analyses were utilised to prove the causality between measures. This enabled the balanced scorecard to evolve from an improved measurement system to a core management system (Kaplan and Norton, 1996). As a consequence of this, increased pressure was placed on organisations to accurately reflect the organisation's strategic goals. In turn, this gave rise to the development of strategic alignment, between management units, by developing balanced scorecards as a part of cascading at the business unit level (Kaplan and Norton, 1996) i.e. effectively communicating the strategy throughout the whole organisation. Hence the cause and effect drivers present in the strategic linkage model (Kaplan and Norton, 2000:167-176) have decreased the value of the "lead" and "lag" measures since the "lead" measures are now more clearly defined within the design of the balanced scorecard, viz. the strategy map (Kaplan and Norton, 1996).

The below-mentioned strategy map (**Figure 3.18**) transforms a strategy into an actionable plan.

© 2002 Balanced Scorecard Collaborative Inc.

104
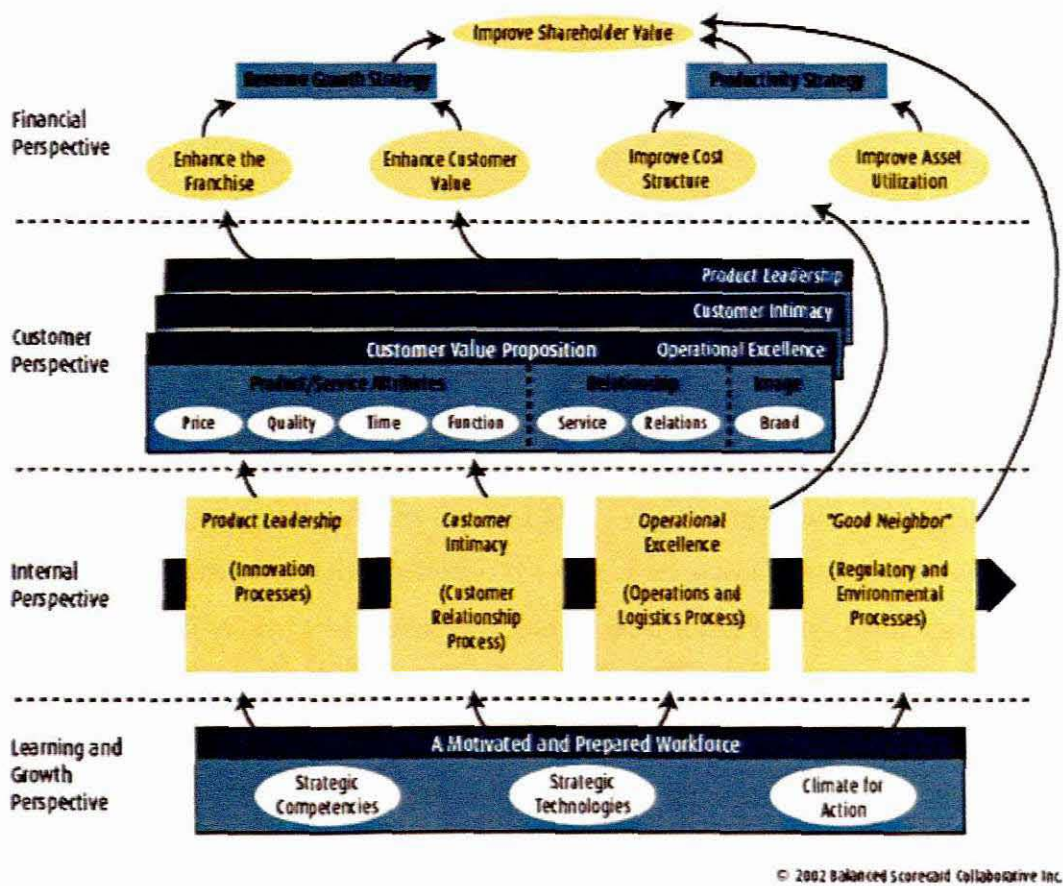
The financial perspective, entailing a growth strategy as well as a productivity strategy is at the top of the strategy map. In non-profit organisations, the mission perspective replaces the financial perspective on top of the strategy map. Within the WCED, this reflects how the organisation adds value for its stakeholders, whether they are constituents, customers, unions or political parties.

The customer perspective is the second level (from the top) that indicates how the organisation differentiates itself as perceived by the customer i.e. the value proposition of the organisation. This perspective indicates the choices the organisation is making: being a product leader, applying customer intimacy and or operating excellently. This perspective of the balanced scorecard also reflects the market, which the organisation will focus on.

The customer perspective drives the next level, viz. the internal business perspective. The internal business perspective indicates the processes at which the organisation must excel at in order add value to its customer value proposition, i.e. the customer must be able to derive value from the offering of the organisation. Here the emphasis is on bringing critical cross-functional teams together in order to execute the organisational strategy instead of being based on exiting organisational units such as marketing, finance and distribution.

The last level is the learning and growth perspective that supports the whole strategy map. Total productivity training, culture, technology and skills critical to the organisation are entertained here in order to allow the enhancement of the net operating result within the internal processes to come to fruition. In turn the strategy of the organisation will also come to fruition.

Hence the balanced scorecard and the strategy map indicate the strategic health of the organisation (as the balance sheets and income statements indicate the financial health of the organisation, the balanced scorecard and the strategy map indicate the organisation's

strategic health; and in doing so the organisation ascertains its prospects for the future growth.

3.6.5.3 Third Generation Balanced Scorecard

The balanced scorecard evolved from not only being a describing strategy to a framework for implementing and managing strategy, i.e. a progression and growth of the second generation balanced scorecard's design characteristics and mechanism as to give rise to enhanced functionality and increased strategic relevance. Kaplan and Norton (2000) have intimated that the balanced scorecard can be utilised as a tool for integrating strategy with business performance measurement. Primerus Consulting Inc. (2000) has indicated that the establishment of the destination statement (the end of the design process when the objectives, measures and targets are checked) was the result of the development in target setting and the validation of strategic objectives. The destination statement allowed the management team to reach consensus sooner; and the selection of strategic objectives and the communication of causality hypotheses have also been made easier.

The key components of the Third Generation Balanced Scorecard are:

- Destination statement – it indicates what the organisation would be like at an agreed point in the future.

- Strategic objectives – The destination statement gives a clear and shared picture of the organisation at a future date, but a suitable focus is not being provided for management between now and the future date. Objectives or priorities will allow the organisation to achieve its destination on time. Systems thinking (Senge, 1990) encompassing practices, i.e. what needs to be done, principles, i.e. guiding ideas and insights, and essences, i.e. state of being of those with high levels of mastery in the discipline (Senge, 1990:373-377) are necessary to identify causality between the chosen objectives, i.e. what is required to achieve the results that are expected. According to 2GC Consultants (2002), this approach ensures that the objectives are mutually supportive and represents the combined thinking of the team's high-level perception of the business model.

106

- Strategic linkage model and perspectives – The chosen strategic objectives are spread across the four perspectives. The objectives of the lower two perspectives **(figure 3.18)** relate to the important activities pertaining, amongst others, to the business processes, cycle time and productivity, i.e. internal business processes and what needs to be done in order for these processes to be sustained and developed in terms of people, product and process development, i.e. learning and growth. The objectives of the top two perspectives **(figure 3.18)** relate to the desired results of the activities which are being undertaken, i.e. how the customers perceive the organisation (external relations) and how this ultimately will translate into economic value.

- Measures and initiatives – Once the shared objectives have been derived at, measures will be identified and then formulated. These measures support the ability of management to monitor the progress of the organisation in striving to attain the goals (Olve, Roy, Wetter, 1999). Various authors have also indicated that initiatives are special projects with specific commencement and termination dates. Initiatives are linked to strategic objectives in order to indicate which projects or activities are required to achieve the objectives.

It can be deduced from various secondary resources that if the balanced scorecard drives transformational change, then transformational change is based on the following (which in turn serves as the basis of an integrated management system of a strategy-focused organisation):

Translate Strategy
- Mission/Vision
- Strategy Maps
- Balanced Scorecard
- Targets
- Initiatives

Executive Leadership
- CEO Sponsorship
- Executive Team Engaged
- "New Way of Managing"
- Accountable for Strategy
- A Performance Culture

Organization Alignment
- Corporate Role
- Corporate - Strategic Business Unit (SBU)
- SBU - Shared Services
- External Partners

Continual Process
- Linked to Budgeting
- Linked to Operations Management
- Management Meetings
- Feedback System
- Learning Process

Everyone's Job
- Strategic Awareness
- Goal Alignment
- Linked Incentives

(Center pentagon: Balanced Scorecard — Strategy-Focused Organization)

© 2002 Balanced Scorecard Collaborative Inc.

Figure 3.19   Transformational change to strategy-focused organisations with the Balanced Scorecard

- Executive leadership to change – Normally executives are supposed to share in common goals. Executive misalignment is deemed to be due to the lack of clarity and accountability surrounding the responsibilities for the execution of the strategies. Executive alignment could be achieved through the process of building a balanced scorecard and by strategising. Also, executives need to take the initiative for managing the change required to support the strategy.

- Translate the strategy into operational terms – Strategy formulation is usually executed at executive level and enacted by the front line staff. From secondary resources it was deduced that approximately 85% of the employees attached to an organisation do not understand the strategy of the organisation and this in turn impacts on, among others, the endeavour of the labour force to satisfy the needs of the customers. The translation of the strategy of the organisation into operational terms is made user-friendly and understandable through the balanced scorecard and strategy map.

- Align the organisation to the strategy – Aligning an organisation comprising of multiple business units and shared service units can indeed be challenging. The

different processes and the different customers of disparate business units of the organisation make working together very difficult. If the organisational strategy is shared, as the balanced scorecard professes, then the organisation can be linked and aligned.

- Make strategy everybody's job – Once the organisation as a whole is aligned, then the employees must also be aligned. According to Lochan (2003), this can be achieved through performance management and incentive systems. When something is measured, people pay attention, but when measurement can affect the compensation of the labour force, employees really pay attention. In a knowledge-driven economy it must be ensured that the employees understand how they contribute towards the success of the organisation. However for this to come to fruition employees, at all levels, must be educated, empowered and incented.

- Make strategy a continual process – Strategy should not only happen once a year at a management "bosberaad", but should occur regularly. In the present ever-changing world, organisations should continually be vigilant of strategy and performance, i.e. if the leading indicators, of the balanced scorecard, indicate that the strategy is flawed, it must immediately be corrected. The balanced scorecard links the governance process (budgeting, reporting, planning and reviewing) to the strategy. Hence the information system of the organisation must be such that the executives should speedily receive and retrieve information as to allow them to maintain the competitive impact of the organisation.

From the above it can be deduced that the Balanced Scorecard evolved to an integrated and third generation solution that allows organisations to rapidly and measurably implement strategy. Hence the integration of strategy and management will continue to grow. Niven (n.d.) indicated that organisations need a balanced scorecard since the source of value shifted from tangible to intangible assets.

3.6.6 Benefits and control

The potential benefits of a balanced scorecard are dependent on what it is being used for. Stating that the organisation has a balanced scorecard is just not good enough. The usefulness of the balanced scorecard can only be viewed if it is correctly applied. The balanced scorecard can be utilised for management control and strategic control.

3.6.6.1 Control

The balanced scorecard can be used for management control in order to monitor and control the delivery of pre-defined initiatives. Management control systems are designed to inform management of progress towards these organisational goals. Management control is a measure to:

- motivate people to act consistent with organisational objectives;

- co-ordinate efforts of different parts of an organisation;

- provide information about the results of performance and operations.

(Flamholtz, 1996 as cited in Meritum).

According to Emmanuel, Otley and Merchant (1990:114), management control is the mediating medium between strategic planning and activity control. With reference to the systematic reviewing of all areas of the organisation, management control incorporates the effective management of the interrelationships within the organisation, i.e. reporting on performance of all aspects of an organisation's activity on a regular basis. Management control also encompasses the measuring of intangible assets and then utilising these measurements for management decision-making and then disclosing this information, within parameters, for the benefit of the stakeholders.

Management control is being done with the view of attaining best practice performance levels. Here the choice of measures is based on information that is readily available, instead of the most useful. Since the balanced scorecard offers a holistic but focused view of performance measurement, managers are challenged to ascertain ways of reflecting customer satisfaction and the impact of innovation and improvement (learning and

- There is a shared understanding of the planned activities to deliver the strategic objectives.

- Amongst others, causality identifies the areas where trade-offs between objectives are necessary (e.g. reduction of employees and an increasing customer satisfaction)

(Muralidharan, 1997:64-73)

3.6.7 Intangible Resources

The classification of intangibles is orientated more towards distinguishing between external (customer-related) and internal structures, on the one hand, human capital (Roos and Roos, 1997:413-426). Intangibles are either intangible property or intangible resources (Brooking and Motta, 1996:24-26). According to Hall (1992:135-144), intangible resources can be defined as assets or skills. Assets include intellectual property rights of patents, trademarks, copyright, contracts, trade secrets and databases. Intangible assets play a role in developing customer relationships; underpin the ability to introduce innovative products and services; enable organisations to produce customised, high quality products and services at low costs and with short lead times; and allow employee skills to be mobilised for continuous improvements; allow a meaningful deployment of information technology, databases and systems.

Skills or competencies include the expertise of employees, suppliers and organisational culture that enables it to cope with change and in doing so striving to put the customer first. Intangible resources may also be categorised as being people dependent or people independent. From various authors (Johanson, 2002) it can be deduced that intangible resources can be categorised into competence and relational resources i.e. reputation, client and loyalty (figure 3.20). Competence, on an individual level includes knowledge, skills and aptitudes; and on an organisational level includes client specific databases, technology, routines and procedures. Organisational culture is defined as the ability to perform given tasks at an individual and organisational level.
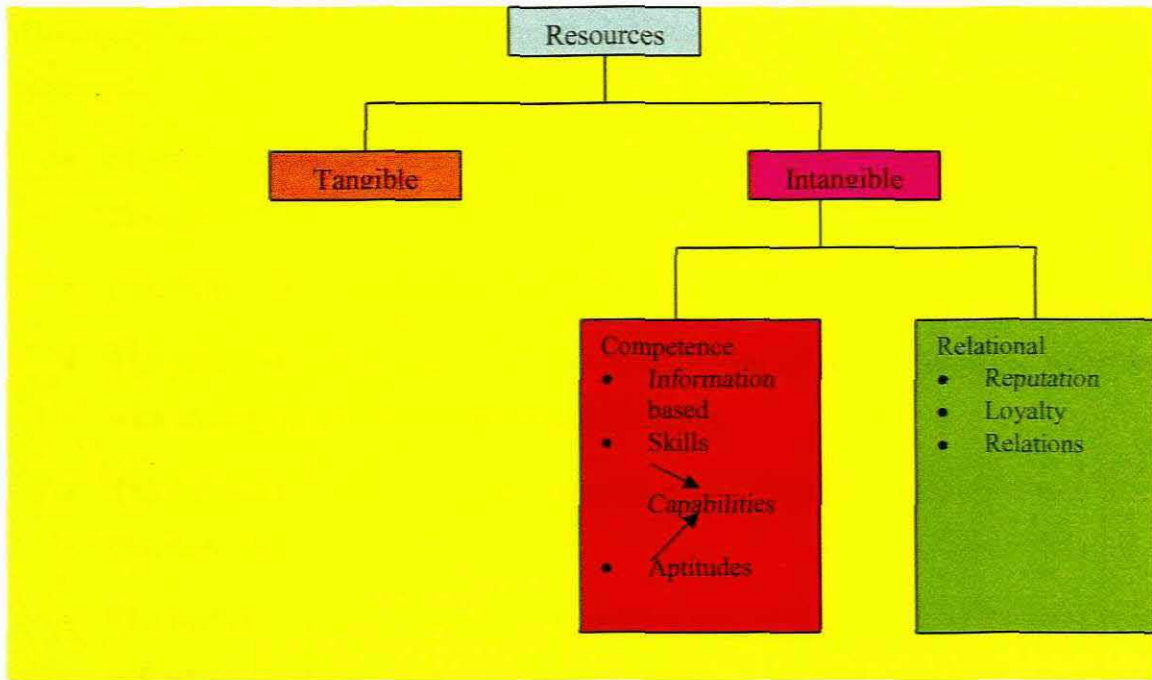
Figure 3.20   Categorising resources

(Source: Haanes and Lowendahl, 1997:208)

3.6.8   Benefits of the Balanced Scorecard

As a performance measurement system, the real benefits of the balanced scorecard are realised when the balanced scorecard is transformed from a measurement system to a management one. The management processes that are built around the balanced scorecard will enable the organisation to become aligned and focused on implementing the long-term strategy. In an information and knowledge economy, the balanced scorecard becomes the foundation for managing the organisations of today, which place more reliance on intangible assets, instead of on physical tangible assets (Kaplan and Norton, 2001:93-95).

With the adoption of the balanced scorecard, executives can measure how business units create value for current and future customers. In addition, executives are able to measure how they must build and enhance internal capabilities. Also an investment in employees, systems and procedures are necessary to improve future performance.

Amongst others, the following are the most significant benefits of applying the balanced scorecard:

- Strategic initiatives following "best practices" methodologies are cascaded throughout the entire organisation.

- Creativity is increased and unexpected ideas are encouraged.

- The balanced scorecard assists with the alignment of key performance measures with strategy at all levels within an organisation.

- The balanced scorecard provides management with a comprehensive picture of business operations.

- The methodology facilitates communication and understanding of business goals and strategies at all levels of an organisation.

- Maximised cooperation allows team members to focus on assisting each other.

- Results are usable – transforms strategy into action and desired behaviours.

- The balanced scorecard concept provides strategic feedback and learning.

- Competitive advantage is unique due to improved decisions and better solutions, and improved processes.

The following benefits are encompassed within the above-mentioned benefits:

- The balanced scorecard provides a means for translating the strategic planning of an organisation into meaningful and important performance measures; and strategy will be actionable because managers can communicate the objectives and targets of the organisation.

- The balanced scorecard can be utilised to drive organisational change.

- The balanced scorecard allows management the opportunity to avoid the unnecessary choice between financial success and other short-term goals, on the one hand, and the innovation and improvement of internal business processes (which will sustain the future of the organisation) on the other hand.

Amongst others, the following are the most significant benefits of applying the balanced scorecard:

- Strategic initiatives following "best practices" methodologies are cascaded throughout the entire organisation.

- Creativity is increased and unexpected ideas are encouraged.

- The balanced scorecard assists with the alignment of key performance measures with strategy at all levels within an organisation.

- The balanced scorecard provides management with a comprehensive picture of business operations.

- The methodology facilitates communication and understanding of business goals and strategies at all levels of an organisation.

- Maximised cooperation allows team members to focus on assisting each other.

- Results are usable – transforms strategy into action and desired behaviours.

- The balanced scorecard concept provides strategic feedback and learning.

- Competitive advantage is unique due to improved decisions and better solutions, and improved processes.

The following benefits are encompassed within the above-mentioned benefits:

- The balanced scorecard provides a means for translating the strategic planning of an organisation into meaningful and important performance measures; and strategy will be actionable because managers can communicate the objectives and targets of the organisation.

- The balanced scorecard can be utilised to drive organisational change.

- The balanced scorecard allows management the opportunity to avoid the unnecessary choice between financial success and other short-term goals, on the one hand, and the innovation and improvement of internal business processes (which will sustain the future of the organisation) on the other hand.

- The balanced scorecard provides a means for linking the improvement of internal business processes to the needs and expectations of specific external constituencies.

- The balanced scorecard helps to align the objectives and performance of all employees in the organisation - from top to bottom.

- The balanced scorecard emphasises those processes that are most crucial for obtaining the highest levels of performance.

- The balanced scorecard assists the executive top management to allocate the resources of the organisation in accordance with the strategic goals.

3.6.9   Lessons learnt in implementing balanced measures

At a session of the Balanced Scorecard Interest Group, experiences were exchanged and the application of balanced scorecard concepts was discussed (Barkdoll, 2002). Among others, the below-mentioned were the lessons learnt:

3.6.9.1 Issues and challenges in getting started

(Based on the insights from staff members of the Department of Education; Administration on Children and Families; Department of Labour; Internal Revenue Services; and Federal Aviation Administration from the USA.)

- o Start with top management buy-in. No-one in the middle section of an organisation cares until the top cares. Buy-in is required from stakeholders e.g. Minister of Education, which can undermine the process if they do not see the value of it.

- o Clear measures must be developed. Most organisations are inundated with measures. Selecting the key ones is critical to driving organisational priorities as well as clarifying it through communication. Among others, measures must make intuitive sense to employees.

- o An agreement from managers and staff need to be achieved: there should be consensus pertaining to the meaning of the different data elements that in turn should be applied consistently.

- o The metrics should be linked to individual performance.

o Consistency, in performance indicators, need to be ensured, both in terms of how they are implemented and measured; and that they are stable over time.

o Managers and employees need to be taught how to understand and to use measures to make decisions.

o It is helpful to enlist the assistance of external contractors. They can provide the training, do the analysis to indicate 'line-of-sight' links to the goals as set by government, ensure common data input and to create ways to display data in user-friendly formats. They may also bring credibility to the effort that top leaders may find more acceptable than "internal contractor" implementers.

o Implementation can be adversely affected by changing completion dates e.g. shortening of the implementation timetable for submitting performance reports and financial statements.

o Planning is important as it helps all members of the organisations think through the multiple critical steps necessary to design, install and operate a new management process

o Commencing with a broadly understood and accepted organisational mission is critical since it increases buy-in; and facilitates the development of goals and measures.

3.6.10 Conclusion

The use of the balanced scorecard moves the public service management into the true corporate arena where a highly involved labour force creates and measures forward-looking strategies that improve the systems, structures and processes of the organisation. As the balanced scorecard process is renewed annually, the automatic process resets the balanced scorecard to define the coming year's objectives, measures, targets and initiatives. Thus, the balanced scorecard is a communication tool, measurement process and a strategic organisational improvement process.

According to Lochan, (2003), the balanced scorecard has evolved from its initial roots to become a useful tool that is equally applicable to profit and non-profit organisations. The objectives of a non-profit organisation will centre on the satisfaction of external stakeholders. Here the stakeholders are drawn from, among others, political and social communities and are less likely to be solely interested in the financial performance of the organisation. Also the demands of the customers are more complex and open-ended.

However it should be borne in mind that the logic of the balanced scorecard is dominated by the notion that the balance among different perspectives and measures should promote long-term survival and profitability (Olve, Roy, Wetter, 1999). For the Department of Education, the goals are different. According to Olve (Linkoping University in Sweden) and Roy (CEO of ConcoursCepro – Stockholm-based consultancy) substitutes for the four perspectives of for profit organisations could be:

- performance focus instead of financial perspective. Stakeholders want them to produce benefits to society,

- relationship focus or customer focus instead of customer perspective,

- activity focus instead of internal business perspective e.g. municipalities have divisions based on activities – road maintenance, electricity supply and health services.

- future focus instead of learning and growth or development.

The balanced scorecard is a multidimensional and user-friendly framework for describing, implementing, measuring and managing strategy at all levels of an organisation by linking objectives, initiatives and measures to the organisation's strategy. The organisation is provided by the balanced scorecard with a view of the overall performance of the organisation by integrating financial measures with other key performance indicators around customer perspectives, internal business processes and organisational growth, learning and innovation. Also, the balanced scorecard is not a static list of measures, but a framework for implementing complex programmes of change and for managing strategy focussed organisations.

However it should be borne in mind that the balanced scorecard is definitely not just a new buzzword, but an evolving strategic management control concept.

Strategy implementation consists of two sides: a hard side encompassing tools such as strategy maps, measures and management processes e.g. goal setting, budgeting and incentive rewarding; and a soft side (tacit knowledge) that determines the effectiveness of hard tools such. Hence strategy execution results in the creation of a balanced scorecard of performance indicators.

3.7 Concluding Remarks

Since customers are demanding quality, service and speed; changes in technology are creating new opportunities and threats; productivity gains are harder to achieve and cost pressures are mounting; motivation and empowerment are more essential than ever before and enhanced net operating results are being expected by the stakeholders, chapter 4 paves the way in which the researcher endeavoured to achieve the above-mentioned via the discussion of the research design and methodology employed within this empirical research.

Chapter 4   Research design and methodology

4.1   Prelude

This chapter presents and discusses the selected methods of research. Furthermore the procedure pertaining to the workshops, the collection of data from the questionnaires, the interviews, the focus group and the field observations are discussed.

4.2   Introduction

The historical and contemporary information, pertaining to this research, were gathered through structured and semi-structured interviews, questionnaires, focus group discussions, field observations, workshop sessions, past experiences and the reviewing of existing literature. From literature it is quite clear that successful strategy formulation is more than just defining a position. It involves the creation and communication of a compelling vision of the future growth of the Western Cape Education Department that will challenge everyone to achieve new levels of performance.

Visions are ethereal. It commences with words and ends with words unless it leads to specific actions (it must be operationalised), provide specific measurable indicators and target levels of performance that reflect the strategy of Western Cape Education Department. Hence the interpretation of the vision must be the same throughout the WCED.

The replacement of the budget with the Balanced Scorecard, which is synergised with the value chain within a lean thinking environment, would create strategic focus, but not strategic learning. Strategic feedback creates strategic learning (Niven, 2002:19). The motive for this research was to ascertain whether there was a unified interpretation of the vision of the WCED; whether there were value adding and value creation perception levels within the WCED; and whether occupational crime was being addressed and drastically reduced. To effectively answer the research problem, the research was designed in conjunction with a literature review.

Survey procedures were required in order to obtain sound statistical data. The representivity of the population was stratified and purposeful since answers to the questionnaires differed from one stratum to another within the WCED. From the literature reviewed and the findings based on this research, the WCED will be able to use the balanced scorecard, the value chain and lean thinking to reduce occupational crime in its endeavour to attain its vision.

This chapter addresses the research methodology utilised within this research, including the hypothesis of the research; the measurement techniques; the source of data; the sampling design; and the choice of tests. A pilot study was also conducted to analyse the sample size and the reliability of the research design.

A method is a tool or a manner of solving a problem to gain new knowledge. Once the specific focus was finalised, the following step involved ascertaining the overall research methodology.

4.3 Research purpose

According to Tull and Hawkins (1993:56-57), some researchers found it useful to consider three general categories of research based on the type of information required. The categories are exploratory studies, descriptive research and explanatory research (Saunders, Lewis & Thornhill, 2003:96–98).

4.3.1 Exploratory studies aim for basic knowledge within the problem area. These studies are suitable when a problem is difficult to demarcate and when relevant theory is unclear. It is also a valuable way in which to ascertain what is happening; to gather new insights; to pose appropriate questions and to assess phenomena in a different manner. Exploratory studies are a useful approach if the researcher wishes to clarify the researcher's understanding of the problem. Exploratory studies are done in order to gain a better understanding of the nature of the problem, as few studies might have been conducted pertaining the phenomena, which is required to be understood.

4.3.2 Descriptive research is conducted in order to ascertain and to be able to describe the characteristics of variables in a situation. The objective of a descriptive study is to describe relevant aspects of the phenomena of interest to the researcher from an individual, organisation or other perspective. The meaningful presentation of data is to:

- understand the characteristics of a group in a situation of interest;

- assist in thinking systematically about aspects in a given situation;

- assist with the making of simple decisions;

- offer ideas for further probing and research.

It was necessary to obtain a clear picture of the phenomena (on which the researcher wished to collect data) prior to the collection of the data.

4.3.3 Explanatory research places an emphasis on the study of a situation or a problem in order to explain the relationships between variables. It also endeavours to identify the factors, which together cause a certain phenomena.

Hence the research purpose was exploratory and descriptive, and also included elements of explanatory research. In fact, the researcher, amongst others, wished to gain a deeper understanding of how the synergy of the value chain, the balanced scorecard and lean thinking can reduce wastage within the WCED. Moreover, as it was stated earlier, research material pertaining to this topic was very scant.

4.4   Research Approach

Qualitative and quantitative methods, as two paradigms, are not simply different ways of doing the same thing. Instead, qualitative and quantitative methodologies have different strengths and logics and are often best used to address questions and purposes (Maxwell, 1996:17). Both qualitative and quantitative approaches are aimed at creating a better understanding of the society and to comprehend how individuals, groups and organisations act and influence each other. Yin (1994:4-5) intimated that the best approach to use these approaches is dependent on the purpose of the research and the accompanying research questions.

A qualitative research is designed to be consistent with the assumptions of a qualitative paradigm. The qualitative research is defined as an inquiry process of understanding a social problem based on constructing a complex, holistic picture (expressed in words), reporting detailed views of interviewees and respondents, and which is conducted within a natural environment (Creswell, 1994 and Creswell, 1998:15). Qualitative research tends to be a bit more flexible, while quantitative research is more structured. For qualitative research, the research problem needs to be explored because little information exists on the topic. Within the qualitative research, in which the variables were largely known, the researcher focused on the context that shaped the understanding of the phenomenon that was researched. In many qualitative researches a theory base does not guide the research because those available are inadequate, incomplete or simply missing (Imel, Kerka, and Wonacott, 2002).

A quantitative research, consistent with the quantitative paradigm, could be deemed as an inquiry into a social problem, based on assessing a theory composed of variables, measured numerically and analysed with statistical procedures in order to determine whether the predictive generalisations of the theory hold true or can be substantiated. Quantitative research is most often used in researches with clearly stated and assessable hypotheses. The deductive path makes a distinction between science and personal experience and tends to concentrate more on description, explanation, generalisation and abstraction. Here the focus is on well-defined narrow researches. Quantitative research endeavours to use a consistent and logical approach toward what is being investigated and uses statistical inferences and mathematical techniques for processing data (Mason and Lund, 1996; and Saunders, Lewis and Thornhill, 2003).

The nature of the research problem is an important factor to decide on the better-suited approach. Based on the purpose and the research questions, as well as the above-mentioned discussion, the procedure the researcher chose was of a qualitative nature (focus on generating knowledge) and a quantitative approach (focus on testing theory and empirical generalisation) i.e. a mixed methodology approach (Creswell, 2003).

4.5   Research Strategy

According to Yin (1994:25-47) there are numerous approaches for the researcher to conduct a social science research. Saunders, Lewis and Thornhill (2000 and 2003) indicated that it does not matter what label is attached to a particular strategy, but what matters is whether it is appropriate for the research questions and objectives. The extent to which the researcher has control over actual behaviour events and to what degree the focus is on contemporary events is dependent on the nature of the research questions and this in turn would allow the researcher to choose an experiment, a survey, historical investigation, an analysis of archival records and a case study.

4.5.1   An experiment is a classical form of research that owes much to the natural sciences. It also features strongly in social science researches and in particular psychology. With reference to the research purpose of this research, this strategy was ruled out.

4.5.2   An historical investigation could also be conducted if the past is being investigated and there is no one alive to report to about what has transpired. An historical investigation was also ruled out, as the lack of focus on contemporary events with this method of data collection was not how this research was designed.

4.5.3   When executing an archival analysis there is no control over behaviour events. This strategy is favoured when the goal of the researcher is to describe the incidence or prevalence of a phenomenon as well as when the goal is to predict certain outcomes (Yin, 1994:84). The researcher has not chosen this strategy, as it was not deemed to be suitable for this research.

4.5.4   Survey research does not allow the investigator to go as deeply into the aspects of "why it is happening". The data collected by the survey method may not be as wide-ranging as those collected by qualitative research methods. However, this strategy was utilised in conjunction with a qualitative research.

4.5.5   The better-suited strategy viz. the case study was deemed to be appropriate. Yin (1994:84) states that a case study approach is best utilised as a means of gathering data when "how" and "why" questions are being posed about a set of contemporary activities over which the researcher has little if any control.

Although a multi case study may ascertain the possible similarities and dissimilarities between cases, only elements of the single case study were utilised in order to address the research questions.

4.6 Sample Design

To answer the research problem, which is:

> How can the value chain and the balanced scorecard be synergised, within a lean thinking environment, to reduce wastage within the WCED?

the following sampling frame was utilised (for the questionnaires):

WCED { Head Office

EMDC { Central
East
West Coast/Winelands
South Cape
South
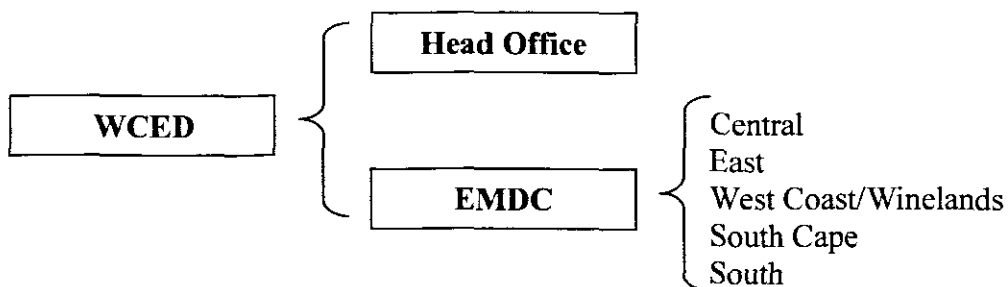
Figure 4.1   Sample Frame

The sampling frame was also required when a probability sample was conducted. The probability sample was very important since the researcher wished to draw valid inferences pertaining to the population on the basis of the sample. Non-probability samples give no basis for evaluating the size of the sampling variation and the error of estimation. According to Tull & Hawkins (1993:533-563), it is better to take whichever sample yields the greatest margin of value over cost. To yield the greatest margin of value over the cost affordable, the researcher chose a convenience sample method (Mendenhall and Reinmuth, 1982:732 and Aaker, Kumar and Day, 2001).

According to the convenience principle of sample selection, the samples for the research came from the WCED. The reason why the researcher concentrated on the WCED was

because the researcher is employed by the WCED and not only does the researcher have a genuine interest in the satisfaction of the customers, but that the customer should at all times be able to derive value from the offerings of the WCED.

4.6.1 Population Definition

Tull & Hawkins (1993:537) have pointed out that a population should be defined in terms of elements, sampling units, extent and time. In relation to these constituent parts, the population of the research was as follows:

- Element: all the WCED employees.

- Sampling unit: some of the employees at head office and the EMDCs; headmasters and headmistresses within the EMDCs of the Central, South Cape, East, West Coast/Winelands and the South Metropoles.

- Extent: WCED Head Office and 5 EMDCs, Health and Social Services of the Western Cape.

- Time: duration 2004 July 01 to 2005 April 30.

An additional question encountered, has to do with the size of the sample. As Yin (1994:566) points out that because a sampling logic should not be used, the typical criteria pertaining to the sample size are irrelevant. Instead, the researcher thought of the decision, pertaining to the sample size, as a reflection of the number of respondents (interviewees for the structured and unstructured interviews; respondents of the questionnaires incorporating one control and two experimental groups from different strata within the WCED; and participants of the workshops, focus group and during the field observation), whom the researcher interacted with. The purpose of the research was to gain an understanding of the research problem, which the researcher proposed, and then to make recommendations. The practical issue of time limitation was also taken into consideration.

4.7 Field Controls

Field controls are procedures designed to minimise errors during the real collection of data (Tull & Hawkins, 1996:601). In order to avoid sampling errors, the researcher selected the following samples: the WCED – comprising of Head Office and the EMDCs in the following metropoles: Central, East, North, South, South Cape, West Coast/Winelands; Western Cape Health - and Social Services. The data collection was much more difficult than the researcher anticipated. Most of the WCED employees could not avail themselves to complete the questionnaires because of other commitments. As per the definition sample, the questionnaires were still completed and collected within the time allocated. Managers at lower management level, within the WCED, responded to the questionnaire with interest.

4.8 Data Collection

The sources of evidence, which could be the focus of data collection, are: documentation, archival records, interviews, direct observation, participant-observation, and questionnaires.

4.8.1 Documents could be memoranda, administrative documents, newspaper articles and other documents that are necessary for the research. Documents could be utilised to corroborate the evidence from other sources as well as to make inferences about events. Hence the document method was utilised as one of the data resources.

4.8.2 Archival records could be service records, organisational records, survey data and other such records. The accuracy of the records should first be evaluated prior to using them (Yin, 1994:84). This method was not utilised as one of the resource evidences as the data of the WCED, pertaining to what happened and what is happening (with specific emphasis on occupational crime), was not made available to the researcher.

4.8.3 Depending on the type of research, interviews are deemed to be important sources of information. Interviews could be:

- open-ended, i.e. *respondents are requested to comment on certain events by,* amongst others, proposing solutions or providing insight into events and corroborating evidence gathered from other sources;

- focused, i.e. respondents are interviewed for a short period whilst answering questions which have been posed and this method is often used to confirm or reject data collected from other sources;

- structured, i.e. respondents are required to answer questions which are detailed and developed in advance and forwarded to the respondents prior to the interview;

- unstructured i.e. respondents are required to answer questions which are detailed and developed in advance and which are not forwarded to the respondents prior to the interview.

(Yin, 1994:79:91)

The procedure followed in the structured or standardised interview was pre-determined. In the endeavour of the researcher to execute a properly designed interview, the following were applied:

- Pre-test the interview by means of a few interview sessions in order to ascertain whether: the language utilised was pegged at the correct level, the interviewee's understanding of the questions posed and the interviewee's response to the interview.

- Treat the interviewee as an equal, i.e. never talk down to interviewee and avoid courting favour with the interviewee.

- Inform the interviewee that responses to sensitive questions would be held in strictest confidence. If the interviewee is hesitant, immediately explain the procedures that would be followed in order to ensure confidentiality.

- The neutrality of the interviewer must be maintained, i.e. do not hint by comments, tone of voice or non-verbal cues, e.g. nodding of the head to suggest a particular response.

From the literature reviewed, pertaining to the methods and techniques utilised in research, the personal interview is the most important. Saunders, Lewis and Thornhill (2003: 245-269) indicated that the interview method of data collection is quite flexible and involves direct verbal interaction between individuals. The uniqueness of the interview research method is embodied within the following advantages:

- Flexibility: Interviewers can probe for more specific answers and can repeat a question when the response indicates that the interviewee has misunderstood the question.

- Response rate: An interview does not have a time limit. Illiterate persons can also answer questions during an interview.

- Non-verbal behaviour: The interviewer is observing non-verbal behaviour. The validity of the interviewee's responses is also assessed.

- Control over environment: The interviewer may customise the interview environment by ensuring that privacy prevails.

- Order of questions: The interviewer can control the order of the questions.

- Spontaneity: The interviewee cannot retract a verbal response. Thus the interviewer can record the response from the respondent.

- Answers from respondent: The interviewee cannot request someone else to respond on his/her behalf.

- Completeness: The interviewer can ensure that all the questions are answered.

- Time of the interview: The interviewer can record the time, date and venue if the interviewee is comfortable with it.

As a result of the above-mentioned advantages, the researcher customised the interviews according to the needs of the interviewees by the posing of additional questions in order to clarify points.

The researcher followed the following steps in utilising the interview as a technique for gathering data:

1. In the endeavour of the researcher to assess the reliability of the responses of the interviewees, **Figure 4.2** was utilised in order to acquire background information pertaining to prospective interviewees. Subsequently 30 prospective interviewees were selected, but only 24 (15 for the structured interviews and 9 for the semi-structured interviews) accepted the invitation to be interviewed. The 24 interviewees were selected from 3 WCED directorates, 4 WCED EMDCs and 4 corporate organisations.

Question	Details
Name	....
Title	....
Position within the WCED	...(Managerial experience) ....
Years of experience	....
Number of subordinates	....
Your views on the value chain	...(Objectivity, own agenda or other aspects which may influence answers) ....
Your views on the balanced scorecard	...(Objectivity, own agenda or other aspects which may influence answers) ....
Your views on lean thinking	...(Objectivity, own agenda or other aspects which may influence answers) ....
Has your position or reporting requirements changed as a consequence of occupational crime i.e. wastage?	...(Objectivity, own agenda or other aspects which may influence answers) ....
What is your stance on whistle-blowing?	....
What do you consider the main purpose of the value chain to be?	....

```
What do you consider the
main purpose of the balanced
scorecard to be?                  ..........................................
                                  ..........................................


What do you consider the
main purpose of lean
thinking to be?                   ..........................................
                                  ..........................................


Which obstacles do you think
would be encountered in the
endeavour to successfully
reduce wastage within the
WCED?                             ...(General background question to
                                  assess involvement and understanding
                                  of wastage)...............................
                                  ..........................................
                                  ..........................................
                                  ..........................................
```

Figure 4.2   Interviewee background information

2. The interview was set up well in advance.

3. The questions, which were posed, were forwarded to the interviewees prior to the interview.

4. Permission was requested to tape the conference.

5. The date was confirmed in writing.

6. A reminder was sent seven days prior to the interview. The questions were again enclosed.

7. The interviewer was on time. Another copy of the questions was available as two of the interviewees misplaced their original copies.

8. After incorporating the information into the research, a copy of this section of the report was forwarded to the interviewees as they have requested that their names should not be reflected within the research.

Interviews could also just be deemed as occasions where interviewees corroborate certain facts, which the interviewer already thought of. Interviews could also minimise the possibility of misunderstanding between interviewer and interviewee. During the interview, the interviewee and interviewer could also pose additional questions as to clarify a particular point.

Various secondary sources guided the researcher as to ensure that the questions posed, were not only proper, but also understandable and unambiguous. The selection of the respondents was crucial, as the interviewing of the wrong persons would not add maximum value to the research. The interview was executed by personal interview with the permission of using a tape recorder. From secondary sources it was deduced that no single source has a complete advantage over all the other sources. As a matter of fact, within this research, various sources actually complemented each other.

4.8.4　Direct observation (Yin, 1994:86) occur when a field observation is conducted in order to obtain data or to measure and record behaviour and the reliability hereof is enhanced if more than one observer is involved. This method could have been entertained (if the researcher was allowed to be an official observer at the Departments of Education, Health and Social Services) as this could show "the reduction of wastage" in action or not in action.

4.8.5　Participant-observation converts the researcher into an active participant in the events that are being researched. This method provides unusual opportunities for collecting data, but being an active participant could alter the course of events and this would not be helpful for the research (Yin, 1994:87-89). Hence the researcher will not be employing the participant-observation as a source of evidence in the research.

4.8.6   Questionnaires

At times the terms "questionnaire" and "schedule" might be utilised interchangeably, but there is a technical distinction. The questionnaire is a document that is normally distributed by the mail services, completed by the respondent in his/her own time and returned by a respective date. The schedule is a document that is completed by the interviewer in the presence of the interviewee. Many questionnaires seek factual information, while others obtain opinions, attitudes and interests. Questionnaires are self-administered and are utilised by researchers to directly convert the data into information (Tull and Hawkins, 1993:329-370).

According to McMillan (1992), the most widely used quantitative research scale for measuring attitudes and behaviours is the Likert scale. Since the Likert scale measures the level of agreement or disagreement to a statement (Tull and Hawkins, 1993:308), it was utilised within this research.

The below-mentioned advantages of utilising the questionnaire convinced the researcher to utilise this instrument:

- Considerable savings of money.

- A wide coverage is achieved and this contributes for greater validity of the results.

- The impersonal nature of the questionnaire could elicit a more objective and candid response.

- It allows for uniformity and ensures that answers are more comparable.

- It enhances progress and information surfaces that would otherwise have been lost.

- No interviewer bias as it obviates the influence the interviewer might have on the respondent.

- Reaches persons who are difficult to contact.

- Time saving occurs when mailed questionnaires are all sent simultaneously and when questionnaires are well compiled.

- Information is secured as the respondent could consult his/her records, confer with colleagues or conduct research prior to answering the questionnaire.

- Wording is standardised. As such each respondent is exposed to exactly to the same wording.

4.9 Defining the objectives

The initial step in the execution of a satisfactory questionnaire study would be to define the problem and then to list specific objectives (which need to be achieved) or list the hypothesis/hypotheses (which need to be tested by the questionnaire). While preparing the objectives or hypothesis, the methods of data analysis that will be applied to the returned questionnaires should be borne in mind.

4.10 Selecting a sample

The target population from which the sample was selected was identified after the objectives and hypothesis were clearly stated. The consideration of the prospective respondents for the questionnaire research was to get persons who would be able to supply the required information.

In order for the data of this empirical research to be analysed and interpreted, a purposeful stratified sample was drawn from the sampling frame (**Figure 4.1**). The strata comprised of top management (Superintendent General, Deputy-Director Generals, Chief Directors and Directors), deputy director, circuit managers, headmasters and headmistresses; and the assistant directors and the rest of the staff at Head Office and the EMDCs.

4.11 Compilation of questionnaire items

Each item on the questionnaire measured a specific aspect encompassed within the objectives. The questions posed were phrased in a manner that was reader-friendly to the respondents. The responses to the questionnaire were convergent, i.e. close-ended and at times divergent, i.e. open-ended.

The researcher has conformed to the rules as prescribed by Tull and Hawkins (1993:329-363), pertaining to the construction of the questionnaire items, which included the following:

- Avoiding ambiguity as clarity is essential.

- Negative items need to be avoided.

- Questions containing separate ideas, which need to be responded by a single answer should be avoided.

- Refrain from using technical terms, which may not be understood by some respondents.

- Biased or leading questions should be avoided

4.12 The questionnaire format

A questionnaire is simply a formalised set of questions for collecting information (Tull and Hawkins, 1993:330). This was an indispensable instrument for the researcher to assess attitudes and facts, as the findings were critical to the outcome of this research.

The main source of information, which the respondents utilise to ascertain whether to complete or not to complete the questionnaire, is the questionnaire and the covering letter. The following should be considered when considering a questionnaire format and which could affect the results of the questionnaire:

- Everyone must be able to understand the question in the same manner.

- Each question must deal with only one dimension.

- The questions must be posed in very simple and concise language.

- The questionnaire should be attractive and user-friendly.

- The layout of the questions should be easy to answer.

- The questionnaire items and the pages should be numbered.

- The name and address of the person to whom the completed questionnaire need to be forwarded, should appear at the top and at the bottom of the questionnaire.

- A self-addressed envelope should be included.

- Organise the questionnaire in a logical sequence.

- A transitional sentence or heading should be utilised to switch the trend of thought of the respondents.

- Do not commence a questionnaire with an open-ended item.

- Refrain from ending the questionnaire with important items.

- Place threatening or difficult or sensitive questions towards the end of the questionnaire, while using counterbiasing statements and randomised response techniques.

- Sufficient information should be available on the questionnaire in order to ensure that the items are meaningful to respond to.

While considering the above-mentioned factors and bearing the research problem in mind, the researcher, with the assistance of many consultants and secondary sources, designed the below-mentioned questionnaires (after it had been pre-tested) which pertain to the following:

- Performance management system (**Figure 4.3**)

    o Comprising of 15 questions with a rating scale consisting of 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree

IS THE WESTERN CAPE EDUCATION DEPARTMENT MAKING A CONCERTED COMMITMENT TO PERFORMANCE MANAGEMENT?

Since the performance management system (**PMS**) of the WCED is deemed to be a resource of value, it needs to be assessed on a regular basis. It is imperative that the assessment of the performance management system be executed as this ensures that it is aligned with its culture and organisational strategy. Rate the performance management system of the WCED in relation to each of the below-mentioned statements by using a rating scale of **1 to 4**, where **1 = strongly disagree; 2 = disagree; 3 = agree** and **4 = strongly agree.** Place the rating within the **block** that has been supplied and forward the completed questionnaire in the self-addressed envelope to the administrative assistant of the director of your directorate by Friday 05 November 2004.

1	Our PMS reflects the mission and value of the WCED.	☐
2	Our PMS has the full commitment and active participation of the Superintendent-General and senior management team.	☐
3	Our directors understand how to cascade the goals of the WCED through the directorate to ensure that they are effectively linked to the individual goals of the employees.	☐
4	Our performance appraisal process distinguishes between observable behavioural dimensions and the frequency of those behaviours.	☐
5	Our PMS outlines clear standards of performance and rewards eligibility for high performers, solid performers and marginal performers pertaining to:	
5.1	merit increases	☐
5.2	annual incentives	☐
5.3	long-term incentives	☐
5.4	discretionary incentives.	☐
6	Our PMS provides an ongoing comprehensive training programme for:	
6.1	managers conducting performance appraisals	☐
6.2	individuals being appraised	☐

7   Our PMS provides additional support services for professional and career development to directors, managers and other employees.   ☐

8   We are able to accurately determine the Net Operating Result of the PMS.   ☐

9   Our PMS is capable of analysing performance data to identify trends in relation to:

9.1   performance differentiation   ☐

9.2   performance gaps or development needs   ☐

10   Our organisational strategy is clear.   ☐

I do thank you for your participation and co-operation in this survey. Your responses are invaluable to this research. The findings of this survey will be made available upon request.

Please do forward the completed questionnaire to the administrative assistant of your director by Friday 05 November 2004

- Document-related crisis (**Figure 4.4**)

  o Comprising of 19 questions of which the answers of 5 questions need to be rated by crossing out; 5 questions needed to be rated according to a rating scale consisting of 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree; 8 questions needed to be ranked from 1 to 8 where 1 = being the major cause of time wastage to 8 = being the least cause of time wastage; and 1 divergent question.

Does the Western Cape Education Department have a document-related crisis?

Western Cape Education Department (WCED) has entered a lean environment, which has become obsessed with efficiency and value creation. It is imperative to ensure that the most valuable and scarcest resource viz. time be utilised optimally as to remain professionally productive and to ascertain whether employees are being overwhelmed by a proliferation of documents which is distracting them from the mission of the WCED.

Rate and rank the document management system of the WCED in relation to each of the below-mentioned questions and forward the completed questionnaire in the self-addressed envelope to the administrative assistant of the director of your directorate by Friday 05 November 2004.

1   How much time is spent on document management? Rate these questions by inserting a cross in the appropriate block.

1.1   How many hours per day are spent on document-related tasks?

1	2	3	4	5	6	7	8	9

1.2   How many of these hours are spent on receiving and reviewing?

1	2	3	4	5	6	7	8	9

1.3   How many of these hours are spent on generating documents?

1	2	3	4	5	6	7	8	9

1.4   How many of these hours spent would you deem to be of little or of no value?

1	2	3	4	5	6	7	8	9

Rate the below-mentioned statement by using a rating scale of **1 to 4**, where **1 = strongly disagree; 2 = disagree; 3 = agree** and **4 = strongly agree.** Place the rating within the **block,** which has been supplied.

2   The time crisis is becoming worse. □

3   Rank the following document non-conformance issues from **1 = being the major cause of time wastage to 4 = being the least cause of time wastage**

3.1   Voice mail and e-mail not reaching the intended recipient. □

3.2   Negativity and animosity generated by seemingly hostile e-mails. □

3.3   Incorrect information forwarded to customers. □

3.4   Document errors introduced by the loss of content from one version to the next. □

4   Rank the following forms of document-associated time wastage from 1 to 8.
(1 = being the major cause of time wastage to 8 = being the least cause of time wastage)

4.1   E-mail garbage. □

4.2   Excess dissemination. □

4.3   Reading out-dated documents. □

4.4   Duplication of information such as voice -, electronic mail or paper. □

4.5   Lack of conciseness. □

4.6   Problematic retrieval. □

4.7   Inefficient tracking and cross-referencing. □

4.8   Passing on information/customer instead of resolving the matter yourself. □

5   How many hours are wasted on walking and waiting for documents?
Rate this question by inserting a cross in the appropriate block.

1	2	3	4	5	6	7	8	9

6   Who do you think is accountable for managing document costs?
……………………………………… (Insert the name of the person.)

I do thank you for your participation and co-operation in this survey. Your responses are invaluable to this research. The findings of this survey will be made available upon request.

Please do forward the completed questionnaire to the administrative assistant of your director by Friday 05 November 2004

- Value chain (**Figure 4.5**)

  o Comprising of 23 questions with a rating scale consisting of 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree.

IS THE WESTERN CAPE EDUCATION DEPARTMENT MAKING A CONCERTED COMMITMENT TO SERVICE DELIVERY IN ENHANCING CUSTOMER TRUST AND CONFIDENCE VIA A FUNCTIONING VALUE CHAIN?

Being a lean organisation, the goal of the Western Cape Education Department is to create a system by which customers pull value from the organisation through a stream of activities that has no waste.

Service delivery in WCED is always about much more than just service. The customers of WCED are not just consumers of services. They are usually also taxpayers as well as citizens with rights and duties within our new-found democracy. Since the customer of the WCED forms an impression, whether negative or positive, of its effectiveness and efficiency, a value chain would assist to extend their insight of external service delivery and internal responsibilities.

Rate the service delivery system of the WCED in relation to each of the below-mentioned statements by using a rating scale of **1 to 4**, where **1 = strongly disagree; 2 = disagree; 3 = agree** and **4 = strongly agree**. Place the rating within the **block**, which has been supplied, and forward the completed questionnaire in the self-addressed envelope to the administrative assistant of the director of your directorate by Friday 05 November 2004.

1	Our service delivery reflects the mission and value of the WCED.	☐
2	Employee satisfaction and commitment impact on customer satisfaction.	☐
3	Customer satisfaction positively impact on employee satisfaction and commitment.	☐
4	Employee-customer relationship holds for all the departments.	☐
5	The employee-customer relationship is stronger for service delivery employees than for the remainder of employees within the WCED as a whole.	☐
6	The employee-customer relationship is weaker for employees in support functions.	☐

7   The below-mentioned are drivers of employee satisfaction and
     commitment:

7.1 career path ☐

7.2 fair pay benefits ☐

7.3 work environment ☐

7.4 perception of management ☐

7.5 value to customers ☐

8   I know the relative importance of each of the drivers. ☐

9   I understand the relationship between customer satisfaction and ☐
     commitment.

10   The below-mentioned are drivers of customer satisfaction:

10.1 timeliness ☐

10.2 competence ☐

10.3 courtesy ☐

10.4 fairness ☐

11   *Service satisfaction impacts on collaboration, trust and confidence.* ☐

12   Satisfaction of all departmental services impact of overall trust and ☐
     confidence.

13   The below-mentioned are the drivers of trust and confidence:

13.1 cultural factors ☐

13.2 political factors ☐

13.3 administrative factors ☐

14   I know the relative importance of each driver in 13. ☐

**I do thank you for your participation and co-operation in this survey. Your
responses are invaluable to this research. The findings of this survey will
be made available upon request.**

*Please do forward the completed questionnaire to the administrative
assistant of your director by Friday 05 November 2004*

143

- Balanced scorecard (**Figure 4.6**)

  o Comprising of 5 sections encompassing 23 questions with a rating scale consisting of 1 = not yet under consideration; 2 = being considered, but no action as yet; 3 = being acted upon; 4 = fully implemented; 5 = best practice status

IS THE WESTERN CAPE EDUCATION DEPARTMENT A STRATEGY-FOCUSED AND A MEASUREMENT-MANAGED ORGANISATION?

Rate the WCED in relation to each of the below-mentioned by utilising a rating scale of 1 to 5 where **1 = has not been looked into, 2 = is being looked into, but nothing as yet has been done, 3 = being done, 4 = fully implemented** and **5 = accepted as being the best-practice.** Place the rating within the **block,** which has been supplied, and forward the completed questionnaire in the self-addressed envelope to the administrative assistant of the director of your directorate by Friday 19 November 2004.

1   Is the executive leadership mobilising change?

☐ The executive team has created a sense of urgency.

☐ The executive team is aligned around a clearly spelt out and communicated vision, mission and strategy.

☐ Each team member is accountable for achieving some component of the strategy.

☐ Change is executed according to a formal and structured program.

☐ "A new way of managing" is being modelled and reinforced by the executives.

2   Is the strategy being translated into operational terms?

☐ Strategy is revisited annually through a strategic plan.

☐ The translation of the strategic plan into a strategy map and Balanced Scorecard is part of the planning process.

☐ Objectives, measures and targets are balanced across financial and non-financial perspectives.

☐ Initiatives of WCED are clearly defined and executives are accountable for the successful implementation.

3   Is the organisation being aligned to the strategy?

☐ Strategic business units (SBU) and the strategy of WCED are linked through a formal strategic planning process.

☐ The translation of the strategic plan of SBU into a strategy map and Balanced Scorecard is within the planning process.

☐ The measures and targets of WCED and the SBU are linked, aligned and balanced across financial and non-financial perspectives.

☐ The objectives, measures and targets of support organisations are linked to SBU strategy through a formal alignment process.

☐ Initiatives and action plans at all levels are aligned, rationalised and prioritised against the strategy.

4   Is the strategy being made the task of everybody?

☐ Employees are aware of the vision and strategy of WCED.

☐ Team and individual objectives and goals are aligned to the strategy through a formal process.

☐ Individuals understand their role in achieving the strategy and believe they can make a difference.

☐ Teams and individuals are accountable for strategic results.

☐ Teams and individuals have a feedback forum in which their ideas are heard and acted upon.

5   Is the strategy being made an ongoing process?

☐ The Balanced Scorecard is an integral part of the strategic planning Processes.

☐ Formal, monthly/quarterly strategic and operational review processes drive strategic resource allocation decisions.

☐ Leaders at all levels make rapid strategic decisions based on timely, accurate strategic measurement and analysis.

☐ Management and communication processes enable learning and best practice sharing.

I do thank you for your participation and co-operation in this survey. Your responses are invaluable to this research. The findings of this survey will be made available upon request.

Please do forward the completed questionnaire to the administrative assistant of your director by Friday 19 November 2004.

4.13   Pre-testing

Since researchers find it difficult to criticise the development of their own questionnaires, which would be utilised during researches, researchers should execute a thorough process to pilot test a questionnaire prior to utilising it within researches. Amongst others, it will identify ambiguities in the instructions; it will assist in the clarification of the wording of questions (bearing language, cultural patterns and the characteristics of the respondent in mind) and may indicate omissions or previously unanticipated answers. The pre-testing instrument is a complete questionnaire, which has larger margins and has spaces below each question in order to allow respondents to insert comments. Hereafter the questionnaire is completed and it is followed by a discussion with the "pre-test" respondents as a group. Cognisance must be taken of the comments that have been made, as well as the percentage of the replies. This pilot test may be revised and repeated until the majority of the intended sample understands the questionnaire as the researcher has intended it to be (Anderson, 1990 and Tull and Hawkins, 1993:360-363).

Hence a pilot study is a small-scale trial before the main investigation (Sapsford and Jupp, 1996). Apostolakis and Kastania (1994:29) state that empirical observations reveal that a pilot study is important and must be done in order to verify that:

- the questionnaire does not create any negative attitudes;

- the question ordering is correct;

- the time spent to complete the questionnaire is reasonable; and

- there are no items, which are difficult to understand.

For this research, ten of each of the four questionnaires was printed for the pilot study. The respondents consisted of four principals; two administrative assistants at schools; two circuit managers, one from the Central and one from the South Metropole EMDCs; and two employees, one from the Central and one from the South Metropole EMDCs. The time spent to complete each question ranged from ten seconds to two minutes.

After consulting and interacting with each member of the "pilot test questionnaire group" and then interacting with the group as a whole, pertaining to the questionnaires, the researcher revised the questionnaires with the proposed changes. The reliability of the questionnaires of the pilot study was not pre-tested with the Statistical Programme for the Social Sciences.

4.14   Introductory statement

Since sufficient responses were necessary in order for the researcher to be able to deduce and make generalisations, an introductory statement or letter of transmittal was utilised to encourage the co-operation of the prospective respondents. The introductory statement encompassed the following:

- Information pertaining to the researcher conducting the study.

- Purpose and importance of the study, why it should be conducted and why respondents should return the completed questionnaire.

- Assurance that responses will be treated confidentially.

- Requests for the return of the questionnaire by a particular date.

- Inclusion of a small reward with the introductory statement.

4.15   Issuing of the questionnaires

Once the pre-testing process was completed and the final questionnaires were compiled, only then the questionnaires were mailed by the planned date to the selected prospective respondents. The researcher forwarded the introduction statement, the questionnaire and the small gift to the prospective respondents via the courier service of the Western Cape Education Department and also by personally delivering the questionnaires to the personal administrative assistants of the various directors.

The randomly selected sample for the four questionnaires comprised of the employees of the WCED as reflected in **Table 4.1**.

Table 4.1 **Topic and Samples**

Topic	Sample
• Performance Management System	10 Top management employees at Head Office
• Document-related crisis	50 Deputy and assistant directors at Head Office and EMDCs
• Balanced Scorecard	140 Principals
	300 other staff members at Head Office and EMDCs
• Value Chain	500 employees of the WCED

The sample population, which comprised of the 500 employees of the WCED, pertaining to the value chain, was as follows:

- Control group   =   100
- Experimental groups   =   300
- Other   =   100

The composition of the experimental and control groups is reflected in **Table 4.2**.

Table 4.2   Experimental and Control groups

Experimental group	Control group
• 150 x staff at head office	25 staff from Head Office
• 50 x staff at EMDC (South)	25 staff of EMDC (South)
• 50 x staff at EMDC (North)	25 staff at EMDC (North)
• 50 x staff at EMDC (East)	25 staff at EMDC (East)

The experimental group comprised of two groups of 150 employees i.e. 2 x 75 staff members from head office and 2 x 25 staff members from each of the other remaining above-mentioned sectors. Both groups were exposed to workshops dealing with the balanced scorecard, the value chain and lean thinking. Only one of the experiment groups i.e. Experimental I received additional literature (**4.17.1**) prior to the commencement of the workshops.

The modus operanti pertaining to the issuing of value chain questionnaires were as follows:

1. The control group, the experimental groups and the "other" group were given the same questionnaire (**Figure 4.5**) to complete.

2. The information reflected in **4.17.3** was facilitated during the three workshop sessions, which the two experimental groups attended.

3. One of the experimental groups, viz. Experimental I, was issued with additional literature pertaining to the workshops. This additional information was issued prior to the commencement of the workshops (**Refer to 4.17.1**).

4. Once the workshops were concluded then the control group, the two experimental groups and the "other" group were issued the same (the original questionnaire) questionnaire to complete. This was done to ascertain whether the exposure to

information pertaining to the value chain, balanced scorecard and lean thinking by the experimental groups produced significant differences and whether the questions posed on the questionnaires answered the research questions.

4.16   Follow-ups

The follow-up process, pertaining to the questionnaire, of the researcher was based on the following process:

- The first reminder pertaining to the questionnaire, comprising only of the letter of transmittal, was sent via electronic mail and the courier services of WCED.

- The second reminder was also sent via electronic mail and the courier services, but it comprised of the letter of transmittal and a copy of the questionnaire.

- The respondents were reminded of anonymity and they were encouraged to forward their completed questionnaires to the person who was indicated on the questionnaire.

4.17   The workshops pertaining to the development of a value chain encompassed the following:

- Lean thinking;

- Performance management system;

- Value chain;

- Balanced scorecard.

4.17.1 Prior to the workshops, the following information was forwarded to one of the two experimental groups (Experimental I).

VALUE CHAIN DEVELOPMENT

"A person owes what he/she is to union with his fellow man/woman." –
ANON

- *South Africa is being deemed as a transitional country.*

- *The approach we shall be applying will be guided by the principle of methodological determinism i.e. we shall be practical and realistic; and we possess methods and instruments that complement and are compatible with the object of our activity.*

- *According to our National Minister of Education (Pandor, 2004), education can be market-driven if we are armed both conceptually and instrumentally with an appropriate vision of what must be done and equipped with effective methods and processes.*

- *Questions*

  - *Are we a contemporary institution that is adequate to the history, culture and modern situation?*

  - *Can the WCED serve as a vehicle in the transition of our cultural heritage, cope with present day technological and managerial revolutions; and fit into extremely demanding frameworks of up-to-date political and moral requirements?*

- *Paradigm shifts need to occur from the historically dominant Weberian model of bureaucracy to a new set of management ideas, which are heavily influenced by values and governance techniques derived from economics.*

- *Professionalism (the ideas and actuality of professionalisation as an instrument to define and improve both market morality and efficiency, in order to re-organise and privatise government service areas) in*

terms of the Thatcherite philosophy implies that for government a substantially professionalised enterprise offered much:

- ○ *Guarantee of minimal competence.*

- ○ *A self-regulatory apparatus to ensure proper levels of technical and moral performance.*

Also and most importantly, private professions would not require government resources or administration.

- *Institutions fix the confines of and impose forms upon the activities of human beings. Our culture is a synthesis of institutions. Also the approach and way of knowledge itself should be considered as an institution. Among the different ways of knowing is the institutionalism (an approach to study in social sciences rooted in works of, amongst others, Wilhelm Roscher and Gustave Schmoller). The institution is not something out there. Rather, it is a way of sub-dividing the social and cultural organisation of society into components meaningful to the participants in that society and hence to observers and to analysts of the society. In a broad way institutions imply an observable arrangements of people's affairs that contrasts with characterisations of people activities deriving from assumptions, institutions or introspections. The term also implies specificities of time and place (according to Sven-Erik Sjöstrand, institution is a kind of infrastructure that facilitates or hinders human co-ordination and allocation of resources); and contrasts with universals (or general characterisations). An institution does stand-alone. It fits into a system of institutions, so that changing the rules of one institution means that the rules of other institutions must adapt and so change. Hence each institution exists in a web of different and interweaving relations with other institutions.*

- *The transitional, transformational, future development and prosperity of our country, I deem to be dependent upon improvement of knowledge on the nature of institutions and techniques for their deliberate construction/modification.*

Education Management and Development Centre

Service delivery in enhancing citizen trust and confidence

- *In the context of a broader model, i.e. one which links service delivery to other aspects of management performance especially people management*

- *Linkage of employee satisfaction and commitment with customer satisfaction; and linking customer satisfaction and citizen trust and confidence*

- *Causal chain*

  - *Improvement in employee attitudes and behaviours lead to an improvement in customer attitudes and behaviours, which in turn leads to an increase in the net operating result*

  - *Net operating result is contestable, which is the basis of democratic governance.*

  - *Ultimate objective of employees is building democratic citizenship and strengthening the confidence and trust of citizens in the efficacy and value of public institutions e.g. EMDCs*

From literature, especially the daily newspapers, it has become apparent that customer focus has become more a reality than an ideology and successful organisations could be those that have moved closer towards their customers. From David Bullard's columns "Out to lunch", in the Sunday Times Business Times, it could be deduced that in order to come out on top, organisations need to operate from strategies based on organisational flexibility, an unrelenting drive to create value and constant attention to the detail of the demands of customers.

From the audiences with the new Western Cape Minister of Education, Mr. C. Dugmore, it has become apparent that the old success factors, viz. size; role clarity; specialisation and control of the WCED have to give way to new success factors i.e. speed (response to requirements of the customer); flexibility (multi-skilled employees, ability to take on new skills and an ability to move to new locations); integration (organisational ability to create systems that pull diverse activities together as they are required); and innovation (dealing with demand factors e.g. concerns for high quality and structural factors e.g. high rates of technological changes of high market turbulence). Ms. N. Pandor, the National Minister of Education, has indicated in her address to principals of schools at York Road Primary on 2004:07:31 that education should be market-driven. In as much that all decisions commences with the customer in mind; quality should be customer related; knowledge of customers is an invaluable aset; learn from mistakes; and that there are no sacred cows, i.e. check, change and adjust the value which is offered to the customer.

According to Day (1999), organisations wishing to be seen as delivering value, organisations need to be aware of changes within customer needs as well as to constantly modify their value propositions bearing these changes in mind. Slingers (2004) reiterated that strategic effectiveness is about doing the right things and operational effectiveness is about doing the right things right.

In the not so distant past, quality was deemed as being conforming to internal standards and mistakes had to be avoided at all costs. Also existing standards had to be protected. From the deliberations of the Minister of Education (Western Cape), it can be deduced that:

- o *quality should be derived from the customer;*

- o *knowledge, your own, as well as about the customers is a valuable asset;*

- o *there should be no sacred cows within the WCED; and*

155

- o *employees should learn from their mistakes.*

Presently the organisational structure of the WCED is undergoing various changes. This however should be accompanied with a change in managerial philosophy. In addition it should also be borne in mind that effective value strategy needs the emphasis of cost reduction and administrative efficiency to be replaced with one that focuses on the creation of value for the customers. Hence "value-added" could be equated with the focusing on of "operating activities". The measuring of performance in the value chain is being done via operational metrics and strategic measures.

Value is a term that is frequently used, but infrequently understood. In the broader context value could be deemed as being stakeholder satisfaction. Here stakeholder satisfaction ensures that not only are the expectations of the customers met, but also those of employees, community and government. Quality and service are the means; and the value for the customer is the end.

Presently the WCED has gone from only being functional, to process orientated and now the endeavour is for operational excellence.

Value chain and lean thinking are presently redefining corporate relationships to enable "top line" growth and "bottom line" improvement. From the articles in the Mail and Guardian in 2004, it can be deduced that value chain best practices has progressed from an integrated stage (progressing from shared data among departments and customers) to an optimised (real time information and decision support) and collaborative stage (customer focused).

From an organisation's perspective, value proposition is its response to the expectations of the customer, i.e. value to be delivered to the customer. Externally the value statement is the manner in which the organisation positions its offer to the customer. Internally the value statement signifies how value should be created, communicated, delivered and maintained. In

the endeavour of the organisation to satisfy the customer, the internal value statement, amongst others, stipulates the processes and responsibilities.

From audiences with an assistant director within human resource development it was deduced that within performance management, within the WCED, it is difficult to control the entire value creation process. Hence a customised performance management model is required which encompasses co-ordination, as well as control, and performance measurement. Moodley (2004) (marketing lecturer attached to the Cape Peninsula University of Technology) advanced that co-ordination and control were critical roles within the value chain.

Inter-departmental structures and relationships should change from separation to unification (Stern, 1996), e.g. inter-department outsourcing. According to a survey done by Anderson Consulting pertaining to the expectations of executives of what their organisations would look like in 2010, the following were highlighted:

- *to improve overall business performance;*

- *to sharpen business focus;*

- *accessing outside skills; and*

- *the improvement of quality and efficiency of the outsourced process.*

Innovation is not easy. In the private sector, as well as in the WCED, innovation disrupts established relationships and behaviours. Hence, innovation requires imagination and courage.

In the private sector innovation could lead to large financial rewards. Hence persons in the private sector have tended to value, promote and invest in innovation.

In most instances this is not the case in the WCED. The successful innovation is likely to accrue to the WCED and not to the individuals involved in the innovation. Since the WCED is the monopoly provider of services in education, employees have had little incentive to engage in, much less invest in, innovation.

However, the Superintendent-General, Mr. R. Swartz, is engaged in serious efforts to reform the WCED and to inject a culture of innovation into the WCED's bureaucracy. Redesigning the WCED for the tasks of the 21st century does not imply a "big" WCED, but rather to stress competence and quality of performance in the discharge of services, which present the core of the responsibilities of a lean organisation. In doing so capacity will be built. It must also be borne in mind that performance is not simply gauged by material standards, but customers expect the WCED to operate honestly, competently and efficiently.

"PS21 is based on the idea that efficiency is a lot about attitude and perspective. The employee on the ground knows where a lot of waste and possibilities for improvement are and that by allowing employees at every level to offer and be recognised for their ideas, they also become much more open to strategic and radical change as directed from the top." (Kamarck, 2004).

OBJECTIVES

After the workshop, the participant shall be able to:

- *discuss about the value chain and develop a value chain;*

- *help management to articulate the culture and values of the WCED;*

- *advise senior management pertaining to muda and methods of removing it;*

- *assist with planning of training needs; and*

- *evaluate the impact of development, i.e. Total Productivity Training.*

Political leaders and public service delivery, especially within the WCED, are under increasing pressures from citizens (of especially the Western Cape) to provide better services faster and at less cost.

The evolution of aligned value chains in education appears to be happening in a somewhat random fashion. However, we know that this is not the case. It is just difficult to understand the complexity of the events in real time. Sometimes it is possible to look back on change that has taken place and then develop insights about the events that came together to affect this change. The forces that will influence the rate and the degree of value chain alignment can be grouped into four categories:

- *Drivers – forces creating pressure on the department to move to a higher degree of alignment, e.g. the customer demands a service, such as the appointment of an educator, that can only be rendered through the co-ordination of efforts, such as the appointment, leave and salary sections, across the value chain.*

- *Enablers – forces which provide opportunities to move towards a higher degree of alignment, e.g. Basic Accounting System i.e. information technology which assists with the e.g. appointment of educators.*

- *Barriers – forces that de-accelerates the movement towards a higher degree of alignment, e.g. occupational crime, lack of trust and willingness.*

- *Regulators – Forces, which provide temporary impediments to a higher degree of alignment, e.g. a relatively new Development Appraisal System of the WCED that would need to be replaced to realize the value of increased alignment, e.g. Integrated Quality Management System. Also, the transformation from late career managers to early and mid-career managers.*

(Lochan, 2003)

From secondary sources it can be deduced that the speed with which value chains will evolve depends on:

- *What customer preferences would have the strongest impact on output needs, preferences for functional qualities e.g. productivity trained employees?*

- *How will public policy assist or prevent the evolution of aligned value chains?*

- *What is the knowledge capital required by employees in different departments and how fast will they be willing to increase that capital?*

There is a temptation to use "value chain", "supply chain", and "demand chain" interchangeably; but there is a difference in the concepts that is worth remembering.

The supply chain – which comes first – focuses on activities that get raw data and processes into an operation smoothly and economically, i.e. predetermined customer satisfaction objectives. The demand chain focuses on activities which get items to the customer, i.e. customer needs which need to be satisfied – by whom, how and when, where.

The value chain has a different focus and a larger focus i.e. seeing the forest and not only to focus on the trees (Senge. 1990). Value chain analysis looks at every step from raw data to the eventual end-user. The goal is to render maximum value to the end-user with the least possible cost. This makes the supply chain management and demand chain management subsets of the value chain analysis.

This brings the following questions to mind:

1   If value chains are so critical, why is the new way of looking at them just emerging now?

2   How can value chain effectiveness be measured?

The WCED Value Chain is a <u>Vertical Alliance</u> of departments <u>Collaborating</u> to achieve a more <u>Rewarding</u> position in the <u>Market</u>.

Vertical Alliance	*"Vertical" = departments are connected from one end of the service delivery process through other steps such as processing to where customers accept the final service rendered.*
	Horizontal alliance would be when, e.g. sectors within the appointment section work together to consolidate the "supply".
Alliance	*Departments operate interdependently, i.e. departments have common goal and work together to achieve it.*
Collaborating	*Different departments within the value chain discuss issues, work and trouble shoot problems together, i.e. action learning*
	(Marquardt, 1999).
Rewarding	*Since the goal is to ascertain a new approach that is more rewarding than the old one, hence departments may sacrifice their independence to make the value chain work. The rewards could be that better communication may speed up the service delivery process and better working relationships can be developed.*
Market	*A value chain commences and ends with the market. The development of value chains are in response to the demands of the marketplace. The link between effective service delivery and market demands is a well-functioning value chain.*

Value to the customer can be depicted as:

Value = Service attributes + Image + Relationship

Encompassing functionality, quality, cost and time

What can value chains do for the WCED i.e. a learning organisation and us?

Amongst others, reasons for collaborating with other departments are to:

- *secure quality,*

- *enhance image,*

- *improve service delivery, and*

- *enhance customer relationships.*

It also needs to be borne in mind that there are risks involved in being a subset of a value chain:

- *you would have partial control over shared departmental activities;*

- *since there are more people involved, decision-making takes longer; and*

- *some flexibility and independence will be lost.*

How can a value chain be effectively built?

The building of a value chain can be equated with that of climbing a mountain via the creation of a new path that requires three stages:

- *careful evaluation of alternatives,*

- *team planning, and*

- *good management.*

4.17.2 The Workshop

4.17.2.1 Prelude

The logistics of the experimental groups (Experimental I and Experimental II – **Table 4.2**), pertaining to the workshops (which were the same at all the venues), were as follows:

- The dates, venues and time are reflected below.

Table 4.3   Workshop dates, venues and time

DATES	VENUES	TIME
2004:09:08; 2004:09:22 and 2004:09:29	Lecture Hall - Head Office	12h30 – 16h30
2004:09:15; 2004:09:29 and 2004:10:06	Lecture Hall - Head Office	12h30 – 16h30
2005:03:02; 2005:03:16 and 2005:04:06	Lecture Hall – EMDC (North)	09h00 – 13h30
2005:03:04; 2005:03:18 and 2005:04:08	Lecture Hall – EMDC (South)	09h00 – 13h30
2005:03:11; 2005:04:15 and 2005:04:22	Lecture Hall – EMDC (East)	09h00 –13h30

- The programme of events were as follows:

Table 4.4   Workshop programme of events

VALUE CHAIN DEVELOPMENT TRAINING SESSIONS

Date	2004:09:08
Topic	Stage 1
	Evaluation
	Evaluate the idea and market (**Figure 4.16**)
	Review strategy (**Figure 4.17**)
	Assess resources, risks and rewards (**Figure 4.18**)

Date	2004:09:22
Topic	Stage 2
	Planning
	Select partners (**Figure 4.19**)
	Build relationships (**Figure 4.20**)
	Agree on goals and measures (**Figure 4.21**)

Date	2004:09:29
Topic	Stage 3
	Managing (**Figure 4.22**)
	Goals and performance measures
	Integrate systems
	Build and adapt

4.17.2.2 Introduction

Workshops within the public service arena and especially within the WCED brings with it unique challenges. Participants within the workshops, whether above assistant director level or below assistant director level, were at times traumatised as a result of the perceived stressful environment within which they operate. As a result of this, the researcher opted to have a fun, interactive and facilitative approach within the workshops.

The facilitation of the researcher has been based on the action-learning (Marquant, 1999) model in which:

- every participant was encouraged to reflect on all the activities;

- space was created for experiential learning, i.e. via a series of interactions and reflections within the plenary sessions;

- cross-cultural and diversity issues were also been taken cognisance of;

- activities were in the form of interactive exercises, games and discussions, i.e. as to allow, amongst others, creativity and full participation; and

- trust and empathy were built through **COKE**:

    o **C**   Commitment - dedicated in trying to assist the participants to be involved in decision-making that affect them and their workplace.

    o **O**   Openness - creation of an environment in which the participants would feel comfortable to pose questions and to raise issues or to be able to speak in private.

    o **K**   Knowledge - the researcher must be knowledgeable of the topic and be willing to learn.

    o **E**   Empathy - being on the same wavelength as the participants and building rapport.

(Source: Anon, 2005)

- The learning styles and the types of intelligence of the participants are also important:

    o learning styles

        ▪ activist   -   the participants was able to "try out" new strategies.

        ▪ reflector   -   the participants were given the

165

	opportunity to reflect on their current practices.
▪ theorist -	the results of the latest theories, pertaining to the context of the workshops, were available to the participants.
▪ pragmatist -	the participants were given ample time to discuss and to reflect on the relevance of the content which was facilitated as well as opportunities to adapt ideas and to develop action plans.

(Honey and Mumford, 1992)

- o types of intelligence

  - ▪ experiential intelligence, i.e. ability to formulate new ideas and combine unrelated facts;

  - ▪ contextual intelligence, i.e. ability to adapt to a changing environment and then to change in order to optimise opportunities; and

  - ▪ componential intelligence, i.e. ability to think abstractly and process information.

(Source: Lefton, 1991: 272, Sternberg, 1986)

4.17.3 Information facilitated during the workshops

SYNERGISING THE VALUE CHAIN AND THE BALANCED SCORECARD TO REDUCE WASTAGE WITHIN THE

WESTERN CAPE EDUCATION DEPARTMENT

Ice- Breaker

- Write down a question, which you wish to be answered during this session.

- Say thank you to a person for your personal development. It must be as if they are at an Academy Award Ceremony. The process must be completed within 30 seconds.

Performance Measures (Placed on the walls)

- Ideas cannot be fought with aggression. Only fight ideas with ideas.

- Am I a:
  - Paradigm creator
  - Paradigm pioneer
  - Paradigm settler
  - Paradigm breaker
  - Paradigm dictator

- Sow a thought; reap an action

  Sow an action; reap a habit

  Sow a habit; reap a character

  Sow a character; reap a destiny

- No service delivered can be improved until an individual assumes the responsibility for improving it.

- Attitude: Not what can I get out the WCED, but what can I contribute to education.

Descriptors placed on the walls (as the facilitation progresses)

- **Value Creation** – is the endeavour towards a better fit between knowledge and relationship or organisational competencies and customers.

- **Value Chain** – shows what's good for the customers and not how it fits within the administrative process

  - o **WCED Value Chain** – is a set of independent and interdependent directorates working closely together to identify; create; deliver; and service customer value expectations:
    - Each employee has a stake in the success of the others. They must look for ways in which resources can be utilised cost-effectively throughout the value chain.

- **Strategy** – is the art of creating value.

- **Strategic decisions** – should not only involve intra-organisational approaches, but also inter- and extra-organisational approaches.

- **Growth within the WCED**

  1. Rendering service to existing customers.

  2. Rendering service to new customers.

  3. Applying new products.

  4. Introduction of improved new service delivery approaches.

VALUE CREATION

(Employees)

- **Work**

  Stimulate curiosity.

  Permitted to express creativity.

  Foster positive relationships with others.

  At which I'm good.

- **Activities hated**

  Activities that are repetitive.

  Activities requiring little or no thought.

  Activities forced upon.

- **Engagement**

  Attracted to work.

  Persist in their work, despite challenges and obstacles.

  Take visible delight in accomplishing work.

Employees who are engaged in rendering a service want to **SCORE**, i.e. employees are driven by five essential goals and each satisfies a particular human need.

S	Success	The need for mastery.
C	Curiosity	The need for understanding.
O	Originality	The need for self-expression.
R	Relationships	The need for involvement with others.
E	Energy	The need for a complete and productive life.

SCORE ~ PERFORMANCE ~ ACHIEVEMENT ~ ARTISTRY

PERFORMANCE MEASURES
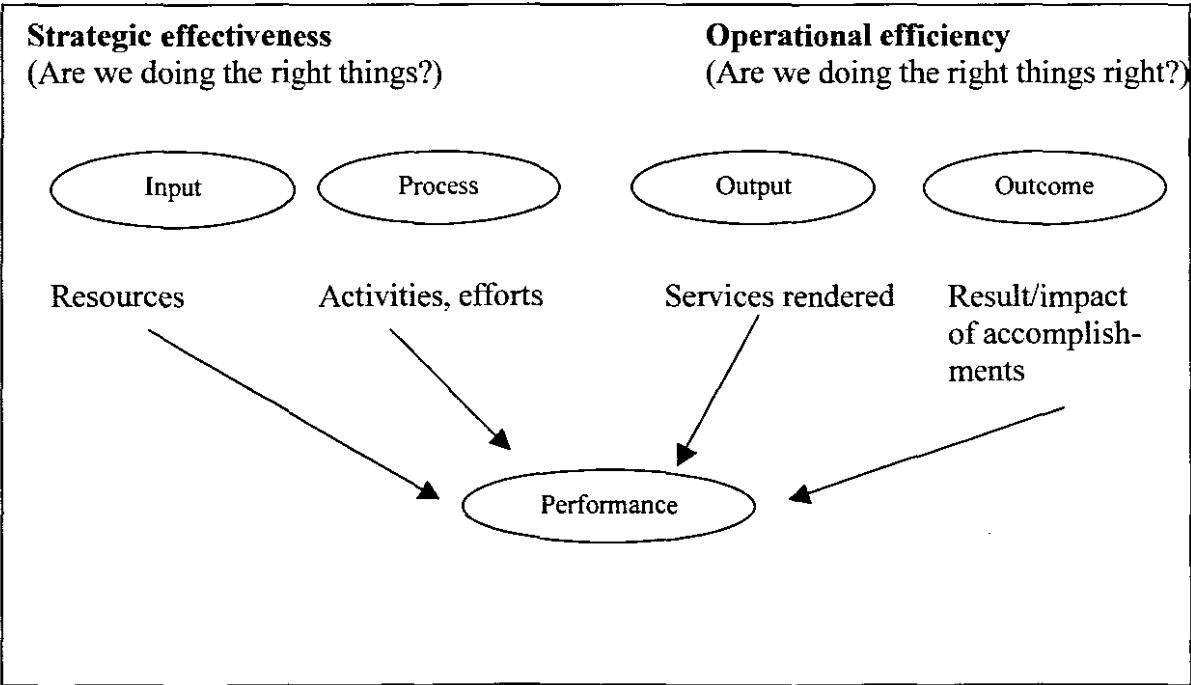
Figure 4.7   SCORE and Performance Measures

(Source : Anon, 2005)

170

VALUE CHAIN DEVELOPMENT

Presently everybody is referring to the SPMDS. The following needs to be known:

- Job description

- Individual performance plan

- Individual development plan

After the above-mentioned is in place then the monitoring and reviewing of the performance of the employee follows. Hereafter the appraisal commences. The result of the appraisal must be "recognition". Employees are striving for recognition in the form of pay progressions, cash bonuses and or non-financial awards. Since employees do not work in isolation and wish to obtain the 4's and 5's, within the SPMDS document, the support of colleagues is required in order to obtain this. How? e.g. the appointment of a substitute educator:

- information need to be received from another department (inter-department) and from other employees within your department (intra-department).

- information incorrect – re-work takes place and the task cannot be executed to ensure that the mission of the WCED is achieved.

- when you are assessed you cannot tell your supervisor that because you did not get the proper information you should still obtain the 4 or 5 as the non-receipt of proper information is not your fault.

Hence by working interdependently and where:

- knowledge management (knowledge of customers and suppliers);

- technology management (data-base systems); and

- relationship management (employee and customer expectations)

are combined, the WCED will be effective, i.e. value is being added via the strategy of the WCED in order to achieve its mission and ultimately its vision.

171

Innovation is not easy. In the private sector as well as in the WCED innovation disrupts established relationships and behaviours. Hence, innovation requires imagination and courage.

In the private sector innovation could lead to large financial rewards. Hence persons in the private sector tended to value, promote and invest in innovation.

In most instances this is not the case in the WCED. The successful innovation is likely to accrue to the WCED and not to the individuals involved in the innovation. Since the WCED is the monopoly provider of services in education, employees have had little incentive to engage in, much less invest in, innovation.

However, the Superintendent-General, Mr. R. Swartz, is engaged in serious efforts to reform the WCED and to inject a culture of innovation into the WCED's bureaucracy. Redesigning the WCED for the tasks of the 21st century does not imply a "big WCED", but rather to stress competence and quality of performance in the discharge of functions, which present the core of the responsibilities of a lean organisation. In doing so, capacity will be built. It must also be borne in mind that performance is not simply gauged by material standards, but customers expect the WCED to operate honestly, competently and efficiently.

"PS21 is based on the idea that efficiency is a lot about attitude and perspective. The employee on the ground knows where a lot of waste and possibilities for improvement are and that by allowing employees at every level to offer and be recognised for their ideas, they also become much more open to strategic and radical change as directed from the top." (Kamarck, 2004).

OBJECTIVES

After the workshop, the participant will be able to:

- Discuss a value chain and develop a value chain;

- Discuss a balanced scorecard and develop a strategy map by utilising a balanced scorecard;

- Help management to articulate the culture and values of the WCED;

- Advise senior management pertaining to muda and methods of removing it;

- Assist with planning of training needs; and

- Evaluate the impact of development, i.e. Total Productivity Training.

Political leaders and public service delivery, especially within the WCED, are under increasing pressures from citizens to provide better services faster and at less cost.

The evolution of aligned value chains in education appears to be happening in a somewhat random fashion. However, this is not the case. It is just difficult to understand the complexity of the events in real time. Sometimes it is possible to look back on change that has taken place and then develop insights about the events that came together to affect this change. The forces that will influence the rate and the degree of value chain alignment can be grouped into four categories:

- Drivers – forces creating pressure on the department to move to a higher degree of alignment, e.g. the customer demands a service, such as the appointment of an educator, that can only be rendered through the co-ordination of efforts, such as the appointment, leave and salary sections, across the value chain

- Enablers – forces which provide opportunities to move towards a higher degree of alignment e.g. Basic Accounting System i.e. information technology which assists with the e.g. appointment of educators

- Barriers – forces that de-accelerates the movement towards a higher degree of alignment e.g. occupational crime, lack of trust and willingness.

- Regulators – Forces which provide temporary impediments to a higher degree of alignment, e.g. a relatively new Development Appraisal System of the WCED that would need to be replaced to realize the value of increased alignment, e.g. Integrated Quality Management System. Also the transformation from late career managers to an early and mid-career managers

(Lochan, 2003)

From literature it can be deduced that the speed with which value chains will evolve depends on:

- Which customer preferences would have the strongest impact on output needs preferences for functional qualities e.g. productivity trained employees?

- How will public policy assist or prevent the evolution of aligned value chains?

- What is the knowledge capital required by employees in different departments and how fast will they be willing to increase that capital?

There is a temptation to use "value chain", "supply chain", and "demand chain" interchangeably; but there is really a difference in the concepts that is worth remembering.

The supply chain – which comes first – focuses on activities that get raw data and processes into an operation smoothly and economically. The demand chain focuses on activities that get items to the customer.

The value chain has a different focus and a larger focus i.e. seeing the forest and not only to focus on the trees (Senge. 1990). Value chain analysis looks at every step from raw data to the eventual end-user. The goal is to render maximum value to the end-user with the least possible cost. This makes the supply chain management and demand chain management subsets of the value chain analysis.

This leads to the following questions:

1   If value chains are so critical, why is the new way of looking at them just emerging now?

Possible answer:

The current surge in interest in value chains is based on the evolution of

technology. Value chains are complicated networks of interactions and the

information technology and, in particular, the internet capabilities deliver really effective value chain management tools, which have only recently become available. Cheaper computing power, better inter-platform communications, more effective data translation and the growth of internet-based e-business all contribute to a critical mass of technology that makes value chain management a profit-generating exercise.

2   How can I measure value chain effectiveness?

Possible answer:

In a successful value chain implementation, information and cash take less

time to flow through the chain than the actual product creation, i.e. I *C<P

The WCED Value Chain is a <u>Vertical Alliance</u> of departments <u>Collaborating</u> to achieve
a more <u>Rewarding</u> position in the <u>Market.</u>

Vertical Alliance	"Vertical" = companies are connected from one end of the service delivery process through other steps such as processing to where customers accept the final service rendered. Horizontal alliance would be when, e.g. sectors within the appointment section work together to consolidate the "supply".
Alliance	Departments operate interdependently, i.e. departments have common goal and work together to achieve it.
Collaborating	Different departments within the value chain discuss issues, work and trouble shoot problems together i.e. action learning (Marquardt, 1999).
Rewarding	Since the goal is to ascertain a new approach that is more rewarding than the old one, hence departments may sacrifice their independence to make the value chain work. The rewards could be that better communication may speed up the service delivery process and better working relationships can be developed.
Market	A value chain commences and ends with the market. The development of value chains are in response to the demands of the marketplace. The link between effective service delivery and market demands is a well-functioning value chain.

Value to the customer can be depicted as:

Value = Service attributes + Image + Relationship

Encompassing functionality, quality, cost and time

What can value chains do for the employee and for the learning organisation?

Amongst others, reasons for collaborating with other departments are to:

- secure quality;

- enhance image;

- improve service delivery; and

- enhance customer relationships.

It also needs to be borne in mind that there are risks involved in being a subset of a value chain:

- you would have partial control over shared departmental activities;

- since there are more people involved, decision-making takes longer; and

- some flexibility and independence will be lost.

How can a value chain be effectively built?

The building of a value chain can be equated with that of climbing a mountain by creating a new path, viz. it requires three stages:

- careful evaluation of alternatives;

- team planning; and

- good management.

Prelude to the synergising of the balanced scorecard and the value chain. (Figure 4.8 Building and implementing a Balanced Scorecard)

- Customer values
- Organization values
- Vision and mission

- Performance results
- Revised strategies

- Alignment
- Business & support unit scorecards

- Software
- Performance reporting
- Knowledge sharing

- Themes
- Strategic results
- Strategies

- New projects

- Strategy elements

- Performance drivers
- Enablers
- Causal links

- Performance measures
- Targets
- Baselines

Assessment

Evaluation

Cascade

Strategy

Objectives

Strategy Maps

Performance

Alignment

Initiatives

Mission

Customer / Stakeholder

Financial / Budget

Strategy

Organisation

Internal

178

Balanced Scorecard System Components

Vision
Mission

Strategic Foundation

Leadership &
Personal Development

Strategic Map

Budget Performance

X   Z

B
S
C

Performance
Measurement

Performance Dimensions
X – Results
Y – Operations
Z - Capacity

Y

New Innovations

Balanced
Score
Card

Corporate Support Unit
Customer -; Financial -; Internal Business - &
Innovation, Learning and Growth Perspective
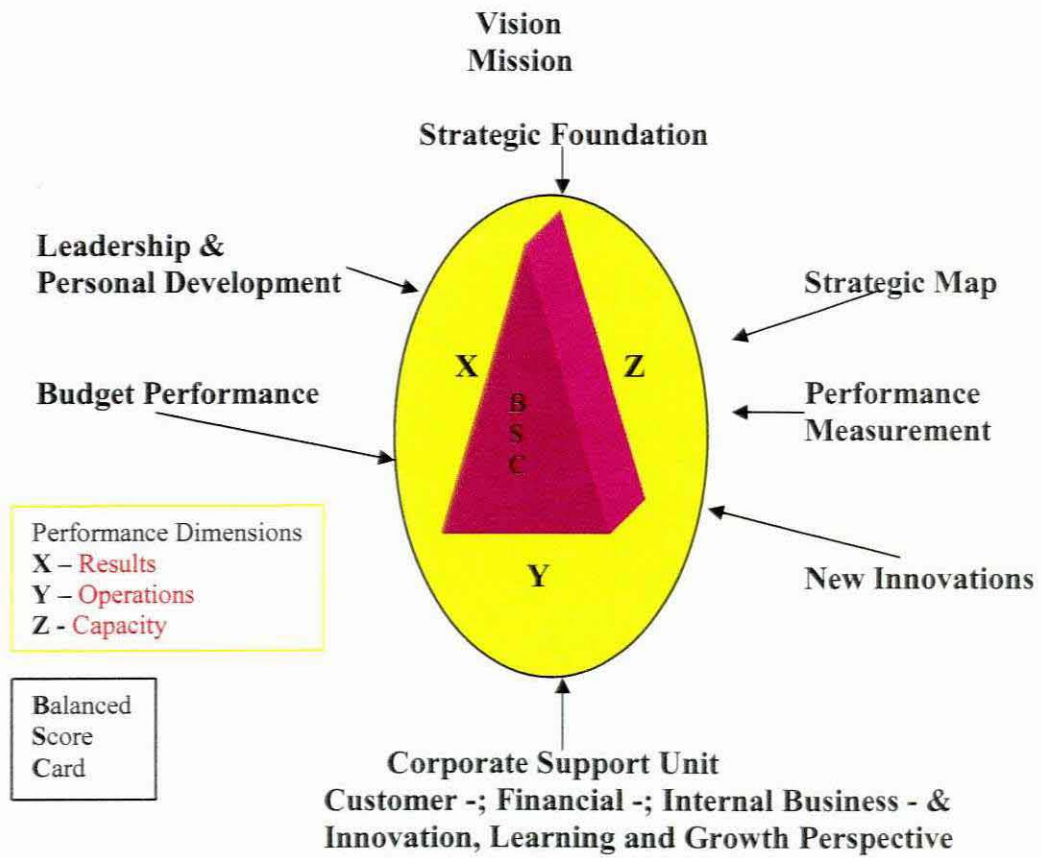
Figure 4.9   Components of a balanced scorecard

(Source : Anon, 2005)

In many organisations, the essence is to achieve the maximum degree of alignment between the vision and mission; and the results that are being achieved.

The Balanced Scorecard philosophy entails:

♦ Satisfied stakeholders.

♦ Proud employees.

♦ Delighted customers.

♦ Enhanced business processes and encompassing:

    o Individual objectives   --   what an individual needs to do?

    o Strategic initiatives   --   what collectively needs to be done?

    o Balanced Scorecard   --   operational and strategic focus!

    o Strategy   --   the game plan!

    o Vision   --   what the group collectively wants to do?

    o Mission   --   how to achieve it?

    o Values   --   what the beliefs of the employees are?

Within this alignment cognisance need to be taken of:

• Convergence -- on the desired results which measure whether the mission and vision is being achieved.

• Consistency -- in terms of deployment within the WCED.

• Congruence -- in terms of the values and how the results are being achieved.

• Commitment -- the extent to which everyone in the WCED is committed to the achievement of the mission and vision.

The balanced scorecard (**Figure 3.13**) was developed as a system of linked measures, targets, initiatives and objectives that collectively describe the strategy and vision of the WCED and how the strategy can be achieved.

This is reflected in the four perspectives, viz. customer; fiduciary (financial); internal business processes; and innovation, learning and growth of the Balanced Scorecard:

- Customer perspective – captures the ability of the WCED to provide quality service; the effectiveness of their delivery; and overall customer service and satisfaction.

- Financial perspective – success is measured by how effectively and efficiently the needs of the stakeholders are met.

- Internal business processes – looks at the ability of employees. Processes will only succeed if employees are motivated and skilled (innovation, learning and growth perspectives). In order to meet the changing requirements and customer expectations, employees may be asked to take on dramatically new responsibilities, and may require skills, capabilities, technologies and organisational designs that were not available before.

BALANCED SCORECARD
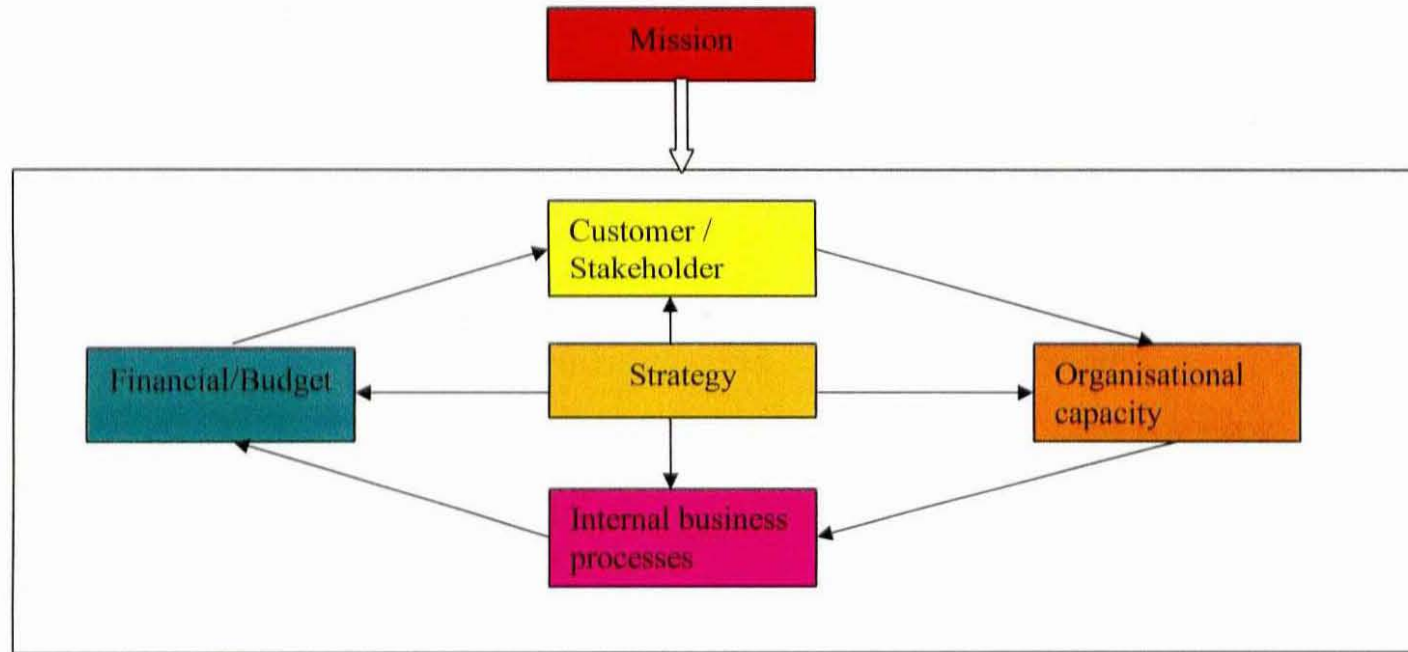
Figure 4.10   Balanced Scorecard – Public Service

(Source : Niven, 2002)

Figure 4.11   Translation of strategy – what customer wants into what must be delivered

(Source : Niven, 2002:297)
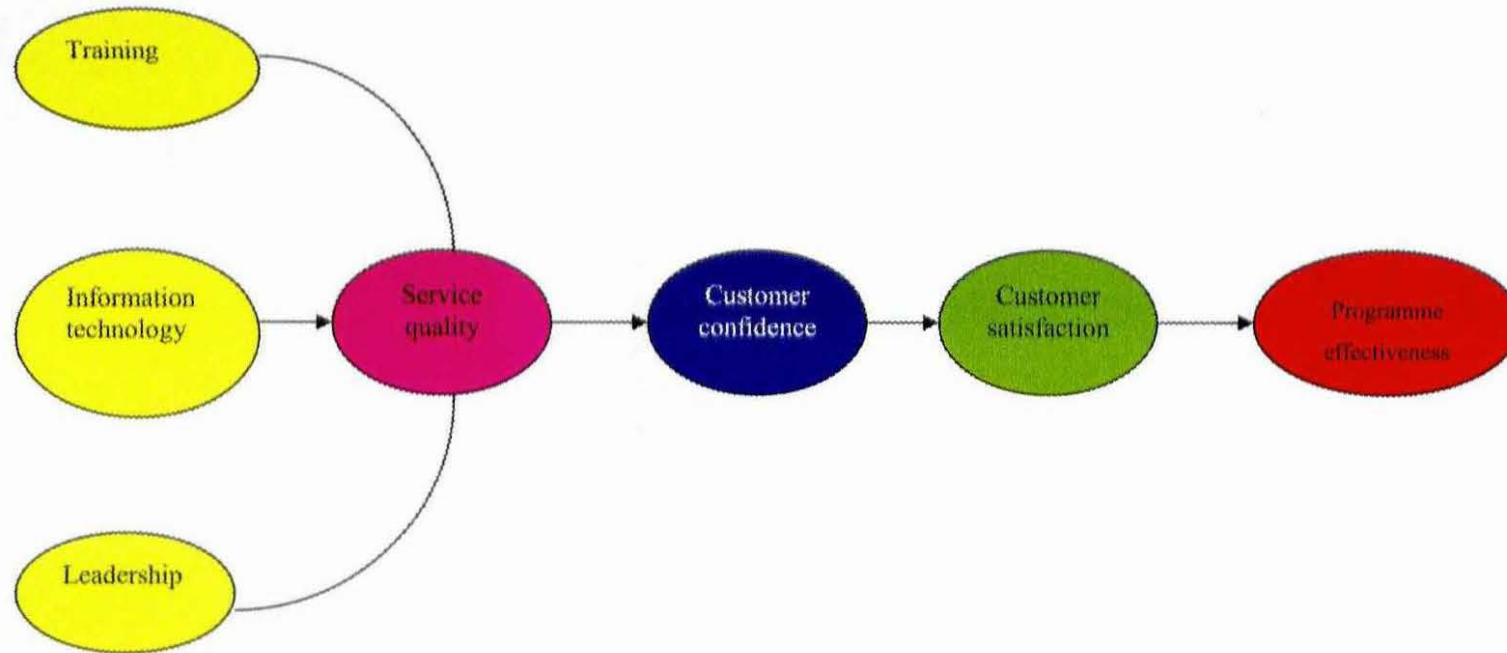
Figure 4.12   Alignment of organisation effort with mission and strategy
(Source : Anon, 2005)

➤ Balanced Scorecard utilised to align organisation effort with mission and strategy.

➤ Strategy equals the approach to accomplishing the mission of the WCED.

➤ Strategy translates what customers want into what must delivered by the employees.

- ➤ **EXAMPLE**

  - o **Mission** : **Provide information services to customers.**

  - o **Vision** : **Enable internet access to all available information.**

  - o **Strategic themes** : **Build the information infrastructure.**

    Improve operational efficiency and effectiveness.

  - o **Strategies** : **Develop an online 24/7 capability to access information services.**

    Build knowledge and skills.

  - o **Call centre strategies** : **Provide caller support on an exceptional basis with "experts" giving the advice.**

VALUE CHAIN
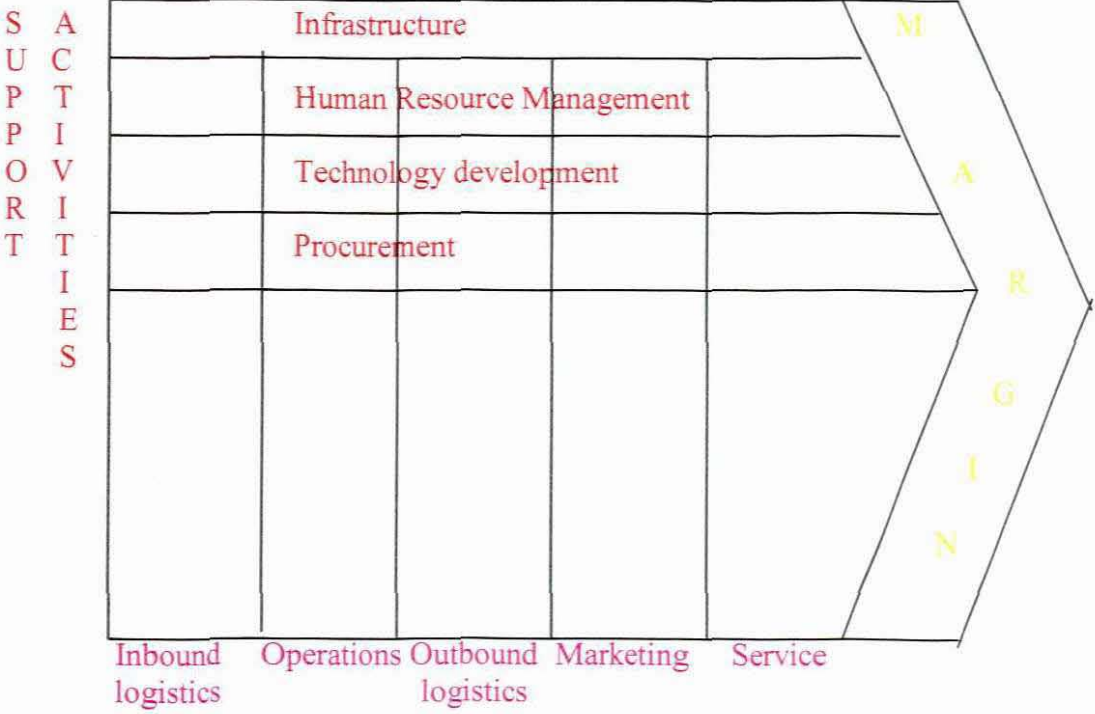
PRIMARY ACTIVITIES

Figure 4.13   Porter's Value Chain

(Source : Porter, 1985)

TRADITIONAL BUSINESS DESIGN

(Cut out to form this type of value chain)

In-house core competencies

Customers

Rigid infrastructure / processes

Products / services

Channels
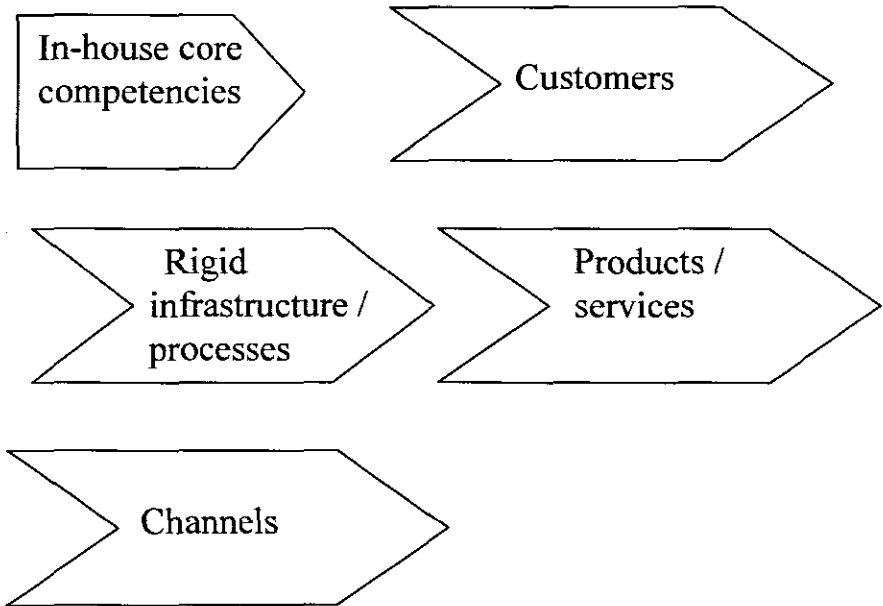
CUSTOMER-CENTRIC DESIGN

(Cut out to form this type of value chain)

Customers' needs

Flexible infrastructure processes

Integrated channels

In-house and outsourced core competencies

Products / Services
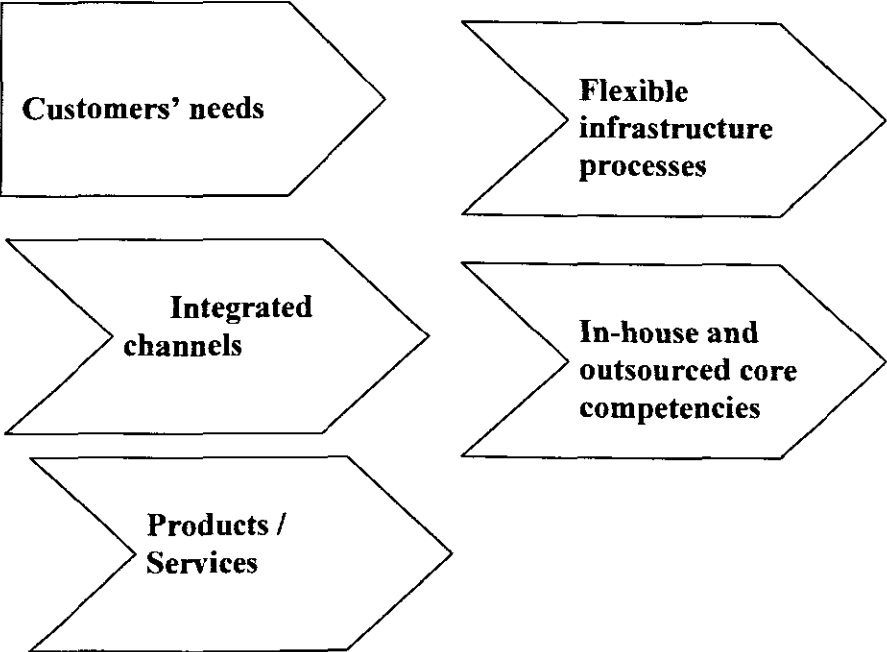
Figure 4 14   Value Chain cut-outs

187

VALUE CHAIN

(Cut out and form a value chain. You may add to the categories on the cards.)

Customer expectations
- Customer expectations (Learners)
- Customer expectations (Principals)
- Customer expectations (Government)

Design and Development
- Programmes that reflect market needs
- Quality controlled content
- Accessible delivery media
- Administrative and academic support systems

Production
- Capability and capacity planning
- Curriculum editing
- Delivery systems
- Quality control : teaching and administration
- Workload capacity
- Academic support systems
- Non-academic support systems

Marketing
- Create and maintain a database of education market characteristics
- Maintain close alliance with partners
- Monitor strategic objectives and tracking indicators
- Communicate research and its applications to government, principals, etc.

Service	Procurement
Service • Employee advising and counselling • Employee reception • Employee orientation • Manage an efficient enquiry/response system	**Procurement** • Recruitment of employees • Interface activities with stakeholders • Recruitment of adjunct staff
Logistics • Information stock and flow • Educational materials management • Promotional materials • Visiting delegations; movement and accommodation • Manage/match staff availability	**Value delivery**

Figure 4.15   Value Chain component cut-outs

189

The Configuration of a Value Chain for the Western Cape Education Department

Who

- Is the target market?

- Are the different customer groups?

- Are the suppliers?

- Are the competitors?

What

- Other related needs do these customers have?

- Are the needs and applications not yet met?

- Capabilities, capacities and key success factors (KSFs) are required to meet these emerging needs? Are they available? Where?

Where

- Is value added in the value chain?

- Is value migration occurring?

- Can value be enhanced? And at what point and by whom?

How

- Is the current value offer delivered?

- Can the basic value characteristics be maintained/enhanced more effectively and efficiently?

- Can the value chain configuration be restructured to implement effective and efficiency decisions?

Identify the value chain configuration alternatives

- Are value chain customers receiving optimal returns?

- Are value chain stakeholders receiving adequate returns on resource investments?

- Can changes be made to resource investment and ownership structures that could improve customer value delivery:

  o Can cost be reduced while value delivery remains constant?

  o Can value be increased at the current level of costs?

  o Can resources be restructured to improve value delivery?

  o Can resources be reduced and value delivery maintained?

- Would changes result in strengthened competitive positioning?

- Are there processes and activities that customers can perform more efficiently?

- Are there processes and activities that competitive value chains perform more effectively?

Identify the value chain and its performance profile

- Identify and map each of the value chain operating within the WCED

- Profile their organization structures, processes and activities

- Identify fixed and variable costs and the added value

Identify value chain capabilities and KSFs

- What are the core capabilities (distinctive and reproducible) necessary to compete?

- What are the core capabilities (distinctive and reproducible) necessary for "public service" leadership?

- What are the entry KSFs?

Identify the characteristics of the market served by the value chain

- What is the value chain's value proposition?

- What is the customer response?

- How does the value chain's value proposition compare with that/those of competitive value chains?

- What is the customer response?

Design and development

Decisions

- Target market

- "Delivery" methods: time-to market response

- "Service" infrastructure

- Capital requirements

Outputs

- Service specification: characteristics, volume, quality, variety and flexibility

- Service support specification

Procurement

Decisions

- "Ownership" and partnership options

- Format for supply

- Number of suppliers: tiers, tier structures and responsibilities

- Supplier relationships: responsibilities and responses

- Quality control: accountability

- Capital requirements

Outputs

- Procurement schedules

- Quality levels

- Continuity

- Conformance

- Performance metrics

Service

Decisions

- Customer service expectations

- "Branding"

- Product knowledge support

- Product and service liabilities

- Service advice infrastructures

- Service intermediaries and partnership options

- Delegated responsibilities

- Capital required

Outputs

- Service response times

- Performance metrics:

  o Time response   Customer perceptions   Organisation value

193

Logistics

Decisions

- Customer service expectations

- Requirement-to-delivery period: time response

- Delivery and flexibility requirements

- Capabilities and capacities required

- Role of logistics in capability set: distinctive or reproducible

- Control required: extent of involvement in the logistics process

- Cost structures: fixed and variable cost relationships

- Capital required

Outputs

- Schedule throughputs

- Time response targets

- Performance metrics

    o Customer proximity   Response time   Flexibility

    o Customer perceptions   Organisation value

Rendering of service

Decisions

- Capabilities and capacities required

- Control required

- Partnership and co-option

- Flexibility requirements

194

- Cost structures: economies of scale, scope, specialization and integration

- Requisition-to-delivery

- Capital required

Outputs

- Quality

- Performance metrics:

- Time-to-customer   Organisation value

Marketing

Decisions

- Target customer profile

- Value proposition

- Brand ownership, development and management

- Capital required

Outputs

- Intermediaries: role and tasks and liaison roles

- Customer/end user communications and liaison

- Performance metrics:

    o Customer loyalty   Brand equity   Time-to-market

VALUE CHAIN DEVELOPMENT

KEY SUCCESS FACTORS

Stage 1   **Evaluating**

- ➢ Careful market review
- ➢ Value chain analyst
- ➢ Value chain knowledge
- ➢ Strategic analyst
- ➢ Clear WCED goals
- ➢ Measurable objectives

Stage 2   **Planning**

- ➢ Careful partner selection
- ➢ Commitment from all
- ➢ Interdependence
- ➢ Collaborative planning sessions
- ➢ Compelling value chain goals

Stage 3   **Managing**

- ➢ Increasing cohesion
- ➢ Opportunities to learn
- ➢ Process for ongoing dialogue
- ➢ Commitment from the top

Stage One   Evaluation

Activities in the evaluation stage
→ Evaluating the idea and the market
→ Reviewing the strategy
→ Accessing resources, risks and rewards
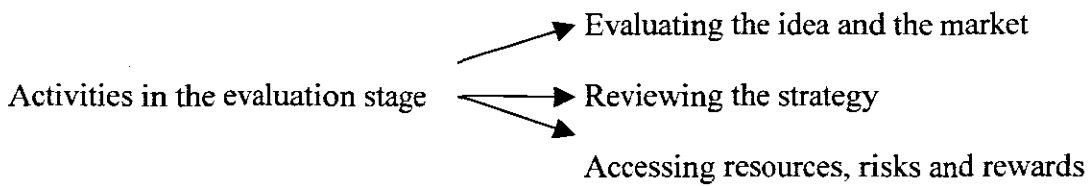
Evaluation of the idea and market

- What is your idea of a value chain?

    o   signals in marketplace for a new approach for service delivery

        ▪   options :- integration; co-operation or value chain formation

    o   regardless of option chosen, the time is now to aggressively ascertain new ways in which to add value to the services we render.

    o   market analysis could assist with "getting to know" our customers i.e. internal and external and to ascertain their needs and which needs are presently not being satisfied.

    o   issues affecting ultimate success

        ▪   how much bargaining power do customers and "suppliers" have?

VALUE CHAIN DEVELOPMENT
WORKSHEET 1

Stage 1   **Evaluation**

Value chains develop when directorates collaborate to achieve success within the market place.

Step 1   **Evaluate the idea and market**

1   Your business idea

1.1   Your "product"

....

....

1.2   Your market

....

....

1.3   Partners

....

....

1.4   Ideas on working together

....

....

....

1.5   Other thoughts

....

....

....

....

2.1 What problems or opportunities exist within the WCED?

☐ Competition between directorates appears to be based on cost-saving activities, not quality

☐ We know the costs of our department.

☐ The input costs are rising.

☐ Relations with customers need improvement.

☐ There is little trust in our organisation.

☐ It takes too long to respond to shifts in customer demand

☐ It takes too long to respond to shifts in customer demand because of the attitudes of the employees.

☐ There seems to be opportunities to expand or consolidate.

☐ Here are opportunities to deliver the best service in South Africa.

☐ The response, pertaining to information concerns by tracking services rendered through the information chain, needs to be better.

Are there any other problems, bottlenecks, limitations or opportunities?

Your thoughts

....

....

....

3.1 Are there corporate or personal power struggles within the WCED?

Your thoughts

....

....

....

3.2   How much bargaining power do customers and suppliers have?

Your thoughts ....

....

....

Figure 4.16   Worksheet 1

Worksheet 2

Step 2   Review strategy

Another step in the evaluation stage is the reviewing of the way in which the business strategy of the WCED is presently being conducted and then comparing it to the proposed value chain approach.

1   Value chains are focused on creating value and value is ultimately created in the market. What strategy best describes the current approach within the WCED and what describes the potential value chain approach?

Differentiation : ensure that your service rendered is effectively and efficiently different from other public service departments
Specialisation : creation of a narrow customer focus
Least cost : ensure that you are the least cost producer

Your thoughts   ....

....

....

....

2   Where is the WCED heading?

2.1   Where do you want the WCED to be in the future?

....

....

....

2.2   Can you achieve 2.1 as you are presently operating?

....

....

....

2.3   What are the present strengths and weaknesses of the WCED, which are
        important in achieving its future vision?

        ....

        ....

        ....

2.4   Which weaknesses can be corrected within your department? Which weaknesses
        might be strengthened by means of a collaborative relationship with other
        departments within directorates?

        ....

        ....

        ....

3   What barriers exist for the achievement of value chain goals within the WCED?

        ☐   Limited trust between employees rendering a service and the customers

        ☐   Limited trust within specific departments in the value chain

        ☐   Lack of communication and understanding between the departments

        ☐   Culture of independence versus interdependence

        Others

        ....

        ....

        ....

4   What are the basic objectives of your value chain ideas?

☐ Share value chain costs and risks

☐ Combine financial resources

☐ Build an information-tracking system

☐ Share information across the value chain with the focus on channeling customer-end information to the innovation cycle

☐ Establish and adhere to standards requested by customers

Others

....

....

....

5   The following questions address organisational and personal factors that are imperative in assessing the value chain option

5.1 Do you currently operate in a collaborative manner, sharing information with colleagues?

| Yes | | No |

5.2 Are you able to work on a long-term solution that may require considerable input of time, effort and financial resources?

| Yes | | No |

5.3 Do you respect and understand the challenges other sections, within the WCED, are faced with?

| Yes | | No |

Figure 4.17   Worksheet 2

Worksheet 3

Step 3   Assess Resources, Risks and Rewards

1   Utilise the below-mentioned worksheet to take stock of the resources and capabilities you presently have; and those that would need to be acquired from other departments through a value chain alliance.

Resources	Department	Required from partners
Physical Resources • Facilities • Equipment • Technology	....	....
Human Resources • Expertise • Management strength	....	....
Intangible Resources • Reputation • Innovativeness	....	....

2   Considering resources and capabilities that you require through the value chain alliance, can you identify potential partners?

....

....

....

....

3   Take a moment to consider what have been worked on at this stage of the value chain development. Reflect on what you believe would be the pros and cons; and the risks and rewards.

Your thoughts

....

....

....

....

....

....

Other items you want to consider in the Evaluation Stage

....

....

....

....

Figure 4.18   Worksheet 3

Worksheet 4

Stage 2   **Planning**

Step 1   **Select partners**

1.1   What are your major opportunities?

....

....

....

1.2   What are the key limitations or obstacles facing the WCED?

....

....

....

1.3   Which factors or issues have the largest impact on your ability to operate effectively and efficiently?

....

....

....

1.4   What factors or issues might have the most dramatic benefit to the customers?

....

....

....

1.5   Does the value chain concept represent a benefit to your customers?

....

....

....

1.6 Does the concept interest you? Are you willing to put in some effort and time to assist to develop it?

....

....

....

1.7 What strategies does the group, at your table, have an interest in? Is there a consensus that partners can work together?

....

....

....

1.8 Your thoughts and concerns

....

....

....

2 Now take a look at the potential partner, which you are considering. The below-mentioned questions will be food for thought when considering who would be the ideal value chain participants.

2.1 Compatibility

2.1.1 Do you believe your business strategies can work together?

| Yes | | No |

Your thoughts

....

....

....

2.1.2 Are the business cultures of the directorates compatible?

| Yes | | No |

Your thoughts

....

....

....

2.1.3   Is there good rapport between key officials of the WCED?

| Yes | | No |

Your thoughts

....

....

....

2.2   Interdependence
2.2.1   Do value chain partners all offer something of value?

| Yes | | No |

Your thoughts

....

....

....

2.2.2   Are value chain partners interdependent?

| Yes | | No |

Your thoughts

....

....

....

2.2.3   Do business strengths of departments help the other departments?

| Yes | | No |

Your thoughts

....

....

....

2.2.4   Will there be opportunities to learn from each other?

| Yes | | No |

Your thoughts

....

....

....

2.3   Reliability
2.3.1   Are the departments competently managed?

| Yes | | No |

Your thoughts

....

....

....

2.3.2   Are partners able to deliver in terms of consistency and quality?

| Yes | | No |

Your thoughts

....

....

....

2.4   Reputation and trust
2.4.1   Are partners trustworthy and maintaining a reputation of high integrity?

| Yes | | No |

Your thoughts

....

....

....

2.4.2   Will their public image improve your public image?

Yes   No

Your thoughts

....

....

....

2.4.3   Can you afford additional time to build relationships?

Yes   No

Your thoughts

....

....

....

2.5   Risk
2.5.1   Are there any perceived risks affecting the success of the alliance?

Yes   No

Your thoughts

....

....

....

Figure 4.19   Worksheet 4

210

Worksheet 5

Step 2   Build Relationships

The planning process is imperative for the development of collaborative business relationships, which are required for the successful operation of a value chain relationship. The absence of trust, communication and respect are often sited as being the barriers pertaining to the development of an effective value chain.

The way we react generally reflect our values e.g. a person who is considerate, giving and honest is likely to be reliable because they genuinely care about how their actions impact on others. Hence it is advisable to consider and discuss the values of key members of a value chain.

Individuals maintaining shared values are likely to build trust and to work more effectively and efficiently together. This in turn leads to:
- Increased performance
- More innovation and creativity
- Resolution of problems quicker
- Decreased transaction costs

1   Do your values co-inside with those of your value chain partners?

1.1   Discuss within your group how you would define each value (use the below-mentioned table).

1.2   Write down an action that demonstrates your commitment to the value.

1.3   Whilst working through the contents of the table, discuss the importance of shared values within the value chain

Value	Action Example (Brief summary)
Honesty	Yours .... Partner 1 .... Partner 2 ....
Fairness	Yours .... Partner 1 .... Partner 2 ....

Consideration	Yours	....
		....
	Partner 1	....
		....
	Partner 2	....
		....
Perseverance	Yours	....
		....
	Partner 1	....
		....
	Partner 2	....
		....
Responsibility	Yours	....
		....
	Partner 1	....
		....
	Partner 2	....
		....
Other	Yours	....
		....
	Partner 1	....
		....
	Partner 2	....
		....

Figure 4.20   Worksheet 5

Worksheet 6

Step 3 **Agree on the Goals and Measures**

1 **Value chain planning session**

1.1 Ascertain, which departments should work together in your value chain.
1.1.1 Why?
1.2 Reach consensus on the goals.
1.3 Develop a plan of action, which encompasses:
1.3.1 agreement on top priorities
1.3.2 commitment to the provision of efficient and effective service
1.3.3 how value chain partners will work together to develop a successful strategy

2 Value chain planning sessions enhances team performance with the fostering of shared focus:
2.1 group rapport
2.2 synergy
2.3 shared accountability

3 Value chain planning sessions in turn also reduce the possibility of errors or disputes caused by misunderstandings

4 Value chain planning sessions can decrease adversity between stakeholders

5 Sample value chain
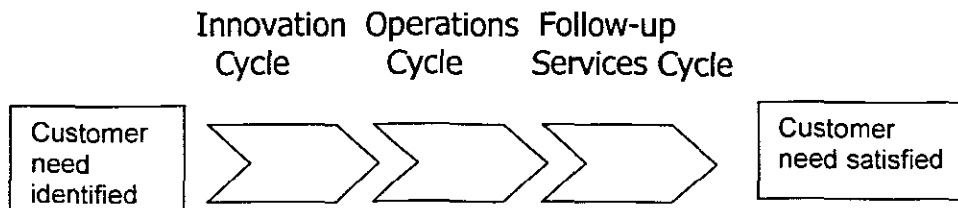
6 Discuss and then design the group's value chain.

Figure 4.21 **Worksheet 6**

Stage 3   **Managing**

Step 1

Expectations and anxiety are involved when launching a value chain. You need to bear in mind that value chains would take a while for you to perceive the benefits.

1   List your top 5 goals for your value chain and stipulate the performance measures which would indicate its success.

	Goal	Measurement methods
1	....	....
2	....	....
3	....	....
4	....	....
5	....	....

Figure 4.22   Worksheet 7

4.18   Field Observation

Within a structured observation environment, the researcher will be a complete observer (Saunders, Lewis & Thornhill, 2003:225), i.e. the identity of the researcher will be concealed whilst the various activities will be observed. The researcher would have opted to utilise the structured observation method because:

- the collection of data occurs in its natural environment;

- information is secured which participants would ignore as being irrelevant and mundane; and

- it is possible to record the relationship between events.

The disadvantage of utilising the structured observation research method is that the research findings "are limited to overt action or surface indicators from which the observer must make inferences." (Saunders, Lewis & Thornhill, 2003:233)

Field observations would have been executed at the Department of Social services; Cape Town Municipality; Old Mutual and Medscheme in order to ascertain whether:

- procedures are in place to reduce non-value adding activities,

- the balanced scorecard is being utilised, and

- employees know what the value chain is.

The below-mentioned recording sheet would have been utilised and hereafter the findings of the organisations within the public service would have been compared to the organisations of the private sector.

Name of organisation :
Type of organisation :
Dates of observervation :
Reason for observation : To ascertain :-

- What procedures are in place to reduce inefficiencies?
- Whether the balanced scorecard is being used?
- How knowledgeable the employees are about the value chain?

- What procedures are in place reduce the inefficiencies of:

1. Overproduction

....

....

....

2. Transportation

....

....

....

3. Motion

....

....

....

4. Waiting

....

....

....

5. Processing

....

....

....

6. Inventory

....

....

....

7. Defects

....

....

....

- Is the balanced scorecard being used?
  o   As a measurement tool, management tool and or a communication tool

1. Are measures, targets, initiatives and objectives noticeable?

....

....

....

- How knowledgeable are the employees about the value chain?

1. Is the organisation product of customer-focussed?
2. Are the employees knowledgeable about primary and secondary activities?
3. Are there innovative cycles, operations cycles and follow-up cycles?

....

....

....

Figure 4.23   Recording Sheet for the structured observation

217

4.19 Focus group

The focus group has advantages over questionnaires and interviews. The use of questionnaires in data collection allows no input other than that of the respondent. During interviews there are some opportunities for clarification and interviewers can probe and suggest ideas that could give rise to views and opinions that the respondent might not have shared in a written questionnaire. The focus group, led by a moderator, not only allows clarification and probing to occur, but also the disclosure of what is important to the individual respondents. The focus group also attempts to provide a situation where the synergy of the group adds value to the depth and insight (Tull and Hawkins, 1993:445-458; and Anderson, 1990).

The moderator strives to incorporate the following processes within the focus group discussion:

- establish rapport within the group, set the objectives and structure the "house" rules for group interaction;

- provoke intense discussions in the relevant areas; and

- summarise the responses of the group as to ascertain the extent of agreement within the group.

The advantages of a focus group discussion are:

- It allows the rapid collection of a wide variety of views from a range of people.

- Group discussion helps to summarise the ideas and information held by the individual participants.

- Responses can be recorded.

The disadvantages of a focus group discussion are:

- Participants may play games by going along with the group, instead of expressing their views.

- A vocal participant with a strong opinion on the topic may alter the opinions, which other participants have expressed.

- It could be costly.

The focus group would have comprised of:

- 1 engineer from Caltex

- 1 chartered accountant

- 1 manager from Medscheme

- 1 manager for Cape Span

- 1 manager from Health Services

- 1 manager from Social Services

- 1 manager from the Cape Metropolitan Council

This focus group would have ascertained whether through the adding of value, within the internal business processes, the document crisis within lean-thinking learning organisations can be managed.

4.20   Analysis of data

According to Yin (1994:102), data analysis consists of assessing, categorising or tabulating in order to address the propositions of the research. Various secondary sources have stated that analyses consist of three concurrent activity-flows, viz. data reduction; data display; and conclusion verification.

- Data reduction refers to the process of selecting, focusing, simplifying, abstracting and transforming data that appears in, e.g. written-up field notes. Data reduction could be deemed as a form of analysis which sorts, focuses, discards and organises data in a manner in which conclusions could be drawn and verified.

- Data display is an organised assembly of information that affords the opportunity to draw conclusions as well as to take action. Viewing displays (matrices, graphs and charts) assist with the understanding of what is happening and then to take action.

- Drawing of conclusions and the verification of the analysis activity actually commences when data collection commences because since the commencement of data collection, the researcher is busy deciding what "things" mean, viz. noting regularities, patterns, explanations, possible configurations and propositions.

Within the research these steps were followed in order to analyse the empirical data. The empirical data was utilised within the frame of reference. The researcher believed that the aforementioned strategy, with the flow of data, guided the researcher through the empirical study of this research. Consequently the conclusion of the researcher was drawn on the basis of the data analysis.

4.21   Quality standards

In order to ascertain the quality and trustworthiness of the data, which have been gathered, the reliability and validity, viz. construct validity; internal validity; external validity and reliability of the data need to be considered (Yin, 1994:33-38).

4.21.1 Validity

Yin (1994:33-36) states that when validity is judged, it in turn measures whether the data collected is valid.

- Construct validity could be deemed as the establishment of correct operational measures for the concepts, which are being researched. In order to increase construct validity, Yin (1994:33-36) utilises three tactics, viz. use multiple sources of evidence during data collection; establish what should be done during data collection; draft a research report which could be scrutinised by key respondents and or interviewees.

- Internal validity is related to the establishment of a causal relationship whereby certain conditions are shown to lead to other conditions and in doing so fake relationships are eradicated. Threats to internal validity could be events that happen to respondents during the research; drop-out and selection bias.

- External validity establishes the domain to which the findings of the research can be "posted". Threats to external validity could be population validity, e.g. to what population can you generalise the findings of the research and ecological validity, e.g. laboratory research could be deemed as being artificial as variables are controlled and the situation is contrived.

4.21.2 Reliability

According to Yin (1994:36-38), reliability is concerned with how reliable and accurate the research methods and techniques are for data collection. Reliability is a manner of measuring how well a method provides a researcher with the same results, if the method was to be conducted again by another researcher, but with the exact conditions.

In the endeavour of the researcher to attain a high degree of reliability, much effort was placed in the acquisition of the right respondents and interviewees within the organisation for the questionnaire and interview respectively. This was a means in ensuring that the information attained from the interviewee and respondent was as accurate as possible.

Within the interview sessions the answers and discussion were recorded in the endeavour of the researcher to minimise the risk of failing to attain the correct answers. Hereafter a printed version was forwarded to the respective interviewees in order to ascertain whether it was what was said and meant.

4.22 Conclusion

In chapter 4 the design and methodology of the research was produced. **Figure 4.22** represents the methods and the choices chosen in order to conduct this research.

4.23 Concluding remarks

Leadership (transformational, leads by example and based on intrinsic motivation in which possibilities are created for others to succeed in a manner which provides choice and not ultimatums) is fundamental to the success of any culture change as well as recognising that true customer-knowledge resides with the front-line staff and also being aware of poor service delivery even though targets are being met. If the leadership of the WCED, among others were such, then the WCED would be a measurement-managed and a strategy-focused learning organisation, which in turn strives to reduce occupational crime. In chapter 5 it will be ascertained, via the information supplied during the interviews, focus group discussions and the field observations whether value adding end-to-end service is being delivered to the customer.

Research Problem

How can the value chain and the balanced scorecard be synergised, within a lean thinking environment, to reduce occupational crime within the WCED?

Research Purpose	Exploratory	Descriptive	Explanatory
Research Approach	Qualitative	Quantitative	
Research Strategy	Survey	Workshop	
Data Collection Method	Interviews	Questionnaire	Direct Observations
Data Analysis	SPSS	Results and recommendations	

Quality Criteria
Construct validity – Internal validity – External validity - Reliability

Figure 4.24   Research design and methodology

Chapter 5 Presentation and interpretation of data collected

5.1   Prelude

This chapter discusses the findings that emerged from the interviews, focus group discussions and the field observations as well as from secondary sources.

5.2   Structured interviews

Since the early 1990s and in particular since 1994, the WCED initiated reforms with different degrees of complexity and scope. After a decade, the challenge of reforming the WCED still remains on the agenda of top management meetings and conferences. The transformation of the WCED could be deemed as being aligned with the Anglo-American New Public Management initiatives, i.e. the state has a contractual obligation to society and the boundaries between the state and society are distinct, flexible and negotiable (Peters, 2000). From the interviews it was deduced that few interviewees disagree about the need to increase efficiency, to reduce deficits, to improve service delivery, to increase control over programmes, to enhance accountability and to allow a core of public servants to focus on policy development and performance management.

Some members of top management (within their directorates) of the WCED utilised some new public management tools such as decentralisation and the replacement of input control with output control in their endeavour to reduce control and to give greater flexibility to the discretion of officials. It could also be perceived that the increased use of private sector methods contributed towards the enhancement of efficiency and effectiveness, but this also led to a fragmentation of traditional public service values, standards and ways of executing tasks. Within the WCED there is also good evidence that the average employee gradually comes to appreciate that public service goes beyond the policy for finding efficient mechanisms of service delivery. (The researcher was not shown any tangible proof to substantiate this statement.)

Presently there is a widening gap between customers and the WCED with the result that the political leader and the education head of the Western Cape are facing the paradox that on the one hand the customers (principals) are looking at them to provide solutions to public service provision (employment of more educators), but on the other hand the customers are increasingly mistrusting them (the promises to reduce the number of learners per class and not honouring it).

Some of the interviewees intimated that the thought that the WCED is out of touch with the needs of the customers contributed towards the decreased trust in the WCED. A pro-active approach is definitely required to anticipate the needs of the customers and then to make the necessary changes in the endeavour to close the perceived customer expectation and satisfaction gap.

Internal and external customers are demanding increased transparency and accountability from the WCED and its employees. Accountability assists with the ensuring that the failures of the WCED are rectified and that the service delivery meets customer expectations. The "road shows" of the operational education management branch of the WCED indicated that the WCED was presently facing the challenge of making its activities more transparent, interactive and customer orientated. The interviewees also intimated that the issues discussed and raised on these road shows were achievable by:

- a more intensive co-operation between the directorates;

- a new form of dialogue with customers and directorates (*correspondence tracking system and a call centre, but not the way the call centre is presently operating*); and

- the re-organisation of services on the basis of an integrated and customer-orientated approach.

Developing customer trust in the WCED involves more than just delivering improved and timely services. The WCED needs customers to see that their interests are being fairly entertained even when their demands are not met (educators could be appointed, but since

the "basket" of educators available for the province is empty, educators could not be employed).

From the audiences with the interviewees it was also concluded that there could be a relationship between customer satisfaction with the service delivery of the WCED and the overall trust and confidence in the WCED. It was not known whether this conclusion, pertaining to the relationship, is causative (Do positive views of the WCED lead customers to rate service satisfaction higher or do levels of satisfaction lead more to positive views of the WCED?). Hence a service value chain was designed and developed which linked employee satisfaction and commitment with customer service satisfaction, and customer service satisfaction with customer trust and confidence in the WCED. The links of the chain was equated with communication. The service value chain of the

WCED, with its drivers, was depicted as in **figure 5.1**.

WESTERN CAPE EDUCATION DEPARTMENT
SERVICE VALUE CHAIN

Communication

WCED Employee satisfaction & commitment

WCED Customer service satisfaction

Customer trust & confidence in the WCED

Potential Drivers
- career path
- fair pay/benefits
- value to customers
- work environment
- perception of management

Drivers
- timeliness
- competence
- courtesy
- fairness
- outcome

Potential Drivers
- social & cultural factors
- political factors
- administrative factors
  # service satisfaction
  # service benefit
  # service adequacy

Figure 5.1   Service Value Chain
(Source: Heintzman & Marson, 2003)

The experiences pertaining to the customer service satisfaction could possibly either increase or decrease the confidence in the WCED. Hence, as previously indicated, service delivery within the WCED is always more than just service. Customers are not "just" customers, but are usually taxpayers and citizens, i.e. bearers of rights within the new and young South African democracy, with civic and public interests which go well beyond their service needs. Some customers may even be "involuntary customers" whose service relationship with the WCED may not be from choice, but due to circumstances e.g.

227

educator is employed in a public school because of bursary obligations, but preferred to teach in a "Montessori School".

The service value chain of the WCED could be utilised to assist with the acquisition of insight and with the challenge to move beyond the domain of external service delivery to internal responsibilities of, e.g. directors for leading the employees within their directorates. The value chain will link the most important challenges of the WCED, viz. service improvement and human resource management, but also bearing in mind that it cannot be viewed in isolation and that the one depends on the success of the other.

5.2.1   Responses of the interviewees

The responses to the following questions, by the interviewees, were as follows:

Question 1   *How is value created and whether the value creation process can be measured?*

Presently the WCED is undergoing changes. "*The success and or the failure of an administrative reform is / are relative.*" Within the WCED, administrative reforms are made in the political-administrative system and the measuring criteria are both political and managerial. Since 1994 it was too often and too easy to underestimate politically the impact of the failures of the administrative reforms and then to hide behind political responsibility. However since the second general elections (1999), there was a perceived move that managerial development changed the environment of the administrative reforms towards being more managerial and decentralised, instead of being political and centralised.

One of the directors indicated that during the past decade opportunities for the creation of value shifted from focussing only on tangible assets to the management of knowledge-based strategies which in turn deploy the intangible assets (such as customer relationships; and employee capabilities, skills and motivation) of the WCED. Hence the

management system of the WCED should optimally, but bearing occupational crime in mind, manage strategies instead of tactics.

It must be borne in mind that *"intangible assets have potential value, but no market value"*. Organisational processes such as design and the rendering of services are necessary to convert the potential value of the intangible assets into services and "products" which have tangible value, e.g. a customer-centric strategy requires knowledge about the customers; databases; new incentive compensation programme; and new organisation structures. Tangible assets can be valued separately, based on its historical or replacement or realisable value. Intangible assets cannot be valued on their own, but in conjunction with tangible assets it can create value. The creation of value can be depicted within a value chain, which commences with the customer in mind and ends with the customer in mind. Value is measurable intra-departmentally as well as inter-departmentally, e.g. when one directorate receives an award for complaints handling, but it can be interpreted that to achieve this award you should have "messed up" first.

Question 2   *What internal business processes can satisfy customer needs?*

The internal business processes (encompassing operational management – supply, production, distribution and risk management; customer management; innovation processes – opportunity, research and development; and regulatory and social processes – environment, employment, health and safety) of the WCED, commencing and ending with the customer in mind, can be perceived from internal (the focussing of partnerships and processes on customer satisfaction) and external (ascertaining whether competitor value chains are rendering or perceived to be rendering more value to the stakeholders and/or customers) perspectives.

The internal perspective (stipulates at what the WCED should excel) pertaining to process design; development of new products; and the restructuring of relationships (partnerships and processes) include the following value chain processes and activities of

design and development, procurement, production (qualitative performance); marketing (quantitative performance); and service and delivery (process management).

The external perspective pertains to the perceptions of the customers of, among others, the value-in-use features of the products and or services. Also whether the customers are satisfied, whether the strategies are effective and whether the operations are efficient.

Question 3 *How learning, growth and innovation can improve productivity and how is it measured?* .

Three of the interviewees intimated that the answer to this question goes hand in hand with the answer to the question: "Are we prepared for the future?"

The interviewees of the corporate sector stated that the learning, growth and innovation perspective of the balanced scorecard could form the basis of the strategy map of the WCED. Hence the innovation, learning and growth dimension identifies the infrastructure, which the WCED is supposed to build in order to achieve long-term growth objectives. They also intimated that the learning, and growth perspective identified the intangible assets, which are of paramount importance to the strategy of the WCED. These intangible assets (encompassing which tasks, i.e. the human capital; which systems, i.e. the information capital; and which climate, i.e. the organisational climate) should be integrated and aligned with the critical internal business processes.

According to the interviewees, the enablers of performance improvement, change and innovation within this perspective are:

- Staff competencies

    o Leadership capabilities

    e.g. Objective : Continuous learning in core competencies

    Measures : 30 hours of total productive training

- It was mentioned that within the directorates persons were appointed who do not possess the appropriate capabilities and this in turn could be some of the contributory factors as to why sections within the various directorates were not functioning optimally. It was also mentioned that this could be due to the equity and affirmative action policy of the WCED.

- Technology infrastructure

  o Information systems capabilities

  e.g. Objective : Utilisation of technology

  Measures : 60% of workforce on LAN

- Environment conducive for action

  o Motivation, empowerment and alignment

  o Employee growth and development

    - The level and enthusiasm of the employee growth and development are to a large extent dependent on where on the career cycle the employee is.

  e.g. Objective : develop a culture where employees are trained, motivated and rewarded for providing value-added solutions to customers.

  Measure : 50% of employees successfully completing Basic

  Accounting System (BAS) course

The innovation, learning and growth perspective of the WCED which encompasses knowledge management; investment in technology and employee satisfaction and commitment should attain positive responses from the customers for services rendered. If the positive responses were achieved, then the perceived expectation and satisfaction gap of the customer would be closed and in doing so productivity would be improved. It is imperative that the employees are involved in the creation of knowledge as well as involved in the enhancement of the service response.

The improvement of productivity, within the innovation, learning and growth perspective, is measurable once the objectives have been attained with particular initiatives and within set targets. This in turn would contribute towards not only satisfying the customer, but the customer would be able to derive value from the services rendered by the employee, i.e. the supplier of the service and in so doing enhancing the net operating result. This definitely incorporates attitudes and behaviour of the employees which impact on the impression of the customer and this in turn positively or negatively affects the net operating result of the WCED. (**Figure5.2**)

The employee-customer-net operating result chain at the

**Western Cape Education Department**
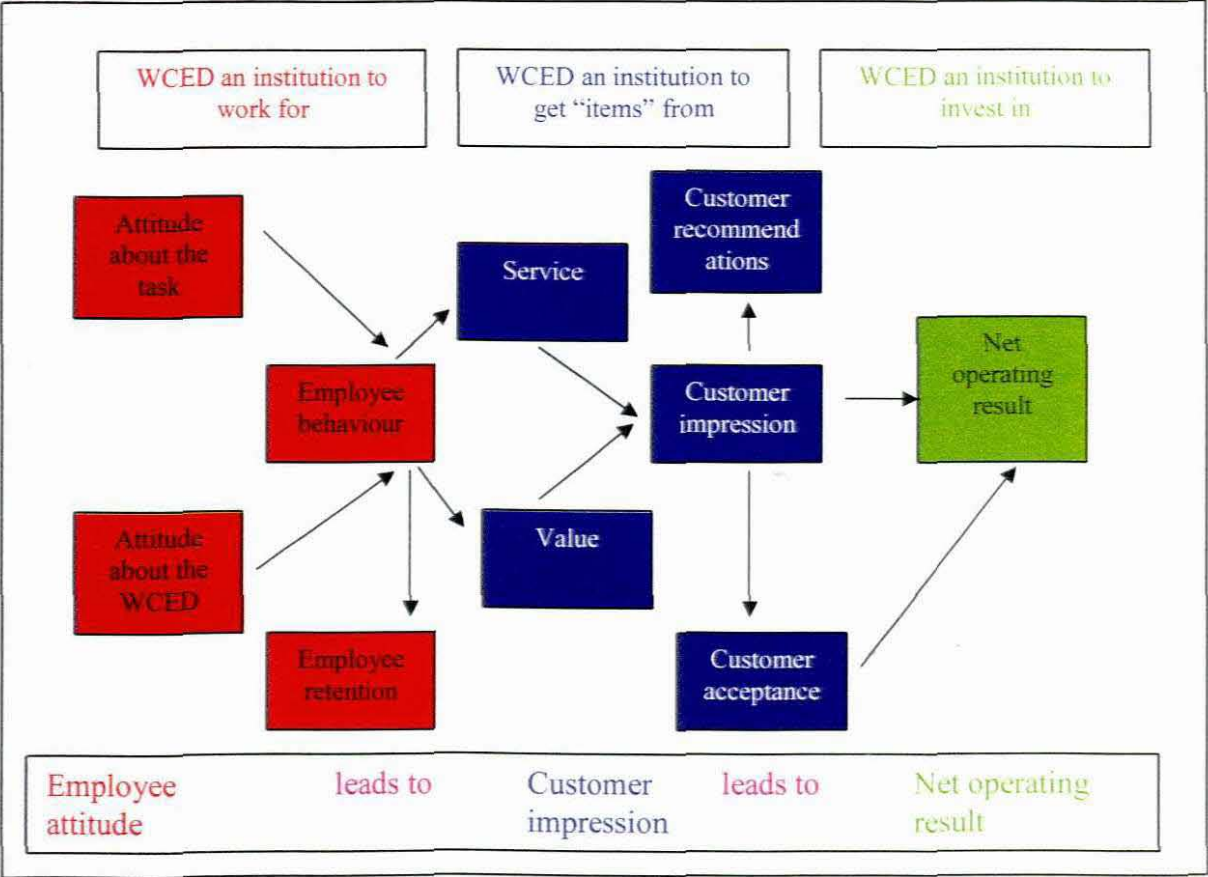
Figure 5.2   Employee-customer net operating result chain at WCED

(Source : Rucci, Kirn & Quinn, 1998)

According to the interviewees, the factors impacting on the learning and growth are:

- the ability to execute internal business processes in new and differentiated ways and which is based on the infrastructure of the WCED;

- the skills, capabilities and knowledge of employees;

- the technology utilised by the employees; and

- the environmental climate in which the employees are executing their duties.

Question 4   *How resources are acquired and allocated to achieve the mission of the WCED?*

The most important resource of the WCED is its employees. Hence how the employees are organised is crucial to the effectiveness of the strategy of the WCED.

The "organogram" of the WCED **(Figure 5.3)**, the skeleton, is an attempt to map the multi-divisional structure of the WCED. The performance of the WCED is mainly influenced by how the 'flesh' (the organisational design which comprises of organisational configurations, centralisation vs. devolution and resource allocation and control processes) is built around the skeleton.

	Superintendent-General (SG)
	Mr Ron Swartz

Director: Communication (DCO)
Mr Paddy Attwell 467-2531

Operational Education Management (DDG:O)	Education Planning & Development (DDG:E)	Corporate Management (DDG:A)
Deputy Director-General	Deputy Director-General	Deputy Director-General
Mr John Lyners 467-2542	Mr Brian Schreuder 467-2518	Mr Johan Fourie 467-2538

Chief Director (HDM)	Chief Director (HDR)	Chief Director (HDB)	Chief Director (HDP)	Chief Director (HDH)	Chief Director (HDF)
Regional Services (Metropole)	Regional Services (Rural)	Education Planning	Education Support and Development	Human Resource Management	Financial Management
Mr Ndo Steven Miti 467-2547	Ms Sindi Shayi 467-2530	Ms Penny Vinjevold 467-2546	Dr Frans Booyse 467-2021	Mr Jan Hurter 467-2540	Mr Leon Ely 467-2544

Director: EMDC	Director: EMDC	Director (DCD)	Director (DMS)	Director (DPP)	Director (DAS)
Metropole North	West Coast / Winelands	Curriculum Development	IT Services	Personnel Management (Public Service)	Acounting Services
Mr Barry Volschenk 948-0950	Mr Jannie Beukes (021) 860-1200	Ms Jenny Rault-Smith 467-2622	Mr Mike Chiles 467-2025	Mr Gerald Elliott 467-2454	Mr Johannes Viviers 467-2680

Director: EMDC	Director: EMDC	Director: Institutional Management	Director (DPR)	Director (DPE)	Director (DBM)
Metropole Central	Overberg / Breede River	& Governance Planning (DMG)	Physical Resource Planning	Personnel Management (CS Educators)	Budget Administration
Mr Anthony Pietersen 659-4300	Mr Clifton Frolick (023) 347-0820	Mr Dave Shepherd 467-2611	Mr Nat Kaschula 467-2029	Mr Norman Daniels 467-2479	Mr Eugene Meyer 467-2663

Director: EMDC	Director: EMDC	Director (DFE)	Director: Specialised	Director (DHR)	Director: Provisioning Admin.
Metropole East	South Cape / Karoo	Further Education & Training	Education Support Services (DSE)	Human Resource Development	& Logistic Services (DLS)
Mr Melvyn Caroline 903-1729	Ms Bonny Sesenyamotse (044) 873-6128	Mr Zozo Siyengo 467-2322	Dr Matthi Theron 467-2027	Mrs Linda Rose 467-2558	Mr Willie Carelse 467-2822

Director: EMDC		Director (DEA)	Director (DER)	Director (DLR)	
Metropole South		Examinations	Research	Labour Relations	
Mr Eugene Daniels 370-2000		Mr Andre Clausen 467-2946	Mr Peter Present 467-2023	Vacant 467-2849	

Organogram of the Western Cape Education Department (Figure 5.3)

The deployment of resources and the development of competencies for the future are of paramount importance to the successful implementation of the strategies of the WCED. In addition to protecting resources, competencies of the future will need to be created by effectively and quickly fitting together separate resources and activities; as well as by "exploiting" the experiences (gained by training, observation and exposure to new ideas through networking) of the employees. Resource allocation decisions should be driven by the expectation that efficiency gains (within limits) can be achieved without loss of value.

Identifying the appropriate resources and competencies to support strategy implementation is important, but it will not result in successful implementation unless the WCED is able to allocate resources and control (administrative control, social control and self-control) performance in line with the strategy, also bearing strategic drift (strategy gradually moving away from relevance to the forces at work within its environment) in mind. *"While thinking of how strategy will be put into effect, thought is being given to the feasibility of its implementation"*.

"Many of our senior managers are our 'concrete ceiling". These managers are resistant to change in that they readily will dismiss new ideas with *"we've tried this before and it didn't work"*

From the interviews it can be deduced that the hypothesis was accepted where occupational crime can be reduced as a result of the functionality of the value chain and the balanced scorecard. Also it was easier to ascertain the failures through personal contact with the "leaders" than only through the acquisition of information in questionnaires.

5.3   Semi-structured interviews

Topic :   *Creating a model of excellence in which the synergy of the balanced scorecard and the value chain will contribute towards the reduction of occupational crime.*

22,2% of the interviewees had no knowledge of the balanced scorecard as well as the value chain. 22,2% of the interviewees only heard about the value chain and the balanced scorecard, but did not know what the function of the value chain and balanced scorecard is. This was contrary to the information reflected on the interviewee background checklist (**Figure 4.2**). The gist of the value chain and the balanced scorecard was very briefly discussed.

In the endeavour of the WCED to reduce occupational crime, service quality needed to be contextualised. In its effort to contextualise service quality, with particular reference to the reduction of "muda", 44,4% of the interviewees proceeded from the assumption that service quality was determined by the difference between the expectations of the customers and their perceptions of the service rendered. Different views arose regarding the potential difficulties in asking customers what they expect. Customers may not be able to formulate their expectations, but in their doubt they may even expect too much. Measuring expectations may risk complicating issues of service management if care is not taken.

66,7% of the interviewees indicated that the following needed to be taken cognisance of in order to evaluate service quality:

- Tangibles – the appearance of physical resources, equipment, staff and communication material.

- Reliability – the ability to perform the promised service dependably and accurately.

- Responsiveness – willingness to assist customers and to provide prompt service.

236

- Assurance encompassing:

  o Competence – possessing the required skills and knowledge to render the service,

  o Courtesy – friendliness, respect, politeness and consideration of the front office staff,

  o Credibility – honest and trustworthiness of the staff, and

  o Security – freedom of risk and doubt.

- Empathy encompassing:

  o Access – approachability of the staff and the ease with which to contact the staff,

  o Communication – inform customers, as far as possible, in the language (English , Afrikaans or Xhosa) they understand and to listen to them, and

  o Understanding the customer – making a concerted effort to get to know the customer and their need(s).

When dealing with the financial and the non-financial perspectives of the balanced scorecard cognisance must be taken of the objectives, measures, initiatives and targets. 66,7% of the interviewees intimated that the imposition of targets within the WCED illustrate another bureaucracy of specifications, monitoring and reporting which could lead to the establishment of many internal and external structures. This would all be wastage, i.e. it utilises resources, which do not contribute to the mission of the organisation and it could lead to the demoralisation of the employees since they need to maintain this wastage. This demoralisation is not only limited to the "feeding" of the bureaucracy, but it also encompasses the "knowledge" that the employees will be assessed on attaining the targets, also that they would be incentivised to attain these targets. This in turn could allow employees to utilise whatever means, e.g. distorting or misrepresenting data to meet these targets. When this becomes apparent, managers still maintain their beliefs in the value of targets and in turn stipulate that they would endeavour to expose these "cheats" and then to "*route them out*". "*Top management, the architects of the problem, fail to see that the primary cause is systemic; the problems are ubiquitous because they are designed in.*"

"There is little doubt that management in our education department needs improving and bearing in mind that targets say nothing about the methods which should be employed." Various initiatives, e.g. ISO 9000 all have the same approach, viz. to assess the organisation against the initiative and then to entertain the appropriate action to *"close the gaps"*. *"Are these initiatives based on knowledge which works within the WCED? No, and that is why these initiatives have not borne any fruit in terms of improvement within the WCED."*

The frustration of top management, pertaining to the lack of progress, brought its *"command and control philosophy"* to the fore via instructions, circulars, guidance, road shows and incentives. An example of this is: The drive to improve access to services led to the institution of a call centre. *"As a result of the poor service delivery, a section has now been created, moved to a separate location and provided with electronic means as to be in contact with the customers with whom it previously was in contact pertaining to the non-delivery of service, e.g. failure to execute something or failure to do something right for a customer. A further cost is incurred as a result of the communications between front and back office staff. This exacerbates service delivery."*

"The reduction and in time the eradication of wastage has to come from within", i.e. improvement has to come from within and as such it is of little value to assess the WCED against other education departments, or against a model or against a target. If measures were derived from flow, instead of an arbitrary source, *"then those who do the work, managers and workers alike, would question the way the work works"*. Working on flow provides the means to remove waste. *"Those working in the public service definitely require help with method not bludgeoning them with arbitrary and uninformed edicts."*

The synergy of the value chain and the balanced scorecard would contribute towards the reduction of wastage if it is borne in mind that the value chain, before everything else, is a process of management and that the balanced scorecard, before everything else, is a tool of management.

"The four pillars of an efficient value chain management could be deemed as being the reactivity, i.e. the capacity to react allows for the identification and then the satisfaction

of the needs and not only the anticipated needs of the customers; *the agility* (integration), i.e. the ability of adaptation to the needs of the customers and in turn justifying the utilisation of resources; *the efficiency* (measure of performance), i.e. to be efficient in its capacity to systematically eliminate all forms of waste; *and the intelligence* (strategic positioning), i.e. the organisation can anticipate wants and needs of its customers and to utilise the appropriate resources to satisfy them as well as to ascertain whether its productivity, quality and practices conform to the vision of the organisation.

"Since the balanced scorecard is deemed to be a 'model' of factors of performance which leans on the financial and non-financial indicators, it could be utilised to assist the value chain to efficiently mobilise the satisfaction of the customers and the attainment of commitment of the employees."

Stated briefly, as a management tool, the balanced scorecard underlines the importance of balancing financial and non-financial criteria as well as its major and marginal indicators which is reflected in the four perspectives, viz. innovation, learning and growth perspective (the foundation of the other perspectives); internal business process perspective; financial perspective and the customer perspective of the balanced scorecard.

The synergy of the value chain and the balanced scorecard can be achieved as indicated within **Table 5.1**. *"However, it must also be borne in mind that it could be a long and arduous task to attain this synergy"*.

Table 5.1   Synergy of Value Chain and the Balanced Scorecard

Value chain	Balanced scorecard
	(perspectives)
Strategic positioning	Customer
Integration	Financial
Reactivity	Internal business processes
Performance measure	Innovation, learning and growth

"The 'salvation' of the WCED is dependent on the improvement of its reactivity and pro-activity within an ever-changing and dynamic environment", as well as the synchronisation of the flow of, amongst others, information and finances in order to improve the co-ordination and "competitiveness" of all "parties" in its endeavour to create value to the final customer. Not only must the customers be satisfied, but also all the customers (whether internal or external) should be able to derive value from the services rendered.

From the various audiences with the interviewees it was deduced that the creation of a model of excellence, in which the synergy of the balanced scorecard and the value chain contribute towards the reduction of occupational crime, should come to fruition.

5.4   Focus group discussions

The focus group discussions would not have been utilised as a substitute for a formal survey. Although valuable information would have been gathered from the discussion, it

must be borne in mind that the opinions of the focus group would only have offered anecdotal information and would not have been representative of the views of the overall customers.

Within a period of seven months, the researcher persevered while striving to have a focus group discussion, comprising of the director of human resources of the WCED; an engineer from Caltex; a chartered accountant; and one manager each from Medscheme, Cape Span, Health Services, Social Services and the Cape Metropolitan Council; but to no avail. Although a consensus time and venue were reached, due to the various constraints that were communicated to the researcher, the focus group could not meet as a whole. At all times only two members of the private sector could meet.

The invaluable information, which these participants could have contributed, would have further enriched this research. As a result of this, amongst others, the Phield technique could not be applied as there were differences within the focus group pertaining to their understanding of occupational crime.

The researcher would still endeavour to set a time and venue that would be appropriate for the participants to meet.

5.5   Field observations

Recently the high level of non-value adding activities within the public service, as mentioned by the State President and the various Ministers of South Africa (within government), have frequently appeared in management literature and newspapers; and have been raised within television interviews and speeches over the radio. Hence this topic is being deemed to be of paramount importance.

This however, to the mind of the researcher, is not being deemed that important as the public assistants of the offices of the Premier of the Western Cape and the Mayor of Cape Town; and the human resource managers of the Departments of Health; Local

241

Government and Housing; and Social Services informed the researcher that they would at this stage not be able to accommodate the researcher as a complete observer. The recording sheet for the structured observation (**Figure 4.22**) was also forwarded to the above-mentioned offices and departments.

Since the field observations at these public service organisations have not come to fruition, even though there have been many scandals within the public service (as reflected in the newspapers and over television) within these departments pertaining to occupational crime, the researcher has not contacted the directors of human resources at Old Mutual and Medscheme. The invaluable information, which would have been acquired from the comparative study, which the researcher would have executed, is presently lost.

5.6 Conclusion

The reduction of occupational crime can only commence if employees are aware of how the services are being rendered in reality. The beliefs of the employees also need to change. Also, it is the task of everyone within the value chain of the WCED, at all times, to create and to add value. Emanating from the information gathered, some existing processes are so bad that they need to be re-designed in order not to create an opportunity for occupational crime to occur and to de-motivate employees from striving to perform occupational crime.

Once the AS-IS situation has been mapped, analysis can commence. By ascertaining the errors and inefficiencies, only then improvement measures can be instituted to reduce occupational crime. The process should not be measured, but rather to ascertain where occupational crime occurred and then to put measures in place to remedy the situation. The WCED must not become obsessed with measurements, but rather to manage and to prioritise it by utilising the balanced scorecard and the value chain.

It is imperative that the transference of knowledge, pertaining to the balanced scorecard, the value chain, lean thinking and wastage, should not only be an issue on the table, but it needs to dealt with as a special programme which is systemically implemented.

5.7   Concluding remarks

The detailed findings of the research as reflected in chapter 6 will assist the researcher to ascertain whether:

Wastage   is a function of   (value chain + balanced scorecard + lean thinking)
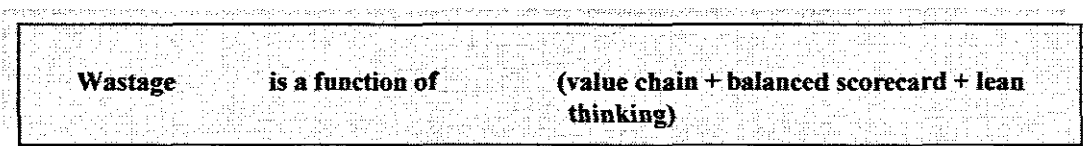
The data collected by the four questionnaires will be analysed. The following will be executed:

- the measures of central tendency will be utilised to answer the research questions,

- the p-values will be utilised to ascertain whether the hypotheses would be accepted or rejected, and

- the sign test will also utilised to corroborate or not to corroborate the result to reject or not to reject the hypotheses.

Chapter 6   Analysis of data

6.1   Introduction

In this chapter inferences were made pertaining to the parameters of a population by testing hypotheses about its value. Also, scientific measuring instruments provided unbiased readings with a very small margin of error. Secondary sources also cautioned the researcher from deriving at conclusions when insufficient evidence was available to reject or not to reject the hypothesis.

6.1.1   Chi-square test (χ^2)

The quantity χ^2 is called the chi-square distribution. The chi-square distribution is the sum of the squared differences between the observed frequencies and the expected frequencies divided by the corresponding expected frequency, i.e.

$$\chi^2 = \sum \left[\frac{(fo - fe)^2}{fe} \right]$$

The rejection or non-rejection of the H_O, within this research, was dependent on whether the χ^2 was greater than or less than the critical value of the degrees of freedom (df) at the 0,05 level. If the test statistic, refer to the above-mentioned formula, exceeded the critical value at the appropriate level of significance and degrees of freedom, then the hypothesis was rejected.

The purpose of the chi-square test, i.e. χ^2 was to establish whether differences exist between two populations. Generally stated and with reference to χ^2–statistic, the hypotheses, H_O (two or more variables are unrelated or independent) and H_1 (two or more variables are said to be related or dependent) were as follows:

H_O :   The two or more population categories were independent of each other.

H_1 :   The two or more populations were independent of each other.

244

Hereafter the calculated test-statistic was compared with the critical value that was obtained from the χ^2–probability table by using a specific significance level and degrees of freedom (df).

6.1.2 p - Value

The p-Value was also utilised to ascertain whether the H_O was rejected or not because all the statistical programmes (the Statistical Programme for Social Sciences) calculated the p-value automatically, i.e. the actual α was calculated for the specific set of data.

The probability α of making a type I error (where the H_O is rejected i.e. when in fact it is true) is interpreted as being the significance level of the statistical test. The significance level (i.e. α) represented the probability of observing a sample outcome. The p-Value is the smallest value of α for which test results became statistically significant.

The rejection or non-rejection of the H_O, within this research, was dependent on the comparison of the p-value with the significance level. H_O was rejected if the p-Value was less than the significance level and if the p-Value was greater than the significance level then the H_O was not rejected. If the p-Value equalled 0; then it signified that there was a significant difference between the variables.

The p-Values varied between 0 and 1. A p-Value of 1 implied that H_O would always not be rejected and a p-Value of 0 would be rejected e.g. if p-Value = 0,001; then there would only be a 0,01% chance to reject H_O if it was actually true. Hence for any p-Value $< 0,05$ i.e. $\alpha = 0,05$; H_O will therefore be rejected.

6.1.3 Sign Test

The "before/after" application of the sign test was utilised as another format to test the H_O as reflected in 6.5.3.5.

The "before the workshop" and "after the workshop" ratings were reflected with the sign of the difference. A "+" sign indicated that growth, improvement or a change occurred and a " − " sign indicated that there was a negative change or negative growth or no improvement, i.e. it was worse off than before.

6.2   Prelude

This chapter discussed, in conjunction with secondary sources, the results of the data that were collected from the questionnaires.

6.3   Research question 1

Is the Western Cape Education Department making a concerted commitment to performance management?
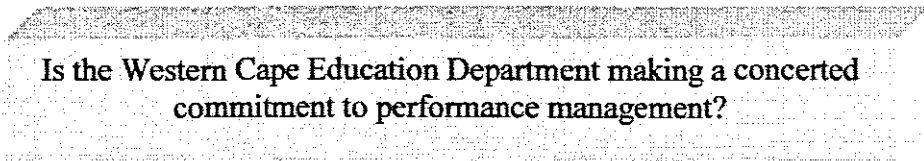
6.3.1   Responses to questionnaire

Table 6.1   Responses to the questionnaire pertaining to the performance management system

Responses to questionnaire			
	Assistant Director and below	Above Assistant Director	TOTAL
Issued	350	150	500
Returned	267	63	330
% Returned	76,29	42,00	66,00

Although 66,0% of the prospective respondents responded to the request of the researcher to participate in this research, less than 50% of the "Above Assistant Director" sample responded. The sample "Assistant Director and below" was deemed to be more eager and prepared to complete the questionnaire.

246

6.3.2 Discussion

With reference to **Table 6.2**, it was deduced that the average of the rating of the responses of the categories "assistant director and below" and "above assistant director" were 2,38 and 2,39 respectively.

Table 6.2   Average rating of responses

Questions	Asst Dir & Below	Above Asst Dir
1	2.38	2.37
2	2.35	2.33
3	2.28	2.3
4	2.69	2.68
5.1	2.69	2.68
5.2	2.61	2.62
5.3	2.41	2.44
5.4	2.26	2.29
6.1	2.20	2.21
6.2	2.24	2.25
7	2.51	2.52
8	2.16	2.17
9.1	2.23	2.24
9.2	2.39	2.38
10	2.37	2.302

Average   2.38   2.39

247

From **Table 6.3** it was visualised that the assistant director and below and the above assistant director samples indicated that in both instances the mode (most frequent value) was 2 (as per the questionnaire, 2 = disagree).

Table 6.3   Measure of central tendency

Questions	Mode	
	A	B
1	2	2
2	2	2
3	2	2
4	3	3
5.1	3	3
5.2	3	3
5.3	3	3
5.4	2	2
6.1	2	2
6.2	2	2
7	2	2
8	2	2
9.1	2	2
9.2	2	2
10	2	2

A = Assistant director and below
B = Above assistant director

Hence from **Tables 6.2 and 6.3**, which were derived from **Annexure 1 and 2**, i.e. ratings of the respondents, it was interpreted that the respondents were in disagreement with the statements within the questionnaire. Hence the answer to the research question: "Is the Western Cape Education Department making a concerted commitment to performance management?" was interpreted as being negative.

The non-commitment to a performance management system was deemed to be a contributory factor to wastage i.e. the customer was not allowed to derive value from the services rendered.

6.3.3 Hypothesis

6.3.3.1 The hypothesis i.e. H_o is:

> The views of the assistant director and below; and above assistant director, pertaining to the level of commitment of the WCED to performance management, would be similar to each other.

From **Table 6.4** it was noticed that the p > 0,05, therefore the H_O was accepted. Thus there was no significant difference between the two groups pertaining to performance management {i.e. the views expressed via the ratings of the two groups [as reflected in **Annexure 1** and **2**; the mean of the responses **(Table 6.2)**; and the mode of the responses **(Table 6.3)**]} and as such the H_O of independence was not rejected.

Table 6.4   Test statistics

Questions	chi-value	Df	p-value
1	0.121	3	0.989
2	0.213	3	0.976
3	0.350	2	0.839
4	0.294	2	0.863
5.1	0.144	2	0.930
5.2	0.152	3	0.985
5.3	0.165	3	0.983
5.4	0.184	3	0.980
6.1	0.200	3	0.978
6.2	0.266	2	0.875
7	0.075	2	0.963
8	0.032	4	1.000
9.1	0.003	2	0.998
9.2	0.006	2	0.997
10	0.771	3	0.857

Significance level (α) = 0.05

In question 1 **(Table 6.4)** the chi-value equalled 0,121 and the degrees of freedom (df) equalled 3. The critical value at the significance level of 0,05 with 3 df equalled 7,815.

Since the chi-value of 0,121 was less than the critical level of 7,815; the H_O was not rejected, i.e. the H_O was accepted.

In question 1 (**Table 6.4**) the p-Value equalled 0,989. Since the p-Value was in the proximity of 1 and 0,989 > 0,05 (the significance level), the H_O was not rejected, i.e. the H_O was accepted.

6.4   Research question 2

> Does the Western Cape Education Department have a
> document-related crisis?

6.4.1   Responses to the questionnaire pertaining to the document-related crisis

Table 6.5   Responses to the questionnaire pertaining to the document-related crisis

Responses to questionnaire			
	Assistant Director and below	Above Assistant Director	TOTAL
Issued	350	150	500
Returned	241	73	314
% Returned	68,86	48,67	62,8

62,8% of the prospective respondents responded to the request of the researcher to participate in this research, but less than 50% of the "Above Assistant Director" sample responded. The sample "Assistant Director and below" was more prepared to complete the questionnaire and as such the response was 68,9%.

6.4.2   Discussion

From **Table 6.6** and especially in question 1 it was deduced that both categories spent a substantial amount of time entertaining document-related tasks and the time spent by the two variables (A and B) were different. The modes of question 2 were 3 (assistant director and below) and 4 (above assistant director), which indicated that the perception of the respondents was that the time crisis, pertaining to document-related tasks, was

escalating. The responses to questions 3; 4; 5 and 6 (by the two variables) were all different.

Table 6.6   Measure of central tendency

Questions	Mode	
	A	B
1.1	6	8
1.2	2	4
1.3	5	6
1.4	3	2
2	3	4
3.1	2	2
3.2	3	4
3.3	2	1
3.4	3	2
4.1	4	6
4.2	1	5
4.3	5	5
4.4	3	3
4.5	4	4
4.6	7	1
4.7	8	8
4.8	2	8
5	6	2

A = Assistant director and below

B = Above assistant director

(Questions 1 and 5 refer to hours; Questions 3 and 4 refer to ranking; and Question 2 refers to rating.)

Hence the time spent on document-related tasks could be negatively impacting on the employees from tending to do their core business, viz. the rendering of services from which the customers could derive value. This implied that the answer to the research question 2 was positive (3 = agree and 4 = strongly agree) i.e. yes.

251

The perceived document-related crisis was deemed to be a contributory factor to occupational crime, i.e. the customer was not allowed to derive value from the services that were being rendered.

6.4.3 Hypothesis

6.4.3.1 The hypothesis, i.e. H_O is:

> The views, pertaining to the perceived document-related crisis, of the different management levels are not the same.

6.4.4 Discussion

Table 6.7 indicated that the **p-values** all equalled 0 or in the vicinity of 0, i.e. less than the significance level (i.e. p-values $< 0,05$), except in question 4.4. Since it was deduced that there was a significant difference between the views expressed via the ratings of the two variables [as reflected in **Annexure 3 (ratings of the assistant director and below group) and 4 (ratings of the above assistant director group)**; and the mode of the responses **(Table 6.6)**], the H_O of independence was rejected.

Table 6.7   Test statistics

Questions	chi-value	df	p-value
1.1	89.713	5	0.000
1.2	51.486	6	0.000
1.3	99.338	7	0.000
1.4	133.644	5	0.000
2	23.123	2	0.000
3.1	22.745	3	0.000
3.2	96.791	4	0.000
3.3	106.380	5	0.000
3.4	76.635	5	0.000
4.1	95.617	6	0.000
4.2	165.772	7	0.000
4.3	19.056	7	0.008
4.4	10.361	5	0.066
4.5	76.831	7	0.000
4.6	137.159	8	0.000
4.7	47.223	6	0.000
4.8	62.955	6	0.000
5	95.009	6	0.000

In question 1.1 (**Table 6.7**) $\chi^2 = 89,713$ with 5 df. The χ^2 distribution table indicates that the critical value at the significance level of 0,05 and at 5 df = 11,071. The calculated χ^2 of 89,713 $> 11,071$. Hence the H_O is rejected.

6.5   Research question 3

> Is the Western Cape Education Department making a concerted commitment to service delivery in enhancing customer trust and confidence via a functioning value chain?

6.5.1   Responses to the questionnaire BEFORE the workshops

Table 6.8   **Return rate of the questionnaire pertaining to the value chain (i.e. the responses of respondents BEFORE the workshops were facilitated)**

Responses to questionnaire (Before the workshops)					
	Control	Experimental I	Experimental II	Other	TOTAL
Issued	100	150	150	100	500
Returned	50	70	71	79	270
% Returned	50,0%	46,7%	47,3%	79,0%	54,0%

54,0% of the prospective respondents responded to the request of the researcher to participate in this research, 50,0% of the control group returned their questionnaires, less than 50% of the Experimental groups responded and 79,0% of the "other" group responded.

The "control" group did not receive any invitations to attend the workshops. The "experimental I" group was issued with information (**4.17.1**) prior to the commencement of the workshops and this group was also invited to attend the workshop. The "experimental II" group did not receive any information prior to the workshop, but the group was invited to attend the workshop. The "other" group was not invited to attend the workshops.

6.5.2 Responses to the questionnaire AFTER the workshops

Table 6.9   **Return rate of the questionnaire pertaining to the value chain (i.e. the responses of respondents AFTER the workshops were facilitated)**

Responses to questionnaire (After the workshops)					
	Control	Experimental I	Experimental II	Other	TOTAL
Issued	100	150	150	100	500
Returned	61	91	94	89	335
% Returned	61,00%	60,67%	62,67%	89,00%	67,00%

67,0% of the overall prospective respondents responded to the request of the researcher to participate in this research, 61,0% of the control group returned their questionnaires, 61,67% of the Experimental groups (i.e. the average of responses encompassing Experimental I = 60,67% and Experimental II = 62,67%) responded and 89,0% of the "other" group responded.

The "control" group did not attend the workshops. The "experimental I" group attended the workshops and received information prior to the commencement of the workshops. The "experimental II" group only attended the workshops. The "other" group did not attend the workshops, but was exposed to information pertaining to the workshops.

6.5.3 Discussion

6.5.3.1 Responses of the 4 groups

Prior to testing the hypothesis it would be of interest to get a sense of the attitudes of the respondents towards the workshops. The workshops focused on the reduction of occupational crime, i.e. muda via the development of a value chain within a lean thinking environment and where the balanced scorecard was also borne in mind.

Tables 6.8 and **6.9** (derived from **Annexure 5; 6; 7** and **8;** and **9; 10; 11** and **12** respectively) indicated that the overall response rate of the respondents increased from 54,0% to 67,0% and in particular: the response rate of the workshop attendees increased from 47% (Experimental group I = 46.7% and Experimental group II = 47,3%) to 61,67%

(60,67% and 62,67% respectively). The perceived interest and eagerness showed by the control group, although an invitation was not extended to them to attend, was also detected in the increased response rate from 50% (before the workshops) to 61% (after the workshops).

6.5.3.2 Average rating of the responses

The average rating of the respondents (control and experimental groups), as reflected in **Tables 6.10** and **6.11,** indicated that there was a decrease in the average rating of the control group i.e. from 2,42 to 2,38 (the difference was not deemed to be meaningful); and a significant increase in the average rating of the respective experimental groups (I and II) i.e. from 2,37 to 2,91 and 2.42 to 2,93 respectively.

Table 6.10   Average rating of the responses of the 4 groups

(Before the workshop)

Questions	Control	Exp I	Exp II	Other
1	2.02	1.93	2.13	2.01
2	2.28	2.34	2.19	2.28
3	2.20	2.23	2.17	2.18
4	2.20	2.20	2.18	2.20
5	2.70	2.69	2.70	2.70
6	2.90	2.84	2.94	2.89
7.1	2.10	2.13	2.09	2.10
7.2	3.00	1.96	2.97	3.00
7.3	2.10	2.16	2.06	2.10
7.4	2.28	2.30	2.26	2.29
7.5	2.40	2.44	2.36	2.39
8	2.82	2.84	2.82	2.82
9	2.88	2.87	2.90	2.87
10.1	2.36	2.44	2.30	2.34
10.2	3.14	3.13	3.17	3.00
10.3	2.40	2.37	2.45	2.38
10.4	2.10	2.07	2.14	2.10
11	2.28	2.20	2.35	2.29
12	2.16	2.12	2.18	2.16
13.1	2.04	2.06	2.07	2.04
13.2	1.86	1.82	1.77	1.80
13.3	2.16	2.21	2.13	2.15
14	3.26	3.24	3.28	3.25
Average	2.42	2.37	2.42	2.41

The average rating (**Tables 6.10 and 6.11**) of the control group was interpreted that the respondents were in disagreement with the statements on the questionnaire and hence the response to research question 3 was negative. This was also corroborated by the below-mentioned measure of central tendency (**Tables 6.12 and 13**) in which the mode was used.

Table 6.11   Average rating of the responses of the 4 groups

(After the workshop)

Questions	Control	Exp I	Exp II	Other
1	2.04	2.15	2.26	2.25
2	2.20	3.20	3.21	3.19
3	2.15	3.11	3.13	3.12
4	2.24	3.16	3.17	3.15
5	2.63	1.99	2.00	1.98
6	2.90	2.00	2.02	1.99
7.1	2.13	2.98	3.04	2.98
7.2	2.85	3.20	3.21	3.19
7.3	2.08	2.85	2.82	2.84
7.4	2.11	3.03	3.02	3.03
7.5	2.36	3.09	3.10	3.10
8	2.75	2.97	2.96	2.97
9	2.85	2.98	2.96	2.98
10.1	2.48	3.04	3.06	3.02
10.2	2.78	3.22	3.29	3.21
10.3	2.35	3.27	3.31	3.26
10.4	2.16	3.08	3.10	3.08
11	2.23	3.26	3.26	3.24
12	2.23	3.00	3.00	3.01
13.1	2.03	2.64	2.66	2.63
13.2	2.03	2.55	2.53	2.54
13.3	2.07	3.00	3.01	2.99
14	3.07	3.17	3.19	3.17
Average	2.38	2.91	2.93	2.91

The approximated average rating of the experimental groups reflected a movement from a rating of 2 (before the workshop) to a rating of 3 (after the workshop). It was perceived that the workshop sessions changed the attitude of the respondents; increased their understanding of the value chain, balanced scorecard and lean thinking; and possibly contributed towards a more positive involvement within the structures of the WCED via the reduction of occupational crime. The acquired knowledge and the involvement of the

respondents contributed towards the positive response to research question 3. This was also corroborated by the below-mentioned measure of central tendency in which the mode was utilised.

6.5.3.3 Measure of central tendency (mode)

Tables 6.12 and **6.13** indicated that the mode for the control group was 3 and that the number of respondents who rated 3 remained constant at 13.

Table 6.12   Modes of the four groups (Before the workshop)

(Rating of 1 to 4)

Questions	Mode			
	Control	Exp I	Exp II	Other
1	3	1	3	3
2	2	3	2	2
3	1	1	1	1
4	1	1	1	1
5	3	3	3	3
6	3	2	3	3
7.1	2	3	2	2
7.2	3	3	3	3
7.3	3	3	3	3
7.4	2	2	2	2
7.5	3	3	3	3
8	3	3	3	3
9	3	3	3	3
10.1	3	3	3	3
10.2	3	3	3	3
10.3	3	3	3	3
10.4	2	2	2	2
11	2	2	2	2
12	2	2	2	2
13.1	2	2	2	2
13.2	2	2	2	2
13.3	3	3	3	3
14	3	3	3	3
Average	2.48	2.43	2.48	2.48

Rating	Scores			
1	2	3	2	2
2	8	7	8	8
3	13	13	13	13

Table 6.13   Modes of the four groups (After the workshop)

(Rating of 1 to 4)

Questions	Control	Exp I	Exp II	Other
1	1	2	2	2
2	2	3	3	3
3	1	3	3	3
4	1	3	3	3
5	3	1	2	1
6	3	2	2	2
7.1	2	3	3	3
7.2	3	3	3	3
7.3	3	3	3	3
7.4	2	3	3	3
7.5	3	3	3	3
8	3	3	3	3
9	3	3	3	3
10.1	3	3	3	3
10.2	3	3	3	3
10.3	3	3	3	3
10.4	2	3	3	3
11	3	3	3	3
12	3	3	3	3
13.1	2	2	2	2
13.2	2	3	3	3
13.3	2	3	3	3
14	3	3	3	3
Average	2.43	2.78	2.83	2.78

Rating	Scores			
1	3	0	1	1
2	7	4	3	3
3	13	19	19	19

Tables 6.12 and 6.13 reflected that the mode of the experimental groups (experimental I and experimental II) remained 3, but there was an increase in the respondents of both experimental groups (**Tables 6.8 and 6.9**) who rated 3 from13 to 19.

Figure 6.1 reflects that the modes of "before the workshop" and the modes of "after the workshop" for the questions that pertained to research question 3, with the exception of question 1 (1); question 11 (18); question 12 (19); and question 13.3 (22), showed no movement.
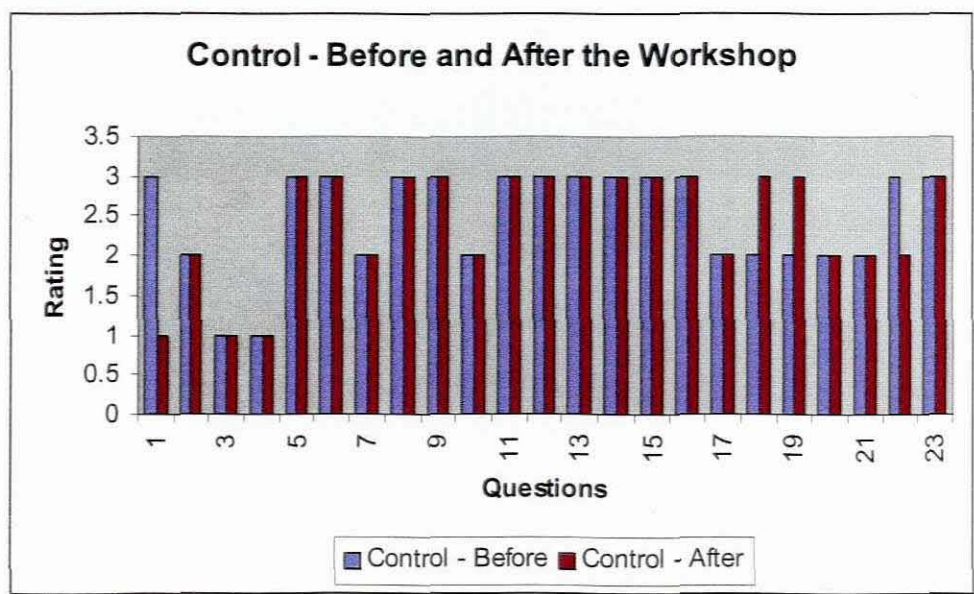
Figure 6.1   **Modes of respondents (Control) – before and after the workshops**

It was deduced from or rather perceived from **Figure 6.1** that the non-exposure to the workshops of the control group could have had a negative impact on the understanding and knowledge of the value chain, balanced scorecard and lean thinking.
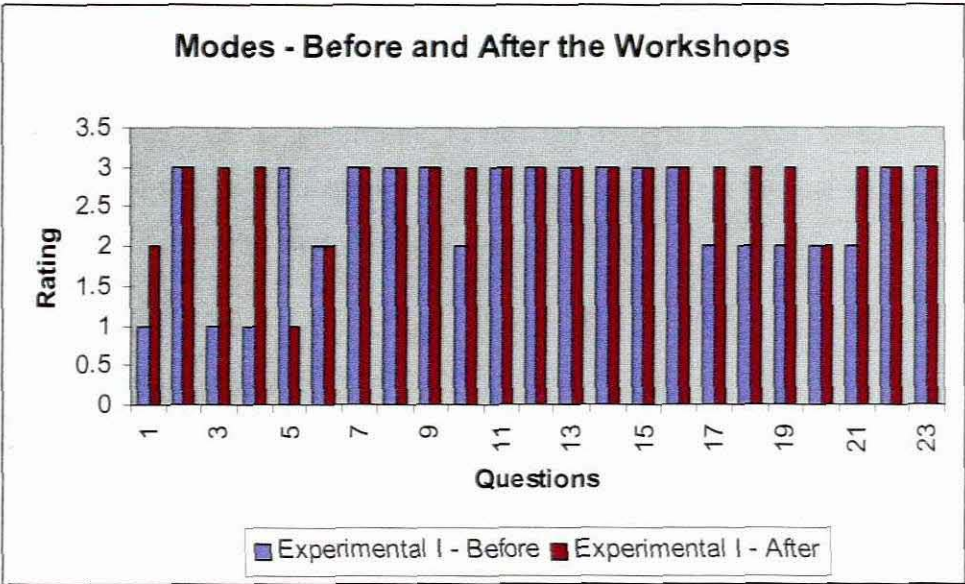
Figure 6.2   **Modes of respondents (Experimental I) – before and after the workshops**
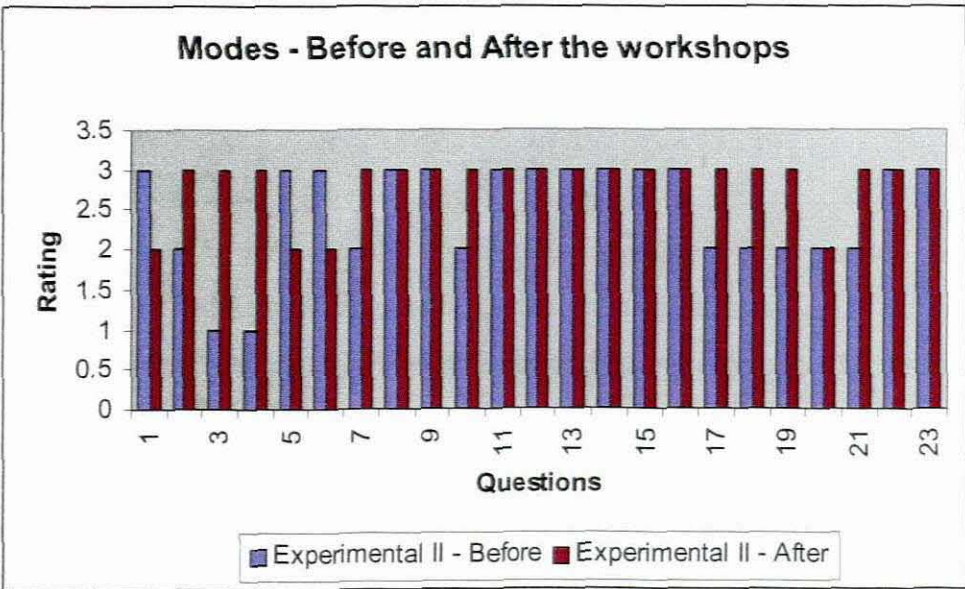
Figure 6.3   **Modes of respondents (Experimental II) – before and after the workshop**

From **Figures 6.2 and 6.3** it was deduced that the exposure to the workshops contributed or could have contributed towards the experimental groups' increase in the respective modes as a result of their increased understanding of the value chain, balanced scorecard and lean thinking. However, it was interpreted that the information which experimental

group I received prior to the workshops, has not had any recognisable influence on the response of these respondents. The possible reasons for this response could be that the group did not have an opportunity to read the material that was forwarded to them or they just refused to read the material as it was anticipated that this information would again be facilitated during the workshop sessions.

6.5.3.4 Conclusion

The exposure to the workshops broadened the knowledge of the attendees pertaining to the value chain, balanced scorecard and lean thinking; and was also deemed as being instrumental in the increase of the average rating. This increase was interpreted as being an indication that the hypothesis, i.e. the null hypothesis was not supported. Even more so, it was seen that since the control group was not exposed to the informative and interactive workshops, their average rating has not increased.

With reference to research question 3 and the above-mentioned discourse, the following deductions were concluded:

- Control group

    There was an increase of 11% in the respondents from "before the workshop" to "after the workshop". According to the average rating of 2,42 (before the workshop) and 2,38 (after the workshop) indicate that the non-exposure to the workshop has had an influence on the respondents. However the difference of 0,04 was deemed as being insignificant or no meaningful change took place. The result (average rating of 2 = disagree) of the responses of the respondents indicated that the answer to the research question was positive.

- Experimental groups I and II

    The respondents of Experimental groups II and I increased by 15,3% and 14% respectively. The average "before-the-workshop" rating of 2,37 and 2,42 (each could be approximated to 2) and the average "after-the-workshop" rating of 2,91 and 2,93 (each could be approximated to 3) indicated that the exposure to the workshop had a positive influence on the respondents. As a result of the perceived growth that took

place (pertaining to the "after the workshop" responses), the answer to research question 3 was deemed as being negative.

- Other group

Although this group has not attended the workshops, their average rating as well as the number of respondents also increased. The exposure (information, which this group was exposed to) contributed towards the increase in the rating of their responses. Hence their answer to research question 3 was also negative.

6.5.3.5 Sign test

- **Experimental groups I and II**

The simplest nonparametric test, viz. the sign test as reflected in **Tables 6.14 and 6.15**, indicated that the experimental groups I and II have 87% "+".

Table 6.14   Sign test – Experimental group I

Experimental I			
Questions	Before	After	After - Before
1	1.93	2.15	+
2	2.34	3.20	+
3	2.23	3.11	+
4	2.203	3.16	+
5	2.69	1.99	-
6	2.84	2.00	-
7.1	2.13	2.98	+
7.2	1.96	3.20	+
7.3	2.16	2.85	+
7.4	2.3	3.03	+
7.5	2.44	3.09	+
8	2.84	2.97	+
9	2.87	2.98	+
10.1	2.44	3.04	+
10.2	3.13	3.22	+
10.3	2.37	3.27	+
10.4	2.07	3.08	+
11	2.203	3.26	+
12	2.12	3.00	+
13.1	2.06	2.64	+
13.2	1.82	2.55	+
13.3	2.21	3.00	+
14	3.24	3.17	-
Average	2.37	2.91	

20 plusses
3 minuses

263

Table 6.15   Sign test – Experimental group II

Questions	Before	After	After – Before
	Experimental II		
1	2.13	2.26	+
2	2.19	3.21	+
3	2.17	3.13	+
4	2.18	3.17	+
5	2.704	2.00	-
6	2.94	2.02	-
7.1	2.09	3.04	+
7.2	2.97	3.21	+
7.3	2.06	2.82	+
7.4	2.26	3.02	+
7.5	2.36	3.10	+
8	2.82	2.96	+
9	2.896	2.96	+
10.1	2.3	3.06	+
10.2	3.17	3.29	+
10.3	2.45	3.31	+
10.4	2.14	3.10	+
11	2.35	3.26	+
12	2.18	3.00	+
13.1	2.07	2.66	+
13.2	1.77	2.53	+
13.3	2.13	3.01	+
14	3.28	3.19	-
Average	2.42	2.93	

20 plusses
3 minuses

The binomial probability distribution (n = 25) indicated that if more than the number of successes derived at when the cumulative probability nearest to, but not exceeding the level of significance (i.e. 0,05) and at a probability level of 0,5 was attained, then the H_O will be rejected. With n = 24, the cumulative probability ≤ 0,05 and at a probability level of 0,5 = 0,014 and the number of successes corresponded to 18. **Tables 6.14** and **6.15** indicated that the number of successes attained by the experimental groups were in excess of 18. By attending the workshops, the number of successes attained exceeded the required minimum number of successes; hence the H_O was rejected.

- **Control group**

Table 6.16 indicated that the control group, which has not attended the workshops, has only 32% "+", i.e. 7 plusses (After – Before)

Table 6.16   Sign test – Control group

Control			
Questions	Before	After	After – Before
1	2.02	2.04	+
2	2.28	2.20	-
3	2.20	2.15	-
4	2.20	2.24	+
5	2.70	2.63	-
6	2.90	2.90	
7.1	2.10	2.13	+
7.2	3.00	2.85	-
7.3	2.10	2.08	-
7.4	2.28	2.11	-
7.5	2.40	2.36	-
8	2.82	2.75	-
9	2.88	2.85	-
10.1	2.36	2.48	+
10.2	3.14	2.78	-
10.3	2.40	2.35	-
10.4	2.10	2.16	+
11	2.28	2.23	-
12	2.16	2.23	+
13.1	2.04	2.03	-
13.2	1.86	2.03	+
13.3	2.16	2.07	-
14	3.26	3.07	-
Average	2.42	2.38	

7 plusses
15 minuses
1 even

Since the cumulative probability at a probability level of 0,5 and amounting to 0.014 is more than the number of plusses attained, the H_O was not rejected.

6.5.4 Hypothesis

6.5.4.1 The hypothesis, i.e. H_O is:

> The workshop has had no influence on the views of the experimental
> group pertaining to the enhancement of the net operating result of the
> Western Cape Education Department via the value chain, balanced
> scorecard and lean thinking.

6.5.4.2 Hypothesis testing (before the workshops)

- **Control and Experimental (combined) groups**

Table 6.17   Test statistics – Control and Experimental (combined) groups

(Before the workshops)

Control & Experimental			
Questions	chi-value	df	p-value
1	0.005	2	0.998
2	0.013	3	1.000
3	0.014	3	1.000
4	0.004	1	0.948
5	0.004	1	0.948
6	0.003	2	0.999
7.1	0.013	2	0.994
7.2	0.003	2	0.998
7.3	0.034	2	0.983
7.4	0.011	3	1.000
7.5	0.013	3	1.000
8	0.021	2	0.990
9	0.255	2	0.880
10.1	0.027	3	0.999
10.2	0.018	3	0.991
10.3	0.006	3	1.000
10.4	0.020	3	0.999
11	0.011	3	1.000
12	0.099	3	0.992
13.1	0.103	2	0.950
13.2	0.572	2	0.751
13.3	0.006	2	0.997
14	0.008	2	0.996

The test statistics reflected in **Table 6.17**, pertaining to the statistics collected prior to the attendance at the workshops, indicated that the **p-values** were greater than the accepted significance level of 0.05 and were in close proximity to 1. The close proximity, of the **p-Values,** to 1 (p-values > 0,05) indicated that there was no real significant difference between the views expressed by the control and experimental I and II groups prior to the workshop. Hence the H_O of independence was not rejected.

Also in question 1 of **Table 6.17**:

χ^2 = 0,005 and the df = 2. The critical value at the significance level of 0,05 with 2 df = 5,991. Since χ^2 of 0.005 < 5,991; the H_O was not rejected.

- **Control; Experimental I and II; and Other groups**

Table 6.18   **Test statistics – Control; Experimental I and II; and Other**

(Before the workshops)

Control; Experimental I & II; and Other			
Questions	chi-value	df	p-value
1	2.970	6	0.813
2	1.092	6	0.982
3	0.173	9	1.000
4	1.169	9	0.999
5	0.061	3	0.996
6	0.458	6	0.998
7.1	0.287	6	1.000
7.2	0.296	6	1.000
7.3	0.914	6	0.989
7.4	0.182	6	1.000
7.5	0.193	6	1.000
8	0.141	6	1.000
9	2.079	6	0.912
10.1	2.025	9	0.991
10.2	0.423	6	0.999
10.3	0.726	9	1.000
10.4	0.304	6	0.999
11	0.873	6	0.990
12	1.202	6	0.977
13.1	0.551	6	0.997
13.2	1.341	6	0.969
13.3	0.604	6	0.996
14	0.017	3	0.999

267

The test statistics reflected in **Table 6.18** indicated that the **p-values** were greater than the accepted significance level of 0.05. The close proximity of the **p-Values** to 1 indicated that there were no real significant differences between the views expressed via the ratings of the respondents prior to the workshop. Hence the H_O of independence was not rejected.

With reference to question 1 of **Table 6.18**:

χ^2 = 2,970 and the df = 6. The critical value at the significance level of 0,05 with 6 df = 12,592. Since χ^2 of 2,970 < 12,592; the H_O was not rejected.

- **Control and Experimental I and II groups**

Table 6.19   Test statistics – Control and Experimental groups I and II

(Before the workshops)

Control; Experimental I & II			
Questions	chi-value	df	p-value
1	2.951	4	0.566
2	1.086	4	0.897
3	0.144	6	1.000
4	1.140	6	0.980
5	0.061	2	0.970
6	0.435	4	0.980
7.1	0.253	4	0.993
7.2	0.282	4	0.991
7.3	0.852	4	0.931
7.4	0.159	4	0.997
7.5	0.155	4	0.997
8	0.125	4	0.998
9	1.631	4	0.803
10.1	1.939	6	0.925
10.2	0.357	4	0.986
10.3	0.672	6	0.995
10.4	0.274	4	0.991
11	0.854	4	0.931
12	1.178	4	0.882
13.1	0.475	4	0.976
13.2	1.314	4	0.859
13.3	0.577	4	0.966
14	0.015	2	0.992

The **p-Values**, which were reflected on **Table 6.19**, were greater than the accepted significance level of 0.05. Hence there was no real significant difference between the views expressed by the control and experimental I and II groups i.e. the control group, the experimental I group and the experimental II group were independent. As a result of the findings, the H_O of independence was not rejected.

Referring to question 1 of **Table 6.19**:

χ^2 = 2,951 and the df = 4. The critical value at the significance level of 0,05 with 4 df = 9,488. Since χ^2 of 2,951 < 9,488; the H_O was not rejected.

- **Experimental groups I and II**

Table 6.20   Test statistics – Experimental groups I and II (Before the workshops)

Experimental I & II			
Questions	chi-value	df	p-value
1	2.945	2	0.229
2	1.083	2	0.582
3	0.123	3	0.989
4	1.130	3	0.770
5	0.057	1	0.811
6	0.432	2	0.806
7.1	0.240	2	0.887
7.2	0.278	2	0.870
7.3	0.822	2	0.663
7.4	0.155	2	0.926
7.5	0.149	2	0.928
8	0.104	2	0.949
9	1.317	2	0.518
10.1	1.912	3	0.591
10.2	0.343	2	0.843
10.3	0.665	3	0.881
10.4	0.267	2	0.875
11	0.850	2	0.654
12	1.116	2	0.572
13.1	0.373	2	0.830
13.2	1.280	2	0.527
13.3	0.571	2	0.752
14	0.015	1	0.902

Since the **p-values** (as indicated by **Table 6.20**) were greater than significance level of 0,05; it was not deemed to be significant, i.e. there was no real significant differences

269

between the views expressed via the ratings of the respondents prior to the workshop. As such the variables, being experimental I group and experimental II group, were independent. Hence the H_O of independence was not rejected.

With reference to question 1 as indicated on **Table 6.20**:

χ^2 = 2,945 and the df = 2. The critical value at the significance level of 0,05 with 2 df = 5,991. Since χ^2 of 2,945 < 5,991; the H_O was not rejected.

- **"Before the Workshop" Concluding remarks**

Since the chi-squared values were all less than the respective critical values and the **p-Values** were all more than the accepted significance level, the H_O was not rejected by all the groups.

6.5.4.3 Hypothesis testing (After the workshops)

- **Control and Experimental (combined) groups**

Table 6.21   Test statistics – Control and Experimental (combined) groups

Control & Experimental			
Questions	chi-value	df	p-value
1	30.283	3	0.000
2	101.505	2	0.000
3	66.347	2	0.000
4	75.095	2	0.000
5	43.263	3	0.000
6	38.099	3	0.000
7.1	82.696	3	0.000
7.2	47.670	2	0.000
7.3	33.045	4	0.000
7.4	62.363	4	0.000
7.5	41.733	2	0.000
8	22.609	2	0.000
9	2.536	3	0.469
10.1	25.730	3	0.000
10.2	25.422	2	0.000
10.3	80.722	3	0.000
10.4	47.860	4	0.000
11	78.878	3	0.000
12	40.571	3	0.000
13.1	35.211	3	0.000
13.2	17.401	3	0.001
13.3	79.544	3	0.000
14	23.257	3	0.000

The **p-values (Tables 6.21)** of 96% of all the questions i.e. with the exception of question 9 were all less than the significance level of 0,05. With the exclusion of the exception, the **p-Values** indicated that there were significant differences in the responses of the control and combined experimental groups. Hence the H_O was rejected.

With reference to question 1 of **Table 6.21**: -

χ^2 = 30,283 and the df = 3. The critical value at the significance level of 0,05 with 3 df = 7,815. Since χ^2 of 30,283 > 7,815; the H_O was rejected.

Table 6.22   Test statistics – Control; Experimental I and II; and Other groups

Control; Exp I; Exp II; Other			
Questions	chi-value	df	p-value
1	34.782	9	0.000
2	103.906	6	0.000
3	82.705	6	0.000
4	89.880	6	0.000
5	49.223	9	0.000
6	43.125	9	0.000
7.1	101.126	9	0.000
7.2	58.813	6	0.000
7.3	37.577	9	0.000
7.4	66.937	9	0.000
7.5	51.359	6	0.000
8	25.258	6	0.000
9	3.136	6	0.792
10.1	30.482	9	0.000
10.2	29.463	9	0.001
10.3	96.665	6	0.000
10.4	47.181	9	0.000
11	97.014	9	0.000
12	48.067	9	0.000
13.1	41.175	9	0.000
13.2	20.416	9	0.016
13.3	94.817	9	0.000
14	27.229	9	0.001

The **p-values (Tables 6.22)** of 91% of all the questions i.e. with the exception of questions 9 and 13.2 were all less than the significance level of 0,05. With the exclusion of the exceptions, the **p-Values** indicated that there were significant differences in the responses of the respondents. Hence the H_O was rejected.

- **Control and Experimental I and II groups**

Table 6.23   Test statistics – Control; and Experimental I and II groups

Control; Exp I; Exp II			
Questions	chi-value	df	p-value
1	30.329	6	0.000
2	101.550	4	0.000
3	66.400	4	0.000
4	75.098	4	0.000
5	43.312	6	0.000
6	38.144	6	0.000
7.1	83.179	6	0.000
7.2	47.736	4	0.000
7.3	32.320	6	0.000
7.4	55.755	6	0.000
7.5	41.797	4	0.000
8	22.621	4	0.000
9	2.513	4	0.642
10.1	25.820	6	0.000
10.2	25.747	6	0.000
10.3	75.940	4	0.000
10.4	48.300	8	0.000
11	78.987	6	0.000
12	40.592	6	0.000
13.1	35.352	6	0.000
13.2	17.787	6	0.007
13.3	79.654	6	0.000
14	23.388	6	0.001

96% of the **p-values (Tables 6.23)** i.e. with the exception of question 9 were all less than the significance level of 0,05. With the exclusion of the exception, the **p-Values** indicated that there were significant differences in the responses of the groups whose test statistics were listed in **Table 6.23**. Hence the H_O was rejected.

Question 1 of **Table 6.23** indicates that $\chi^2 = 30{,}329$ and the df = 6. The critical value at the significance level of 0,05 with 6 df = 12,592. Since χ^2 of 30,329 > 12,592; the H_O was rejected.

273

6.5.4.4 Hypothesis testing (Before and after the workshops)

- **Control group**

The **p-values (Table 6.24)** of 83% of all the questions, with the exception of questions 7.2; 9; 10.2 and 13.2 were all greater than the significance level of 0,05. With the exclusion of the exceptions, the **p-Values** indicate that there were no significant differences in the responses of the control group respondents. Hence the H_O was not rejected.

Table 6.24   Test statistics – Control group (Before and After the workshops)

Questions	Chi-value	df	p-value
1	0.444	2	0.801
2	0.111	2	0.946
3	1.202	3	0.753
4	1.679	3	0.642
5	0.246	1	0.620
6	0.168	2	0.919
7.1	0.050	2	0.975
7.2	25.434	3	0.000
7.3	0.217	2	0.897
7.4	0.159	2	0.924
7.5	1.449	3	0.694
8	0.083	2	0.959
9	45.121	3	0.000
10.1	0.487	3	0.922
10.2	7.971	3	0.047
10.3	0.333	3	0.954
10.4	3.839	3	0.279
11	0.361	2	0.835
12	2.785	2	0.248
13.1	1.528	2	0.466
13.2	6.149	2	0.046
13.3	1.986	2	0.370
14	5.538	2	0.063

With reference to question 1 of **Table 6.24**: -

χ^2 = 0,444 and the df = 2. The critical value at the significance level of 0,05 with 2 df = 5,991. Since χ^2 of 0.444 < 5,991; the H_O was not rejected.

- **Experimental I and II groups**

Table 6.25   Test Statistics – Experimental I (Before and After the workshops)

Questions	chi-value	Df	p-value
1	29.423	2	0.000
2	51.967	3	0.000
3	45.878	3	0.000
4	52.234	3	0.000
5	40.395	2	0.000
6	36.303	3	0.000
7.1	53.446	3	0.000
7.2	15.499	2	0.000
7.3	28.643	3	0.000
7.4	37.183	3	0.000
7.5	29.380	3	0.000
8	14.729	2	0.001
9	4.208	2	0.122
10.1	17.500	3	0.001
10.2	0.785	2	0.675
10.3	45.705	3	0.000
10.4	47.990	3	0.000
11	56.452	3	0.000
12	40.864	3	0.000
13.1	22.537	3	0.000
13.2	38.968	3	0.000
13.3	39.202	3	0.000
14	1.019	2	0.601

With reference to question 1 on **Table 6.25**, the χ^2 = 29,423 and the df = 2. The critical value at the significance level of 0,05 with 2 df = 5,991. Since χ^2 of 29,423 > 5,991; the H_O was rejected.

The **p-values** [**Tables 6.25** and **6.26 Test Statistics – Experimental I and II (Before and After)**] of 87% of all the questions, with the exception of questions 9; 10.2 and 14 were all less than the significance level of 0,05. With the exclusion of the exceptions, the **p-Values** indicated that there were significant differences in the responses of the respondents of the Experimental I and II groups. Hence the H_O was rejected.

275

Table 6.26   Test Statistics – Experimental II (Before and After the workshops)

Questions	chi-value	df	p-value
1	36.681	2	0.000
2	71.802	3	0.000
3	51.406	3	0.000
4	63.604	3	0.000
5	42.267	2	0.000
6	38.806	3	0.000
7.1	68.094	3	0.000
7.2	22.536	2	0.000
7.3	31.483	3	0.000
7.4	36.384	3	0.000
7.5	34.990	3	0.000
8	15.621	2	0.000
9	1.160	2	0.560
10.1	27.228	3	0.000
10.2	0.853	2	0.653
10.3	43.095	3	0.000
10.4	44.846	3	0.000
11	51.825	3	0.000
12	46.403	3	0.000
13.1	20.474	3	0.000
13.2	33.349	3	0.000
13.3	49.050	3	0.000
14	0.258	1	0.611

Referring to question 1 of **Table 6.26**, χ^2 = 36,681 and the df = 2. The critical value at the significance level of 0,05 with 2 df = 5,991. Since χ^2 of 36,681 > 9,488; the H_O was rejected.

• **Concluding remarks**

From the comparisons of the "before-the-workshop" and "after-the-workshop", the following were concluded:

○ the experimental groups rejected the H_O; and

○ the control group has not rejected the H_O.

6.5.4.5 Conclusion

The findings of the statistical analyses supported the notion that the attendance of the informative and interactive workshops (which broadened the knowledge of the attendees pertaining to the value chain, balanced scorecard, lean thinking and muda) had a significant influence on the post-workshop questionnaire responses of the respondents. This was corroborated by the statistical analysis of the "other" group who was exposed to information pertaining to the value chain, balanced scorecard and lean thinking.

6.6 Research question 4

> Is the Western Cape Education Department a strategy-focused and a measurement-managed organisation?
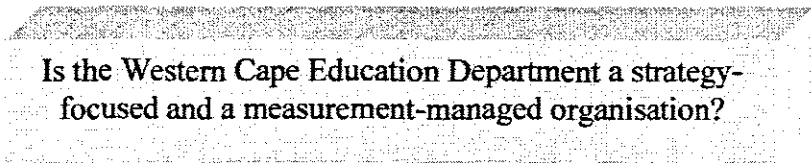
6.6.1 Responses to the questionnaire pertaining to the balanced scorecard

Table 6.27 Responses to the questionnaire

Responses to the questionnaire			
	A	B	TOTAL
Issued	300	200	500
Returned	241	92	333
% Returned	80,3%	46,0%	66,6%

A = Assistant Director and below
B = Above Assistant Director

66,6% of the prospective respondents responded to the request of the researcher to participate in this research, only 46% of the "Above Assistant Director" sample responded. The sample "Assistant Director and below" was more prepared to complete the questionnaire and hence the response was 80,3%.

The high overall response rate was due to the concern in which the employees viewed the present situation at the Western Cape Education Department. The present barriers, such as management and resources, were some of the contributory factors that deterred the

employees from rendering services from which the customers derived value. From the high response rate it was concluded that the employees were questioning whether the Western Cape Education Department was really strategy-focused and measurement-managed.

The rating of the respondents (**Annexure 13 and 14**) were utilised to compile **Tables 6.28** (average rating of responses), **6.29** (modes of the two groups) and **6.30** (test statistics – assistant director and below and above assistant director)

6.6.2   Hypothesis

6.6.2.1   The hypothesis (H_O):

The views of the different strata within the Western Cape Education
Department, pertaining to whether the Western Cape Education
Department is strategy-focused and measurement-managed, would
not be similar to each other.

278

6.6.3 Discussion

6.6.3.1 Average rating of responses

Table 6.28 indicated that the average ratings for Assistant Director and below and Above Assistant Director were by implication just about oscillating between being looked into, but nothing as yet was done (2) and was done (3). However the pendulum tended to swing more towards "is being looked into, but nothing as yet has been done". This was interpreted that the WCED was looking into becoming a strategy-focused and measurement-managed learning organisation.

Table 6.28   Average rating of responses

(Rating 1 – 5)

Questions	A	B
1.1	1.75	2.61
1.2	2.01	3.23
1.3	2.48	3.25
1.4	2.29	1.89
1.5	2.16	2.37
2.1	2.61	2.63
2.2	2.01	2.29
2.3	2.14	2.66
2.4	2.14	2.73
3.1	2.11	2.58
3.2	1.65	2.58
3.3	1.91	2.58
3.4	1.78	2.37
3.5	1.52	2.21
4.1	2.01	3.46
4.2	2.15	2.93
4.3	2.49	3.04
4.4	2.203	3.25
4.5	1.17	2.37
5.1	1.23	2.37
5.2	1.25	2.37
5.3	1.24	2.18
5.4	1.53	2.29
Average	1.91	2.62

A = Assistant director and below
B = Above assistant director

279

6.6.3.2 Measure of central tendency (Mode)

Table 6.29 indicated that the mode for the "Assistant Director and below" group was 2 and the mode of the "Above Assistant Director" group was bimodal, i.e. 1 (has not been looked into) and 3 (being done). As a result of this, the answer to research question 4 could not be affirmed or not affirmed.

Table 6.29   Modes of the two groups

	Mode	
Questions	A	B
1.1	1	1
1.2	2	4
1.3	2	3
1.4	2	2
1.5	2	1
2.1	3	3
2.2	2	2
2.3	2	3
2.4	2	2
3.1	2	3
3.2	1	3
3.3	2	3
3.4	2	1
3.5	1	1
4.1	1	3
4.2	2	2
4.3	2	2
4.4	2	3
4.5	1	1
5.1	1	1
5.2	1	1
5.3	1	1
5.4	1	2
Modes	2	Bimodal
A = Assistant director and below		
B = Above assistant director		

280

6.6.3.3 Conclusion

As a result of the findings pertaining to the average rating and the modes of the two groups, the answer to research question 4 could not be affirmed or not affirmed.

6.6.3.4 Hypothesis testing

The test statistics reflected in **Table 6.30** indicate that the **p-values** were all equal to 0 i.e. less than the accepted significance level. As such it was deduced that there was a significant difference between the views revealed via the ratings of the two variables [as reflected in **Annexure 13 and 14**]. Hence the H_O was rejected.

Table 6.30   **Test statistics – assistant director and below and above assistant director**

Questions	chi value	df	p-value
1.1	76.405	4	0.000
1.2	102.591	3	0.000
1.3	100.316	2	0.000
1.4	83.509	3	0.000
1.5	43.377	4	0.000
2.1	53.164	3	0.000
2.2	84.418	3	0.000
2.3	73.092	3	0.000
2.4	55.901	3	0.000
3.1	98.333	3	0.000
3.2	127.261	3	0.000
3.3	152.021	3	0.000
3.4	90.854	3	0.000
3.5	131.582	3	0.000
4.1	135.898	3	0.000
4.2	55.331	2	0.000
4.3	96.741	4	0.000
4.4	154.422	3	0.000
4.5	116.322	3	0.000
5.1	129.482	3	0.000
5.2	99.031	3	0.000
5.3	80.380	3	0.000
5.4	94.297	3	0.000

Question 1.1 (**Table 6.30**) indicated $\chi^2 = 76,405$ with 4 df. The χ^2 distribution table indicated that the critical value at a significant level of 0,05 and at 4df = 9,488. The calculated χ^2 of 76,405 > critical value of 9,488. Hence the H_O was rejected.

6.7   Conclusion

6.7.1   Results of the hypothesis testing

Although non-parametric tests may not be deemed to be as powerful as parametric tests, the chi-square test, in conjunction with **p-Values** were utilised to test the hypotheses. The result of the tests of the sample (the first question of all the questionnaires) is reflected in **Table 6.31**:

Table 6.31   Test statistics results – question 1 of the questionnaires

	χ^2	df	p-Value	Result
Hypothesis one	0,121	3	0,989	Accept H_{O-1}
Hypothesis two	89,713	5	0,000	Reject H_{O-2}
Hypothesis three (before the workshop)	2,970	6	0,813	Accept H_{O-3}
Hypothesis three (after the workshop)	34,782	9	0,000	Reject H_{O-3}
Hypothesis four	76,405	4	0,000	Reject H_{O-4}

- H_{O-1} = Hypothesis one (The views of the assistant director and below; and above assistant director, pertaining to the level of commitment of the WCED to performance management, would be similar to each other.)

- H_{O-2} = Hypothesis two (The views, pertaining to the perceived document-related crisis, of the different management levels are not the same.)

- H_{O-3} = Hypothesis three (The workshop has had no influence on the views of the experimental group pertaining to the enhancement of the net operating result of the

Western Cape Education Department via the value chain, balanced scorecard and lean thinking.)

- H_{O-4} = Hypothesis four (The views of the different strata within the Western Cape Education Department, pertaining to the whether the Western Cape Education Department is strategy-focused and measurement-managed, would not be similar to each other.)

6.7.2 Results of the research questions

The results of the research questions depicted in **Table 6.32** were ascertained by means of the measure of central tendency (mode).

Table 6.32   **Results of the research questions**

	Result
Research question one	Negative
Research question two	Positive
Research question three (before the workshop)	Negative
Research question three (after the workshop)	Positive
Research question four	Inconclusive

Research question one – Is the WCED making a concerted commitment to performance management?

Research question two – Does the WCED have a document-related crisis?

Research question three – Is the WCED making a concerted commitment to service delivery in enhancing customer trust and confidence via a functioning value chain?

Research question four – Is the WCED a strategy-focused and measurement-managed organisation?

6.8 Concluding remarks

In chapter 7 the discussion and recommendations of how the synergy of the value chain and the balanced scorecard could reduce wastage is presented.

Chapter 7   Discussion and recommendations

7.1   Prelude

The empirical data were analysed in the previous chapter and in this chapter the researcher intends:

- answering the research questions;

- to provide overall discussions pertaining to the findings of this research;

- to conclude how the synergy of the balanced scorecard and the value chain, within a lean environment will not only reduce wastage, but will create and will add value.

At the end of the chapter, the researcher will proffer valuable implications for management and theory; which will then be followed by some suggestions for future research.

7.2   Introduction

Within the newfound democracy of the Republic of South Africa, the WCED has been operating in an era of complexity and contradiction where the WCED has been searching for bold strategies in order to be the corporate parent whilst leading and managing change. Since the concepts pertaining to the balanced scorecard, the value chain and lean thinking are now familiar; a robust management instrument could now be created through the synergy of these proven strategies. This synergy could be utilised to effectively focus on the attainment of the strategic goals of the WCED and in doing so, not only would the adoption of this structured approach to planning, managing and measuring improvement bring about cohesion to, e.g. conflicting directorates, but it could also build confidence in the proposed process improvements. In turn, this confidence could have a measurable impact on the WCED by expediting the implementation of change, which is often seen as a delicate balance between cost, quality and efficiency.

The WCED is currently experiencing the best of times as well as the worst of times. Numerous problems are being resolved daily via dedicated and committed employees; and, as the IT department would say, "state-of-the-art" technologies. Yet, within the

"education industry" where millions of rands are being "ploughed" into, amazing service delivery feats are juxtaposed against systemic failures and disgruntled customers. Workforce shortages further constrain a system that is facing an increased demand for properly and appropriately rendered services.

Education within the Western Cape is at a critical juncture, i.e. facing a growing need for systemic change, but where the infrastructure, which could clearly provide a line of sight from strategy to execution and impact, is lacking. The mounting and stressful pressures for the provision of enhanced service delivery with the utilisation of fewer resources, have caused the WCED to realise that "business as usual" cannot any longer be conducted.

As a solution to the endeavour of the WCED to align its strategic objectives with a distinct and pronounced measurement of impact within a lean thinking organisation, the researcher proposed the synergy of the value chain and the balanced scorecard to reduce occupational crime within the WCED which implied that the total sum of the "doing" drive of the WCED and its employees; and the "measuring" drive of the WCED and its employees must constantly be more than the previous net operating result. The implication of this could also be that the more accountable the WCED is, the better the WCED will perform in its endeavour not to succumb to the pressures for improved service delivery.

In ascertaining the success of improved service delivery, the following distinguishing features should be noted:

Table 7.1   Drivers of service quality and consequences

Assessment of (Incorporating the drivers of service quality)	Evaluation of (Incorporating consequences)
Timeliness	How satisfied were you with the time it took to render the service?
Knowledge and competence	Were your partners and yourself knowledgeable and competent?
Courtesy	Were you courteous towards the customer?
Fair treatment	Have you treated the customers fairly?
Outcome	Has the customer been able to derive value from the service, which you have rendered?

(Source : Anon, 2005)

In order to ensure the long-term viability of an excellent value adding delivery system, it is imperative (from a business perspective) that the "care" for education is understood. The researcher ascertained that, what was deemed as, "education-care" was a prerequisite for the synergy of both the balanced scorecard and the value chain. Initially the value chain was seen as being product-focused and now the envisaged value chain for the WCED commences with highly satisfied, dedicated and well-motivated employees, but importantly the expectation of the customer was also borne in mind. This would produce significant internal quality, referring to the processes and activities, which directly impacts on the learning organisation (empowering employees to learn as they work as well as utilising technology to optimise both learning and productivity; and in doing so the WCED would continuously transform itself for success) and indirectly on the customer, e.g. the cycle time for the appointment of a contract educator. Hence a significant external quality would naturally follow from the significant internal quality, i.e. customer satisfaction and loyalty could be the result of the quality, which the

customer has experienced. This in turn leads to a result, i.e. the net operating result, thereby completing the value chain. This cause and effect on the performance of the value chain of the WCED could be depicted as in **Figure 7.1**.
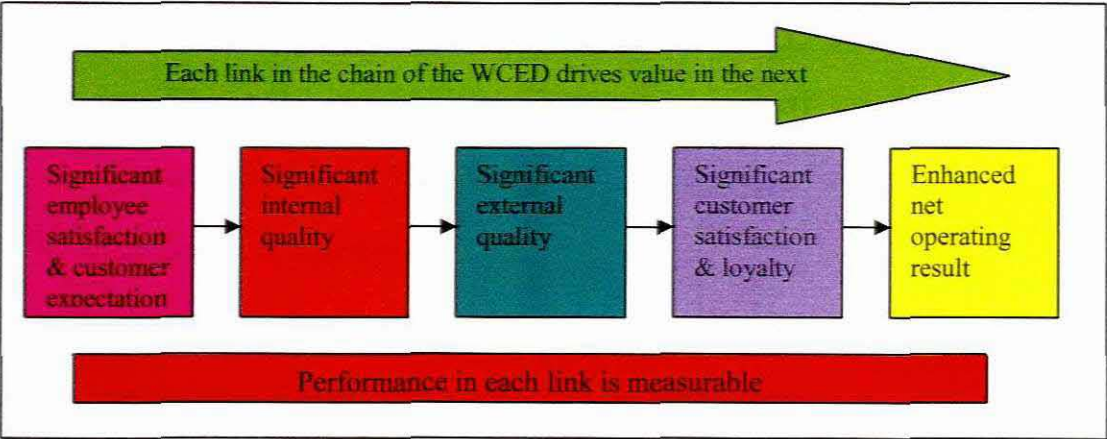

Figure 7.1   Cause and Effect on the performance of the WCED's Value Chain

(Source : Prins, 2005)

The acceptance that performance in each link is measurable and aligned along the value chain in turn give an informed insight into how "the system is performing" (Prins, 2005) as well as what would be anticipated in future. From **Figure 7.1** it was deduced that each link impacts on the following link. The implication of this is that if employee satisfaction and internal quality are weak, then the external quality, which the customer experiences, would decline. Intuitively, if this trend persists then customer satisfaction and the net operating result would decrease.

The balanced scorecard approach of the WCED would be based upon understanding its value chain; the alignment of the strategy; and the attitude (which impacts on the actions) of the employees to focus on those activities which are of paramount importance for the sustained creation of value. Also bearing in mind that the value chain cannot exist in isolation, i.e. value chains commence with the team; and attitudes and actions are the "drivers" of internal quality via high satisfaction of employees.

Hence the creation of organisational alignment within the WCED could be achieved through the: enactment of the vision and mission of the WCED (as depicted in **Figure 7.2)**; assessment of the capabilities of the WCED; making quality the "operating system" (the ability to satisfy or disappoint the customers and every link of the value chain is a causal factor of the link which follows); and aligning the systems and structures, i.e. in order to attain this, cognisance need to be taken of the:

- organisational design of the WCED,

- employment of employees,

- measurability of the systems,

- contributions of employees and the process of rewarding them,

- communication (did the WCED understand the importance of clear and consistent communication), and

- appropriate information technology.

Figure 7.2   Enacting the vision and mission of the WCED

(Source : Anon, 2005)

Ascertaining a best practice for the WCED may sound relatively easy. However, it is the relativity that could be perceived as the key hurdle. However, processes that are

functioning well at other organisations may not function in the new operating environment of the WCED. A best practice, which has been determined by top management, may not necessarily be a best practice from the point of view of the front office or back office employees or even their "supervisors".

As the WCED is searching for ways to become more competitive; to provide a superior service; and to increase customer satisfaction, top management is "looking" towards the corporate sector best practices and technological advances as a means to regain "control" and to realise a substantial net operating result. In the endeavour of the WCED to reach and to sustain organisational excellence, the researcher proffered the synergy of the value chain and the balanced scorecard, within a lean environment, to reduce muda whilst bearing the components of **Figure 7.3** in mind.

Structural capital

(maintenance-interactive)

Human Capital

Social Capital (people-interactive)   Intellectual Capital (task-interactive)
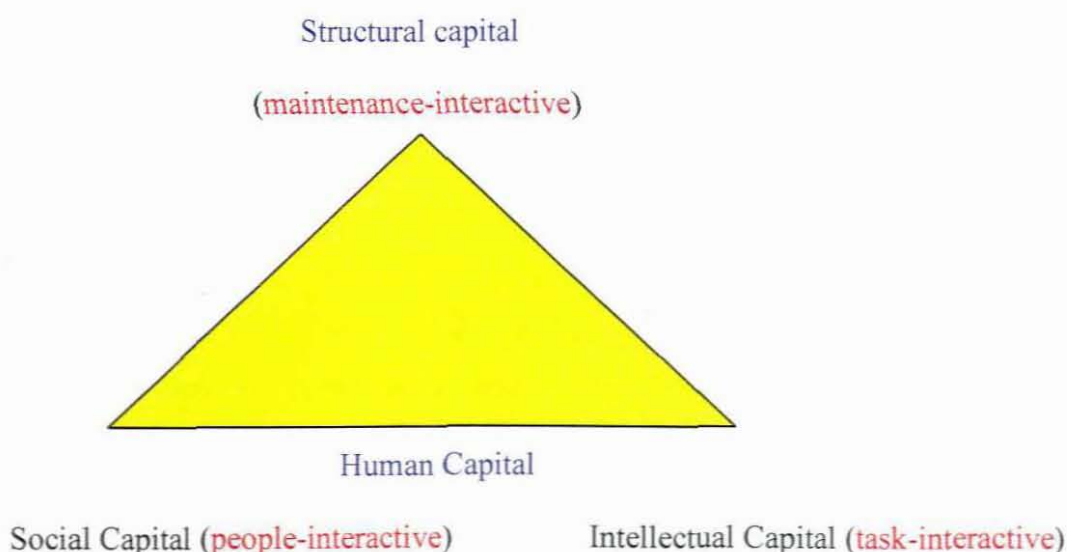
FIGURE 7.3   **Service Triangle**

(Source: Haywood-Farmer, 1988)

The apex and the base of the service triangle (Haywood-Farmer, 1988:19-29) comprises of structural capital (which is maintenance-interactive) and human capital (which is people-interactive and task-interactive) respectively. The maintenance-interactive vertex includes systems, processes and procedures. The people-interactive and task-interactive vertices respectively encompass tacit determinants of service performance and service culture (inclusive of values, attitudes, understanding, behaviour, learning and

interpersonal skills); and the cognitive and professional skills, knowledge and information, i.e. which is required by employees to execute their tasks. In order for the WCED to gain a significant competitive advantage or competitive impact via the enhancement of its net operating result, it needs to be situated at the centre of the service triangle where none of the structural -, social - or intellectual capital vertices dominate the other. From literature and the workshops held, it was deduced that since little or no research was done, that the competitive advantage or competitive impact of the WCED could be attained via the reduction of occupational crime through the influence of the balanced scorecard, value chain and lean thinking (**Figure 2.1**) and by understanding the underlying dynamics of the relationships between the quality of the service which is rendered and the satisfaction of the internal and external customers.

7.3   Summary of findings

7.3.1   Interviews

Emanating from the interviews, which were conducted and especially those attached to the corporate sector, it was deduced that successful organisations demonstrated that size; number and diversity were not necessarily the problems. From the interviewees it was concluded that within the WCED, the flaw was not the range of the directorates, but rather the lack of a corporate strategy, which would have added value to them, i.e. the corporate parent (Campbell, Goold and Alexander, 1994) was non-existent. As a corporate parent, the WCED must bear in mind that the performance "challenge" is more than just understanding those assets which contribute towards the maximisation of the net operating result. Hence the corporate parent should be more than a financial controller and or a consolidator of strategic business unit plans.

Statements such as "HR is still on the table and not at the table"; "*Too many employees in leadership positions are fearful that if they share their knowledge, they diminish their standing within the WCED*"; and "*Too many employees in leadership positions either resist change or are not equipped to deal with it*" also emerged from the interviews and this allowed the researcher to conclude that in the endeavour of the WCED to reduce occupational crime, each department within the WCED and especially the Human Resources (HR) department should focus on two primary issues, viz. the effective

292

management of internal tasks and to render assistance to the entire WCED to integrate the various human resources functions into daily value adding activities with the inclusion of workplace skills development, performance management and knowledge sharing. If this comes to fruition then the WCED, the corporate parent, will remain ahead of the "curve" instead of reacting to events when it was too late. The balanced scorecard will indicate what, amongst others, the WCED should measure in its endeavour to understand the ramifications of any particular action, which would deter the WCED from closing the expectation and satisfaction gap.

7.3.2 Workshops

The interactive workshops (as reflected in **4.17.2** and **4.17.3**) and the statistically analysed hypotheses (**6.3 to 6.6**) afforded the researcher the opportunity to conclude that interactive and excellently facilitated workshops would contribute towards making the reduction of wastage "a way of life". Furthermore, it is the perception of the researcher that if the internal customers attend workshops, then the knowledge and experience gained could contribute towards the rendering of value-adding activities; but if the employees attend total productivity training workshops then it would contribute even more towards the enhancement of the net operating result of the WCED.

It also needs to be borne in mind:

- that the researcher does not have statistically conclusive evidence that the total productivity training workshops actually decrease wastage within the workplace, and, among others,

- that cognisance must also be taken of the Hawthorne effect.

However, the conclusions derived at (pertaining to research question three and hypothesis three) via the information facilitated during the total productivity training workshops provided substantial guidance to enact the initial occupational crime reducing process. It is the belief of the researcher that in time this initial occupational crime reducing process,

supported by follow-up interactive total productivity training workshops would become an "occupational crime reducing way of life".

The interactive nature of the workshop as well as the plenary sessions allowed the participants, amongst others, to define the value position of the WCED while synergising the primary and support activities of the value chain with the four perspectives of the balanced scorecard and especially the internal business processes. The sessions (Stage 1; Stage 2 and Stage 3) and especially the report back sessions, prior to the commencement of the sessions that followed, afforded the participants the opportunity to interact with each other and to feed back whether the information facilitated to them has been of value and if not, what was lacking in order for them to attain productivity training i.e. action learning.

Also at the workshops held, it was mentioned that *"the increasing role of intercultural negotiation"* in the WCED called for greater attention by the stakeholders, whilst developing a model of excellence via the reduction of wastage, to be aware of how culture influenced the way individuals approached and managed instances of occupational crime. This possible conflict was deemed as being an overt expression of tensions between the goals or concerns of one group (racial groups and "old boys" club) and those of another group. From the plenary sessions it was perceived that with increased interdependence and interactions across organisational boundaries and boundaries of the directorates; many opportunities existed not only for improved decision-making and innovation pertaining to the reduction of occupational crime, but also for miscommunication, misunderstanding and misperceptions; and the loss of productivity (Whetton and Cameron, 1998:325) which enhanced the propensity for conflict. As the participants interacted with each other, the researcher also perceived that the cohesiveness of the group could be diminished by cultural diversity and that cohesiveness would possibly be easier achieved in homogenous groups because people felt more comfortable with group members who were like themselves or who pretended to be like the other members.

During the interaction with the participants within the group workshop sessions, amongst others, the following "*must come strongly through*" in order for the WCED to function optimally, i.e. strategically efficient and operationally effective and where the reduction of occupational crime was automatically being executed in its endeavour to close the gap between the perceived and actual satisfaction of the customers:

1. Behaviour and attitude must change and not the transfer of facts, i.e. transferring facts, theories and techniques without providing a clear understanding of how a task could be executed differently may in fact be counterproductive. It could lead to the frustration of both internal and external customers. Hence the following questions should at all times be borne in mind:

   a. What must change within the WCED to make concepts work?

   b. What specific changes need to be "piloted"?

   c. When will the changes be reviewed?

2. Changes must be process-orientated and not "directorate"-orientated, i.e. isolated changes made by a section within a directorate cannot change or dramatically improve the WCED. Breakthrough improvements could occur when cross-functional processes, within a seamless WCED, were improved in ways that optimise performance and efficiency throughout the WCED.

3. Changes need to be convergent and not divergent, i.e. changes need to be narrowed down from "*could do*" to "*needs to do now*". Specific occupational crime issues must be defined; goals must be set; and specific initiatives must be identified and then "*broken down*" into small attainable steps. In a multi-step implementation process, multiple dissemination steps need to be planned and "*spread over time*" to match the implementation plan.

4. Changes must be inclusive and not exclusive, i.e. from the outset "*get all the employees who know the most*" about occupational crime involved in leading the change as well as the dissemination of the information.

5. The ethos of the WCED must change from status to contribution, i.e. employees have a sense of freedom, viz. freedom to act, learn, experiment, challenge and build relationships with customers. Hence being a customer-driven learning

organisation means not to be operating within a command and control environment (Bullard, 2005).

6. Reduction of occupational crime must be a way of life.

Amongst others, the following arose from the plenary sessions:

- The net operating result value chain of the WCED would assist the stakeholder(s) to visualise beyond the realm of external service delivery to the internal responsibilities of the employees in management positions to lead their employees.

- Managers are or pretend to be unaware of failure demand (if information was forwarded to customers that confused them and then caused the customers to contact the person who forwarded this information, then it not only increased the cost of providing this particular service, but the customers might become disgruntled) as they are pre-occupied with only the delivery of service. They are knowledgeable about the amount of demand for service, but the demand is being treated as "units of production".

- Service improvement and *"human resource modernisation"* must not be visualised in isolation, it is interdependent on each other, i.e. the success in one is dependent on the success in the other.

- The precise assessment of relationships, behaviours, attitudes and outcomes remained a challenge.

- Social and cultural factors impacted on the reduction of occupational crime.

- The only way for the employees to strengthen customer trust and confidence in the WCED was when each employee rendered a service from which all customers, i.e. internal and external derived value.

- Within the EMDCs there was evidence that customers were positive about services that were rendered. *Why then has the level of criticism and dissatisfaction with the WCED increased instead of being reduced since there have been so many reforms of the WCED and efforts of organisational change?* As a result of this, the following questions were posed: Do reforms have an impact? Do reforms matter? The response to these questions encompassed the following:

o The employees need to be aware of the efficiency trap as well as the accountability paradox.

o *Reforms do satisfy some organisational and political needs, but the customer does not derive value from the services rendered as the quality of the service rendered to the customers is distorted.*

o *Reforms can be connected to the narrow political targets of the ruling party.*

Since the WCED has traditionally been the monopoly provider of services, employees of the WCED had little incentive to engage in the reduction of muda as they would "always have a job". "It is this way of thinking that drastically needs to change" (Pandor, 2004). Also the redesigning of the WCED for the challenges of the 21st century does not imply that the WCED should become larger, but the emphasis should be on competence and quality of performance. President Mbeki (2005) intimated that the reform of the Public Service, e.g. the WCED involved the reform of an old bureaucracy into the context of the newly found democracy where performance was not simply gauged by material standards, but that the customers (who predominantly are citizens of the Republic of South Africa) expected the WCED to function in an honest, competent and efficient manner. The President also intimated that the Public Service should create an atmosphere in which all the employees from top to bottom should feel free to participate and to communicate about saving money and improving performance.

7.3.3 Questionnaires

The respondents did not reject H_{O-1} and H_{O-3} (prior to the workshops) because the p-values indicated that the responses of the randomly selected samples to the questions of the questionnaires were not significantly different.

Statistically it was also proved that H_{O-2}, H_{O-3} (after the workshops) and H_{O-4} were rejected by the randomly selected samples because the rating of the questions by the respondents was not the same.

297

The implication of the above-mentioned findings was that it points in the direction that the awareness of wastage in conjunction with the balanced scorecard, the value chain and lean thinking, would be effective in the reduction of occupational crime.

The result of hypothesis 3 indicated that the "treatment", i.e. the reading material, which the experimental I group received prior to the workshops, has not significantly impacted on their rating. However, the statistically significant differences between the **p-Values** of the employees, who attended the workshops, implied that their value-adding perception encompassing the reduction of wastage changed and that the transparency pertaining to the "up-to-the-minute" news on waste reduction contributed more to their value-adding perception.

Furthermore, the research hypothesis proved that wastage was inversely proportionate to the balanced scorecard, the value chain and lean thinking, i.e. as wastage (occupational crime) decreased, knowledge of the value chain, the balanced scorecard and lean thinking increased and vice-versa.

Also, in the endeavour to answer the research problem:

> How can the value chain and the balanced scorecard be synergised, within a lean thinking environment, to reduce occupational crime within the WCED?

the researcher looked at the above-mentioned findings of the 4 research questions as well as the 4 hypotheses. The findings were all deemed to be negative. So what must be done?

The answer:

1. it must be borne in mind (as employees of the WCED i.e. public servants) that beyond the empirical issues, there were still also existential and ethical issues; and

2. to execute focused applications for the reduction of occupational crime, i.e. muda within a lean environment, instead of having WCED-wide initiatives. This would

assist with getting the envisaged on-going program of reducing wastage, i.e. occupational crime off to a successful start. Within the WCED there are and would be an abundance of opportunities to apply lean concepts in the occupational crime reduction program which in time should become an ongoing process in the endeavour to constantly enhance the net operating result of the WCED. Mapping the value stream of each "major service" that was being rendered could derive at these opportunities. In doing so the significant occupational crime activities embedded within the present process would be revealed. The ideal would be that each employee should ascertain how many activities within the value stream were really adding value and in doing so would allow the closure of the perceived gap between the satisfaction of the customer and the expectation of the customer, i.e. meeting the needs of the customer.

It is all good and well to know what needs to be done, but it is imperative that if the reduction of occupational crime is to be sustained, the WCED should have an organisational commitment to improve the system. The WCED should commence with small and focused improvement initiatives, which would lead to "early" favourable outcomes and would contribute towards the notion of the reduction of occupational crime gaining momentum. The results attained should be measured and communicated throughout the WCED. Within a short space of time, the cumulative effect of this change could be significant. Yes, to a certain degree the outcomes are measurable, but the exact measurement of relationships and outcomes will remain a challenge.

Prokopenko (2004) advanced that service delivery, i.e. how the task was performed, not only encompassed micro-performance, but also macro-performance and cultural factors that the employees must be au fait with in tending to their needs as well as to the needs of the customers.

The reduction of wastage, within a lean environment, via the synergy of the value chain and the balanced scorecard may seem to be a large burden, but it could also be an exciting and meaningful one that could also be deemed as being both a challenge and the glory of the WCED.

7.3.4 Workshops, interviews and questionnaire respondents

From the plenary sessions of the workshops, the interviews and the written correspondence from the questionnaire respondents, the researcher deduced that there was a perception that the WCED was grounded in quality management principles and that if the WCED created a model of excellence then it should, amongst others, have an integrated approach to performance management. This integrated approach would encompass activities, strategies and or policies.

The participants of the workshops; interviewees; and the questionnaire respondents, amongst others, posed the following questions pertaining to performance management (questions 1; 2; 3 and 4) and the performance of the WCED (questions 5 and 6):

1. Was the deployment of approaches executed in a systemic and structured manner?

2. Was the effectiveness of approaches evaluated and reviewed in a systemic manner?

3. Would learning and growth; and assessment lead to the identification and prioritisation of specific improvements?

4. Was there proof that learning and growth have been achieved through the sharing of best practices?

5. Do the results of the performance of the WCED comprehensively assess what was of paramount importance to the customers and stakeholders?

6. Was there proof that the results obtained, compare favourably with external organisations that could be deemed as being the "best in class"?

The endeavour of the WCED to address and to resolve the above-mentioned questions, will contribute to the commencement of entertaining the problem statement of the research.

7.4 Recommendations

7.4.1 Lean thinking

Lean thinking must be viewed as a journey and not something that can be attained "over lunch". For the WCED to be a lean organisation, management needs to accept that it is a totally different system in as much as it is a change in the social system of the WCED and not the application of a few tools and techniques. The transformation of the social system of the WCED entails knowledge of the vision, persistence, and extraordinary leadership. In this new social system, the new catch phrase should be "eyes for waste".

Lean thinking within the WCED and within these turbulent times is like fighting a life-threatening disease such as HIV/AIDS. In the same way, the existence of lean thinking can be denied and the response to the existence of the lean thinking concept could be met with anger, but what it really boils down to is what the WCED and specifically the internal customers intend doing about it, i.e. either denial or anger could be a choice, but the most important would be how to entertain lean thinking. Lean thinking also encompasses the movement from an inconclusive mindset and a limiting mindset to a positive mindset, as reflected in **Table 7.2**.

Table 7.2   Lean thinking – progression to a positive mindset

Inconclusive mindset either/or (I can do this, but not that)	Limiting mindset	Positive mindset and (values-driven and tough decisions)
hardwork (work harder, not smarter)		big picture (focus effort on what really matters)
	fear (every day I come to work and fear being kicked)	empowered accountability (I have the courage to take the initiative) get it done (if there is a problem, we'll get up in the middle of the night to fix it
	mistrust (I don't trust my superiors/peers to be honest with me or to treat me fairly)	trust (respect for the in-dividual)
		community (camaraderie between all the employees of the WCED)
		learning (we can learn from others)

(Source : University of Cape Town Graduate School of Business, 2005)

The following dangers need to be taken cognisance of whilst implementing lean:

- Avoid training for the sake of doing training, i.e. always bear "total productivity training" in mind.

- Be mindful of delegation.

- Do not allow terminology to become a barrier.

- Do not perceive lean as being a "plaster".

In the endeavour of the WCED to reduce occupational crime (in its process of becoming lean), amongst others the following needs to be executed:

- Identify the causes of occupational crime:

  o Identifying factors causing possible inefficiency currently in use.

o   Answering the following questions and listing causes on a fishbone diagramme:

- How was the delivery of service affected by:

    • service delivery specifications?

    • the choice and quality of input "products" within the "work flow" and the "pull system"?

    • the selection of technology and the process design?

    • maintenance practices e.g. re-training and multi-skilling? and

    • waste of "input"?

• Generating options whilst rendering services:

o   Utilise the below-mentioned table (**Table 7.3**) and the above-mentioned lead questions to generate options to ascertain whether the priorities are high, medium or low

Table 7.3   Rating of options that have been generated

Cause factors	Option lead questions and options	Benefits	Complexity	Priority

(Source: Anon, 2005)

• The generation of options for the 7 wastes (Ohno, 1985)

o   For each of the 7 wastes complete the above-mentioned table (**Table 7.3**) as well as utilising the cause factors and the lead questions to generate options.

o   Hereafter the potential benefits should be listed which are fairly clear and also stating its priority.

o   The viability of the options, which were not so clear, should also be listed.

303

- Optimisation of management practices (**Table 7.4**) pertaining to the 7 wastes.

Table 7.4 Ascertaining management practices

Option	Being implemented within the WCED (Y/N/Partially)	Action required
Develop a muda reduction policy		
Set "muda" saving targets		
Develop a muda reduction monitoring system with comparative data		
Establish a system to investigate deterioration of service delivery		
Incorporate occupational crime data into reporting systems		
Communicate occupational crime reduction to employees		
Raise the awareness of the employees pertaining to the importance of efficient service delivery and muda reduction and the impact of their services rendered		
Implement an employee suggestion scheme pertaining to muda reduction ideas		

(Source: Anon, 2005)

Emanating from the deliberations with the interviewees and the participants at the workshops, the researcher deduced that presently the WCED does not have the capacity

to commit to a long-term lean strategic project, also that the WCED would more readily commit to a variant of lean as a result of the following:

- Coping with specific threats, e.g. poor interactions with the customers of the WCED or a particular customer,

- Poor quality of the services rendered, e.g. failure demand,

- Requirement to reduce the cycle time from the request of a service to the delivery of that service,

- Launching and rendering new services e.g. wellness programme of the WCED, and

- Developing best value practices.

From the above it was noticeable that the "pressures" (causes for organisations to change to lean) were generally not positive. *"Killing fires"* were more on the mind of the managers, than on the opportunities. The researcher utilised "leaning" (within the workshops) to demonstrate how major problems affecting the WCED were dealt with. Hence "leaning" was deemed as the systematic elimination of occupational crime (overproduction, waiting, transportation, inventory, motion, over-processing and defects); as well as the implementation of the concepts of continuous flow and customer pull.

7.4.2   Synergy of the balanced scorecard and the value chain

The "nitty gritty" of leadership is the attainment of the highest degree of alignment between the vision and the mission as well as the achievement of the highest net operating result. In order for the WCED to achieve delighted customers; satisfied stakeholders; proud employees; and enhanced communities, it was important that the information, as per **Table 7.4,** be communicated and understood by all the employees.

Table 7.5   Satisfaction of customers

Targets	——	By when it need to be done?
Measures	——	How was it done?
Individual objectives	——	What needs to be done – individually?
Strategic initiatives	——	What the "group" needs to do?
Strategy	——	The "game" plan.
Vision	——	What the "group" wants to do?
Mission	——	The basis for doing.
Values	——	What the group or individual believes in?
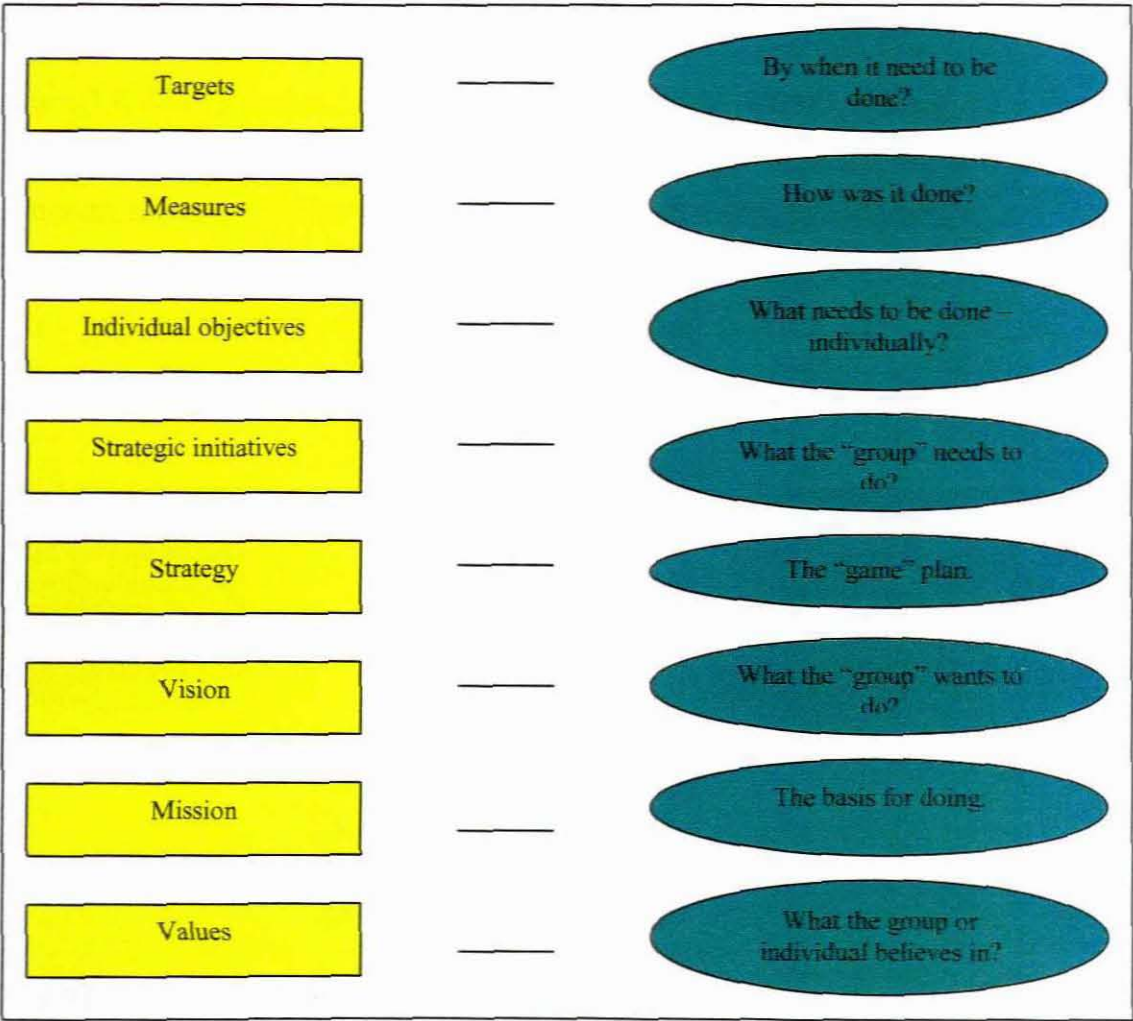
The linking of long-term strategic objectives with short-term actions is achieved via the balanced scorecard processes (Kaplan & Norton, 2001). The balanced scorecard processes are: translating the vision and in doing so forming objectives (top management reaches consensus about the vision and strategy of the WCED); communicating and linking (facilitating the communication of the strategy of top management throughout the WCED which in turn links with the objectives of the various directorates); organisational planning (enables the integration of organisational and budget plans of the WCED, i.e. organisational planning and budgeting planning are not done separately); and feedback and learning (allowing the WCED the capacity for strategic learning, i.e. feedback and learning are experienced through the review of performance of the four perspectives of the balanced scorecard to assess real time strategy against performance). These balanced

scorecard processes, which are interdependent, are deemed as being contributory factors for change.

Figure 7.4 illustrates that the balanced scorecard of the WCED also provides a robust approach for designing a strategic management system in which the balanced scorecard formes the foundation of performance and strategy reflections (Niven, 2002).

Strategy reviews
of the hypotheses that underlie the strategy. Agree key drivers to success, objectives, targets, achievements and measures.

Performance reviews
monthly or quarterly of directorate's, team's and individual's achievements vs. targets

Review
balanced scorecards and organisational planning targets and achievements

Gather
balanced scorecards and organisational planning measures of actual performance

FIGURE 7.4 WCED using the balanced scorecard as a strategic management system

(Source : University of Cape Town Graduate School of Business, 2005)

The balanced scorecard offers the strategic operations management an invaluable model for planning and control (Kaplan & Norton, 2001), but it needs to be modified as to accommodate the value chain structure which strategic operations management creates (Lawton & Micheals, 2000).

While it is easy to say that value needs to be created, it has to be borne in mind (as it was reiterated within the plenary sessions) that the creation of value and the delivery of value

are very complex processes also that the ownership of the value chain was not a priority, but that the control and management of the value chain was of paramount importance.

Strategic operations can be *"broken down"* into processes such as design and development, production, procurement and logistics **(Figure 3.6)**. **Figure 7.5** indicates that specific activities can be derived from these processes and from various secondary resources it can be deduced that if the value delivery process was not creating value or not coordinated as well as not structured around the expectations and objectives of all the stakeholders, then sub-optimal performance would be the *"order of the day"*.

Value strategy components	Value strategy processes	Value strategy activities
Identify value expecta-tions	Design and development	Service support specification
		Process design
	Procurement	Identification of sources
		Quality management
		Negotiation
Create the value	Production	Identify competencies and create organisational design
		Manage capacity and cost
	Logistics	Availability and reliability
Communicate value	Marketing	Brand development or management
	Logistics	Communication
Deliver value	Service	Liaising with customer
	Logistics	Service liability
		Brand reinforcement
Service the value to the customer	Delivery	Ensure value proposition is delivered i.e. customer satisfaction
		Ensure objectives are attained

Figure 7.5   WCED strategic operations: planning value creation and service delivery

(Source: Anon; 2005)

The significance of each of the questions posed in **Figure 7.6** is highlighted by the answers that will be offered.
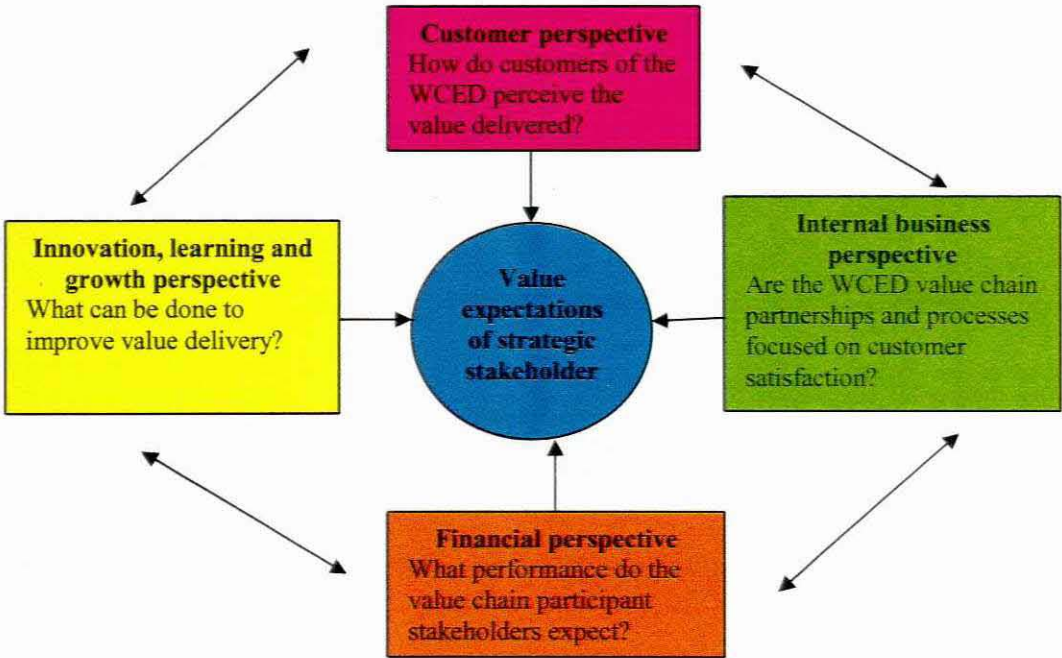

FIGURE 7.6 Strategic operations: value expectations of strategic stakeholder

(Source: Kaplan and Norton, 2001)

These answers will influence the direction of the value creation process and the coordination and control functions the balanced scorecard was expected to monitor (inclusive of management, measurement and communication). The focus of the customer perspective is on the attainment of customer satisfaction whilst the financial and social cost; value and benefit (benefits are not only measured in financial terms, as policies and programs can create both positive and negative externalities); and the legitimising authorities (legitimising authorities perspective re-designs the customer perspective to fit

with citizen expectation in a democratic environment) were borne in mind (**Figure 7.7**).
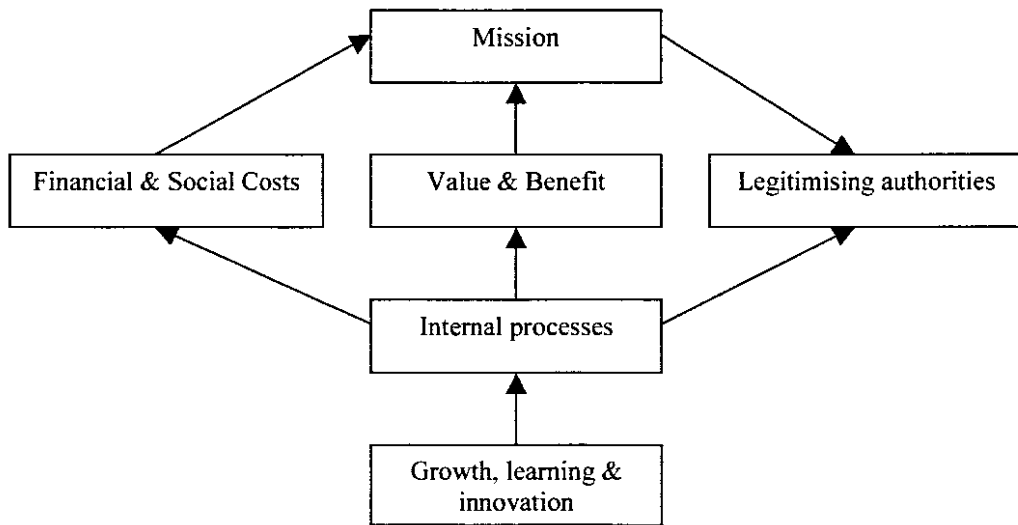
FIGURE 7.7 **Strategy Map of the Western Cape Education Department**
(Source : Anon, 2005)

The links with the internal business perspective and the innovation, learning and growth perspective ensure a relevant structure of response processes and that these are monitored and acted upon. The innovation, learning and growth perspective is focussed on the monitoring of customer satisfaction and the efficiency of internal business processes in meeting the customer value expectations as well as meeting any changes which might arise.

The financial perspective considers the budgetary objectives of the participants of the value chain in its endeavour to meet the expectations of the customers as well as how it contributes towards the creation of internal business processes which adds value; and the development of skills to render a service in which the expectation and satisfaction gap of the customer is closed. However, there is a possibility that objections may be lodged regarding the equality of its distribution. In **Figure 7.7** mission replaces the financial perspective as the WCED's top level objective, which in turn strives to enhance the net operating result and not profit; and is in turn supported by three important perspectives: costs, benefits, and legitimising authorities.

From the audiences between the researcher and the Directors of the EMDCs of the WCED, it emerged that there is a trend towards higher competitiveness through productivity growth within the various directorates and "market" expansion paradoxically requires directorates to form cooperative alliances and networks in order to compete better through co-operation. From the plenary sessions, at the workshops, it also emerged that there should be "unprecedented" growth in inter-directorate co-operation and networking because *"there should be a realisation that strategic alliances can definitely facilitate complex co-ordination beyond what each section within a directorate can accomplish while avoiding the 'dysfunctional properties' of e.g. performance agreements, which negatively impact on growth and networking, of the Directors."* The formation of strategic alliances means that strategic power often resides in groups of departments within the directorates acting together as partners (Johnson & Scholes, 1999: 340 -344). The partnership philosophy "should be based on improving productivity and efficiency" (Slack, Chambers, Harland, Harrison and Johnston, 1998:499), i.e. the partnership concept of the WCED should rest on the notion that performance significantly improved through joint and mutually dependent activities (Johnson & Scholes, 1999: 459).

In the future, as the WCED endeavours to reduce occupational crime, alliances and networks, especially productivity-orientated networks, could be successful across directorates especially those with shared values, mutual trust, influence and support (Johnson & Scholes, 1999: 341 – 342). Also, directorates will enter into alliances; and not only into opportunistic alliances; amongst others, for the following reasons:

- to learn from each other,

- to take advantage of partners' specialisation attributes,

- to create linkages, viz. to develop closer relationships with "suppliers" (within the value chain) and customers, and

- to step over existing constraints.

It must be borne in mind that the synergy of the balanced scorecard and the value chain can only commence whence the objective has clearly been communicated and

understood; as well as to be knowledgeable about the factors which could have a negative bearing on the net operating result of the WCED.

Value creation is in the eye of the beholder, i.e. if the WCED fails to deliver value to the customers, inevitably the net operating result will be diminished. From the examples that were tabled by the workshop "break-away" groups, the researcher concluded that the current measures of performance were deemed as being counter-productive to the attainment of customer satisfaction. Many sections of the directorates seemed to have fallen into the trap of believing that operational measures such as the non-return of information pertaining to the manner, in which the appointment of educators was executed, were indicators of customer satisfaction. These examples, which were tabled, indicated that they are only measures of efficiency.

Since the employees of the WCED were striving to understand the customer from their perspective, it was easy to fall into the trap of measuring service quality from the point of view of the employee. Service quality does not mean customer satisfaction because although the key performance areas of the employees were met, customers were still unhappy.

Hence this "efficiency trap" must be avoided at all costs. In striving to avoid the efficiency trap, the WCED should recognise and manage the chain between customer satisfaction, service quality and employee satisfaction; and in doing so, amongst others, the WCED would not only be valuing the "hands", but also the "heads and hearts" of the employees. Satisfied employees, who were encouraged to utilise their heads and hearts, would be able to detect occupational crime within the service delivery process of the learning organisation and would in turn also strive to reduce it (Burger, 2004).

The researcher assumed, because it was not researched, that the fertile soil created by the encouragement of the employees to utilise their heads and hearts encouraged the planting of the "accountability" seed. The germination of this seed was followed by the "promises of accountability" sprouts; and these "promises of accountability" sprouts in turn

blossomed into greater transparency and into improvements in the quality of the service which was rendered as well as into impartial areas where the abuse of authority was challenged and judged; and where pressures encouraged appropriate behaviour (Frans, 2005). Hence (as President Mbeki referred to in the 2005 address to parliament) greater accountability meant improved performance (production, competence, results and productivity), which in turn encompassed a shift to higher value adding activities, i.e. improved value adding service delivery. However it must also be borne in mind that the increased efforts to improve performance through accountability could have the opposite effect, i.e. instead of accountability being a driver of improved performance, accountability tends to slow down or even stop the improvements (Leibolt, 2003).

7.4.3 Concluding remarks

The synergy of the balanced scorecard and the value chain within a lean environment not only focused on the workflow and processes across the organisational structure, but also on the reduction of occupational crime, i.e. wastage. If the value chain commenced and ended with the customers in mind, then the net operating result attained, created high value to the internal and external customers. Since the value chain is not "rigid", high efficiency and high productivity will be the order of the day via continuous improvements. It should however be borne in mind that in the endeavour of the WCED to satisfy demands for quality, control systems should not be the reason, but rather, amongst others, the learning and growth perspective and the internal business process perspective.

Presently, and especially on the "roadshows" of the WCED, many directors indicated that their departments and their EMDCs have drastically reduced occupational crime, but as per definition, the participants at the workshops and the respondents of the questionnaires indicated the opposite. These conflicting views and the acknowledgement by most of the interviewees that there was still a lot to be done and that the WCED was at different levels pertaining to the understanding and implementation of a "truthful" reduction of occupational crime.

It was deduced from the interviews and the workshop sessions that identifying, capturing and communicating measures across the directorates of the WCED and then linking it

back to the strategy of the WCED was definitely not an easy task. This could also be the reason for the different levels of understanding and implementation of a truthful reduction of occupational crime. In the endeavour to successfully make this linkage, the researcher proposed that realisable targets which struck a balance between the effort and benefit must be set; transparency (effortless movement from big-picture analyses to directorate-level details as to facilitate proactive decision-making) must come to fruition; rationalised measures (recognition of measures that are unique to certain directorates and common across directorates, departments and EMDCs; and then to find straight-forward measures for the value chain of the WCED, which would tie in with the strategy of the balanced scorecard of the WCED) must be enacted and a common language (measurement jargon of the WCED) must be utilised.

The mapping of the reduction of wastage, derived from the strategy, mission and vision of the WCED, not only created value to the external customer, but also to the internal customer. The purpose for the mapping of the reduction of wastage (which encompassed the aim, pre-design process, execution process and marketing) was the creation of an understanding of the reduction of wastage and then to constantly minimise wastage as it should actually become a way of life.

It is crucial that the employees understand the terminology utilised in the reduction of wastage via the synergy of the balanced scorecard and the value chain. If not, then wastage reduction would be futile. Hence employees need to be actively involved in the process. Consultants may be used, but only in a supportive capacity. It also needs to be borne in mind that there is a thin line between getting too comprehensive and being too detailed. If the explanation were too comprehensive, then there is a risk that the service would only be rendered out of habit and if it was too detailed again, then the employees would feel that they were inhibited in the execution of their core business. Hence, there is a difficulty in deriving at the correct blend.

Hence the **ANTIDOTE** for occupational crime would be:

Table 7.6   **Antidote for occupational crime**

A	The <u>A</u>TTITUDE of the employee should not only be focused on the satisfaction of their needs, but also on those of the customers.
N	The reduction of wastage should be a way a life i.e. it must be <u>N</u>ATURAL
T	The synergy of the balanced scorecard and the value chain within a lean environment must <u>T</u>RUTHFULLY be utilised to reduce wastage.
I	The <u>I</u>NTEGRITY of the employee must be such that the customer must not only be able to derive value from the services that have been rendered, but also from the "after-care service".
D	If the employees understand the language i.e. the terminology utilised, then what needs to be done would not be misconstrued and then the enhancement of the net operating result would be <u>D</u>OABLE.
O	The measurements, targets, initiatives and objectives of the perspectives of the balanced scorecard; the processes and activities of the value chain; and the principles of lean thinking would deter the employee from <u>O</u>SCILLATING between occupational crime and non-occupational crime.
T	The employees should at all times be aware of the potential drivers of customer <u>T</u>RUST and confidence and especially the administrative factors viz. service satisfaction, service benefit and service adequacy.
E	The <u>E</u>XECUTION of the service must be such that not only must the gap between the expectation and satisfaction of the customer be closed, but also that the customer must be allowed to be at the centre of the value circle.

7.5 Implications and limitations

7.5.1 Implications for management

Although the research cannot claim to be fully representative of the employees of the WCED, given the sample size and the convenient sampling, its depth of investigation and the perception of the employees pertaining to this topic serve as testimony to the relevance of the research.

From a managerial perspective, employees need to understand what the customers value and where the attention should be focussed on in their endeavour to allow the customer to derive value from their offering.

The findings, conclusions and recommendations allowed the researcher to ponder on issues within the research area. The findings of this research might contribute towards the endeavour of the WCED to gain a competitive advantage or competitive impact and to enhance its strategy pertaining to the reduction of occupational crime (within, which the researcher hoped would be, the fierce competitive public service delivery environment).

7.5.2 Implications for theory

The overall purpose of the research was to develop a model of excellence and to gain a deeper understanding of muda via the synergy of the value chain and the balanced scorecard. However, with regard to the competitive impact (via muda of a learning organisation in the public service), via the synergy of the value chain and the balanced scorecard within a lean environment, the researches were limited to non-existent.

This research explored and described this phenomenon within the specific research area. In the endeavour of the researcher to develop this model of excellence, four questionnaires were issued; workshops, structured interviews and semi-structured interviews were held; and focus group discussions and field observations were arranged.

317

This research contributed to existing theories and provided a foundation from which further researches could be executed.

7.6   Conclusion

Meeting the many challenges to increase the net operating result, i.e. via the reduction of wastage will require the WCED to undergo fundamental changes and continuously to search for new ways to create value. Encouraging the internal customers of the WCED to attend total productivity training workshops can attain the creation of value. It needs to be borne in mind that the implementation of change takes time. In the endeavour of the WCED to derive real benefit in the long-term, the leadership and all the other employees need to embrace the synergy of the balanced scorecard and the value chain from the top to the bottom and from the bottom to the top. Not only would the implementation of the synergy of the balanced scorecard and the value chain within a lean environment require dedication, determination and perseverance; but it would definitely change the WCED from being event-driven into a targeted and strategy–focused learning organisation in which growth would be sustained and the customer would constantly be able to derive value from the services which were rendered.

Morale would improve as the employees engage in understanding the reduction of wastage from a different point of view as well as being instrumental in changing it. Although the improvement of morale was not empirically researched, it could possibly not only lead to a perceived new level of performance, but also to an ethic and the means for continual improvement in which not only would the needs of the customer be satisfied, the customer would indeed also be able to derive value from the offerings of the employees.

7.7   Concluding Remarks

If management calls for a moratorium to be placed on wastage, would the activities and processes of the WCED be placed "on hold"?

In chapter 8 the conclusions of how the reduction of wastage (through the synergy of the balanced scorecard and the value chain) could enhance the net operating result, are presented. Furthermore the summary of the findings, recommendations, research limitations and the scope of further research are discussed.

Chapter 8   Conclusion

Self-evident truths are frequently invoked when scholars and policy-makers propose political reforms. Often we do hear that it is obvious that X is true, therefore we need to do Y. The implication of this assertion is that common sense dictates our understanding of the problem and the solution. But is it really the case that X is true? And is Y really the best response? The fact that something is widely believed does not make it correct. (Balkwell, 1991:355-369)

8.1   Prelude

The Western Cape Education Department should not make the mistake to believe that the synergy of the balanced scorecard and the value chain can reduce wastage by just re-organising the WCED. The re-organisation of the WCED should not be entertained unless the current situation was thoroughly analysed. It also needs to be borne in mind that this process could cause the employees to become anxious and the worse case scenario could be that the employees could become unwilling to co-operate. Hence to obviate this is constantly to communicate with the employees, but bearing in mind that the reduction of muda is everybody's business and not just that of upper management level. The synergy of the balanced scorecard and the value chain, within the WCED, is not just a set of tools to be selected from when wastage arises. It is not a quick fix technique, but it should be entertained as a way of life.

Hence the reduction of occupational crime is about change and getting the WCED to change is a challenge. It is imperative that this challenge must be overcome. If successful, then the biggest obstacle to the execution of the reduction of muda was stepped over.

Strategic operations in the removal of inefficiencies within the WCED become an integral component in the strategy to ensure an optimum response to the requirements of both the internal and external customers. Hence relevant management processes, tools and techniques are required to ensure customers' expectations and stakeholders' objectives are met.

Lawler and McDermott (2003:49-60) indicate that a great deal of theory concerning human motivation and human development argues that an effective performance management system should be a key building block of every organisation's human capital management system. They contend that the coupling of performance to rewards (the key to motivating performance), organisations need to have accurate measures of individual performance. To develop, with the reduction of occupational crime in mind, and accompanied with total productivity training, individuals need feedback about strengths and weaknesses. Organisations need performance information to direct their training and resources to those individuals who can gain the most from them, i.e. total productivity training.

The researcher showed via the interviews and the analyses of the questionnaires how the model of excellence of WCED, encompassing the balanced scorecard; an in-depth knowledge of the value chain, its development and management; as well as document management, drastically reduced occupational crime. It was also borne in mind that the size and diversity of the WCED were not necessarily the problems, but rather the lack of a corporate strategy. Amongst others, by addressing this matter, it will come to the fore that the corporate parent (WCED) is more than just the financial controller and a consolidator of the plans of the business units (e.g. EMDCs).

8.2   Interlude

Value chain analysis, of the internal business process perspective of the balanced scorecard, looks at every step from the identification of the needs of the customer to not only the satisfaction of the needs of the customer, but where the customer can derive value from the services which have been rendered. The goal is to deliver maximum value to the end user viz. the customer. Value chain management looks at the entire value-adding process. It must however be borne in mind that value chain management does not make everything operate perfectly, but it assists to respond better to the imbalances which inevitably creep into the various operations.

The balanced scorecard accounts for customer knowledge; internal business processes; intellectual assets; learning and growth; stakeholder value; and this in turn increases the net operating result. Hence the balanced scorecard is not only a manner in which to measure performance, but it is also a management system which assists the organisation to become more long-term goal orientated than only being driven by short-term achievements. The balanced scorecard focuses on four perspectives viz. learning and growth perspective; internal business processes perspective; financial perspective; and the customer perspective. The balanced scorecard is also a communication tool that bridges the gap between high-level goals and the front-line employees. Via the balanced scorecard, the front-line employees are allowed to visualise how their efforts contribute towards the success of the WCED. It also allows them to interact with other participants within the organisation on how the daily realities affect their progress. Strategy-focused organisations use the balanced scorecard to align their employees to their strategy in three ways viz. through communication and education; personal and team objectives; and incentive and reward systems (Kaplan & Norton, 2001) e.g. Integrated Quality Management Systems (WCED, 2004).

From literature it can be deduced that there has globally been a shift in the workspace pertaining to human resources. Knowledge and skills have become imperative within the organisation. Due to this, organisations should endeavour to optimise the management of these intangible assets. In doing so an effective performance management system would be required.

8.3 Summary of findings

From the research:

- It was deduced that the value chain was deemed to be a fundamental tool of the WCED to analyse and to formulate a competitive strategy. The WCED had some sort of value chain, but when it came down to the business in reality, management was mainly viewing the individual activities or partial activities within the value chain, instead of viewing and integrating it as a whole.

- It was also interpreted that the integration of the value chain activities, within the balanced scorecard perspectives, was of cardinal importance. Bearing the overall strategy of the WCED in mind, integration encompassed cross-activities and multi-activities, e.g. the WCED not only focused on the procurement and logistics activities. An activity might be performing well in its endeavour to achieve operational effectiveness, but it might not be achieving competitive advantage.

- Moreover, and especially the participants at the workshops believed that the synergy of the value chain and the balanced scorecard reflected and enhanced the strategy of the WCED. Hence this strategy must be customised for the WCED and should not just be a copy of what others were doing.

- *Operational effectiveness was the operative term and it was not simply just to do the same things better, but to change constantly in order to attain the best practices. The audiences with the interviewees and the participants of the workshops indicated that even the best practices were spread quickly and in turn ended up with doing the same thing in the same way. The WCED should constantly provide something unique that was of value to the customers.*

One important issue for management, viz. total productivity training was highlighted. Also the employees possessed sufficient skills in order to reduce occupational crime while exploiting the synergy of the value chain and the balanced scorecard.

8.4   Recommendations

8.4.1   The major recommendations are:

8.4.1.1 Synergising the balanced scorecard and the value chain within a lean environment to reduce wastage.

8.4.1.2 Service delivery must be customer orientated.

8.4.1.3 Communicate in a general language, which the employees understand, to minimise misconstrues.

8.4.1.4 Continually define the value proposition of the WCED, make clear trade-offs, tighten the fit and integrate all activities within the value chain.

8.4.1.5 Ongoing interactive total productivity training workshops must be enforced and be focused on the reduction of wastage.

8.4.1.6 The WCED should pursue with technological innovations (to extend the range of services, e.g. maintain a data base pertaining to requests for services and training) to allow the customer to derive value from its offerings, although nothing can diminish the importance of direct customer contact.

8.5   Research limitations

The results of this research were interpreted and accepted with caution because of certain limitations:

1   Convenience samples could contain unknown amounts of variable and systemic selection errors. There may be potential biases in the research findings because of non-probability sample.

2   There may be other variables, which could have impacted on the perceptions of the employees, e.g. there may be cultural variations in the willingness to express disagreement and information sessions may have been held pertaining to service delivery.

8.6   Implications for future research

Although the drastic reduction of occupational crime was and still is an area of paramount importance, especially since all the ministers were and are still focussing on this area and from secondary sources it was deduced that this area was rather insufficiently researched. There are many areas that lend themselves to continued empirical investigations.

- This research was orientated towards the value chain and the balanced scorecard of the WCED. A further research could be broadened:

  o to the whole value chain system and to visualise how lean thinking tailors the value chain system among "suppliers", "buyers" and other public service learning organisations; and how it in turn affects the value chain system.

  o to the balanced scorecard (as a management, measurement and communication tool) and to see how the enablers of the cause and effect strategy of the strategy map impact on not only the satisfaction of the customer, but that the customer actually derives value from the offerings.

- It would also indeed be in the interest of the WCED to investigate how the customers perceive the unique or differentiated values of the services that are being rendered.

- Furthermore the researcher strongly recommends an in-depth investigation into how the WCED can develop a competitive impact strategy on the basis of the acquisition criteria of the customers and the sources of differentiation of the WCED.

The above-mentioned further research possibilities revealed that continuous research in this area was significant. The key question is not whether to deploy the reduction of muda, but how to deploy it. Only by synergising the value chain and the balanced scorecard in a lean environment will wastage, i.e. muda be reduced within the WCED.

Finally, the synergy of the balanced scorecard and the value chain will afford the Western Cape Education Department the opportunity to acquire performance information in its

endeavour to correct performance problems, viz. the reduction of occupational crime and to assess the effectiveness of its improvement efforts via, amongst others, total productivity training workshops.

8.7 Concluding Remarks

All of the above can be depicted in the below-mentioned **Table 8.1**.

Table 8.1   Conclusion

EAT A FRUIT	THE WORK ENVIRONMENT AT THE WCED HAS A COPIOUS SUPPLY OF ENERGY.
PLANT A PIP	PLANT THE BALANCE SCORECARD, VALUE CHAIN AND LEAN THINKING SEEDS AND HAVE AN ABUNDANCE OF POTENTIAL.
GROW A TREE	IN-SERVICE TOTAL PRODUCTIVITY TRAINING WORKSHOPS WILL ENHANCE THE NET OPERATING RESULT OF THE WCED.
HARVEST A CROP	OPERATE WITHIN A VALUE ADDING, LEAN THINKING AND OCCUPATIONAL CRIME FREE WORK ENVIRONMENT IN WHICH THE VALUE PROPOSITION OF THE WCED IS ENACTED VIA THE NON-EXISTENCE OF A GAP BETWEEN THE SATISFACTION AND EXPECTATION OF THE CUSTOMERS AND REAP THE FORTHCOMING BENEFITS.

REFERENCES

Aaker, D.A., Kumar, V. & Day, G. 2001. **Marketing Research**. New York: John Wiley & Sons Inc.

Alba, J.W. & Hutchinson, J.W. 1987. Dimensions of Consumer Expertise. *Journal of Consumer Research*, 13:411–454, March.

Anderson, G. 1990. *Fundamentals of Educational Research.* London: The Falmer Press.

Apostololakis, J. & Kastania, A. 1994. **Decision-Making with SPSS**. Athens: Stamoulis Publishing.

Appelbaum, S. & Donia, M. 2001. The realistic downsizing preview: a management intervention in the prevention of survivor syndrome. *Journal of Career Development International*, 6(1): 5–19.

Ashkenas, R.D.U., Todd, J. & Kerr, S. 1995. **The Boundaryless Organisation**. San Francisco: Jossey-Bass.

Atkinson, A., Waterhouse, J. & Wells, R. 1997. A Stakeholder approach to strategic performance measurement. *Sloan Management Review*, 25, Spring.

Bailey, B. & Dandrade, R. 2004. [Online]. Available: http://cqmextra.cqm.org/cqmjournal.nsf [2004:06:15].

Bales, Chatterjee, Gluck, Gogel & Puri. 1980. [Online]. Available: http://www.msb.edu/faculty/homak/HomaHelpSite/WebHelp/Value_Chain-_Business_System.htm [2004:06:15]

Balkwell, J. 1991. From expectations to behaviour: An improved postulate for expectations. *American Sociological Review*, 56(3):355-369.

Band, W.A. 1991. *Creating Value for* **Customers.** New York: Wiley & Sons.

Barkdoll, G. 2002. [Online]. Available: http://www.unpan1.un.org/intradoc/groups/public/documents/ASPA/UNPAN003418.pdf [2002:05:25].

Becker, B.E., Huselid, M.A. & Ulrich, D. 2001. **The HR Scorecard Linking People, Strategy and Performance**. Boston, Massachusetts: Harvard Business School Press.

Beech, J. 1998. **Strategic Supply Chain Alignment**. Aldershot: Gower Press.

Beukes, J. 2004. Discussion at the West Coast/Winelands EMDC pertaining to the proposed service delivery improvement plan of the WCED. Paarl. 2004:07:08.

Bieker, T. & Gminder, C. 2001. Environmental Management and Policy and Related Aspects of Sustainability. *Towards A Sustainable Balanced Scorecard*. St. Gallen: University of St. Gallen.

Bieker, T. & Gminder, C. 2001. *Towards A Sustainable Balanced Scorecard*. [Online]. Available 2004:07:19.
http://www.oikos_stiftung.unisg.ch/academy2001/Paper_Bieker_Gminder.pdf

Brackett, M. H. 1999. Business Intelligence Value Chain. [Online]. Available: http://www.dmreview.com/editorial [2003:09:20].

Bramley, A. 2004. Addressing the principals of the schools at Metropolitan Life on career development. 2004:05:17.

Brooking, A. and Motta, E. 1996. A Taxonomy of Intellectual Capital and a Methodology for Auditing it. *17th Annual National Business Conference at McMaster University*, Canada, January 1996, 24–26.

Brown, L. 1997. *Competitive Marketing Strategy*. Melbourne: Nelson Publishing.

Buaron, R. 1980. [Online]. Available:
http://www.msb.edu/faculty/homak/HomaHelpSite/WebHelp/New_Game_Strategies-McKinsey_Classic.htm [2004:06:28]

Bullard, D. 2005. Sunday Times. Career Business Times. *Out to Lunch.*

Burger, R. 2004. Facilitating a leadership course to the staff of MUCH ASPHALDT in Eerste Rivier. 2004:02:01 – 2004:06:30.

Campbell, A., Goold, M. & Alexander, M. 1994. *Corporate-Level Strategy*. USA: Wiley & Sons.

Chaston, I. 2001. e-*marketing Strategy*. Berkshire: McGraw-Hill Publishing.

Chaston, I. n.d. e-*marketing Strategy*. [Online]. Available: http://mcgraw-hill.co..uk/large_files/olc_business/marketing/chaston/files/powerpoint_slides [2005:10:25].

Chewning, E.G. & Harrell, A.M. 1990. The Effect of Information Load on Decision Maker's Cue Utilization Levels and Decision Quality in a Financial Distress Decision Task. *Accounting, Organizations and Society*, 15(6): 527-542.

Cobbold, I.M. & Lawrie, G.J.G. 2002. [Online]. Available: http://workinfo.com [2002:08:12].

Cobbold, I.M. & Lawrie, G.J.G. 2001. Strategic Alignment: Cascading the Balanced Scorecard in a multi-national company. [Online]. Available: http://www.2gc.co.uk [2002:08:12].

Corporate Decision Management. 2004. [Online]. Available: http://www.corporatedecisionmanagement.net [2004:06:15].

Coop, B. 2001. Addressing MBA students on Marketing Management. Cape Town. 2001:07:01-2001:09:30

Cox, T. 1994. *Cultural Diversity in Organizations*. San Francisco: California. Berret-Koehler.

Creswell, W.J. 1994. *Research Design Qualitative & Quantitative Approaches*. USA: Sage Publications Inc.

Creswell, W.J. 1998. *Qualitative Inquiry and Research Design: Choosing among Five Traditions*. California: Sage Publications Inc.

Creswell, W.J. 2003. *Research Design, Qualitative, Quantitative and Mixed Method Approaches*. London: Sage Publications Inc.

Davies, C. & Greenough, R. 2001. Maintenance survey – identification of lean thinking within maintenance. *17th National conference on manufacturing research*, Cardiff, June 2001, 37–42.

Day, G. 1999. *The Market Driven Organisation*. New York: The Free Press.

Donaldson, T. & Preston, L. 1995. The stakeholder theory of the corporation: Concepts. *The Academy of Management Review*, 65–82, January.

DuBrin, A.J., Ireland, R.D. and Williams, J.C. 1989. **Management & Organization**. Cincinatti, Ohio: South-Western Publishing Co.

Ehrenrich, T. 2004. Response from the Secretary of COSATU (on the Voice of the Cape radio station) pertaining to service delivery.

Emmanuel, C., Otley, D. and Merchant, K. 1990. *Accounting for Management Control*. New York: Chapman and Hall.

Ferguson, H.B., Stoddart, C. & Simeon, J.G. 1986. Double-bind challenge studies of behavioural and cognitive effects of sucrose-aspartame ingestion in normal children. *Nutritional Reviews*, 1986, 144 – 150.

Flamholtz, E. 1996. *Effective Management Control. Theory and Practice*. Los Angeles: Kluwer Academic Publisher. (as cited in Meritum). [Online]. Available: http://www.fek.su.se/home/bic/meritum/control.htm [2005:01:25].

Foster, T. 1998. *Industrial Marketing Communication*, Luleå: Luleå University of Technology Publications.

Frans, D. 2005. Discussion pertaining to the downsizing of Jordan & Co.

Gadiesh, O. & Gilbert, J. 1998. How to map your industry's profit pool. *Harvard Business Review*, 76(3):149-162, May/June.

Gemba Reseach LLC 2003. [Online] Available: http://office-kaizen.com/ [2003:10:25].

Glazer, R. 1991. Marketing in an information-intensive environment: strategic implications of knowledge as an asset, *Journal of Marketing*, 55(3), October.

Green, S. 2004. [Online] Available: http://www.ce.berkeley.edu/~tommelein?IGLC-7/PDF/Green.pdf [2004:08:20].

Haanes, K. and Lowendahl, B. 1997. *The Unit of Activity: Towards an Alternative to the Theories of the Firm. Strategy, Structure and Style*. UK: John Wiley & Sons Ltd.

Hall, R. 1992. The Strategic Analysis of Intangible Resources. *Strategic Management Journal*, 13(2):135–144.

Hartman, A., Sifonis, J. & Kador, J. 2000. *Net Ready: Strategies for success in the E-conomy*. UK: McGraw-Hill.

Haywood-Farmer, J. 1988. A conceptual model of service quality. *International Journal of Production and Operations Management*, 8(6):19–29.

Heintzman, R. & Marson, B. 2003. People, Service and Trust: The Public Sector Value Chain. *Paper presented for the Annual Conference of the European Group of Public Administration*, Oeiras, Portugal, 03-06 September.

Hickman, R. 2002. Addressing MBA Financial Management students at the Centurion Hotel, Sea Point. 2002:04:01 – 2002:06:30.

Ho,J. & Tang, R. 2004. *Towards an Optimal Resolution of Information Overload: An Infomediary Approach*. [Online]. Available: http://portal.acm.org/citation.cfm?id=500302 [2004:03:12].

Honey, P. & Mumford, A. 1992. *Kolb Learning Styles*. [Online]. Available: http://www.businessballs.com/kolblearningstyles.htm 2004:11:18].

Imel, S., Kerka,S. and Wonacott, M.E. 2002. **Qualitative Research in Adult-, Career and Career-Technical Education.** [Online]. Available: http://www.cete.org/acve/docs/pfile05.htm [2005:09:15].

Johanson, U. 2002. Characteristics of intangibles – Proposals generated from literature and experienced Swedish firms. [Online]. Available: http://www.fek.su.se/home/bic/meritum/download/johanson_classification.pdf [2002:06:25].

Johnson, G. & Scholes, K. 1999. *Exploring Corporate Strategy*. Essex, England: Prentice Hall.

Kamarck, E. 2004. Government Innovation around the world. [Online]. Available: http://64.233.167.104/search?q=cache:9anyGKNvmikJ:ksgnotes1.harvard.edu/research/w paper.nsf/rwp/RWP04-010/%24File/rwp04_010_ka... [2004:04:28].

Kaplan, R.S. 2002. *Balanced Scorecard Report,* The Balanced Scorecard and Non-profit Organisations, 1-4, November – December.

Kaplan, R.S. & Norton, D.P. 1992. The Balanced Scorecard : Measures That Drive Performance. *Harvard Business Review*, 74: 71–79, January-February.

Kaplan, R.S. & Norton, D.P. 1993. Putting the Balanced Scorecard to work. *Harvard Business Review*, 71:134–149, September-October.

Kaplan, R.S. & Norton, D.P. 1996a. Using the Balanced Scorecard as a Strategic Management System. *Harvard Business Review*, 74:75-85, January-February.

Kaplan, R.S. & Norton, D.P. 1996. *Translating Strategy into Action the Balanced Scorecard*. Boston: Harvard Business School Press.

Kaplan, R.S. & Norton, D.P. 2000. Having Trouble With Your Strategy? *Harvard Business Review*, 78:167–176, September-October.

Kaplan, R.S. & Norton, D.P. 2001. *The Strategy-Focused Organisation*. Boston Massachusetts: Harvard Business School Press.

Kaplan, R.S. & Norton, D.P. 2001a. Transforming the Balanced Scorecard from Performance Measurement to Strategic Management : Part I. *Accounting Horizons*, 87 – 104, March.

Kaplan, R.S. & Norton, D.P. 2001b. Transforming the Balanced Scorecard from Performance Measurement to Strategic Management : Part II. *Accounting Horizons*, 147 –160, June.

Kaplan, R.S. & Norton, D.P. 2001. *The Strategy-Focused Organisation*. Massachusetts: Harvard Business School Press.

Kaplan, R.S. & Norton, D.P. 2003. *Strategy Maps*. Massachusetts: Harvard Business School Press.

Koteinikov, V. 2004. *Lean Production*. [Online]. Available: http://www.1000ventures.com/business_guide/lean [2004:11:12].

Kotler, P. 2000. **Marketing Management**. Upper Saddle River, New Jersey: Prentice-Hall Inc.

Lalla, N. 2003. Discussion pertaining to the empowerment of the patrons of Vanguard Primary School. Cape Town. 2003:06:10.

Lai, A. 2000. Unpublished document (2000:06:23)

Lambert, R & Webster, E. 2001. *Social emancipation and the new labour internationalism: A southern perspective*. [Online]. Available: http://www.ces.fe.uc.pt/emancipa/research/en/ft/internationalismo.html [2004:04:25].

Lawler, E. & McDermott, M. 2003. Current performance management practices. *WorldatWork Journal*, 12:49–60.

Lawton, T & Micheals, K. 2000. *Exploding the value chain: The changing nature of the global production structure and implications for international political economy*. [Online]. Available: http://www.ciaonet.org/isa/lat03 [2004:06:30].

Lefton, L.A. 1991. *Psychology*. Boston: Allyn and Bacon

Legge, K. 1995. *Human Resource Management : Rhetorics and Realities*. London: MacMillan.

Leiboldt, M. 2002. Addressing MBA students on Strategic Planning. Cape Town. 2002:07:01 – 2002:09:30.

Lipe, M.G. & Salterio, S.E. 2000. The Balanced Scorecard: Judgmental Effects of Common and Unique Performance Measures. *The Accounting Review*, 283-298, July.

Lochan, R. 2003. Addressing the workplace skills audit training team of the Central Metropole Education Management and Development Centre at a workshop in Lansdowne. Cape Town. 2003:06:12.

Lucey, J. 2003. From the Chairman John Lucey. *Management Services*. [Online]. Available: http://web14.epnet.com/citation [2004:07:12].

Marquardt, M.J. 1999. *Action Learning in Action: Transforming problems and people for world-class organisational learning*, Palo Alto, California: Davies-Black Publishing.

Martin, E.G. 2003. Addressing the post-graduate students at the University of Western Cape prior to their final practice teaching sessions.

Martin, J.G. 2003. *A Justification for the Implementation of the Balanced Scorecard by the Western Cape Education Department*. Cape Town: Business School Netherlands. (Unpublished MBA thesis).

Martin, J.G. 2004. Addressing the deputy and assistant directors as well as the employees of the various directorates of the WCED at workshops pertaining to the service delivery improvement at Head Office. 2004:07:15.

Mason, R. & Lind, D. 1996. *Statistical Techniques in Business & Economics*. USA: Irwin.

May, C. 2002. Addressing B.Comm students on Marketing Management at the University of Western Cape. March.

Maxwell, A. J. 1996. *Qualitative Research Design: An Interactive Approach*. California: Sage Publications Inc.

Mbeki, T. 2005. Addressing parliament on service delivery as reported on Morning Live (TV2).

McMillan, J.H. 1992. *Educational Research Fundamentals for the Consumer*, New York: Harper Collins Publishers.

Mendenhall, W. & Reinmuth, J.E. 1982. *Statistics for Management and Economics 4th ed.* Boston: Duxbury Press.

Mentoor, E. 1993. Addressing B.Comm Economic (III) students at the University of Western Cape.

Miti, N. 2002. MBA research interview sessions at WCED head Office.

Miti, N. 2004. Addressing the Central Metropole workplace skills training team at a workshop at the Riverside Golf Club.

Moodley, L. 2004. Discussion at Cape Peninsula University of Technology pertaining to the incorporation of corporate sector concepts into the public service. June 2004.

Mooraj, S., Oyon, D. & Hostettler, D. 1999. The Balanced Scorecard: A necessary good or an unnecessary evil? *European Management Journal*, 17:481-491.

Muralidharan, R. 1997. Strategic Control for fast-moving Markets: Updating the strategy and Monitoring the Performance, *Long Range Planning*, 30:1

Niven, P. 2002. *Balanced Scorecard Step-by-Step: Maximising Performance and Maintaining Results*. New York: John Wiley and Sons, Inc.

Niven, P. 2004. *Balanced Scorecard. Step-by-Step Maximising Performance and Maintaining Results.* [Online]. Available: http://www.balancedscorecard.biz.html [2004:06:25].

Niven, P. 2004. Examining the endurance of the Balanced Scorecard. [Online]. Available: http://www.balancedscorecard.biz/articles/examining_endurance_BSC.html [2004:06:25].

Norman, R. & Ramirez, R. 1993. From value chain to value constellation: designing interactive strategy, *Harvard Business Review*, 71:65-77, July-August.

O'Brien, K. 2003. Value Chain Report – Improve Supply-Chain Visibility with Event Management, *Industry Week's The Value Chain*. [Online]. Available: http://www.iwvaluechain.com [2004:03:14].

O'Brien, K. 2004. Value Chain Report – Don't overlook the demand side of supply-chain management , *Industry Week's The Value Chain*, [Online]. Available: http://www.iwvaluechain.com [2004:03:14].

O'Connell, B. 2004. Vice-Chancellor of the University of Western Cape addressing an audience after the 2004 graduation ceremony.

O'Connell, B. 2005. Vice-Chancellor of the University of Western Cape addressing an audience after the 2005 graduation ceremony.

Ohno, T. 1985. *Kanban: just-in-time at Toyota*. Portland Oregon: Productivity Press.

O'Sullivan, L. & Geringer, J. 1993. Harnessing the power of the value chain. *Long Range Planning*, 26:2.

Olve, N., Roy, J. & Wetter, M. 1999 – English translation, First Published in Swedish 1997. *Performance Drivers : A Practical Guide to using the Balanced Scorecard*. New York: Wiley & Sons

Pandor, N. 2004. The National Minister of Education addressing the principals at Portia Primary on service delivery.

Parasuraman, A., Zeithaml, V.A. & Berry, L.L. 1985. A Conceptual Model of Service Quality and its Implications for Future Research, *Journal of Marketing*, 41–50, December.

Parks, C. 2002. Instill Lean Thinking. *Industrial Management*, 44(5), September/October.

Payne, A. 1993. *The Essence of Services Marketing*. UK: Prentice Hall.

Peters, G. 2000. Administrative and Civil Service Reform. *Administrative traditions*. [Online]. Available http://www1.worldbank.org/publicsector/civilservice/traditions.htm [2004:04:15].

Petersen, A.G. 2004. Discussion pertaining to service delivery with specific reference to the internal business perspective of Cape Span.

Petersen, A.G. 2005. Discussion pertaining to the Black Economic Empowerment programme of Cape Span.

Petersen. A.L. 2004. Discussion at Much Asphaldt pertaining to multi-skilling in the workplace.

Pietersen, A. 2004. Discussion at the Central Metropole EMDC pertaining to workplace skills development.

Pine III, B.J. 1993. *Mass Customisation : The New Frontier in Business Competition*. Boston: Harvard Business School Press.

Porter, M.E. 1980. *Competitive Strategy: Techniques for Analysing Industries and Competitors*. New York: Free Press.

Porter, M.E. 1985. *Competitive Advantage*. New York: Free Press.

Porter, M.E. 1998. *Competitive Advantage: Creating and sustaining superior performance*. New York: Simon & Schuster Inc.

Primerus Consulting. 2000. [Online]. Available: http://primerusconsulting.com [2002:05:25].

Prokopenko, J. 2004. [Online]. Available: http://www.ilo.org/public/english/emplyment [2004:03:15].

Rodenberg, A. 2002. CIO Magazine. *How to use the Balanced Scorecard*, 15, May.

Roos, R. and Roos, J. 1997. Measuring your company's Intellectual Performance. *Long Range Planning*, 30(3):413-426.

Rucci, A., Kirn, S. & Quin, R. 1998. The employee-customer-profit chain at Sears. *Harvard Business Review*, 82-97, January – February.

Rummler, G. and Brache, A.P. 1990. *Improving performance : How to manage the white space on the institution chart*. San Fransisco, CA: Jossey-Bass

Sadri, G. 1996. "Reflections: the impact of downsizing on survivors – some findings and recommendations", *Journal of Managerial Psychology*, 11(4):56–59.

Sapsford, R. & Jupp, V. 1996. *Data Collection and Analysis*. London: Sage Publications Inc.

Saunders, M., Lewis, P. & Thornhill, A. 2000. *Research Methods for Business Students*. England: Pearson Education Limited.

Saunders, M., Lewis, P. & Thornhill, A. 2003. *Research Methods for Business Students*. England: Pearson Education Limited.

Scott, M. 1998. *Value Drivers*. Chichester: Wiley and Sons.

Seddon, J. 2005. [Online]. Available: www.lean-service.com [2005:06:23].

Sedera, D., Gable, G. & Rosemann, M. 2001. Proceedings of the 12th Australasian Conference on Information Systems. *A Balanced Scorecard Approach to Enterprise Systems Performance Measurement*. [Online]. Available: http://www.crm2day.com/library/docs/ap0048.pdf [2004:06:15].

Sekaran, U. 1992. *Research Methods for Business : A Skill-building Approach*. Canada: John Wiley & Sons Inc.

Senge, P. 1990. *The Fifth Discipline (The art & practice of the learning organisation)*. New York: Currency Doubleday.

Shank, J. & Govindarajan V. 1993. *Strategic Cost Management, the tool for competitive advantage*. New York: The Free Press.

Simeka Management Consulting. 2004. Transformation Trends. [Online]. Available: http://www.simeka.co.za/images/TT_2004_Jan.pdf [2004:09:10].

Skweyiya, Z. 2004. Interview pertaining to service delivery within the public service and broadcasted on TV2.

Slack, N., Chambers, S., Harland, C., Harrison, A. & Johnson, R. 1998. *Operations Management*. Harlow: Financial Times Prentice Hall.

Slingers, J. 2003. Addressing the school management team on quality assurance at the De Waal Hotel.

Slingers, J. 2004. Addressing the principals and the heads of the non-teaching staff at schools pertaining to the integrated quality management systems for non-educators at Belgravia High School.

Sparks, R. 2001. *Balanced Scorecard : Putting Strategy into Action*. [Online]. Available: http://www.missouribusiness.net/cq/2001/balanced_scorecard.asp. [2004:07:01].

Stanford, R.A. 2005. American Ideology in Transition. [Online]. Available: http://facweb.furman.edu/~dstanford/mbnotes/ideology.htm [2005:04:16]

Stern, L.,El-Ansery, A. & Coughlan, A. 1996. *Marketing Channels*. Englewood Cliffs: Prentice Hall.

Sternberg, R.J. 1986. [Online]. Available:
http://www.academics.tjhsst.edu/psych/oldPsych/sternberg [2004:11:18].

Swartz, R. 2003. Semi-structured interview interviewee of the researcher (MBA research)
to ascertain whether the WCED is a strategy-focused and measurement-managed learning
organisation.

Swartz, R. 2005. Addressing the principals at a human capital workshop at Kensington
High School.

Taninecz, G. 2000. *Forging the Chain*. [Online]. Available:
http://www.industryweek.com [2003:10:12].

Teas, R.K. 1994. Expectations as a comparison standard in measuring service quality: An
assessment of a reassessment, *Journal of Marketing*, 58:132 – 139, January.

Treacy, M. & Wiersema, F. 1997. *The Discipline of Market Leaders*. San Francisco:
Perseus.

Tucker, R. 2002. *Driving growth through innovation*. San Francisco: Beret-Koehler
Publishers Inc.

Tull, D. & Hawkins, D. 1993. *Marketing Research: Meaning, Measurement and
Method*. New York: Macmillan Publishing Co.

Value Based Management 2004. [Online]. Available:
http://wwwcorporatedecisionmanagement.net [2004:11:12].

Van Dalen, D.B. 1979. *Understanding Educational Research An Introduction*. New
York: McGraw-Hill Book Company.

Van Niekerk, H. 2002. Addressing MBA students at the Centurion Hotel on "The
Knowledge Economy". Cape Town.

Wagner, J. A. III. 1995. Studies of individualism-collectivism: Effects on cooperation.
Academy of Management Journal, 152-167, February.

Waldroop, J. & Butler, T. 2000. Managing Away Bad Habits, *Harvard Business Review*,
78(5):89, September/October.

Waldroop, J. & Butler, T. 2005 [Online]. Available:
http://amazon.com/exec/obidos/tg/detail/-/0385498497/002-3516178-9444029?
[19/10/2005].

Webster, F.E. 1994. *Market Driven Management*. New York: Wiley and Sons.

Welch, J. 2004. [Online]. Available:
http://www.file://C:\WINDOWS\Temporary%20Internet%20Files\OLKA2C3
[2004:08:05].

Whetton, J. & Cameron, D. 1998. *Development Management Skills*. Massachusetts:
Addison-Wesley Publishers.

Womack, J.P. & Jones, D.T. 2003. *Lean Thinking (Banish waste and create wealth in
your corporation)*. London: Free Press Business.

Yin, R.K. 1994. *Case Study Research: Design and Methods*. California: Sage
Publications Inc.

Zhang, S. & Markman, A. 2001. Processing product unique features : Alignability and
involvement in preference construction. *Journal of Customer Psychology*, 13-27

2GC Active Management. 2002. [Online]. Available: http://www.2gc.co.uk/
[2002:09:20].

APPENDICES

Annexure 1   Performance Management System

Rating of the employees – Assistant Director and below

Assistant Director and below						
Questions	**Rating**				**Blank**	**TOTAL**
	1	2	3	4		
1	25	126	105	11		267
2	10	169	57	21	10	267
3	10	175	62	10	10	267
4		77	170		20	267
5.1	10	74	173	10		267
5.2	25	63	169	10		267
5.3	36	95	126	10		267
5.4	25	158	74	10		267
6.1	25	170	66	6		267
6.2	10	190	61	6		267
7		131	121	5	10	267
8	36	126	55	8	42	267
9.1	21	179	52	15		267
9.2		181	69	17		267
10	25	140	81	21		267

Annexure 2   Performance Management System

Rating of employees – Above Assistant Director

Above Assistant Director						
Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	6	30	25	2		63
2	3	39	13	5	3	63
3	3	39	15	3	3	63
4		18	39		6	63
5.1	3	17	40	3		63
5.2	6	15	39	3		63
5.3	8	22	30	3		63
5.4	6	36	18	3		63
6.1	6	40	15	2		63
6.2	3	43	15	2		63
7		30	29	1	3	63
8	8	30	13	2	10	63
9.1	5	42	12	4		63
9.2		43	16	4		63
10	6	35	19	3		63

Annexure 3 Document-related crisis

Rating of employees – assistant director and below

Assistant director and below												
Questions	1	2	3	4	5	6	7	8	9	Spoilt	Blank	TOTAL
1.1	15			14	55	91	34	32				241
1.2	15	62	62	18	27	25		32				241
1.3	36	18	24	41	50	40		32				241
1.4	86	44	51		16	17					27	241
	1	2	3	4								
2		7	119	115								241
3.1	53	99	48	41								241
3.2	7	25	111	66						32		241
3.3	47	111	9	33						33	8	241
3.4	42	23	94	20						54	8	241
	1	2	3	4	5	6	7	8				
4.1	41	31		56	39	19	15	40				241
4.2	71	22	37	48		47				16		241
4.3	33		8	9	71	47	23	18		32		241
4.4	9	19	84	65	32					32		241
4.5		24	32	57	46	17	33			32		241
4.6	15	18	15	23		23	72	19		56		241
4.7	17	38	9		37		8	85		47		241
4.8	42	64	16			32	15	23		49		241
	1	2	3	4	5	6	7	8	9			
5	48	45	39	41	19	49						241
	A	B		C		D	E					
6	15	30		24		92	8				72	241

Key
A = Everyone
B = Deputy Director-General
C = Unable to answer
D = Director
E = Supervisor

Annexure 4   Document-related crisis

Rating of employees – above assistant director

Above assistant director												
Questions	1	2	3	4	5	6	7	8	9	Spoilt	Blank	Total
1.1				10		10	8	45				73
1.2		10		18	15	15		15				73
1.3		10	10			23	15	15				73
1.4		43			30							73
	1	2	3	4								
2		8	15	50								73
3.1		30	25	18								73
3.2	25		10	38								73
3.3	48		15	10								73
3.4		35	15	15						8		73
	1	2	3	4	5	6	7	8				
4.1	8	10		15		40						73
4.2		15	15	8	25			10				73
4.3	15				23	10	15			10		73
4.4			30	25	10	8						73
4.5		2	10	15		15	15			16		73
4.6	25	15	8		15		10					73
4.7	15						10	30		18		73
4.8		15					15	25		18		73
	1	2	3	4	5	6	7	8	9			
5		28	15	15							15	73
	A	B	C	D								
6	15	10	10	15							23	73

Key
A = Deputy Director
B = Deputy Director-General
C = Director
D = Chief Director

343

Annexure 5   Rating of employees – Control group

(This group has not attended the workshops)

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	22	14	16	4	5	61
2	12	25	20	2	2	61
3	23	11	18	7	2	61
4	19	16	13	10	3	61
5	3	18	37	2	1	61
6	2	19	22	17	1	61
7.1	16	22	20	2	1	61
7.2	4	17	22	16	2	61
7.3	19	18	20	2	2	61
7.4	14	23	20		4	61
7.5	13	17	24	5	2	61
8	2	22	24	11	2	61
9	4	11	35	10	1	61
10.1	14	14	23	10		61
10.2	10	10	21	17	3	61
10.3	15	15	24	6	1	61
10.4	15	21	14	5	6	61
11	15	21	21	4		61
12	15	21	21	4		61
13.1	16	27	18			61
13.2	15	27	17		2	61
13.3	15	27	19			61
14		13	29	17	2	61

Annexure 6   Rating of employees – Experimental group I

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	11	55	18	7		91
2		4	65	22		91
3		8	65	18		91
4		7	62	22		91
5	33	33	18	7		91
6	32	34	18	7		91
7.1	4	4	73	10		91
7.2		4	65	22		91
7.3	7	14	51	15	4	91
7.4	3	9	57	18	4	91
7.5		10	62	18	1	91
8		14	66	11		91
9	3	11	59	15	3	91
10.1	4	14	47	26		91
10.2	4	4	51	32		91
10.3	4		54	33		91
10.4	4	14	41	29	3	91
11	3	4	49	33	2	91
12	6	10	51	22	2	91
13.1	4	40	32	15		91
13.2	7	32	40	7	5	91
13.3	4	7	65	15		91
14		4	62	18	7	91

Annexure 7   Rating of employees – Experimental group II

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	11	56	19	8		94
2		3	68	23		94
3		7	68	19		94
4		7	64	23		94
5	34	34	18	8		94
6	33	34	19	8		94
7.1	3	3	75	13		94
7.2		3	68	23		94
7.3	8	15	52	15	4	94
7.4	4	9	60	19	2	94
7.5		10	63	19	2	94
8		15	68	11		94
9	4	11	61	15	3	94
10.1	3	15	49	27		94
10.2	3	3	52	36		94
10.3	3		56	35		94
10.4	3	15	41	30	5	94
11	4	3	51	35	1	94
12	6	11	52	23	2	94
13.1	3	41	35	15		94
13.2	8	35	41	8	2	94
13.3	3	8	68	15		94
14		3	64	19	8	94

Annexure 8   Rating of employees – Other group

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	10	54	18	7		89
2		4	64	21		89
3		7	64	18		89
4		8	60	21		89
5	33	32	17	7		89
6	32	33	17	7		89
7.1	4	4	71	10		89
7.2		4	64	21		89
7.3	7	14	50	14	4	89
7.4	3	9	57	18	2	89
7.5		9	60	18	2	89
8		14	64	11		89
9	3	10	59	14	3	89
10.1	4	14	47	24		89
10.2	4	4	50	31		89
10.3	4		54	31		89
10.4	4	14	40	29	2	89
11	3	4	49	31	2	89
12	5	10	50	21	3	89
13.1	4	39	32	14		89
13.2	7	32	39	7	4	89
13.3	4	7	64	14		89
14		4	60	18	7	89

347

Annexure 9

Rating of respondents – Control group

(This group has not attended the workshops)

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	22	14	16	4	5	61
2	12	25	20	2	2	61
3	23	11	18	7	2	61
4	19	16	13	10	3	61
5	3	18	37	2	1	61
6	2	19	22	17	1	61
7.1	16	22	20	2	1	61
7.2	4	17	22	16	2	61
7.3	19	18	20	2	2	61
7.4	14	23	20		4	61
7.5	13	17	24	5	2	61
8	2	22	24	11	2	61
9	4	11	35	10	1	61
10.1	14	14	23	10		61
10.2	10	10	21	17	3	61
10.3	15	15	24	6	1	61
10.4	15	21	14	5	6	61
11	15	21	21	4		61
12	15	21	21	4		61
13.1	16	27	18			61
13.2	15	27	17		2	61
13.3	15	27	19			61
14		13	29	17	2	61

Annexure 10

Rating of employees – Experimental group I

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	11	55	18	7		91
2		4	65	22		91
3		8	65	18		91
4		7	62	22		91
5	33	33	18	7		91
6	32	34	18	7		91
7.1	4	4	73	10		91
7.2		4	65	22		91
7.3	7	14	51	15	4	91
7.4	3	9	57	18	4	91
7.5		10	62	18	1	91
8		14	66	11		91
9	3	11	59	15	3	91
10.1	4	14	47	26		91
10.2	4	4	51	32		91
10.3	4		54	33		91
10.4	4	14	41	29	3	91
11	3	4	49	33	2	91
12	6	10	51	22	2	91
13.1	4	40	32	15		91
13.2	7	32	40	7	5	91
13.3	4	7	65	15		91
14		4	62	18	7	91

Annexure 11

Rating of employees – Experimental group II

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	11	56	19	8		94
2		3	68	23		94
3		7	68	19		94
4		7	64	23		94
5	34	34	18	8		94
6	33	34	19	8		94
7.1	3	3	75	13		94
7.2		3	68	23		94
7.3	8	15	52	15	4	94
7.4	4	9	60	19	2	94
7.5		10	63	19	2	94
8		15	68	11		94
9	4	11	61	15	3	94
10.1	3	15	49	27		94
10.2	3	3	52	36		94
10.3	3		56	35		94
10.4	3	15	41	30	5	94
11	4	3	51	35	1	94
12	6	11	52	23	2	94
13.1	3	41	35	15		94
13.2	8	35	41	8	2	94
13.3	3	8	68	15		94
14		3	64	19	8	94

Annexure 12

Rating of employees – Other group

Questions	Rating				Blank	TOTAL
	1	2	3	4		
1	10	54	18	7		89
2		4	64	21		89
3		7	64	18		89
4		8	60	21		89
5	33	32	17	7		89
6	32	33	17	7		89
7.1	4	4	71	10		89
7.2		4	64	21		89
7.3	7	14	50	14	4	89
7.4	3	9	57	18	2	89
7.5		9	60	18	2	89
8		14	64	11		89
9	3	10	59	14	3	89
10.1	4	14	47	24		89
10.2	4	4	50	31		89
10.3	4		54	31		89
10.4	4	14	40	29	2	89
11	3	4	49	31	2	89
12	5	10	50	21	3	89
13.1	4	39	32	14		89
13.2	7	32	39	7	4	89
13.3	4	7	64	14		89
14		4	60	18	7	89

351

Annexure 13

Rating of respondents - assistant director and below

Questions	Rating					Blank	TOTAL
	1	2	3	4	5		
1.1	124	65	45	7			241
1.2	72	115	34	20			241
1.3		132	102	7			241
1.4		179	55	7			241
1.5	52	127	40	15	7		241
2.1	30	40	164	7			241
2.2	20	199	22				241
2.3	25	164	45	7			241
2.4	25	164	45	7			241
3.1	52	137	25	27			241
3.2	114	97	30				241
3.3	52	159	30				241
3.4	74	147	20				241
3.5	146	65	30				241
4.1	97	75	39	30			241
4.2	25	186		30			241
4.3	25	114	102				241
4.4	25	142	74				241
4.5	211	20	10				241
5.1	186	55					241
5.2	196	30	15				241
5.3	186	35	10			10	241
5.4	129	97	15				241

Annexure 14

Rating of respondents – above assistant director

Questions	Rating					Blank	TOTAL
	1	2	3	4	5		
1.1	31	19	16		23	3	92
1.2		19	31	40		2	92
1.3			69	23			92
1.4		41	14	23		14	92
1.5	31	19	19	23			92
2.1	19	19	31	23			92
2.2	19	50		23			92
2.3		31	61				92
2.4		47	19	23		3	92
3.1	31		38	23			92
3.2	31		38	23			92
3.3	31		38	23			92
3.4	31	19	19	23			92
3.5	31	19		23		19	92
4.1			50	42			92
4.2		47		42		3	92
4.3		43	19		23	7	92
4.4			69	23			92
4.5	31	19	19	23			92
5.1	31	19	19	23			92
5.2	31	19	19	23			92
5.3	31	31		23		7	92
5.4	14	55		20		3	92

Annexure 15

Request to facilitate workshops at the Head Office of the WCED

2004 August 28

The Director
Human Resource Management
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

Dear Ms. Rose

With reference to our audience on Friday 27 August 2004, I am herewith forwarding the requested information:

Statement: Synergising the Balanced Scorecard and the Value Chain to reduce wastage within the WCED

1   Interviews
1.1   Interviewees – Directors
2   Questionnaires
2.1   Respondents will be requested to complete questionnaires pertaining to:
• Performance Management System
• Document Management
• Balanced Scorecard
• Value Chain
• Workshop
• Development of a value chain

The employees should not only strive to satisfy the customer (internal and external), but the customer must be able to derive value from the offering of the employees. Each employee must see how he/she adds value in the execution of the strategies to achieve the vision of the WCED. In doing so they would positively be contributing to the endeavour of the S.G. to eliminate wastage. Inter-department alliance and intra-departmental collaboration will be enhanced.

Sample population
Experimental groups   =   150 employees
Control group   =   25 employees
(encompassing employees from the 3 directorates and in particular finance, CS Educators and Non-CS Educators)

3   Logistics
Venue   Lecture Hall at Head Office
Time   12h30 – 13h15   Orientation
             13h15 – 16h30   Workshop

3.1 Agenda

VALUE CHAIN DEVELOPMENT WORKSHOP

Date   2004:09:15
Topic   Stage 1
1   Evaluation
1.1   Evaluate the idea and market
1.2   Review strategy
1.3   Assess resources, risks and rewards

2   Key success factors
2.1   Careful market review
2.2   Value chain analyst
2.3   Clear WCED goals
2.4   Measurable objectives

Date   2004:09:29
Topic   Stage 2
1   Planning
1.1   Select partners
1.2   Build relationships
1.3   Agree on the goals and measures

2   Key success factors
2.1   Careful partner selection
2.2   Commitment from all
2.3   Collaborative planning sessions
2.4   Compelling value chain goals

Date   2004:10:06
Topic   Stage 3
1   Managing
1.1   Goals and performance measures
1.2   Integrate systems
1.3   Build and adapt

2   Key success factors
2.1   Increasing cohesion
2.2   Opportunities to learn
2.3   Process for ongoing dialogue
2.4   Commitment from the top

After the workshops, the participants would, amongst others, not only be able to verbalise their dissatisfaction with current processes, but also to contribute towards the reduction of occupational crime. They would have a vision for new processes as well as the knowledge of which steps to take first in their endeavour towards their new vision.

Thanking you in anticipation

Yours in the promotion of an occupational crime free WCED

Signed : Jeffrey Gustav Martin

Annexure 16

Request for an interview

<div align="center">

Jeffrey Gustav Martin
11 Hyacinth Road
BELHAR
7490
2004 June 14

</div>

Mr. R. Swartz
The Superintendent-General
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

RESEARCH PROPOSAL: SYNERGISING THE BALANCED SCORECARD AND THE VALUE CHAIN TO REDUCE WASTAGE WITHIN THE WESTERN CAPE EDUCATION DEPARTMENT.

Dear Sir

RE : Interview session in which to execute a 25 minutes PowerPoint presentation, pertaining to my doctoral proposal.

With reference to my audiences with Dr Wessels and Dr Cornelissen and my previous communiqués with them, I herewith wish to inform you of the following:

1   Persal No.   :   50268031
          Position   :   Headmaster of Vanguard Primary
          School Code :   480878

2   Qualifications
          Professional :   PTD III
          Academic   :   B.Comm (Accounting)
                            MBA

3   MBA Thesis: A justification for the implementation of a balanced scorecard by the WCED (Distinction obtained)

4   The below-mentioned items pertain to my Doctoral studies:
4.1   Thesis Statement: Synergising the Balanced Scorecard and the Value Chain to reduce wastage within the Western Cape Education Department.
4.2   The written and PowerPoint presentations of my thesis were accepted by the Thesis Committee on Friday 11 June 2004

4.3	Institution	:	Cape Technicon
4.4	Supervisors	:	Prof.Slabbert
	Assistant supervisors	:	Prof. Fox
			Dr. Cilliers

In deciding on a doctoral project, I have weighted the potential benefit of this research to the WCED. I believe that this research will add significant value to the WCED (i.e. Head Office, EMDCs and schools) in, amongst others, the following areas:

- Assist in translating strategy into tangible measures (link strategic, tactical and operational measures)
- Highlighting the importance of intangible assets
- Management process :- assist in the development of value chains
- Create a common framework for measurement of success, preceding and assisting the IQMS
- Management tool :- identification and quantification of the objectives, measures, targets and initiatives that include all areas of the balanced scorecard viz. customer; financial; internal business processes; and learning and growth perspectives i.e. financial (historic) and non-financial (now and future)
- Assist in creating a lean thinking learning organization
- Recommend an implementation plan

I would appreciate an interview session in which to execute a 25 minutes PowerPoint presentation, pertaining to my doctoral proposal, and to clarify the:
- involvement of WCED
- project support and communication
- potential barriers and obstacles

Yours in the promotion of a measurement-managed; strategy-focused and lean thinking organisation

Thanking you in anticipation

....
Jeffrey Gustav Martin