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**The Use of an Information Management System to Enable
Major Oil Companies to Build a Business Strategy to Allow
for Differentiation within the Forecourt Convenience Store
Industry within Cape Town Area**

By

Alvin Calester Naidoo

Student No.: 203 507199

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Supervisor: Mr. Robin Martin Challenor

Graduate School of Business, University of KwaZulu-Natal

ABSTRACT

This is a quantitative study that focuses on the lack of differentiation within the forecourt convenience store industry within Cape Town area and the use of an information system to build a differentiation strategy for major oil companies.

A critical literature review was conducted to provide a theoretical framework for this study. The literature provided a foundation for the study and revealed that previous researchers have found that it is vital to differentiate within the retail industry due to the highly competitive nature of the industry.

It was also made evident in the literature that companies need to become knowledgeable about the customer, the store attributes and products that can contribute to developing a differentiation strategy. Previous researchers recognized the value of having a robust information system that can provide key information required for the strategic planning process of retail companies.

The literature review assisted in placing this study in context and preparing for the collection of primary data to answer the research questions. The Chevron retailers within the Cape Town area participated in the study and responded to a questionnaire that focused on the value of differentiation and information systems within the convenience store industry and the subsequent effect it has on the profitability and brand equity of a company.

The survey strategy was chosen as the most applicable research method and the findings from the analysis of the data shows that the retailers are in strong agreement that differentiation will enable an oil company to rise above the competitors within the forecourt convenience store industry and also agreed that an information system is required to provide the critical information to assist in developing a differentiation strategy. There appears to be a strong positive correlation between differentiating and an information system from the responses received from the sample of retailers.

From the synthesis of the results the most important factors that can be used to differentiate in the industry are store location and customer service.

It was also found that the information system must contain data on customers, store attributes and products.

This is seen as important ingredients for the strategic planning process and this information will ultimately contribute to an increase in profitability and brand equity if used appropriately.

The recommendations made to an oil company that operates within the forecourt convenience store industry are to focus on strategic store locations and customer service to increase profitability and brand equity. Additionally a back-office system must be implemented that enables the capture of pertinent customer, store and product information.

It was also recommended that a further study be undertaken using qualitative data-gathering techniques and the scope to include the entire convenience store industry in South Africa.

STATEMENT

With the signature below I, Alvin Calester Naidoo, hereby declare that the work that I present in this thesis is based on my own research, and that I have not submitted this thesis to any other institution of higher education to obtain an academic qualification.



Alvin Calester Naidoo, Student Number 203507199

4 December 2006
Date

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TERMS AND ABBREVIATIONS

1. A.C.NEILSEN – Market research agency offering an integrated suite of market information gathered from a wide range of sources
2. Caltex – a brand owned by the Chevron company and predominantly in the Asia and African markets
3. Chevron – American based multinational oil company that has operations in South Africa and owns the Caltex retail service stations and convenience stores (branded as STAR MART shops).
4. Concept Matrix – Matrix of search terms obtained by de-constructing the research problem statement into key concepts. Provides a guide for the review of literature.
5. C-Store - Convenience Store
6. Forecourt – site used for the retailing of fuel and non-fuel products
7. LSM – Living Standards Measure
8. Major Oil Company – Local or multinational integrated oil company that has large scale operations in fuel and non-fuel business
9. PlanetRetail – Market Research Agency that provides global retail and foodservice industry information, from news and analysis to market research and digital media.
10. Retailer – entity within the retail industry and creates a channel for sale and/ or distribution of goods and services by interfacing with the customer and manufacturer.
11. SPSS – Statistical Programme for Social Science

CHAPTER 1: STATEMENT OF PROBLEM AND RESEARCH DESIGN

1.1 INTRODUCTION

Convenience shopping is a relatively new trend in South Africa compared to the developed markets in continents like North America, Europe and parts of Asia. This convenience sector forms part of the Fast Moving Consumer Goods (FMCG) industry but appeals to a certain type of consumer that seeks easy access and extended shopping hours to make purchases.

The convenience store market is in a growth phase and evolving to keep pace with the trends of the modern day consumers that are purchasing more convenience products due to significant lifestyle changes.

Cape Town is a city within South Africa and has a relatively lucrative market with a high percentage of foreign inhabitants. The city contributes at least 14% of the country's Gross Domestic Product (GDP). Many retailers are focusing on this market and oil companies are aiming to expand the convenience store (c-store) business within Cape Town (Internet 2).

The Cape Town market is seen as a profitable market due to it having a large portion of the Living Standard Measure (LSM) 7-10 group. This middle class income group is growing since the last ten years and the lifestyles of these consumers are becoming more pressured by time and demanding work schedules. There are more women entering the job market and are demanding fast and easy access to a wide range of products (Internet 4).

This trend is being noticed by the existing convenience store industry players (oil companies, major wholesalers, hypermarket chains, superettes and independent informal township shops) as well as new entrants who are developing strategies to capture markets share that will ultimately improve company profits.

British Petroleum (BP), Chevron, Shell, Engen, Total and Sasol are the major multinational and local oil companies who entered the South African retail market almost 65 years ago with the primary intent of retailing fuel through strategically located filling stations which are commonly referred to as petrol service stations.

The service stations within South Africa are now being transformed to provide a one-stop shopping experience for consumers in all major cities and regional towns and particularly within the Johannesburg and Cape Town markets.

It is now possible to fill up with fuel and buy items from the forecourt stores at convenient times. The oil companies retail products (fuel and non-fuel) predominantly through a franchise relationship. The major oil companies are the franchisor whilst the franchisee is a retailer that either owns and/or operates the retail site including the c-store.

The growth in the demand for convenience and the emerging need for a one-stop shopping experience at the retail fuel sites is becoming more important to the consumer. Over the last four decades these companies have been prompted to review the business model and have adopted a more strategic outlook for the non-fuels sector (merchandise products sold within the forecourt c-stores) of the business. This has created a number changes within the industry from new store openings with refreshing images to new entrants such as Sasol trying to win market share.

The competition has become intense, causing many of the top executive committees in the oil companies to review the effectiveness of the non-fuels business models and ways to adapt the model to increase market share and profitability (Planet Retail, 2005).

Formisano (2004) reports that companies must continually adapt to the circumstances to enable them to survive the changes in the environment.

This is particularly true for the forecourt convenience store industry which needs to adapt to deal with the influx of new operators and changes in customer preferences.

Hitt et al., (2003) state that there must be strategic flexibility and define this as the “set of capabilities used to respond to various demands and opportunities existing in a dynamic environment and in an uncertain competitive environment”. They also go on to state that the 21st century is an age of knowledge and companies need to have access to knowledge to develop competitive advantages.

The knowledge of the market if captured efficiently can be of value because it provides business intelligence to a company to help design strategy.

The foundation of a knowledge base will enable companies to obtain information and exploit this information to gain a competitive advantage over rival firms (Hitt *et al.*, 2003).

The provision of key types of information that can be turned into knowledge for the major oil companies to differentiate themselves is critical for long-term survival. The information within a feedback loop between the retail forecourt stores and the oil companies could serve as input to the strategic planning process to build a differentiation strategy.

This study focuses specifically on the forecourt convenience store industry within the Cape Town area and provides insights into the information system that is required to provide the knowledge to assist the oil companies in building a business strategy to differentiate them within the industry.

Therefore the intention of this study is determine the type of differentiation that is required to enable an oil company to be competitive. Another objective of this study is to determine the nature of information that must be part of an information system to be of value during the strategic planning process.

This study will use the Chevron franchisee (retailer) network within the Cape Town area as a sample to collect data to answer the research questions.

Chevron is a global oil company that owns the Caltex brand in South Africa and has a franchise relationship with the retailers who either own and/or operate the Caltex retail service stations.

This study prevents collecting data from retailers that operate competitor convenience stores due to legal issues related to confidentiality and protection of information.

1.2 PROBLEM STATEMENT

The multinational and local oil companies have been competing for over 10 years in the convenience store industry and have extended their product line to include many non-fuel products.

These have been retailed largely through the erection of c-stores on the retail site (forecourt). This gives customers visiting the site for fuel purchases, a one stop shopping experience to purchase fuel and convenience products.

A.C.NIELSEN (2006) state that the forecourt convenience store market has gone through many changes and most recently there has been an 18.5% market growth and now has a size of approximately R4.4Bn

The increase in consumer spending and move towards convenience products are the driving factors behind the growth in this market. There is a scramble for market share amongst the various oil majors who are now seeking ways to improve profitability and brand value in this industry.

The problem that these companies face is the lack of differentiation within the industry. The product and store offerings amongst the stores within the industry appear to be the same and these stores are seen as the typical “bread, milk and cigarettes” store.

1.2.1 MAIN PROBLEM STATEMENT

Oil companies do not have sufficient information at their disposal to enable the development of a business strategy that allows for differentiation from the competitors (Planet Retail, 2005).

This lack of differentiation makes it difficult for the consumer to make a conscious decision to choose one brand of c-store over another when they decide to make a convenience purchase. The same issue can be inferred for the fuel products.

Therefore this study is epistemic in nature and analyses the type and quality of information this is required for an oil company to formulate a differentiation strategy for the c-store business to increase its brand equity and profitability within this business sector.

Epistemology as defined by the Wikipedia encyclopedia is a branch of philosophy that studies the nature and scope of knowledge.

This field of study focuses on analyzing the nature of knowledge and the acquisition of knowledge that allows for making informed decisions (Internet 1).

1.2.2 SUB-PROBLEMS

There are three key areas of knowledge that is required by an oil company to build a business strategy for the forecourt convenience stores business:

1.2.2.1 CUSTOMER PROFILE INFORMATION

Oil companies do not have information at their disposal to recognize the effect the following factors may have on profitability and brand equity; (i) customer behaviour, (ii) customer preferences, and (iii) customer service levels at the stores.

1.2.2.2 STORE INFORMATION

Oil companies do not have at their disposal information of the effect of the following store factors on the profitability and brand equity; (i) store location, (ii) co-branding partners, (iii) store image, and (iv) store loyalty programmes.

1.2.2.3 PRODUCT INFORMATION

Oil companies do not have at their disposal information of the effect that the following product factors may have on profitability and brand equity; (i) product ranges, (ii) product brands, and (iii) product pricing.

The information provided by these systems must be of relevance, of high quality and provided in a timely manner so that it can be incorporated into the strategic planning process. These systems of information must also be collected in a highly reliable and consistent manner to allow it to be seen as valuable to the organization and its customers.

It must also be accessible to the relevant personnel within Chevron to enable it to be utilized during the decision-making process to produce informed decisions.

This dissertation will focus on the type of the information that must be gathered on the customers, stores and products so that strategic decisions can be made to enable oil companies to compete in the market.

1.3 OBJECTIVES

The following objectives will be addressed by this research study in alignment with the above-mentioned problem statement:

- To determine the value of developing a differentiation strategy within the forecourt c-store industry.
- To determine the effect an information management system will have on the formulation of a strategy for differentiating the c-store business.
- To determine the effect of having customer data within the information system on the profitability and brand equity of the company
- To determine the effect of having information on store attributes (image, customer service, loyalty programmes, location) within the information system and the effect it has on profitability and brand equity.
- To determine the effect of product information within an information system on profitability and brand equity of the company.

1.4 CRITICAL QUESTIONS

The following interim research questions will be posed to ensure that the research is providing a comprehensive analysis of the information system required for the forecourt convenience store industry. These research questions may be adjusted after the completion of the literature survey to ascertain the extent to which the same or similar problems have been identified. The following critical questions can be posed:

- What are the factors within the forecourt c-store business that will enable the development of a differentiation strategy?
- What type information system must be in place at a store level to provide the relevant information to the company to enable them to differentiate itself within forecourt c-store industry?
- Does store level information regarding location, image, co-branded partners and loyalty programmes affect the profitability and brand equity?
- Does customer profile information at a store level allow for differentiation and affect the store profitability and brand equity?
- Does product information affect the store profitability and brand equity?

These research questions will form the foundation of the interviews that will be undertaken to solve the problem statement outlined in the earlier part of this document.

1.5 RESEARCH DESIGN

An important decision that must be made in any research, once the problem statement and research objectives are well understood, is the research approach and strategy that will be employed to collect data to answer the research question.

For this study the research philosophy is one of Positivism where the researcher assumes the role of an objective analyst making detached interpretations about the data that has been collected in value-free manner.

This is a highly structured methodology allowing for replication of results and the quantifiable observations lend itself to statistical analysis (Saunders et al., 2003).

The research strategy chosen is the survey strategy and is centered on a deductive research approach. This is a common quantitative approach and is used extensively in business research. The data will be gathered using a questionnaire that will be administered to a sample of retailers within the Cape Town area.

1.5.1 LITERATURE SURVEY

A critical review of the literature will be conducted to develop an understanding and insight into past research that may have been undertaken on the topic. According to Saunders et al. ,(2003), the literature review process will help refine the research questions and objectives.

The information obtained from the literature survey will be analyzed and presented in a manner that provides an overview of the existing literature on the topic thereby creating a context for this study.

This literature survey will also be used assist in developing an understanding the type of research methodology that should be employed.

Saunders et al., (2003), states that the literature reviews must be a critical analysis of what other authors have written and will assist by helping focus on answering the research questions. Using this guidance, a critical review of the literature will be undertaken to answer the fundamental question of what information is required to create a differentiation strategy in the forecourt c-store industry for Chevron.

The concept matrix (Klopper and Lubbe, 2005), attached in Appendix 4, will be constructed using keywords and search terms to allow the study to focus on relevant literature that describes the research questions and objectives.

The concept matrix will act as a relevance tree, to first develop relevant key words that need to be searched immediately and also to subdivide the major area of study into sub-areas that may be of relevance for the literature review (Saunders et al.,2003).

The researcher will make use of the secondary information sources like company reports, conference reports and industry publications. The secondary sources of information will be gathered from using the following electronic resources: (1) iLINK (electronic catalogue of hardcopy books in university library), (2) NEXUS (electronic database of hardcopy thesis and dissertations available from S.A. University libraries), (3) SABINET/SACT (electronic database of hardcopy books available for inter-lending from other S.A. universities libraries), (4) Science Direct (electronic database of peer reviewed

articles), (5) EBSCO (full-text articles from over 2000 management, business and economics journals) and, (6) Emerald (business articles, industry reports, newspaper articles and business magazine articles).

In conjunction the following internet search engines will also be used: www.google.com, www.google-scholar.com and www.yahoo.com.

The study will also access market and consumer behaviour information from research agencies listed below:

- (i) A.C.NIELSEN
- (ii) MarketResearch

After the obtaining the literature, it will be evaluated for relevancy and sufficiency. To be relevant it must address the research questions and objectives whilst the sufficiency criteria will address if the amount of research conducted is adequate. This will be checked with the Project Supervisor for this dissertation to ensure the criteria for the literature review are met.

1.5.2 RESEARCH INSTRUMENT DESIGN AND STANDARDISATION

Data will be collected using questionnaires from retailers operating the forecourt c-stores who will be asked to respond to a set of questions in a predetermined order. This is a widely used technique because each respondent is asked to respond to the same set of questions and provides an efficient way of collecting responses from a large sample.

The questionnaire will be carefully designed using individual questions and ensuring that there is a logical flow of questions.

The questions will be posed to determine the respondent's attitude or opinion regarding the type of information that is required to develop a differentiation business strategy for the forecourt c-store business.

The questionnaire that will be developed will be submitted to the University of KwaZulu-Natal Ethics Committee for approval. The respondents will also complete a Letter of Informed Consent to allow the interviewer to administer the questionnaire to them.

The questionnaire will be properly introduced with the research objectives clearly laid out on the form. There will be a statement on the questionnaire that ensures confidentiality of responses and will also give the retailer the option to decline from responding to any question that they may not want to answer.

The type of questions used to obtain responses will be a mix of List Questions and Rating Questions (Saunders et al., 2003) and will be standardized. The rating questions will use a Likert Scale to test the opinion and attitude of the retailers regarding the information management system that is required by a company.

The rating scale will ask respondents how strongly they agree or disagree with a series of statements that fall within certain various categories of questions.

The questionnaire will be administered by setting meetings with the retailers at the various stores. The retailers will be asked to sign a consent form prior to administration of the questionnaire.

1.5.3 COLLECTION OF VALID RESEARCH DATA

The validity of the data will be ensured by using the interview technique. The respondents will be asked to complete questionnaire during a face-to-face meeting.

The questionnaire will be piloted by reviewing it with a few oil company employees. The piloting of the questionnaire would assist with the validity of the content. The content of the questionnaire will be tested for comprehension and ease of understanding.

These respondents will be asked if they understand the instructions of the questionnaire and the relevance of the research questions.

1.5.4 DATA COLLECTION METHOD

Data will be collected using questionnaires that will collect three important types of information that will be needed to develop a differentiation strategy. The customer information, store information and product information will be the key

focus areas for the questionnaires and respondents will be expected to state their opinion regarding the importance of these types of information.

The meeting with retailers will be approximately one and a half hours to provide adequate time to pose the questions and capture of the responses for each question.

This interactive method will allow the respondent to seek clarify to obtain better understanding of the meaning of the questions, if needed.

1.5.5 DATA ANALYSIS

The questionnaires will be structured to produce quantitative data. Upon completion of the questionnaires the data will be coded and checked for completeness and errors. Thereafter the analysis of the data will be performed using the SPSS software for social science. Descriptive and inferential statistical tests will be performed to analyze the responses that have been received.

Relationships between variables will also be explored to find interdependencies.

Data will be presented in a summary format and will be done using tables, and graphs, if required.

1.6 VALUE OF PROJECT CHAPTERS

The value of this project is twofold. Firstly it would be an in-depth view into the forecourt convenience store industry in the Cape Town area and will give an oil company insight into the type and nature of information required to build a business strategy to differentiate itself in the C-store industry.

This will enable an oil company to validate its strategic direction and intents within the Cape Town market and possibly provide a foundation for the strategy in other parts of South Africa. This will allow the company to begin growing its market share in a highly competitive industry by meeting the main needs of customers that shop on the company's retail sites.

Secondly this study may produce results that are beneficial and this could require further studies of a similar nature to be commissioned in other global markets to allow multinational oil companies to rise above the competitors.

1.7 LIMITATIONS

The study will focus on the Chevron retailers within the Cape Town areas. This means that all retailers operating the forecourt c-stores at Chevron within Cape Town will be the sample to administer the questionnaire to. The results of this study cannot be inferred to the rest of this market sector without careful application of the results from this study.

1.8 OVERVIEW OF DISSERTATION CHAPTERS

In this section a brief overview is given of the subsequent chapters in this report.

1.8.1 CHAPTER 2 (LITERATURE SURVEY)

The literature survey will be conducted to critically review any previous research that may have been done on the topic.

This will enable the researcher to understand the extent to which the research questions have been answered by previous studies. A well constructed concept matrix will be constructed to serve as a guide for the literature search.

1.8.2 CHAPTER 3 (RESEARCH METHODOLOGY)

This is a survey study that will use a questionnaire to gather the relevant quantitative data from a number of responses.

Chevron retailers within the Cape Town area who own or operate convenience stores will be the population to respond to the questionnaire. The researcher will administer the questionnaire physically and will ensure the data is valid and relevant. A copy of the questionnaire will be submitted together with the Ethical Clearance Form to the University of KwaZulu-Natal to ensure the survey method is approved.

1.8.3 CHAPTER 4 (DATA ANALYSIS AND RESULTS)

The data will be prepared and checked for errors. The data will then be analyzed using SPSS software (student version). The analysis of the results will be presented in graphical format if required. The aim of the analysis is to provide common trends and themes that can be used to understand the respondents' views on the questions posed. This will be important to enable the researcher to draw conclusions and answer the research questions and determine whether the problem statement can be solved.

1.8.4 CHAPTER 5 (CONCLUSIONS AND RECOMMENDATIONS)

This chapter will serve as the summary of the research work done. The major part of the discussion in this chapter will revolve around attempting to solve the research question regarding the need for information to build a differentiation strategy for the forecourt convenience store business. It will also highlight any limitations and further research that must be performed within for this study.

1.9 CONCLUSION

This study will focus on the highly competitive forecourt convenience store industry within the Cape Town area that is currently dominated by the major multinational and local oil companies. There is visible indication that market shares are changing hands and some of the players are struggling to keep up with the pace of the consumer trends that have been emerging over the past ten years. The increase in disposable income amongst the women and middle income groups in our society has created many more consumers who are willing to spend more of their money at the convenience stores to support their fast paced lifestyles.

This is causing the industry players to review the business model to make it more suitable for the changing trends.

The research that will be conducted will lead to an analysis of the information system that is required to enable oil companies to differentiate themselves and create a competitive edge. The Chevron c-stores will be chosen to collect research data.

A thorough search of the available literature will be conducted to understand if any research has been conducted on this topic and will also be used to build a theoretical framework of the concepts that are pertinent to this field of study.

The research methodology will be a quantitative study using a survey strategy to collect data from a sample population. This data will be obtained using questionnaires.

The data will be analyzed using SPSS software and statistical results will be generated that will enable the researcher to get an understanding of the effect of the elements of an information system on the profitability and brand equity for the convenience stores. Recommendations will also be made in relation to the feasibility of the information system for the forecourt convenience store industry.

CHAPTER 2: LITERATURE SURVEY

2.1 INTRODUCTION

The problem statement was presented in Chapter One as well as the method that will be used to address the problem statement. In this chapter a critical review of the literature will be undertaken to develop a theoretical foundation for this study and also explore the extent to which previous researchers may have addressed the same problem or parts thereof.

The review of the literature will also provide an opportunity to refine the problem statement, research objectives and research questions, if required. Competition within convenience store markets and benefits of differentiation will be studied to understand the value of a differentiation business.

Knowledge and information management systems will be defined and reviewed to understand the contribution of an information management system to the strategic planning process. This will give insight into the importance of possessing knowledge of the environment to build a competitive.

Finally literature on the following information systems will be studied to understand the effect it has on profitability and brand equity; (i) customer profiles and preferences types, (ii) store attributes- loyalty programmes, image, service and co-branding, and (iii) product categories and innovativeness.

2.2 HOW THE LITERATURE SURVEY WAS CONDUCTED

This section explains the preliminary review of the literature and the method that was used to explore primary and secondary literature sources.

The review uncovered current and on-going literature on the structure and competition within the global and local c-store industry, the differentiation that companies are undertaking to rise above the competitors and the information management systems that are used to build strategic plans.

It also put context to the three types of information (store, customer and products) that contributes to market intelligence and ultimately to strategic planning. Literature will be scrutinized to understand how companies deal with competition and how information is used to build a differentiation strategy to beat the competition.

The aim for the review is to test the validity of the problem statement and research questions. The search of literature was done by accessing electronic databases like EBSCOHost, Emerald, GoogleScholar.com, Science Direct, JSTOR and reports from market research agencies like A.C.NIELSEN and Planet Retail.

- The search themes used to gather literature are:
- To determine the extent of research done on the nature and composition of the C-store industry both globally and South Africa.
- To investigate how competition has affected in various industries in general and how companies use differentiation to create points of difference to attract customers.
- To determine how information is used to build differentiation strategies within the industry.
- To investigate the effect of having market intelligence (information) on store attributes, customer profiles and product information on profitability and brand equity.

The search on the composition and structure of the global c-store industry revealed that most of the research has been done by A.C.NEILSEN, PlanetRetail and MarketResearch.

The search yielded very little academic research on the competitiveness of the forecourt convenience store industry.

To overcome the lack of academic literature on the forecourt convenience store industry, it was decided that search be broadened to look at the general retail industry since the forecourt convenience store business is a subset of the retail industry.

A large amount of research however has been conducted on aspects of the retail fuel industry where most of the discussion revolves around the franchising of the fuel business and marketing strategy. This academic work can be found in the Journal of Consumer Marketing (Boyle, 1999).

Using search terms like "forecourt c-store" and "competition and c-store" in EBSCOHost and Google.com produced reports and articles from industry magazines like Convenience Store News and Market Watch. Most of the literature in these magazines is based on new technologies within the industry and specific initiatives undertaken by oil companies to widen the product offering to customers.

Searches within databases like Emerald and ScienceDirect did not produce any journal articles on the competition within forecourt convenience store market and no researcher has undertaken to address the problem of the lack of differentiation within the global or local South African market.

A search was also conducted on Nexus to determine if previous dissertations had studied any aspect of differentiation within the retail industry, however the search yielded no results.

A search on Google.com produced a report (commissioned by the US Foreign Agricultural Agency) on the South African retail and convenience store market with regards to the structure and the opportunities within the market.

The PlanetRetail report published in 2005 provided perspective on the global convenience store market whilst A.C.NEILSEN provided detail with regards to the South African forecourt convenience store market.

Searches were also conducted using search terms like "differentiation" and "difference". The results revealed that researchers looked at many other industries regarding creating differences, an example being the motor vehicle industry.

Dwyer (2004) studied the motor vehicles and technology industry and provides insight into how differentiation is creating value. Lisanti (2006) also cited innovation as an outcome of competitive market behaviour.

Another key objective for this literature review is to provide an understanding of the role of information and information systems in the development of business strategies, in particular a differentiation strategy.

Most articles and journals that have been searched using the terms “information” and “information management systems” discuss information systems from a technology perspective and only Walters et al., (1999), address the strategic value of information in the development of competitive strategies.

None of the searches produced any academic writing on the use of information and technology to develop an information management system for the South African industry.

There are many articles written by suppliers of retail technology that promote the use of an information system within the local industry to improve sales and customer experiences.

These articles were used cautiously it was not produced using an academic process and could contain bias information.

The strategic planning process is well documented and there is frequent reference to the value of knowledge to the planning process (<http://www.wikipedia.org>).

Malhotra (2000) and Williams (1997) define knowledge management as a form of intelligence and providing information to the “right person at the right time” to make vital decisions for any organization.

German (1992) and Werner (1998) discuss the information that is based on customer behaviour, store attributes (appearance and image) and product choices as key pieces of information that form part of a new trend of Consumer Relationship Marketing (CRM) that is highly useful to corporations, especially marketing organizations, to help build strategies.

The lack of academic literature on the South African convenience store industry points to the need for more research to be conducted.

2.3 SURVEY OF LITERATURE THAT RELATE TO THE THEORETICAL FRAMEWORK OF THE DISSERTATION

The literature review that follows builds the theoretical framework for this study. The concept matrix as defined earlier will be used to search for relevant literature when accessing the electronic databases.

The literature is presented in a manner that allows the reader to gain a broad understanding of the forecourt convenience store industry, globally and from a South African perspective.

Thereafter key aspects like competition in the retail industry, differentiation and strategy formulation in competitive markets are discussed to provide context for the requirement for an information management system.

2.3.1 GLOBAL PERSPECTIVE OF THE FORECOURT CONVENIENCE STORE INDUSTRY

According to PlanetRetail (2005), there has been a steady growth within the convenience store business. The pressure of fuel price increases and the time pressure on consumers to manage high paced life-styles are causing the retailers and consumers to focus on convenience shopping. This is evident from Figure 2.1 that shows a steady growth in the global c-store business.



Figure 2.1: Global Trends in the Convenience Retailing Market (PlanetRetail, 2005:25)

The operators like 7-Eleven and FamilyMart still occupy the largest space within the convenience store industry whilst the oil companies appear to have slipped down in ranking. By 2009 the oil companies will be ranked lower than 20 within the number of global c-store operators.

According to PlanetRetail (2005) the future trend within the global c-store market appears to be consolidation within existing markets such as US, Canada, Europe and Japan whilst oil companies will be seeking to enter markets such as Asia and Africa where the penetration is lower. Also consumers within these markets will begin to enjoy higher incomes and high paced lifestyles over the next few decades as the economies grow within these continents. Consumers will then seek convenience purchasing as the alternative to planned shopping events at large supermarkets that could be time consuming.

The research by PlanetRetail (2005), Hanover (2001) and Ntloebide (2005) show two major global trends:

- Increase of foodservice options within the convenience stores and,
- Partnerships between oil companies and traditional c-store operators (co-branding).

2.3.2 SOUTH AFRICAN PERSPECTIVE OF THE FORECOURT CONVENIENCE STORE INDUSTRY

These trends in global markets are now becoming visible within developing markets like South Africa. According to A.C.NIELSEN, manufacturers should be driving major initiatives within forecourts for limited product classes and developing categories that fit the profile these consumers in the emerging markets.

In turn, a forecourt's c-store strategy should focus on driving and growing impulse and convenience products, growing fast foods and the ready-made meals business, and limiting the range of groceries stocked.

Jacobs and Hobsen (2006) highlight the strengths and weakness of this burgeoning retail sector which has approximately 1600 new c-stores open over the past eight years.

Some of the main reasons given by consumers for shopping at forecourt stores are; the availability of stock, cleanliness and service. However, it was also found that forecourt c-stores are overstocked, with up to 85% of the product classes accounting for less than 5% of the revenue. Jacobs & Hobson (2006) recommends that forecourt c-stores reduce stock levels significantly and focus on 15 to 20 food categories, including fast food and ready-to-eat foods. A back-office system would be useful in managing stock levels.

A study was commissioned by A.C.NIELSEN, in 2005 and focused on branded forecourts in metropolitan and urban areas (Cape Town city included). Some of the main findings are:

- Engen is the largest c-store brand and has 413 stores of the 1254 branded forecourt stores nationwide.
- Supermarkets still dominate the Grocery, Toiletries, Confectionary (GTC) category however, with R30.5 million of GTC revenue going through supermarkets, and only R2.7 million of revenue is earned through branded forecourts.
- The profile of people who shop at forecourt stores are mostly Living Standards Measure 7 (LSM) and are 35 years old earning a minimum salary of R8000 a month.
- The value of the average basket at a forecourt convenience store is R11 to R20, compared to Supermarkets at R80 and Hypermarkets at R160.
- Only 30% of customers visit forecourt shops because they have stopped for petrol. The rest of the customers arrive at the forecourt with the intention of buying from the store.

Jacobs & Hobsen (2006) and Ntloedibe (2005) reveal the following strengths, weaknesses, threats and opportunities for the industry:

<p><u>Strengths</u></p> <ul style="list-style-type: none"> • Good image • Convenient location • Forecourt security • Automatic banking services • Car wash • Food offer • One stop destination 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> • Owners have little retail experience. • Most of the owners experience cash flow problems • Limited product range potential • Store layouts • Inconsistent pricing structure • Promotional items not attractive
<p><u>Threats</u></p> <ul style="list-style-type: none"> • Rapid expansion of other retail brands • Competitors spending on building their brands • Major retailers entering franchise agreements and considering retailing fuel • Limited land and sites available 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> • Women entering job markets • More demand for take home products • Rise of middle income group and consumer spending power

Table 2.1: SWOT analysis for South African c-stores industry (Adapted from Jacobs and Ntloedibe (2005:15))

Cape Town is a major city within South Africa and is situated within the Western Cape Province. The city contributes to approximately 14.01% of the gross domestic product (GDP) of South Africa (Internet 2). According to the Department of Transport last vehicle statistics in there is almost 17% of the total countries vehicle population in Cape Town (Internet 3). Johannesburg and Cape Town are the two most profitable cities within the South Africa from a retailing perspective due to the presence of a large portion of the LSM 7-10 group within these cities. The Western Cape has 8200 retail stores and only 160 forecourt c-stores.

There appears to be room for growth within the forecourt c-store industry based on the increasing demand and relatively low number of c-stores (Internet 4).

ACNielsen conducted a study of the c-store business and the industry market share. The figure below shows the Western Cape market share (number of stores) between the major oil companies dominating the forecourt convenience store industry. The leader of the industry is currently Engen with 57 stores whilst Chevron (owns the Caltex brand) has approximately half the number of stores.

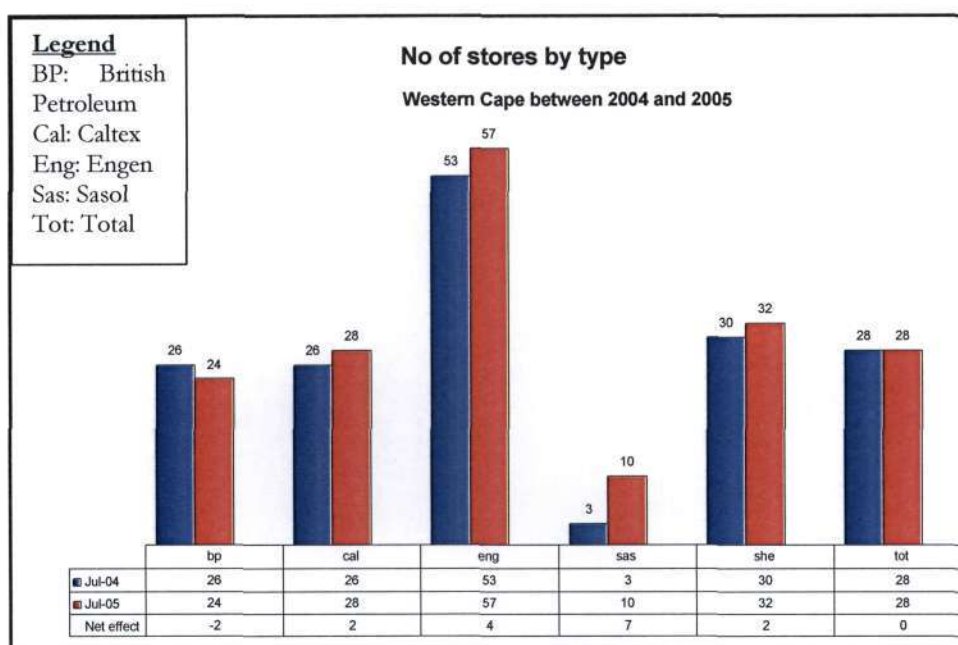


Figure 2.2: Western Cape market share (A.C.Nielsen, 2006: 5)

According to A.C.NEILSEN (2005), Cape Town is seen as a lucrative market due to the higher income per capita than other parts of the country. It has a cosmopolitan market that is made up of a high percentage of foreigners that are accustomed to purchasing from convenience stores. Retailers have recognized the potential in this market and new c-store operators, like Sasol, are entering this market. Chevron occupies second place in this market and is considering expansion in this market by rolling out at least 14 new stores (Chevron 2007 Business Plan).

This overview of the industry provides a background of the competitiveness and the need for development of a strategy to ensure a company's sustainability within the local market.

2.4 DIFFERENTIATION – STRATEGY TO COMBAT COMPETITION

The concept of being unique or different is far more important today than it was ten years ago. The key to successful marketing and competing is differentiation. Hyper-competition is a key feature of the new economy.

In the past the global economy had national governments dominating the refining and retailing of fuel products in local markets; this has changed to global companies' now competing for more business in multiple global markets.

The enormous competition within retail markets today is creating multiple choices for customers. The targeted customers have many choices, all of which can be fulfilled instantly. Choosing among multiple options is always based on differences, implicit or explicit, so one ought to differentiate in order to give the customer a reason to choose a product or service over the competitor.

Therefore differentiation is one of the most important strategic and tactical activities in which companies must constantly engage. A study on differentiation was conducted by International Business Machines (IBM) titled: *"IBM Survey of American Shoppers"* (www.ibm.com).

The respondents surveyed reported that there was a lack of distinction in services, products and store atmosphere. All of these factors were suggested as the reasons for customers switching between retailers with little concern.

McKenna (2005) states that retailers offering the same level of service and products as other retailers turn off more than fifty percent of all shoppers who have no loyalty to a specific retailer.

McKenna also states that forty-three percent of respondents wanted good customer service and would switch retailers if service levels are poor.

Price and store location are some of the reasons for consumers choosing one retailer over another. Consumers prefer retailers who recognize them as individuals, merchandise products that are easy to find, and have employees who are helpful and knowledgeable. The key according to the respondents is consistent execution on a regular basis.

A strategy that is based on differentiation with objectives, tactics, milestones, metrics, and all the other associated pieces, is worthless if it cannot be consistently executed and supported.

Sommers and Barnes (1999) have surfaced many different meanings of differentiation and have described the central meaning of differentiation as the strategy by which one firm attempts to distinguish its product from competitive brands offered to the same aggregate market.

Carpenter (1999) views differentiation as a competitive advantage which identifies a valuable, relevant, but overlooked dimension of a product.

Donald (1998) proposes differentiation as a business strategy that brings value to the product and to customer. Trout (2000) suggests the essence of differentiation is offering an option that the competition cannot or does not offer.

In an article that appeared in the July/August 1997 issue of the Harvard Business Review titled "Discovering new points of differentiation", MacMillan and McGrath (1997) argue that differentiation is about offering customers products with unique attributes that they value and that customers perceive to be better than or different from competitors' products.

As noted in the literature, traditional differentiation places more emphasis on competitive advantage, whereas the new points of differentiation (NPD)

approach stresses greater value for customers and greater potential revenue for the business by fulfilling customer wants more precisely.

2.4.1 DIFFERENTIATION WITHIN CONVENIENCE STORES: UNDERSTANDING THE CUSTOMER, PRODUCT AND STORE ATTRIBUTES

Differentiation within the C-store business starts with understanding the customer and products offered in the store. The Convenience Shape magazine article (author unknown) states that key issue for differentiation within a c-store is having knowledge of the customer. The needs of the customer must be clearly understood.

Profiles of the customer must be developed and buying patterns must be monitored to ensure the correct products are placed on shelves for the targeted customer.

2.4.1.1 UNDERSTANDING THE CUSTOMER

Rodgers (2003) indicates that consumers make approximately 70% of all brand decisions and 60% of all category decisions in the retail environment. As a result, companies increasingly focus on this important touch-point where consumers become shoppers to gain insights into the needs, attitudes, and behaviors of their customers at the point-of-purchase.

This research, known as shopper insights, continues to evolve as companies formalize functions and devote additional resources to shopper insights initiatives. Retailers also look to shopper research to improve understanding of the behaviors and needs of their customers.

Spethman (2005) indicates that shopper insights may enable retailers to review product offerings and store design to provide the optimal shopping experience to increase store traffic, improve category strategies, and ultimately increase sales.

German (1992) provides shopper insights to enable retailers to yield meaningful aspects of their shoppers' behavior. Some key areas for tracking shopper behaviour are:

- **Categories purchased**— this provides retailers with insights into the categories and brands that yield the highest sales, enabling them to analyze and improve category strategies.
- **Store traffic**— this provides retailers with an understanding of how shoppers move throughout the retail environment and where they spend the most time, enabling them to analyze and adjust store layout for optimal sales.
- **Store choice**—this provides insights into why shoppers choose specific locations, enabling retailers to understand shopper needs.
- **Trip length**— this tracks how much time shoppers spend in the store, enabling retailers to understand what kind of trips their shoppers take and adjust offerings or store set-up.

Werner (2004) states that the margins in the retail industry are under pressure and retail operators need to master two approaches in their business to avoid flat or declining earning.

Firstly the products must be well understood and positioned within the stores. Secondly the customer segments must be analyzed and targeted. The products that are on the shelf must be mapped to the customer profile.

The customer profiling is key to unlocking success in the retail business. Kotler (1999:162) advocates that there has to be rigorous segmentation and targeting of the consumer market. This segmentation can be performed using demographic factors or psychological factors (motivation, attitude, feelings and personality). Demographics are powerful tools and there are a number of characteristics that can be used to classify the demographic make-up of the customers. Typical factors used are: age; gender, marital status, ethnic origin, income and lifestyle.

2.4.1.2 CREATING BRAND LOYALTY

According to Keller (2003) brand equity is created when the customer has a strong awareness and association with a brand. These associations will create favorable responses and customers will then begin seeking out the brand. It is vital that consumers have an emotional connection with the brand and this in turns leads to a perceived value.

The marketers need to understanding the motivations and purchasing patterns of the customer to lock in the brand loyalty of customers. To understand the dimensions of brand loyalty, managers must be cognizant of both the commitment and purchasing support shown by consumers toward their particular brand. Using these measures as necessary and sufficient conditions for brand loyalty to exist, a market model can be developed from which the purchasing styles of consumers can be classified and brand loyalty examined.

Uncles et al., (1995) states that consumer involvement with brands affects the extent of their information search, the size of the evoked set and the nature of brand loyalty. Keller (2003) introduces the idea that involvement can affect the entire nature of decision processing undertaken in product selection.

Mittal and Lee (1989) use the following definitions to distinguish between involvement forms;

- *product involvement*: the interest a consumer finds in the product category and,
- (ii) *brand involvement*: the interest taken in making the brand selection.

Brand loyalty in retail markets, unlike durables or the financial services, requires both product and brand involvement. It will always be a relative behaviour since consumers tend to purchase from a portfolio of brands (Uncles et al., 1995).

The future challenge to marketing management within retail markets will be to manage this consumer loyalty on a more proactive basis across all the product categories where they are represented.

2.4.1.3 UNDERSTANDING THE PRODUCT RANGES

There are three types of purchases a customer makes in convenience stores: planned purchases, impulse purchases, and related-item purchases. It is important to understand each type of purchase so that the correct product categories are made available to the customer. The order of importance of planned purchases varies depending on store location, the merchandise mix, and the demographic of the primary consumer groups shopping at the stores.

Most standard grocery items purchases are planned but infrequent and are considered “fill-in” purchases. Impulse purchases are items that the customer decided to buy after arriving at the store. There is no prior intention to make the purchase.

The most infrequent purchase categories are: tobacco, beverages, snacks and magazines. Related-item purchases are items that are purchased in combination with other items, often to supplement the other item. An example would be a confectionary to go with a beverage. A related item could be either planned or an impulse purchase.

Typical product ranges that exist are: tobacco, beverages, snacks, prepared fast foods, newspapers, groceries and health and beauty products.

2.4.1.4 UNDERSTANDING STORE LOCATION, STORE IMAGE AND LOYALTY PROGRAMMEMES

The choice of a store's location is considered to be the single most important decision a retail organization has to make, and that location is seen as a critical factor of success (Clarkson, 1996).

The attempt to set a theoretical framework for retail location context has been largely confined to the reviews of Brown (1993); the regression modeling work of Simkin (1989) with his Store Location Assessment Model (SLAM); and the recent work of Clarke *et al.*, (1995) concerning an integrated framework for location positioning and strategies. Clarkson (1996) found that there needs to be proper spatial planning and store network review before store location can be determined.

Store presentation includes the arrangement of selling fixtures, the display of products, the signage and point-of-sale advertising. Store cleanliness and hygiene are also important considerations. Each component of store image has an impact on customer satisfaction and sales.

Frequency of shopping at a particular outlet is closely linked with store image because image formations result in predispositions that generally guide patronage (Granbois, 1981).

Past research has shown that recent shoppers compared with less-recent shoppers were found to have a more clearly differentiated and better articulated store image (Acito and Anderson, 1979). Also, shopping trips and expenditures at a shopping area were found to be significantly affected by shopping area image (Wee, 1986).

Consumers form impressions about stores and these impressions have a significant impact on store patronage or frequency of shopping at a particular store. The probability that a consumer will shop at a given store increases as the individual's perceptions of the store become more positive. In general, consumers patronize stores whose image is congruent with their self-perceptions and unconscious needs.

Thus, store specific attitudes (e.g. store image) and general attitudes toward the type of store influence shopping behavior (e.g. shopping frequency).

Loyalty programmes are key to helping retailers gain a bigger share of wallet among consumers, according to a recent study by Louis (1999), which specializes in loyalty programme, consulting and implementation. The survey found that members of rewards programmes are more likely to have spent a greater amount of money in the past six months across a range of retail categories, including groceries, electronics, books and home improvement.

The researcher also found that supermarket loyalty programmes are extremely popular, with an overwhelming majority of respondents (77%) claiming membership; rewards programmes are most popular with younger shoppers, with 71% of 25 to 34 year olds belonging to store or membership programmes.

The survey respondents that were older than 55 comprised the highest percentage of non-members. The other key finding was that households with children under the age of 18 are likely to belong to a store or membership programme; women (62%) are more likely to belong to a loyalty programme than men (54%). This could be an opportunity for the convenience store business.

2.5 STRATEGIC PLANNING

According to Wikipedia, strategy is a set of “managerial decisions and actions” that ensures the long-term success of the organization.

Hitt *et al.*, (2003) define strategy as a method of achieving overall goals. It is the method “how” an organization will achieve its goals. Porter (1980) agrees that strategic planning is a necessary process for organizations but the value comes from having a culture within the organization that strives for continuous improvement and appreciate being within a learning environment.

Organizations want to ensure survival and growth within an ever-changing environment. To grow and prosper within a dynamic and competitive environment requires a purposeful strategy (Rossouw *et al.*, 2003). Strategy is often referred to as a gap closing mechanism, the gap being the difference between the current state and the future state (Temtine, 2000).

Strategic management is highly important and Rossouw *et al.*, (2003) points out six important reasons. The top reasons being that it provides direction to the organizations during uncertain times.

The author goes on further to explain that it allows the organization to take lead of its destiny rather than be at the mercy of the future.

According to Smit (1999) there is a paradigm shift development of strategy and the model that companies should be using to ensure sustainability into the future. The model now being adopted by some companies is based on flexibility and learning.

This enables a firm to rise above its competitors and create a difference.

The research performed by Eisenhardt *et al.*, (1999) points out that the speed to which competitors are able to acquire the skills needed to duplicate the benefits of a firm's value-creating strategy determines how long the competitive advantage will last.

2.5.1 STRATEGIC MANAGEMENT PROCESS

Kaplan (2004) states that there are the intangible assets that an organization has to build strategy. The intangible assets have been defined as knowledge that the company has, to create differentiated advantage. Information is cited amongst the examples of intangible assets alongside employees, patents and work processes.

Kaplan (2004) goes on to state that these intangible assets must be aligned and integrated into the process of strategy formulation. The intangible assets are shown in Figure 2.3.

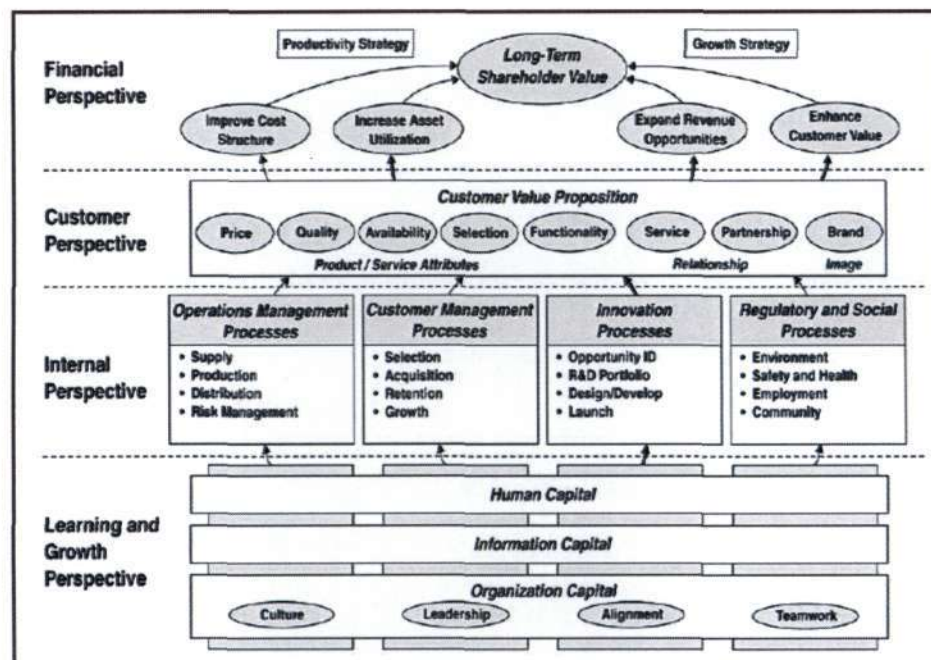


Figure 2.3: Strategy Map (Kaplan, 2004:3)

2.5.2 EFFECT OF COMPETITION ON STRATEGY FORMULATION

Porter (1980) highlights the need to understand that there are only four competitive strategies. Figure 2.4 that follows shows the types of competitive strategies and states that organizations that focus either on a low cost strategy or differentiation strategy are more successful. Both brand equity and profitability increase once the strategy is clear and achieved through efficient execution.

It is rare for firms to try and focus on both strategies as they often translate into actions that are dissimilar.

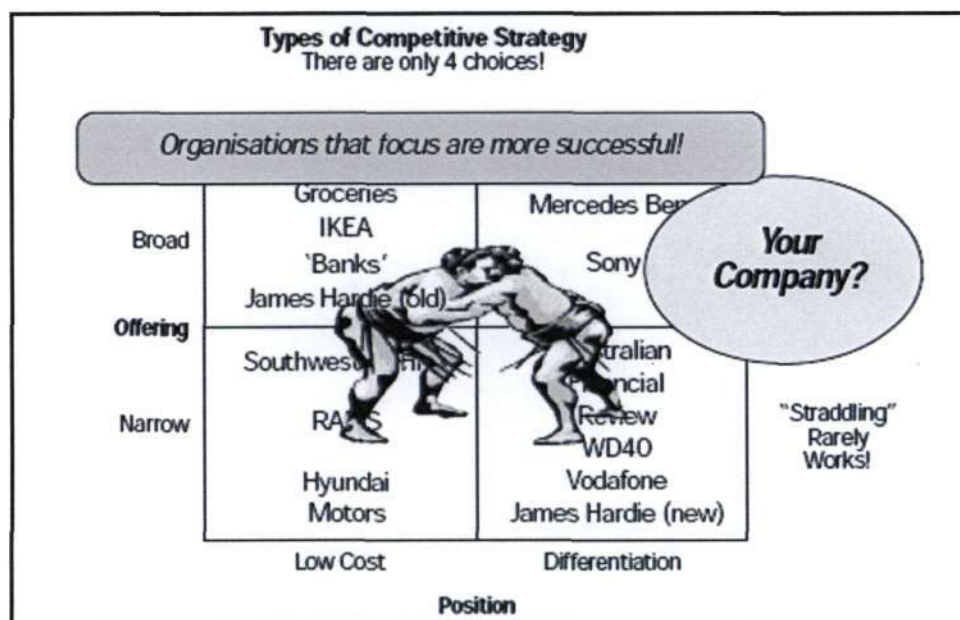


Figure 2.4: Competitive strategies for firms to adopt to deal with competition

(Donald, 1998:457)

Many firms focus on differentiation to create uniqueness and create points of difference in the minds of customers. From the figure above it can be seen that motor manufacturer's and the airline industry follow low cost leadership strategy whilst mobile phone manufacturers and computer manufacturers target differentiation as a strategy to beat the competition.

The firms that deal with the competition effectively using one of the above-mentioned strategies will experience higher profitability (Smit, 1999).

As described in Section 2.3.2, the competition within the forecourt c-store industry (both globally and locally) is stiff and rising over the next decade. The force most applicable to this industry is "*Jockeying for Position*". According to Smit (1999) rivalry amongst existing competitors takes the form of jockeying for position – using tactics like price, product introduction and advertising. Smit goes on to list seven important factors that are related to intense rivalry.

Jacobs and Hobson (2006) and A.C.NEILSEN (2005) find that in the forecourt convenience store industry the most relevant factors that lack differentiation are the product and service and so the switching cost is low and consumers are willing to move between convenience stores.

2.6 USE OF INFORMATION TO BUILD COMPETITIVE STRATEGY

Deshpande & Zaltman. (1982), Flud (1985) and Augilar (1967) outline the need for a gap analysis during strategy formulation, so too does Day (1984) re-affirm the need for knowledge that is acquired through information.

Information acquisition and processing activities are imperative parts in assessing environmental change and the impact it has on strategy development (Deshpande & Zaltman, 1982).

These authors also go on to indicate that ultimately, these activities have a definite impact on the organization's ability to uncover sources of advantage which may help preserve or create positions of advantage over time. Related to this is one of the most prominent results of an organization's approach to its environment: innovation, or the process of creating new value and new satisfaction for its users.

Furthermore, rapid environmental change and increasing uncertainty have put a premium on strategies which anticipate and shape events rather than simply respond to them.

2.6.1 ENVIRONMENTAL SCANNING

Aguilar (1967) defines scanning the environment as the activity of acquiring information not only through purposeful search but also through undirected viewing (informal means). Aguilar maintains that the importance of scanning derives from the importance of the decisions involved. He argues that strategic information is useful for making decisions about strategy and long-range plans.

External information is strategic when it refers to information about events or relationships in the firm's outside environment that unveil opportunities to exploit the firm's strengths, accentuate the firm's weaknesses, or highlight potential threats facing the firm. Environmental scanning is conceived of as a key step in the process of organizational adaptation. But executives can only interpret, disseminate, analyze, and politicize information that enters the organization.

Hambrick (1982) suggests that if competitors in an industry have unequal information, they differ in their abilities to formulate cogent responses to the environment. Additionally, if they have generally equal information, then any difference in their responses or accompanying performance is attributable to differences in their abilities (or their own perceptions of their abilities) to implement a response, that is, to change or modify their strategy.

Aguilar (1967) found that neither functional area, nor hierarchical level, nor was organizational size strongly related to the extent to which executives scanned different environmental sectors. Hambrick (1982) contends that decision makers have access to far more environmental information than they can possibly perceive and, consequently, they must scan selectively.

However, strategic information is only one part of the total information a company receives. Also, strategic information which is either wanted or needed by managers is sometimes not received. It should be noted that the main concern here is with information received and recognized as strategic by managers at the business unit level.

Hector (2000) shows in the Figure 2.5 that the scanning activities are part of the overall process of formulation of strategic responses to change. The flows labeled information acquisition A and B in the figure refer to the strategic intelligence cycle, a model of the formal collection, processing, analysis and dissemination of information relevant to strategy or intelligence

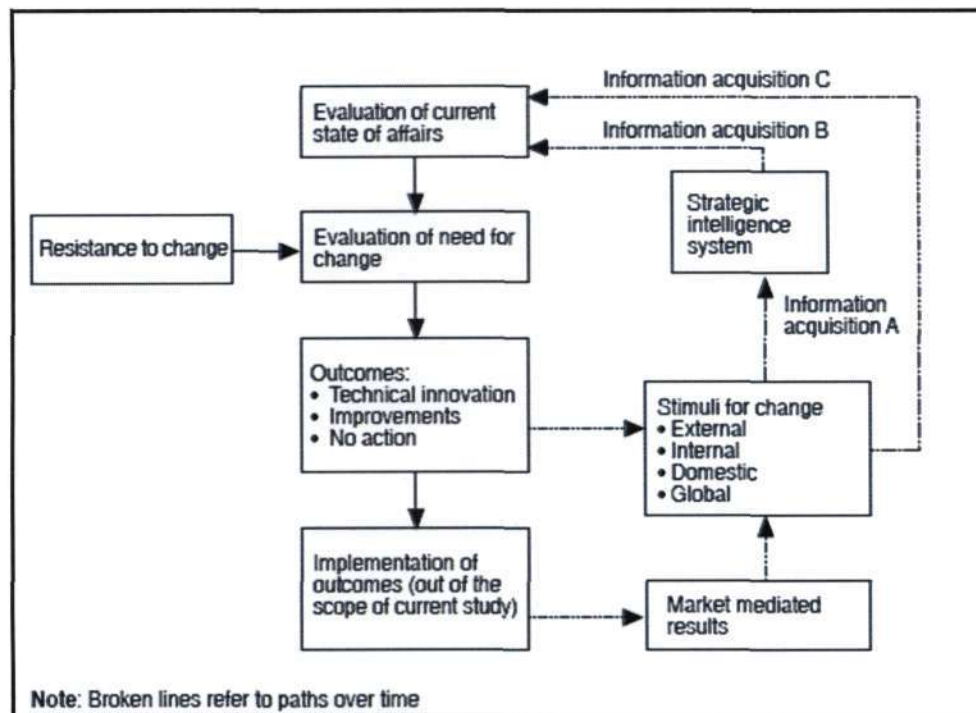


Figure 2.5: Information acquisition and formulation of strategic responses to change
[Hector R.L & Rodger J.C (1996: 23)]

2.6.2 INFORMATION ON CUSTOMERS

The desire to build customer loyalty has led to huge investments in technologies that help marketers try and understand the potential and exiting customer base. Coyles and Gokey (2002) state that many firms do not extract the full value from customer information systems. This is largely due to difficulties with the implementation of these systems.

Rodgers (2003) states that a sophisticated customer information system must generate and collect information, it must be able to process the information, store it and disseminate the information in a timely fashion.

2.6.3 INFORMATION MANAGEMENT SYSTEMS

Management information systems are integrated, user-machine systems for providing information to support operations, management and decision making functions in an organization (Davis and Olson (1988)), conforms to the general view of systems people.

However with the pressures of maintaining competitive advantage in an expanding world market, it is becoming necessary for marketing management to draw heavily on more formal and controlled systems that rely on computers and database software particularly.

As Avison and Fitzgerald (1988) suggest that the information management system is affected by the political and financial circumstances of the organization. The most common approaches to planning for information systems, that most medium to large businesses follow, is a pragmatic path which alters according to the organization's financial growth and its management. Often information systems are planned and developed over time starting with a piecemeal approach supporting specific business functions. This is known as "bottom-up" development in systems terminology.

These functional information systems are integrated and as the organization grow the business redevelops around a "data-analysis" and "database" strategy. The problem with such piecemeal development is that there is no specific control to ensure that the systems support the business strategy. However, the greater the integration and database development, the more the systems begin to consider strategic implications.

There is a new horizon of information opportunity with the emergence of RFID (Radio Frequency Identification) technology for retailers. This technology enables retailers to track product movement and determine the profile of the customer (Knight, 2006).

Knight (2006) believes that retailers need to track their customer behavior with frequent shopper cards to understand everyday low prices techniques (EDLP) and product choices.

In retail, information is the new frontier and facilitates efficient use of promotions and service. In the past, leading retailers have categorized the customer base around metrics such as deciles, today this can be segmented to a finer degree.

Better knowledge and information of the customer helps retailers to target the profitable customers and also supports a customer loyalty programme.

It has been found that retail department stores in the multiple countries are using retail technology and customer databases to develop a relationship with the customer that can be maintained over time.

2.7 SURVEY OF LITERATURE THAT RELATE TO THE RESEARCH METHODOLOGY USED IN THE DISSERTATION

The research process according to Saunders *et al* (2003) has a series of phases namely; formulating and clarifying a topic, reviewing the literature, determining the research strategy, collecting and analyzing data and finally writing up the dissertation.

For this study a survey strategy has been chosen using a questionnaire to collect data from a set of respondents. This is a quantitative study and involves collecting data that will be analyzed by statistical methods.

According to Saunders *et al.*, (2003: 92) the “survey strategy is usually associated with the deductive approach”.

The principal goal of research is to impart knowledge to practitioners, rather than to pursue knowledge for scientific advancement. The most appropriate research method in the past was the case study method. As the decades past, there was more interest in deductive approaches.

Shendle and Hatten (1972) strongly advocate that strategic management needs empirical research to show relationships between variables. Furthermore, they pointed out the need for strategy research to go beyond the inductive approach and conduct more deductive studies with reliable data specially collected to allow the development of testable answers to strategic research questions (Shendle and Hatten, 1972).

Karami & Analoui, (2003) put in significant effort to construct data sets by means of large scale survey that focused on the methodological issues to help advance the research methods in the management field.

The choice of quantitative methods or qualitative methods has been open to controversy and the apparent "dominance" of more quantitative based methodological tools in the development of the field does not mean that these tools are applicable to all research questions (Hoskisson *et al*, 1999). The research question and context should dictate the choice of appropriate method. Moreover the integration of quantitative and qualitative methodological tools is likely to be a fruitful course, especially in management research (Judge and Zeithami, 1992).

Reviewing the Wikipedia encyclopedia (www.wikipedia.org) it states that quantitative marketing research is the use of quantitative research techniques in the field of marketing. It is grounded in the positivist view of the world and is a social research method that involves the construction of questionnaires and scales. Respondents are asked to complete surveys that marketers use to understand the needs of individuals in the marketplace, and to create strategies and marketing plans.

Questionnaires are popular research instruments for quantitative marketing research and social research in general. They are a valuable method of collecting a wide range of information from a large number of respondents. Good questionnaire construction is critical to the success of a survey. Inappropriate questions, incorrect ordering of questions, incorrect scaling, or bad format can affect the value of the survey.

A useful method for checking a questionnaire for problems is to pretest it. This usually involves giving it to a small sample of respondents, then interviewing the respondents to get their impressions and to confirm that the questions accurately captured their opinions. Welman *et al.*, (2005: 152) state that questionnaires are good instruments to capture respondents attitude towards certain issues and is well suited for controversial issues that respondents may not want to have discussed through an open interview or with a focus group.

Welman (2005) and Saunders *et al.*, (2003) state that using Likert scales within questionnaires is a popular method and most researchers recommend this due to ease of use. It allows for speedy compilation of the data during the analysis phase of the project.

Based on this review of the research methodology outline by authors like Saunders *et al.*, (2003) and Welman (2005), the survey method and using a questionnaire to collect data is well suited for quantitative studies.

2.8 SURVEY OF LITERATURE THAT RELATE TO THE ELIMINATION OF PROBLEMS ALREADY SOLVED BY OTHER RESEARCHERS

There is no academic literature that attempts to address the problem of a lack of differentiation within the forecourt convenience store business in South Africa. Additionally no one has studied the forecourt convenience store business and the types of information needed by oil companies to build a differentiation strategy. Marketers however have recognized the growth of the convenience store business both globally and within South Africa, however none of them propose a strategy for reacting to this growth trend.

There has been research into the use differentiation as a competitive strategy to gain market share. There has been research into benefits of possessing knowledge and information about the customer to help the retail industry to strategy to combat the competition. Werner (2004) states that marketers must understand the customer, the products and the image of stores to know how to create points of difference. Deshpande *et al.*, (1982) confirms, in a study on information processing within an organization, that information acquisition and processing is vital for strategy development.

Day (1984) and Aguilar (1967) state that there is a need for information and knowledge to build strategies and organizational capability through knowledge management. This type of epistemic study has also been conducted by researchers like Kahneman and Tversky (1982).

Although there has been no studies conducted within the forecourt c-stores business regarding the use of information to build a differentiation strategy, the literature review conducted shows that some of the researchers given above confirmed through previous studies that there is a link between information and strategy and the need for a differentiation strategy in competitive markets.

2.9 CONCLUSION

The literature review has provided a theoretical framework comprising of four pivotal elements that together with the research data collected assists in addressing the research problem statement and research questions. These four elements have been synthesized from the literature and are given below.

There is vast literature from authors like Mckenna (2005) and Sommers (1999) that address the issue of differentiation to combat competitive forces. There are strong views from Carpenter (1999) and Donald (1998) that this enhances value for the customer and improves brand equity. There also appears to be a link that differentiation leads to higher revenues and therefore profitability improves by creating points of difference that the brand offers.

A critical issue that needs to be understood by companies is the in-depth understanding of the consumer and product offering to before differentiation can be used to ward off the competitive forces.

Spethman (2005) advocates that gaining shopper insights as a key activity that companies must undertake to improve products and store design. Spetman also links the use of information to design the value proposition for customers and how it will lead to higher traffic through the retail stores.

Werner (2004) state that the margins in the retail industry are under pressure and retail operators must master two approaches in their business to avoid flat or declining earnings.

Firstly the products must be well understood and positioned within the stores. Secondly the customer segments must be analyzed and targeted. The products that are on the shelf must be mapped to the customer profile.

Another key theme that has been mentioned by most of the authors that discussed differentiation is the need for information to help understand how to differentiate effectively.

Davis and Olson (1988) advocate that information management systems must be integrated, user-machine systems that supports operations, management and decision making functions in an organization.

Hambrick (1982) makes a vital point that if competitors in an industry have unequal information then they differ in their abilities to formulate cogent responses to the environment. This is important to note as this alone can contribute to the arsenal that competitors have to deal with competitive forces.

Hambrick (1982) then goes on to state that decision-makers need to access information far more than they are doing today and must scan the information selectively.

The discussion above shows that authors support the need for differentiation and having knowledge to fight the competition. There is also support for information systems that provide input to strategic planning process. Clarkson (1996) and Simkin (1989) state the need for having knowledge of store location and image as important factors that help attract the customer. The same is true for having knowledge of the product choices made by customers. Knowing product information and how customers select these products helps stocking the c-stores.

From the literature review conducted it is evident that there is a hiatus in the available academic research therefore providing an academic space for this study and will contribute to the body of knowledge.

The next chapter outlines the research methodology chosen and the data collection process to assist in answering the research questions.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

After completing the literature review in Chapter 2, this chapter will describe the research approach chosen for this study to answer the research questions given below.

- What are the factors within the forecourt c-store business that will enable the development of a differentiation strategy?
- What type of information system must be in place at a store level to provide the relevant information to an oil company to enable them to differentiate themselves within the forecourt c-store industry?
- Does store level information regarding location, image, co-branded partners and loyalty programmes affect the profitability and brand equity?
- Does customer profile information at a store level allow for differentiation and affect the store profitability and brand equity?
- Does product information affect the store profitability and brand equity?

The application of the survey strategy will be explained and the methods used to collect data from the respondents will be outlined. The process used to gain access to administer the questionnaire to population will also be discussed.

The techniques used to analyze the data will also be described to provide an understanding of the results given in the next chapter.

3.2 SURVEY STRATEGY

The choice of methodology is important in order to explain the research objectives and attain the purpose of the study.

A survey strategy was chosen with the use of a questionnaire to collect data from respondents that could assist in answering the research questions.

The survey method is usually associated with deductive approach and according to Saunders *et al.*, (2003), this strategy is very economical and it allows for the collection of the data from a sizable population as well as enables for standardization of the responses.

The questionnaire that has been developed comprises of quantitative questions that can be coded and analyzed using statistical methods.

3.3 ACCESS STRATEGY TO COLLECT DATA

Chevron had to provide approval to allow the retailers to participate in the study. The approval was received at two levels within the organization. The first level of approval was received from the Corporate Compliance group based at the United States head quarters. In order to gain this approval a copy of the questionnaire and problem statement was submitted to the Compliance Officer at Chevron. The questionnaire was reviewed and it was requested that the specific wording be changed to ensure that the participants are made aware that this is an independent project that aims to get feedback from Chevron retailers to specific questions regarding differentiation and information systems.

A meeting with the General Retail Manager for South Africa was arranged to explain the study and gain support for the administration of the questionnaire. After gaining approval from the Chevron Corporate Compliance Officer, the General Retail Manager was able to provide local support for the study.

This was done by sending out communication to the District Sales Manager (DSM) for the Western Cape Region (reports to the General Retail Manager) and Business Consultants (BC) who are sales representatives, reporting to the DSM, that manage the retailers within Cape Town area.

Meetings were held with the sales team to explain the study in detail and then an email was sent out by the sales team to the respective retailers to inform them about the study and request that they make time available to complete the questionnaire. This process was effective and showed endorsement from the leadership of Chevron down to the field staff.

This level of preparation and the procedure used to gain access to the retailers was beneficial in that it enabled the retailers to prepare for the questionnaire during the face-to-face meetings that were arranged by the interviewer.

A copy of the email approval received from the General Retail Manager is attached with the Ethical Clearance Form in Appendix One.

3.4 DATA COLLECTION

Saunders *et al.*, (2003) state that the technique of collecting data from a set of respondents is classified as collecting primary data.

For this study, primary data has been collected from 23 Chevron retailers within the Cape Town area using a questionnaire as the research instrument.

In this section the research instrument will be described as well as the process used to administer the questionnaire to the sample population. The procedure to gain access and approval from Chevron to administer the questionnaire will also be outlined.

3.4.1 RESEARCH INSTRUMENT - QUESTIONNAIRE

The questionnaire was chosen as the data gathering tool and serves the purpose of collecting quantifiable data that can be analyzed to determine patterns and relationships.

The questionnaire was designed to gain answers from the respondents in 4 major categories as listed below:

- Personal and general questions about the retailers (Section 1 and 2 of the questionnaire)
- Perception of differentiation and benefits in the forecourt c-store market for an oil company (Section 3 of the questionnaire)
- Use of an information management system to provide information to an oil company with information to help build a differentiation strategy (Section 4 of the questionnaire)

- Attitude and opinion towards having an information management system that provides information in three areas related to; customer, store and products (Section 5 and 6 of the questionnaire)

Closed questions provide a number of alternatives from which the respondent is instructed to choose. According to Saunders *et al.* (2003) there are six types of closed questions, namely: (1) 'list', where the respondent is given a list of items that can be selected; (2) 'category', where one response can be selected from a given set of categories; (3) 'ranking', where the respondent must place something in order; (4) 'scale or rating', in which a rating device is used to record responses; (5) 'quantity', to which the response is a number giving the amount; and (6) 'grid', where responses to two or more questions can be recorded using the same matrix. The Likert Scale can be used for the fourth type of closed question.

The questions that have been used in this questionnaire are closed ended and the majority of the questions cover the differentiations and information management systems are based on a mix of List Questions and Rating Questions.

The Likert rating scale and coding that has been used is given below:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Table 3.2: Likert Scale used in Questionnaire

The Likert scale reveals the opinion and perceptions of the retailers towards the various questions posed to them. Saunders *et al.*, (2003) also distinguishes 3 types of variables that are used frequently in the design of the questionnaire namely; attribute, opinion and behaviour variables. For this questionnaire attribute and opinion are the two types of variables used. The opinion variable determines how the respondents feel about a question. The attribute variable records characteristics of the respondent.

The questionnaire was developed and tested within Chevron by approaching the District Sales Manager and Business Consultants to review the questions, validate the content and test the applicability of the questionnaire.

This group has first hand knowledge of the forecourt c-store business and has worked within the company-owned store at the Victoria and Alfred Waterfront Station in Cape Town to gain an understanding of the retail operations and customer behaviour in the store.

The group requested a few changes to the questionnaire as described below:

- Include “store location” as options given to retailers regarding the meaning of differentiation.
- Include a question under the General and Personal section of the questionnaire to check if the retailer has any competitors within nearby vicinity that offer convenience shopping and fast food offerings for customers.
- The group also requested that a question be included in Section 5 of the questionnaire that assesses the current image of the Chevron stores.

The following table shows the mapping of the actual survey questions to the research questions. It also lists the variable that is being measured and the type of question that is being asked. The questionnaire that has been administered is contained in Addendum 3.

Table 3.3: Mapping of survey questions to the research questions

Research Question	Survey Question	Relationship and/or variable being measured	Type of Variable
1. What are the factors within the forecourt c-store business that will enable the development of a differentiation strategy?	<p>Section 3 in Questionnaire</p> <p>1.1. Differentiation for me means:</p> <p>1.2 Differentiation will lead to higher store profitability?</p> <p>1.3 Differentiation will improve brand equity for Chevron?</p> <p>1.4 Differentiation will lead to targeting profitable customers?</p> <p>1.5 Differentiation will lead to consumers seeking out Chevron stores?</p> <p>1.6 An information management system developed from a network of Caltex forecourt C-stores will provide Chevron with a mechanism of gathering information to build a strategy to differentiate them within the c-stores industry.</p>	<p>1.1 Perceived meaning of differentiation and value to the forecourt c-store business</p>	<p>1.1 Rank in order of importance</p> <p>1.2 Likert Scale from Strongly Agree to Strongly Disagree</p>

Research Question	Survey Question	Relationship and/or variable being measured	Type of Variable
2. What type information system must be in place at a store level to provide the relevant information to Chevron to enable them to differentiate themselves within forecourt C-store industry?	<p>Section 4 in Questionnaire</p> <p>2.1. An information management system that captures information at a store level and provides this to Chevron will contribute to the strategic decision-making process within the company.</p> <p>2.2. The information management system must provide knowledge/information regarding customer trends, behaviours and preferences to enable Chevron to differentiate itself according to customer needs.</p> <p>2.3. Differentiating the store offerings around local customer profiles will lead to increase in profitability at store level.</p> <p>2.4. Differentiating the store offerings around local customer preferences will lead to increase in brand equity level.</p> <p>2.5. Chevron is currently able to receive information on customer trends, customer preferences and customer behaviour from a store level.</p>	<p>2.1 Perceived value of an information system</p> <p>2.2 Perceived value of customer information as part of an information system</p>	2.1 Likert Scale from Strongly Agree to Strongly Disagree

Research Question	Survey Question	Relationship and/or variable being measured	Type of Variable
2. What type information system must be in place at a store level to provide the relevant information to Chevron to enable them to differentiate themselves within forecourt C-store industry?	<p>2.6. Does the Chevron market information system provide accurate customer buying information i.e. information that is representative of the customers visiting your store?</p> <p>2.7. How long must the feedback loop be to provide vital information to Chevron i.e. the cycle time of information transferred back to Chevron on the specific store level information?</p> <p>2.8. The information that Chevron will need regarding customer trends must be relevant at a store level?</p>	<p>Perceived value of an information system</p> <p>Perceived value of customer information as part of an information system</p>	Likert Scale from Strongly Agree to Strongly Disagree
3. Does store level information regarding location, image, co-branded partners and loyalty programmes affect the profitability and brand equity?	<p>Section 5 in Questionnaire</p> <p>3.1. An information system that captures information regarding the store attributes and the effect on customers purchasing behaviour (e.g. store image and its effect on customers buying at a store level) and feeds this to Chevron will contribute to the strategic decision-making process within the company.</p> <p>3.2. The information system must provide knowledge/information regarding store loyalty programmes and its effect on customer buying behaviour.</p> <p>3.3. Differentiating the store by offering loyalty programmes will lead to increase in profitability at store level.</p>	<p>3.1 Perceived value of information on store attributes as part information management system</p>	3.1 Likert Scale from Strongly Agree to Strongly Disagree

	<p>3.4. Differentiating the C-store by the providing customers with innovative and trendy store designs will lead to increase in customer traffic.</p> <p>3.5. The current Caltex store images are attractive to customers.</p> <p>3.6 Having a co-branded QSR (quick service restaurant) partner on the retail forecourt c-store will enable Chevron to differentiate itself in the market.</p> <p>3.6. Having an information management system that shows the effects of having a co-branded QSR (quick service restaurant) partner on the forecourt c-store has on sales will allow Chevron to use this to build a differentiation strategy.</p> <p>3.7 Information regarding sales from QSR (quick service restaurant) partner must be provided timely to Chevron to allow them to make strategic decisions</p>		
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Research Question	Survey Question	Relationship and/or variable being measured	Type of Variable
4. Does product information affect the store profitability and brand equity?	<p>Section 6 in the Questionnaire</p> <p>4.1. An information system that captures information regarding the product movements within a store and has a feedback loop to Chevron will contribute to the strategic decision-making process within the company.</p> <p>4.2. The information system must provide timely product information (usage, trends etc.) at a store level.</p> <p>4.3. Differentiating the store by offering specific product choices that match local customer needs will lead to increase in profitability at store level.</p> <p>4.4. Gathering information on customer product choices through an in-store feedback loop that is sent to Chevron will increase profitability.</p> <p>4.5. An information system must provide accurate and timely product usage information to allow Chevron to use this in this strategic decision-making process.</p> <p>4.6 Having an information system that captures product buying patterns will enable Chevron to understand the customers.</p> <p>4.7. Improving the understanding of the customer through knowing their buying patterns will improve the brand equity.</p>	4.1 Perceived importance of having product information within an information management system	4.1 Likert Scale from Strongly Agree to Strongly disagree

3.4.2 SAMPLE

The population chosen is the Chevron retailers that own and/or operate branded forecourt c-stores within the Cape Town area. These retailers sell both fuel and non-fuel products and have a franchise relationship with Chevron. All retailers buy off merchandise agreements that have been negotiated by Chevron. These retailers also buy all equipment and maintain the stores according to standards set by Chevron. There are a total of 25 retail sites that have c-stores with the STARMART logo.

These sites are based within the Cape Town central business district as well as the northern and southern suburbs of Cape Town.

Due to the size of the retailer population within the Cape Town area, it was envisaged that 100% of the retailers participate in the study.

The list of 23 retail sites that participated in the study is given below. Two retailers declined to participate in the study and could not be contacted.

Name of Service Station		Frequency	Percent	Valid Percent	Cumulative Percent
1	Bergzicht	1	4.3	4.3	4.3
2	Caltex Bellville	1	4.3	4.3	8.7
3	Caltex Okavango	1	4.3	4.3	13.0
4	Caltex Strand	1	4.3	4.3	17.4
5	Caltex Wetlands	1	4.3	4.3	21.7
6	Camps Bay	1	4.3	4.3	26.1
7	Cavalier Motors	1	4.3	4.3	30.4
8	Delft SS	1	4.3	4.3	34.8
9	Doncaster Motors	1	4.3	4.3	39.1
10	Howard centre	1	4.3	4.3	43.5
11	Marine Drive Motors	1	4.3	4.3	47.8
12	Marlborough Motors	1	4.3	4.3	52.2
13	Masakhane Motors	1	4.3	4.3	56.5
14	Melkbos Service Station	1	4.3	4.3	60.9
15	Milmar Service Station	1	4.3	4.3	65.2
16	Motorland Motors	1	4.3	4.3	69.6
17	Parklands Proper	1	4.3	4.3	73.9

	Name of Service Station	Frequency	Percent	Valid Percent	Cumulative Percent
18	Peak Motors	1	4.3	4.3	78.3
19	Ravenview Motors	1	4.3	4.3	82.6
20	Spine Road SS	1	4.3	4.3	87.0
21	VA Waterfront Service Station	1	4.3	4.3	91.3
22	Voorbaugh Motors	1	4.3	4.3	95.7
23	Winch Motors	1	4.3	4.3	100.0
	<i>Total</i>	23	100.0	100.0	

Table 3.4: List of Chevron retailers within the Cape Town area (2006 Chevron Retailer List)

All of the retailers employ store managers that manage the daily store activities like stock control, customer care, maintenance coordination, sales tracking, house-keeping, staff management and security.

Two store owners from the population that participated were not available to complete the questionnaire in person. They requested that the store manager complete the questionnaire. This was not a limitation since the store managers had sufficient knowledge of the operations and understood the marketing aspect of the business.

3.4.3 ADMINISTRATION OF QUESTIONNAIRE

The list of retailers was provided by the Chevron marketing team. This list contained the names, telephone numbers, addresses, email address and physical location of the sites. Each retailer was contacted by telephone to arrange a meeting during a two week period. This gave the retailers adequate time to schedule these meetings in their calendars as well as prepare for the questions.

The meetings were convened at the retail site within the c-store. Hard copies of the questionnaire and the form requesting consent from the retailers were printed prior to the meetings to ensure that the meeting was productive.

During the meeting, the research topic and problem statement were introduced. The value of the project was explained and thereafter the retailer was requested to provide consent for participating in the study.

The retailers were asked to sign a form (Letter of Informed Consent) acknowledging participation in the study. An example of this form is contained with the questionnaire in Appendix Two.

The aspect of confidentiality was explained and the retailers were informed that they could withdraw from the project at any time and did not have to respond to questions that they were not comfortable with answering.

The meeting with each retailer lasted approximately one hour during which the interviewer posed the listed questions and marked the applicable responses. At the end of the session the retailer was informed of the responses that were provided for the questions and was asked to confirm that the responses were correct.

At the end of each session the respondent was thanked for making time available and was advised that Chevron will be receiving a copy of the report with the responses presented in summarized format. It was also mentioned that the data will be stored at the Graduate School of Business (GSB) at the University of KwaZulu-Natal for a period of 5 years.

3.5 CONCLUSION

This is a quantitative study that uses a survey method chosen to conduct the study. The questionnaire is used to gather primary data from the population. The survey method is popular and has been recommended by other researchers as pointed out earlier in this Chapter.

The Chevron retailer population within the Cape Town area participated in the study and 92% of the population responded to the questionnaire.

Ethical Clearance was obtained from the University of KwaZulu-Natal GSB. Approval was received from Chevron to allow the retailers to participate in the study. The research instrument was carefully designed and tested to ensure it is relevant. This was achieved by mapping the questions within the questionnaire to the main research questions and problem statement. The data will be collected and analyzed using statistical methods. The results will be reported in the next chapter. The results will be presented in a manner will assist in answering the research questions.

CHAPTER 4: DATA ANALYSIS AND RESULTS

4.1 INTRODUCTION

This chapter reports the results from the questionnaire that has been administered. It provides an interpretation of the results that have been analyzed using statistical methods. The analysis of results will enable the researcher to answer the broad research question regarding the need for information management system within the forecourt c-store business to develop a differentiation strategy.

The analysis of the results will also assist in the answering of the three sub-questions of the research problem namely;

- (i) the effect of having customer information within the information management system on profitability and brand equity,
- (ii) the effect of having store information within the information management system on profitability and brand equity and,
- (iii) effect of having the product information within the information system on profitability and brand equity.

From the sample of 25 retailers within the Cape Town area there was a response rate of 92% with 2 retailers declining to participate in the study.

The results and interpretations from the following tests: Descriptive statistics, Comparison statistics, Anova and the Correlations test that were performed on the data will be presented for each of the section of the questionnaire. The statistical test results can be found in Appendix 5.

The questionnaire can be found in Appendix 3 and has been labeled according to the variable labels used in the SPSS software to allow the reader to cross-reference the results reported in this chapter to the questionnaire itself.

This analysis of the results from this chapter and the theoretical framework gathered from the literature review in Chapter 2 will provide a good foundation to allow the researcher to answer the research questions and thereafter to develop conclusions and recommendations in Chapter 5 of this report.

4.2 ANALYTICAL METHODS USED

The data was collected, checked for errors and coded. The coding was performed for all questions that employed the Likert scale. The new coding is:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

The data was input into the Statistical Package for Social Science (SPSS) to perform descriptive and inferential statistical tests.

4.3 DESCRIPTIVE STATISTICS

The statistical results reported below cover the entire questionnaire (Section 1 through 6). The section below covers the descriptive statistics (describing the responses, comparative statistics and central tendency results) that were generated using the SPSS software.

4.3.1 DEMOGRAPHICS AND GENERAL PROFILE OF RESPONDENTS

The first part of the questionnaire covered personal and general factors about the Chevron retailers. The results are reported for the first two sections of the questionnaire (Q1.1 through to Q 2.7). The following results are reported for these questions:

4.3.1.1 *What is the name of the Chevron retail service station you own and/or operate?*

A 100% of the sample population of the Chevron retailers submitted the name of the service station that they operate and did not need to remain anonymous.

4.3.1.2 *How long have you operated the Chevron forecourt store?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 1 year	3	13.0	13.0	13.0
2 - 5 years	9	39.1	39.1	52.2
Above 5 years	11	47.8	47.8	100.0
Total	23	100.0	100.0	

Table 4.5: Descriptive results for duration (years) of store operation

The results reveal duration of operation of a c-store. From the responses received 13.0 % are below 1 year duration, 39.1% have between 2 -5 years duration and 47.8 % are above 5 years of duration.

4.3.1.3 *What is the location of your store?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Along side a major road	18	78.3	78.3	78.3
In the direction of traffic	4	17.4	17.4	95.7
Within a suburb	1	4.3	4.3	100.0
Total	23	100.0	100.0	

Table 4.6: Descriptive results for store location

The results reveal dispersion of location of stores within defined areas. The participated respondent's location groups are 78.3 % along side a major road, 17.4 % are in the direction of traffic, and 4.3 % are within a suburb.

A comparison statistical analysis was performed between the retailer store location and the duration that they have operated a store. The results show of the retailer responses 43.5% of the retailers have a store along side a major road and operated the store for more than 5 years.

There are 26.1% of the retailers who have a store along side a major road have operated this for between 2 and 5 years and there is 8.7% of the retailer who have a store along side a major road and have operated the store for less than a year.

The 17.4% of retailers that have stores along side a road in the direction of traffic have 4.3% that have less than a year of operation of the store whilst 13% have operated the store for 2 to 5 years.

4.3.1.4 Do you offer the following in your store?

This question is aimed at finding out the type of c-store offering (customer value proposition) that the retailer provides for the customer. This then indicates the extent of the differentiation that is already present at the store.

In-store Offering	Frequency	Percent	Valid %	Cumulative %
Co-branded Quick Service Restaurant	10	43.5	45.5	45.5
Mechanism to collect customer feedback	1	4.3	4.5	50.0
Store Loyalty	1	4.3	4.5	54.5
Identify customer types and profiles shopping at the store	9	39.1	40.9	95.5
Identify and track product choices that customers want	1	4.3	4.5	100.0
<i>Total</i>	<i>22</i>	<i>95.7</i>	<i>100.0</i>	
Missing System	1	4.3		
Total	23	100.0		

Table 4.7: Type of customer offering within the Chevron store

From the table 43.5 percent of the retailers have a quick service restaurant, 40.9% track the type of customer profile entering the store, 4.5% of retailers collect customer feedback, 4.5 percent have a store loyalty programme in place and 4.5 identify and track customer product choices.

Comparison statistics was performed between the various offerings of the store and the period in which retailers have operated the stores.

Retailers that have a quick service restaurant make up 45.5% of the total retailer sample and 22.7% have operated the store for more than 5 years, 13.6% operated the store for less than a year whilst 9.1% have between 2 and 5 years of experience operating the store.

The retailers that track customer profiles make up 40.9% of the total retailer sample population and 27.3% have operated the store for 2 to 5 years whilst 13.6% have more than 5 years experience operating the store.

The entire 4.5% of the retailer population that collects customer feedback has more than 5 years of operating experience. The same holds for the 4.5% of the retailer population that has a store loyalty programme and the 4.5% of the retailer population that tracks customer product choices.

4.3.1.5 *Is there a formal structure feedback loop between yourself and Chevron where information can be passed along regarding customer or product trends?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	22	95.7	95.7	95.7
Don't know	1	4.3	4.3	100.0
Total	23	100.0	100.0	

Table 4.8: Descriptive results for presence of a feedback loop

This question reveals the perceptions of the retailers towards an existing formal feedback loop to Chevron to capture pertinent information. From the responses collected, 95.7% have expressed "Yes" and 4.3% expressed "Don't Know".

Comparative statistics were performed comparing retailer's duration of operating the store and the perception around having a formal feedback loop.

The retailers that responded "Yes" to having a formal feedback loop have 47.8% with more than 5 years of duration, 39.1% between 2 and 5 years of experience and 8.7% with less than 1 year experience.

4.3.1.6 *Do you have a business consultant that is allocated to your retail site?*

This question establishes if the retailer has an existing face-to-face (in person) communication method to transfer information.

The response was 100% “Yes” to having a business consultant.

4.3.1.7 *Is your retailer role clearly described and Chevron's expectations clearly outlined for you as a store operator?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	20	87.0	87.0	87.0
No	3	13.0	13.0	100.0
Total	23	100.0	100.0	

Table 4.9: Descriptive results for role clarification

The results from these questions reveal perception of the retailer towards having a clear role and expectations.

The retailers expressed 87% as “Yes” and 13% as “No”. Comparing this with the duration of the retailer operating the store it is found that 43.5% of the retailers that understand their role have more than 5 years experience whilst 39.1% have between 2 and 5 years experience whilst 4.3% have less than 1 year experience.

The retailers that answered “No” to clearly understanding their role have 47.8% of them with more than 5 years experience, 39.1% have between 2 and 5 years experience whilst 13% have less than 1 year experience.

4.3.1.8 *Do you have key performance metrics for your store operations that distinguishes performance?*

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	14	60.9	70.0	70.0
	No	6	26.1	30.0	100.0
	Total	20	87.0	100.0	
Missing	System	3	13.0		
Total		23	100.0		

Table 4.10: Descriptive results for performance measurement

From the responses received for this question, 60.9% of the retailers have key performance measurements that they do, 26.1% do not have these measurements.

There are 25% of the retailers that have key performance metrics and more than 5 years experience of operating the store.

There are 35% of the retailers with key performance metrics and between 2 and 5 years experience of operating the store.

There are 10% of the retailers with key performance metrics and less than 1 year experience of operating the store. Three retailers declined to answer this question.

4.3.1.9 Do you monitor performance of your store on a formal basis?

This question reveals perceptions from retailers towards formally monitoring store performance. The retailers responded with 43.5% answering “Yes” and 56.5% answering “No”.

The question was then modified slightly to change the basis to informal and the overall response from the retailers who answered the question was 66.7% “Yes” and 33.3% “No”.

4.3.1.10 Do you monitor customer service levels within your store?

Response		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	14	60.9	63.6	63.6
	No	7	30.4	31.8	95.5
	Don't know	1	4.3	4.5	100.0
	Total	22	95.7	100.0	
Missing	System	1	4.3		
Total		23	100.0		

Table 4.11: Descriptive results for customer service level

This question reveals the retailers perception towards the monitoring of service levels within the store. From the responses received 66.7% answered “Yes”, 31.8% answered “No” and 4.5% answered “Don’t know”.

4.3.2 RESPONDENTS PERCEPTION TOWARDS DIFFERENTIATION WITHIN THE C-STORE

The next set of questions focused on the attitude and opinion of the retailers towards differentiation for the c-store. The questions and results cover section 3 of the questionnaire. The results will be interpreted descriptively according to how the retailers responded, comparatively by comparing some of the responses of these questions against other factors like duration of time that the retailer has operated the store and thereafter central tendency statistics will also be presented.

The following results provide the descriptive results that were recorded from the responses.

4.3.2.1 What does differentiation mean to you?

Choices	Frequency	Percent	Valid Percent	Cumulative Percent
Having a strategic store location	14	60.9	60.9	60.9
Providing new product offerings	1	4.3	4.3	65.2
Providing superior customer service	4	17.4	17.4	82.6
Knowing the customer preferences	1	4.3	4.3	87.0
Having customer feedback loops	2	8.7	8.7	95.7
Having a co-branded partner on the retail site	1	4.3	4.3	100.0
Total	23	100.0	100.0	

Table 4.12: Descriptive results for meaning of differentiation

The retailers were given options to select with regards to the meaning of differentiation within a c-store. The responses show that 60.9% of the retailers expressed that having a strategic location is a differentiating factor.

There are 17.4% of the retailers that expressed that providing superior customer service is a differentiating factor. There are 8.7% of the retailers that expressed that having a customer feedback loop is a differentiating factor.

There are 4.3% of retailers that expressed that having new product offerings is a differentiating factor and the same percentage expressed that knowing the customer preferences is a differentiating factor.

There are 4.3% of the retailers that expressed that having a co-branded partner on the site is a differentiating factor.

4.3.2.2 Differentiation will lead to higher store profitability?

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	8.7	8.7
Agree	6	26.1	26.1	34.8
Strongly Agree	15	65.2	65.2	100.0
Total	23	100.0	100.0	

Table 4.13: Descriptive results for effect of differentiation on store profitability

The responses reveal that 65.2% strongly agree, 26.1% agree and 8.7% disagree that differentiation will lead to higher store profitability.

4.3.2.3 Differentiation will improve brand equity for Chevron?

The responses reveal that 56.5% strongly agree, 34.8% agree and 8.7% disagree that differentiation will improve brand equity.

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	8.7	8.7
Agree	8	34.8	34.8	43.5
Strongly Agree	13	56.5	56.5	100.0
Total	23	100.0	100.0	

Table 4.14: Descriptive results for effect of differentiation on brand equity

4.3.2.4 Differentiation will lead to targeting profitable customers?

The responses reveal that 43.5% strongly agree, 39.1% agree and 17.4% disagree that differentiation will improve brand equity.

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	4	17.4	17.4	17.4
Agree	9	39.1	39.1	56.5
Strongly Agree	10	43.5	43.5	100.0
Total	23	100.0	100.0	

Table 4.15: Descriptive results for differentiation and targeting of profitable customers

4.3.2.5 *Differentiation will lead to customers seeking out the Chevron stores?*

The responses reveal in the table below that 47.8% strongly agree, 43.5% agree and 8.7% disagree that differentiation will improve brand equity.

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	8.7	8.7
Agree	10	43.5	43.5	52.2
Strongly Agree	11	47.8	47.8	100.0
Total	23	100.0	100.0	

Table 4.16: Descriptive results for differentiation leading to customers seeking Chevron stores

4.3.2.6 COMPARATIVE STATISTICS

A comparative analysis was performed between two important questions and this provides insight into the reasons for the respondents making certain choices regarding the meaning of differentiation. The comparison is done between the meaning of differentiation and the customer offering that the retailer has in the c-store.

The table below shows the comparison between the meaning of differentiation and the in-store offering.

Comparative Questions		Q1.4: Do you offer or do the following within your store?					Total
		Co-branded QSR	Customer feed-back	Store Loyalty programme	Identify customer profiles shopping at the store	Track product choices	
Q3.1: Differentiation for me means	Having a strategic store location	22.7%	4.5%		27.3%	4.5%	59.1%
	Providing new product offerings				4.5%		4.5%
	Providing superior customer service	13.6%		4.5%			18.2%
	Knowing the customer preferences	4.5%					4.5%
	Having customer feedback loops	4.5%			4.5%		9.1%
	Having a co-branded partner on the retail site				4.5%		4.5%
Total		45.5%	4.5%	4.5%	40.9%	4.5%	100.0%

Table 4.17: Comparison between the retailers' response to meaning of differentiation and in-store offering provided by retailers.

From the table above 45.5% of the retailers that have a quick service restaurants expressed that a strategic location (22.7%) and providing superior customer service (13.6%) are most important in terms of having a differentiated offering. There are 40.9% of retailers that identify customer profiles within their stores and most of them expressed that a strategic location (27.3%) is most important.

4.3.2.7 CENTRAL TENDENCY STATISTICS

Applying central tendency statistics to questions in Section 3 (Q3.2 through to Q3.6) of the Questionnaire provided the following set of results.

The measurement scale code that was used to interpret the results is:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Table 4.18: Likert Scale for questionnaire

		D3.2	D3.3	D3.4	D3.5	D3.6
N	Valid	23	23	23	23	23
	Missing	0	0	0	0	0
Mean		4.00	4.00	4.00	4.00	4.00
Median		5.00	5.00	4.00	4.00	5.00
Mode		5	5	5	5	5
Std. Deviation		.898	.891	1.083	.876	.728
Variance		.806	.794	1.174	.767	.530
Range		3	3	3	3	3
Minimum		2	2	2	2	2
Maximum		5	5	5	5	5

Table 4.19: Central Tendency Statistics for Questions 3.2 to 3.6

From the table above the mean value for the abovementioned questions are 4.00 and reveals that the retailers agree with the statement.

The mode has a value of 5.00, meaning that the retailers strongly agree with the statements.

The variance is from 0.53 to 1.174 and reveals that there is a difference in perception towards the abovementioned statements. The minimum value is 2 indicating that the retailers have minimum opinion of “disagree” with the abovementioned statements.

The maximum value is 5 meaning that the retailers have a maximum opinion of “strongly agree” towards the abovementioned statements.

The median is 5 for questions 3.2, 3.3 and 3.6 and this means for these questions the retailers “strongly agree” for these set of questions. The median for question 3.4 and 3.5 is 4 indicating that the retailers agree for these two questions.

The standard deviation is from 0.728 to 1.083 and reveals these questions there is variation in retailer’s perception.

The range for these questions has a value of 3.00 and indicates the retailers have a difference in opinion and towards the questions.

4.3.3 INFORMATION MANAGEMENT SYSTEM-CUSTOMER INFORMATION

The next set of results is based on the information on customers that may be needed to be part of an information management system. These questions and results cover section 4 (questions 4.1 through to 4.8) of the questionnaire. The descriptive statistics will be presented thereafter the results from the central tendency tests will be given

4.3.3.1 *An information management system that captures information at a store level and provides this to Chevron will contribute to the strategic decision-making process within the company?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	16	69.6	69.6	73.9
Strongly Agree	6	26.1	26.1	100.0
Total	23	100.0	100.0	

Table 4.20: Descriptive results for store information in an Information system

The responses reveal that 26.1% strongly agree, 69.6% agree and 4.3% disagree that an information management system will contribute towards the strategic decision-making process in Chevron.

4.3.3.2 *The information management system must provide knowledge/information regarding customer trends, behaviours and preferences to enable Chevron to differentiate itself according to customer needs?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	16	69.6	69.6	73.9
Strongly Agree	6	26.1	26.1	100.0
Total	23	100.0	100.0	

Table 4.21: Descriptive results for customer trends an information system

The responses reveal that 26.1% strongly agree, 69.6% agree and 4.3% disagree that an information management system must provide information on customer trends, behaviours and preferences.

4.3.3.3 *Differentiating the store offerings around local customer profiles will lead to increase in profitability at store level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	3	13.0	13.0	13.0
Agree	11	47.8	47.8	60.9
Strongly Agree	9	39.1	39.1	100.0
Total	23	100.0	100.0	

Table 4.22: Descriptive results for differentiating according to local customer preferences

The responses reveal that 39.1% strongly agree, 47.8% agree and 13% disagree that differentiating the sore around local customer demand will lead to an increase in store profitability.

4.3.3.4 *Differentiating the store offerings around local customer preferences will lead to increase in brand equity level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	8.7	8.7
Agree	11	47.8	47.8	56.5
Strongly Agree	10	43.5	43.5	100.0
Total	23	100.0	100.0	

Table 4.23: Descriptive results for differentiating according to local customer preferences and effect on brand equity

The responses reveal that 43.5% strongly agree, 47.8% agree and 8.7% disagree that differentiating the store around local customer demand will lead to an increase in brand equity.

4.3.3.5 *Chevron is currently able to receive information on customer trends, customer preferences and customer behaviour from a store level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	4.3	4.3	4.3
Disagree	14	60.9	60.9	65.2
Agree	8	34.8	34.8	100.0
Total	23	100.0	100.0	

Table 4.24: Descriptive results on Chevron being able to receive information

The responses reveal that 34.8% agree, 60.9% agree and 4.3% strongly disagree that Chevron is presently able to receive information on customers from a store level.

4.3.3.6 *Does the Chevron market information system provide accurate customer buying information i.e. information that is representative of the customers visiting your store?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	20	87.0	87.0	87.0
Seldom	2	8.7	8.7	95.7
Most of the time	1	4.3	4.3	100.0
Total	23	100.0	100.0	

Table 4.25: Descriptive results for Chevron being able to profile the customer

The results reveal that 87% of the retailers expressed “Never”, 8.7% expressed “Seldom” and 4.3% expressed “Seldom” towards the above question.

4.3.3.7 *How long must the feedback loop be to provide vital information to Chevron i.e. the cycle time of information transferred back to Chevron on the specific store level information?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Daily	2	8.7	8.7	8.7
Weekly	4	17.4	17.4	26.1
Monthly	14	60.9	60.9	87.0
Annually	2	8.7	8.7	95.7
Other	1	4.3	4.3	100.0
Total	23	100.0	100.0	

Table 4.26: Descriptive results for length of the feedback loop

The results reveal that 60.9% of the retailers expressed that information must be passed along monthly to Chevron, 17.4% expressed that information must be passed along weekly. The rest of the results were split in small proportions with 8.7% wanting daily feedback, 8.7% wanting annual feedback whilst 4.3% wanted other feedback frequency not listed in the options given. The retailers did not specify the “other” caption.

4.3.3.8 *The information that Chevron will need regarding customer trends must be relevant at a store level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	9.1	9.1
Agree	12	52.2	54.5	63.6
Strongly Agree	8	34.8	36.4	100.0
Total	22	95.7	100.0	
Missing System	1	4.3		
Total	23	100.0		

Table 4.27: Descriptive results for customer trends at a store level

The responses reveal that 36.4% strongly agree, 54.5% agree and 9.1% disagree that the information that Chevron will need regarding customer trends must be at store level.

4.3.3.9 CENTRAL TENDENCY STATISTICS

Applying central tendency statistical test to questions in Section 4 (Q4.1 through to Q4.8) of the questionnaire provided the following set of results.

Central Tendency Stats		4.1	4.2	4.3	4.4	4.5	4.8
N	Valid	23	23	23	23	23	22
	Missing	0	0	0	0	0	1
Mean		4.00	4.00	4.00	4.00	3.00	4.00
Median		4.00	4.00	4.00	4.00	2.00	4.00
Mode		4	4	4	4	2	4
Std. Deviation		.650	.650	.968	.864	1.027	.853
Variance		.423	.423	.937	.747	1.055	.727
Range		3	3	3	3	3	3
Minimum		2	2	2	2	1	2
Maximum		5	5	5	5	4	5

Table 4.28: Central tendency statistics for Q4.1 to Q4.8

From the table above the mean value for the almost all of the abovementioned questions is 4.00 and reveals that the retailers agree with the statement. The exception is question 4.5 which has a mean value of 3 meaning the retailers are neutral towards this question.

The mode has a value of 4.00 for most questions except question 4.5 that has a mode value of 2.00, meaning that the retailers agree with the statements and disagree with statement 4.5.

The variance is from 0.423 to 1.055 and reveals that there is a difference in perception towards the abovementioned statements.

The minimum value for most of the questions is 2 except for question 4.5 that has a minimum of 1 indicating that the retailers have minimum opinion of “disagree” most of the abovementioned statements except for question 4.5 where the minimum opinion is “strongly disagree”.

The maximum value for most of the questions is 5 meaning that the retailers have a maximum opinion of “strongly agree” towards the abovementioned statements. The exception is question 4.5 that has a maximum value of 4 meaning that the retailers have a maximum opinion of “agree” with this question.

The median is 4 for most questions except question 4.5 that has a median of 3. This means for most of these questions the retailers “agree” with the statement except for question 4.5 that they are neutral towards this statement.

The standard deviation is from 0.650 to 1.027 and reveals these questions there is variation in retailer’s perception regarding these questions.

The range for these questions has a value of 3.00 and indicates the retailers have a difference in opinion and towards these questions.

4.3.4 INFORMATION MANAGEMENT SYSTEMS: STORE INFORMATION

The next set of results involves the retailer’s perceptions towards differentiating the store at a local level and covers section 5 (questions 5.1 through to 5.7) of the questionnaire. The retailers have been asked to express an opinion on information regarding store image, store loyalty programmes, quick service restaurants and co-branding partners as part of the information management system.

The descriptive results will be given and thereafter results from the central tendency test will be reported.

4.3.4.1 An information system that captures information regarding the store attributes and the effect on customers purchasing behaviour (e.g. store image and its effect on customers buying at a store level) and feeds this to Chevron will contribute to the strategic decision-making process within the company?

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	4	17.4	17.4	17.4
Agree	14	60.9	60.9	78.3
Strongly Agree	5	21.7	21.7	100.0
Total	23	100.0	100.0	

Table 4.29: Descriptive results for store attributes in an information system

The responses reveal that 21.7% strongly agree, 60.9% agree and 17.4% disagree that an information management system that has specific store information will contribute to the strategic decision-making within Chevron.

4.3.4.2 *The information system must provide knowledge/information regarding store loyalty programmes and its effect on customer buying behaviour?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	4	17.4	17.4	17.4
Agree	14	60.9	60.9	78.3
Strongly Agree	5	21.7	21.7	100.0
Total	23	100.0	100.0	

Table 4.30: Descriptive results for store loyalty data in an information system

The responses reveal that 21.7% strongly agree, 60.9% agree and 17.4% disagree with the information management system must capture the effect of store loyalty programme on customer buying behaviour.

4.3.4.3 *Differentiating the store by offering loyalty programmes will lead to increase in profitability at store level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	4	17.4	17.4	17.4
Agree	13	56.5	56.5	73.9
Strongly Agree	6	26.1	26.1	100.0
Total	23	100.0	100.0	

Table 4.31: Descriptive results for differentiating store by offering loyalty programme

The responses reveal that 26.1% strongly agree, 56.5% agree and 17.4% disagree that a store loyalty programme will increase store profitability.

4.3.4.4 *Differentiating the c-store by the providing customers with innovative and trendy store designs will lead to increase in customer traffic?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	8	34.8	34.8	39.1
Strongly Agree	14	60.9	60.9	100.0
Total	23	100.0	100.0	

Table 4.32: Descriptive results for differentiating on store image

The responses reveal that 60.9% strongly agree, 34.8% agree and 4.3% disagree that store appearance (innovative and trendy designs) will increase customer traffic through the store.

4.3.4.5 *The current Caltex store images are attractive to customers?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	7	30.4	30.4	30.4
Agree	13	56.5	56.5	87.0
Strongly Agree	3	13.0	13.0	100.0
Total	23	100.0	100.0	

Table 4.33: Descriptive results for current Caltex store image

The responses reveal that 13% strongly agree, 56.5% agree and 30.4% disagree that Caltex stores have an attractive image.

4.3.4.6 *Having a co-branded Quick Service Restaurant (QSR) partner on the retail forecourt c-store will enable Chevron to differentiate itself in the market?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	8.7	8.7
Agree	10	43.5	43.5	52.2
Strongly Agree	11	47.8	47.8	100.0
Total	23	100.0	100.0	

Table 4.34: Descriptive results for differentiating using QSR

The responses reveal that 47.8% strongly agree, 43.5% agree and 8.7% disagree that a co-branded QSR on the forecourt will enable Chevron to differentiate them from the competitors.

4.3.4.7 *Having an information management system that shows the effects of having a co-branded QSR partner on the forecourt c-store has on sales will allow Chevron to use this to build a differentiation strategy?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	15	65.2	65.2	69.6
Strongly Agree	7	30.4	30.4	100.0
Total	23	100.0	100.0	

Table 4.35: Descriptive results for QSR data in an Information system

The responses reveal that 30.4% strongly agree, 65.2% agree and 4.3% disagree that a having an information management system that captures the effects of the co-branded QSR on the forecourt sales will enable Chevron to build a differentiation strategy.

4.3.4.8 Information regarding sales from QSR (quick service restaurant) partner must be provided timely to Chevron to allow them to make strategic decisions?

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	4	17.4	17.4	17.4
Agree	16	69.6	69.6	87.0
Strongly Agree	3	13.0	13.0	100.0
Total	23	100.0	100.0	

Table 4.36: Descriptive results for QSR information contributing to strategic decision-making

The responses reveal that 13% strongly agree, 69.6% agree and 17.4% disagree with the statement that sales information from the QSR must be provided timely to Chevron for planning purposes.

4.3.4.9 CENTRAL TENDENCY STATISTICS

Applying central tendency statistical test to questions in Section 4 (Q5.1 through to Q5.8) of the questionnaire provided the following set of results

Central Tendency Stats					
		s5.1	s5.2	s5.3	s5.4
N	Valid	23	23	23	23
	Missing	0	0	0	0
Mean		3.87	3.87	3.91	4.52
Median		4.00	4.00	4.00	5.00
Mode		4	4	4	5
Std. Deviation		.968	.968	.996	.730
Variance		.937	.937	.992	.534
Range		3	3	3	3
Minimum		2	2	2	2
Maximum		5	5	5	5

		s5.5	s5.6	S5.7	S5.8
N	Valid	23	23	23	23
	Missing	0	0	0	0
Mean		3.52	4.30	4.22	3.78
Median		4.00	4.00	4.00	4.00
Mode		4	5	4	4
Std. Deviation		1.082	.876	.671	.902
Variance		1.170	.767	.451	.814
Range		3	3	3	3
Minimum		2	2	2	2
Maximum		5	5	5	5

Table 4.37: Central tendency results for Q5.1 to 5.8 results for store information in an information system

From the table above the mean value for almost all of the abovementioned questions is approximately 4.00 (between 3.52 and 4.22) and reveals that the retailers tend to agree with the statement and in some cases have a tendency to move towards strong agreement with the questions.

Most questions has a mode value of 4.00 except for question 5.4 and 5.6 that have a mode value of 5.00, meaning that the retailers most frequently agree with the most of statements and strongly agree with statement 5.4 and 5.6.

The variance is from 0.451 to 1.170 and reveals that there is a difference in perception towards the abovementioned statements.

The minimum value for most of the questions is 2 indicating that the retailers have minimum opinion of "disagree with the abovementioned question.

The maximum value for most of the questions is 5 meaning that the retailers have a maximum opinion of “strongly agree” towards the abovementioned statements.

The median is 4 for most questions except question 5.4 that has a median of 5. This means for most of these questions the retailers “agree” with the statement except for question 5.4 that they strongly agree with this statement.

The standard deviation is from 0.451 to 1.107 and reveals that there is variation in retailer’s opinion regarding these questions.

The range for these questions has a value of 3.00 and indicates the retailers have a difference in opinion and towards these questions.

4.3.5 INFORMATION MANAGEMENT SYSTEM-PRODUCT INFORMATION

The next set of results cover section 6 (questions 6.1 through to 6.7) of the questionnaire. The retailers have been asked to express an opinion on information systems and the importance of having product information within the system.

4.3.5.1 An information system that captures information regarding the product movements within a store and has a feedback loop to Chevron will contribute to the strategic decision-making process within the company?

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	8.7	8.7	8.7
Agree	14	60.9	60.9	69.6
Strongly Agree	7	30.4	30.4	100.0
Total	23	100.0	100.0	

Table 4.38: Descriptive results for product information in an information system

The responses reveal that 30.4% strongly agree, 60.9% agree and 8.1% disagree with the statement that an information system that captures information about product movements will contribute to the strategic planning within Chevron.

4.3.5.2 *The information system must provide timely product information (usage, trends etc.) at a store level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	18	78.3	78.3	82.6
Strongly Agree	4	17.4	17.4	100.0
Total	23	100.0	100.0	

Table 4.39: Descriptive results for timely information from store level in an information system

The responses reveal that 17.4% strongly agree, 78.3% agree and 4.3% disagree with the statement that an information system must provide timely product information at a store level.

4.3.5.3 *Differentiating the store by offering specific product choices that match local customer needs will lead to increase in profitability at store level?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	13	56.5	56.5	60.9
Strongly Agree	9	39.1	39.1	100.0
Total	23	100.0	100.0	

Table 4.40: Descriptive results for data on product choices in an information system

The responses reveal that 39.1% strongly agree, 56.5% agree and 4.3% disagree with the statement that differentiating the store to match local product choices will lead to an increase in profitability at store level.

4.3.5.4 *Gathering information on customer product choices through an in-store feedback loop that is sent to Chevron will increase profitability?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	15	65.2	65.2	69.6
Strongly Agree	7	30.4	30.4	100.0
Total	23	100.0	100.0	

Table 4.41: Descriptive results for in-store feedback loop

The responses reveal that 30.4% strongly agree, 65.3% agree and 4.3% disagree with the statement that having information from an in-store customer feedback loop will increase profitability.

4.3.5.5 *An information management system must provide timely and accurate product usage information to enable Chevron to make strategic decisions?*

All respondents answering this question agree with the statement. No respondents strongly agreed or disagreed with the above statement.

4.3.5.6 *Having an information system that captures product buying patterns will enable Chevron to understand the customers?*

All respondents answering this question agree with the statement. No respondents strongly agreed or disagreed with the above statement.

4.3.5.7 *Improving the understanding of the customer through knowing their buying patterns will improve the brand equity that customers have with the Caltex brand?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	4.3	4.3	4.3
Agree	18	78.3	78.3	82.6
Strongly Agree	4	17.4	17.4	100.0
Total	23	100.0	100.0	

Table 4.42: Descriptive results for product information improving brand equity

The responses reveal that 17.4% strongly agree, 78.3% agree and 4.3% disagree with the statement that improving the understanding of the customer will lead to improvement in brand equity.

4.3.5.8 CENTRAL TENDENCY STATISTICS

Applying central tendency statistical test to questions in Section 4 (Question 6.1 through to Question 6.7) of the questionnaire provided the following set of results.

Central Tendency Stats		p6.1	p6.2	p6.3	p6.4	p6.5	p6.6	p6.7
N	Valid	23	23	23	23	23	23	23
	Missing	0	0	0	0	0	0	0
Mean		4.13	4.09	4.30	4.22	4.00	4.00	4.09
Median		4.00	4.00	4.00	4.00	4.00	4.00	4.00
Mode		4	4	4	4	4	4	4
Std. Deviation		.815	.596	.703	.671	.000	.000	.596
Variance		.664	.356	.494	.451	.000	.000	.356
Range		3	3	3	3	0	0	3
Minimum		2	2	2	2	4	4	2
Maximum		5	5	5	5	4	4	5

Table 4.43: Central tendency results for Q6.1 to Q6.7

From the table above the mean value for almost all of the abovementioned questions are approximately 4.00 and reveals that the retailers tend to agree with the statements.

All questions have a mode value of 4.00 meaning that the retailers most frequently agree with the all of the statements.

The variance is from 0.356 to 0.664 and reveals that there is a small difference in perception towards the abovementioned statements.

The minimum value for most of the questions is 2 indicating that the retailers have minimum opinion of “disagree” with the abovementioned question. Question 6.5 and 6.6 have a minimum value of 4 meaning that for these two questions the minimum opinion expressed by retailers is “agree” with the two statements.

The maximum value for most of the questions is 5 meaning that the retailers have a maximum opinion of “strongly agree” towards the abovementioned statements.

The median is 4 for all questions. This means for all of these questions the retailers “agree” with the statements.

The standard deviation is from 0.596 to 0.851 and reveals that there is small variation in retailer's opinion regarding these questions.

The range for most of these questions has a value of 3.00 and indicates the retailers have a difference in opinion and towards most these questions.

4.3.6. INFERENCE STATISTICS

Inferential statistical tests that were performed are the correlation, ANOVA and Chi-square between specific questions to test the significance of the relationship.

4.3.6.1 CORRELATION TESTS

The relationship between *differentiation* and having an *information management system* within the c-store is of interest and assists in answering the research problem. Questions relating to these two concepts were highlighted in the questionnaire tested using the correlation test to ascertain if a relationship exists between these study variables.

The following section reports the results from the correlation test. The tables containing the correlation data is contained in Addendum 4.

4.3.6.1.1 CORRELATION BETWEEN QUESTION 3.2 AND QUESTION 3.3

The probability (p) value is 0.001 which is less than 0.05 and indicates that these two questions have statistically significant correlation. The positive (+) correlation also indicates that if one variable increases it will lead to the increase of the other variable as well.

The Pearson correlation coefficient is 0.664 which indicates there is a strong correlation between differentiation leading to higher store profitability and differentiation leading to improvement in brand equity for Chevron.

4.3.6.1.2 CORRELATION BETWEEN QUESTION 3.2 AND QUESTION 3.6

The probability (p) value is 0.945 which is greater than 0.05 and indicates that these two questions do not have statistically significant correlation.

The Pearson correlation coefficient is 0.015 which indicates there is a weak correlation between differentiation leading to higher store profitability and an information management system that will improve strategic decision-making in a Chevron.

4.3.6.1.3 CORRELATION BETWEEN QUESTION 3.3 AND QUESTION 3.6

The probability (p) value is 0.73 which is greater than 0.05 and indicates that these two questions do not have statistically significant correlation. The Pearson correlation coefficient is 0.076 which that there is a weak correlation between differentiation leading to higher brand equity and an information system that will improve the strategic decision-making in Chevron.

4.3.6.1.4 CORRELATION BETWEEN QUESTION 3.3 AND QUESTION 3.4

The probability (p) value is 0.000 which is less than 0.05 and indicates that these two questions have statistically significant correlation. The positive (+) correlation also indicates that if one variable increases it will lead to the increase of the other variable as well.

The Pearson correlation coefficient is 0.763 which indicates that there is a strong correlation between differentiation leading to higher brand equity and differentiation leading to the targeting of more profitable customers.

4.3.6.1.5 CORRELATION BETWEEN QUESTION 4.1 AND QUESTION 4.2

The probability (p) value is 0.000 which is less than 0.05 and indicates that these two questions have statistically significant correlation.

The positive (+) correlation also indicates that if one variable increases it will lead to the increase of the other variable as well.

The Pearson correlation coefficient is 0.785 which indicates that there is a strong correlation between an information management system that contributes to the strategic decision-making process and the information management system must provide information about customer trends.

4.3.6.1.6 CORRELATION BETWEEN QUESTION 4.2 AND QUESTION 4.4

The probability (p) value is 0.005 which is less than 0.05 and indicates that these two questions have statistically significant correlation. The positive (+) correlation also indicates that if one variable increases it will lead to the increase of the other variable as well.

The Pearson correlation coefficient is 0.563 which indicates that there is a strong correlation between an information management system that contributes to the strategic decision-making process and differentiation of the store according to local customer preferences leading to increase in brand equity.

4.3.6.1.7 CORRELATION BETWEEN QUESTIONS 5.1 AND QUESTION 5.8

The probability (p) value is 0.003 which is less than 0.05 and indicates that these two questions have statistically significant correlation. The positive (+) correlation also indicates that if one variable increases it will lead to the increase of the other variable as well.

The Pearson correlation coefficient is 0.591 which indicates that there is a strong correlation between responses regarding an information management system that captures information about store attributes and the responses regarding sales information from a co-branded QSR that must be provided timely to assist the strategic decisions.

4.3.6.1.8 CORRELATION BETWEEN QUESTIONS 6.3 AND QUESTION 6.4

The probability (p) value is 0.038 which is less than 0.05 and indicates that these two questions have statistically significant correlation. The positive (+) correlation also indicates that if one variable increases it will lead to the increase of the other variable as well.

The Pearson correlation coefficient is -0.436 which indicates that there is a medium correlation between responses regarding differentiating stores by offering specific product choices that match local customer needs that will lead to increase in profitability at store level and responses regarding gathering information on customer product choices through an in-store feedback loop that is sent to Chevron and will increase profitability.

4.3.6.2 ANOVA TEST

Anova tests were performed between Q1.2 which is the duration of retailers operating forecourt c-stores and all questions in Section 3, 4 and 5 of the questionnaire to test if there is a significant relationship between the responses regarding differentiation and information systems versus the experience retailers possess in the convenience store business.

The results from the test shows that there is no probability value that is greater than 0.05 resulting in no significant relationship between the duration retailers have operated the c-stores and their responses regarding differentiation and information management systems that may contain information on customers, store attributes or products to assist in the strategic planning process.

4.3.6.3 CRONBACH ALPHA TEST

The Cronbach Alpha test analyses the reliability of the questions in the research instrument. The table below gives the reliability statistics for the 18 questions in the questionnaire that use the Likert scale.

Cronbach's Alpha	Number of Items
0.738	18

Table 4.44: Cronbach Alpha Test

The reliability tests for the questionnaire's continuous variables (questions with the Likert scale) give a Cronbach's alpha value of 0.738. This is above 0.7, and indicates that the 18 questions in the questionnaire have internal consistency and reliability.

4.3.7 CONCLUSIONS

The results of the primary data collected from the retailers on two important areas; differentiation and information systems, have been presented. Both descriptive and inferential statistical tests have been used to develop an understanding of the results. The descriptive tests provide insight into how the retailers responded to the questionnaire whilst the inferential statistics tests if there are any relationship between the study variables like differentiation and information systems based on the responses received.

The discussion of the results will be presented in the next chapter and will aim at providing answers to the research questions. Thereafter conclusions drawn from the discussion of the results and recommendations will be made.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In this final chapter the results of the survey given in Chapter Four will be discussed bearing in mind that the theoretical framework that was developed in literature review (Chapter Two) acts as a foundation upon which these discussions will be presented. It is important that the limitations of the study are given upfront so that there is an appreciation for some of the boundaries and constraints of this study.

The discussion of the results will be presented such that the general and demographic profile of the retailers that responded is well understood; thereafter the results of the descriptive statistics and the inferential statistics will be discussed. The research questions will be answered next and finally conclusion and recommendations will be given.

5.2 DISCUSSION OF RESULTS

The discussion of the analysis of the results will be presented in a manner that will answer the research questions. The results of descriptive and inferential statistics that were performed on the primary data will serve as the basis for answering the critical research questions.

5.2.1 CRITICAL QUESTION 1: WHAT ARE THE FACTORS WITHIN THE FORECOURT C-STORE BUSINESS THAT WILL ENABLE THE DEVELOPMENT OF A DIFFERENTIATION STRATEGY?

From the literature review there is strong affirmation from McKenna (2005) and Sommers (1999) that differentiating within an industry that has highly competitive forces is a good strategy for survival and sustainability. Carpenter (1999) states that differentiation can enhance customer value and leads to brand equity improvement.

Using this as a basis, the research instrument was designed to extract factors that support differentiation in the forecourt c-store industry and several questions relating to the retailers opinion of differentiation and benefits of differentiation were posed. The results from the data collection are discussed below and can be found in Section 4.3.2.

A key question within Section 3 of the questionnaire required respondents to provide their understanding of differentiation. From the results, it is evident that almost 61% of the retailers believe that differentiation is about being situated in a strategic location. This response translates into the customer shopping behavior being affected by the location of the stores.

Within the General section of the questionnaire there was a specific question that required retailers to specify the location of the store.

The results show that 95.7% of the retailers are located along side a major road or in the proximity of high volume traffic and the remaining retailers are located within a suburb. By combining the response received for the meaning of differentiation and the question on store location it leads to the acceptance that retailers view locations that are on major roads and in the proximity of high volume traffic as strategic locations. This is further supported by the fact that the retailers who are situated on along side major roads and within the direction of traffic generate on average R300 000 per month.

If one reviews the existing Chevron locations it is evident that the sites that are along-side major roads and in the proximity of traffic have higher revenues. Sites that are in suburbs have lower monthly revenue. This implies that customers seek sites that allow them to exit roads, make the purchases and then rejoin traffic. For a customer to seek out a site which is not along a convenient route there must be a significant attraction that compensates for an inconvenient location.

Retailers expressed that the next important differentiation factor is customer service. The results show that 17.4% of the retailers chose this option as a method to differentiate the offering to the customer.

Table 4.11, in Section 4.3.1, shows that 63.6 % of retailers monitor customer service. Closely tied to this is the provision of customer feedback loops with 8.7% of the retailers mentioning that this enables them to understand the methods of improving the service offering to the customers. The last three factors; providing new product offerings, knowing customer preferences and having a co-branded partner on the retail site scored low response percentages (4.3% each) in comparison to having a strategic location and providing superior customer service.

The responses on having a co-branded partner as a differentiation factor shows that retailers do not view this as a major initiative to attract customers to the c-stores. The results show that only 4.5% of the retailers expressed the opinion that a co-branded partner is an important differentiation factor.

Having established that the two important differentiation factors are location and customer service, it is important to ensure that these responses are tested for reliability.

This is performed by overlaying the experience of the retailers and reviewing the results of the central tendency test for the two selected factors, location and customer service.

The experienced retailers have more knowledge of the challenges within the business and interaction with customers therefore they would be able to offer the most informed opinion.

This was tested by the duration in which the retailers have operated the c-stores. The results show that approximately 87% of the retailers have more than 5 years experience and 39.1% have between 2 and 5 years experience. From the level of experience it can be inferred that the retailers that participated in the study have built up knowledge of the industry and would be able to provide an informed opinion regarding the factors that are most important for differentiation within the industry.

Seventy percent (70%) of the retailers have key performance measures that enable them to monitor store performance and make changes accordingly. There is a high probability that the retailers, who chose location and customer service as differentiating factors, manage store performance. It is also probable that these retailers are aware how these factors affect the business performance.

The central tendency test results show retailers mostly agreeing with the statement regarding the use of differentiation to improve profitability and brand equity. These questions have a mean value of 4 (4 is coded as “agree with the statement” for the statistical test).

The most frequent response (mode) from the retailers is “Strongly Agree” with the statements. The standard deviation for the responses ranges from 0.728 to 1.083 and shows that the retailers are either neutral or agree strongly with the statements on differentiation.

The retailers were also asked to express an opinion on the value of differentiation and whether it would lead to improvement in profitability and brand equity for the stores. The results shows that almost 93% of the retailers agree that differentiation will lead to higher profitability and an improvement in brand equity.

More than two thirds of these retailers strongly agree that differentiation brings about the abovementioned benefits. From the correlation test that was performed between the two statements on differentiation namely; differentiation improves profitability and differentiation improves brand equity, there is a strong correlation with a probability value (p value) of 0.001 and a Pearson coefficient is 0.664.

This means that if differentiation improves profitability it will also improve brand equity. The converse is also true; if there is a lack of differentiation then there will be a decline in profitability and brand equity.

In summary, the store location and the customer service offered at the store are the most important factors that will contribute to differentiation according to the Chevron retailers that participated in the study.

5.2.2 CRITICAL QUESTION 2: WHAT TYPE OF INFORMATION SYSTEM MUST BE IN PLACE AT A STORE LEVEL TO PROVIDE THE RELEVANT INFORMATION TO CHEVRON TO DIFFERENTIATE WITHIN FORECOURT C-STORE INDUSTRY?

The literature survey in Chapter 2 on information systems and the role of an information system in the development of business strategy will serve as a foundation for this discussion. This literature together with the primary data collected from retailers on the use of an information management system will be used to answer the critical question on the type of information system needed to support differentiation.

The discussion of results will be presented in three components; customer information, store information and product information. Refer to Section 4.3.4 and 4.3.5 for results relating to this discussion.

5.2.2.1 CUSTOMER INFORMATION AS PART OF THE INFORMATION MANAGEMENT SYSTEM

In this section that value of having customer data as part of the information system will be discussed.

Donald (1998) and German (1992) advocate that differentiation in the retail industry can occur if the customer profile is well understood. There is continuous reference by A.C.NIELSEN (2005) and PlanetRetail (2005) to having shopper insights and accessing information to improve the understanding of the customer.

The retailers were asked questions relating to the type of information system that would support the strategy development process. They were also required to respond to the value of having customer information as part of an information management system. The results show that approximately 97% of retailers believe that an information system will contribute to the strategic decision-making process within an oil company. Approximately 28% of these retailers strongly agree that the information system will add value to the strategic planning process. The same results were obtained when retailers responded to the importance of customer data within an information system.

There are 92% of the retailers that agreed with the statement that the information system must capture customer trends at a store level. Approximately 40% of these retailers strongly agree that the information must be specific to the store location. It has come out strongly that the information system must capture differences in the local customer preferences. This is evident from the response rate from the retailers (96% favorable response). The term that is often used is the data must be site specific and relevant to local needs. Reviewing results from the central tendency statistical, for the questions posed on incorporating customer information within the information management system, shows that the retailers in general agree on two important points:

- An information system is important to support a differentiation strategy. The mean value for these responses is “agree” (mean value is 4)
- The information management system must capture trends and data on the local customer needs. The mean value for these responses is also “agree” (mean value is 4).

The standard deviation for these types of questions on customer information spans 1.027 as the highest standard deviation and 0.65 at the lowest standard deviation. This means that the retailers mostly agree with the statement on the value of information systems and there is a high confidence level with a narrow spread of results.

The responses from retailers show that there is a lack of information systems and customer information within the existing Chevron network.

Approximately 96% of the retailers agreed that there is no information system in place. The same percentage expressed that there are gaps in the knowledge of the customer preferences and buying behaviour.

This lack of information means that retailers are unaware of the profile of the customer and have less of an opportunity to develop points of difference that can attract the profitable customers.

The correlation test that was performed to test the relationship between an information system and the need for customer data within the information system produced high correlation coefficients both for the probability test and the Pearson coefficient. This means that an improvement in the quality of customer information in the information system will lead to an improvement in the contribution that the information system makes to the strategic decision-making process within the company.

This also implies that an information management system that does not have adequate customer information will not be helpful during the strategic planning process. There is a strong correlation between having an information management system that contributes to the decision-making process and the differentiation of the store offering according to local customer needs.

The correlation coefficients shows that if there is an information management system in place it would lead to creating strategic value and if the differentiation is not done at a store level then this would erode the value of the information system.

5.2.2.2 STORE INFORMATION AS PART OF THE INFORMATION MANAGEMENT SYSTEM

In this section the value of having information based on store attributes comprising of image, customer feedback loop and store loyalty programmes will be discussed. Refer to Section 4.3.5 for the results that support this discussion.

Granbois (1981) states that the image of the store has an important effect on the customer buying behaviour. Louis (1999) found that members of a reward programme are more likely to spend a greater amount of time in the c-store translating to a higher probability of more money being spent.

From the data collected from the retailers regarding the value of store data within an information system it can be seen that 83% of the retailers are in agreement that store data should be part of the information management system.

At least 25% of these retailers strongly agree with this statement. The same response was obtained when asked if differentiating the store along store attributes would lead to an increase in profitability and an even higher response (96% of retailers agreed) was received when asked if it would lead to an increase in customer traffic. There was also strong feedback that the differentiation must occur at a local level and each store might need to differentiate on specific attributes that match local customer needs.

The responses received on store loyalty programmes shows that retailers see this as adding value to the customer offering. From the responses received, 83% of the retailers believe a loyalty programme will increase customer traffic through the store and lead to increase in brand equity. The retailers expressed that store promotions should be included within a loyalty programme.

Retailers were also asked if a co-branded partner that provides a quick service restaurant (QSR) would be viewed as a differentiating factor. The responses show that 91% of the retailers agree that this can create a point of difference in the industry. This particular question was also asked in a different context earlier in the questionnaire and retailers did not view the co-branded QSR as a major differentiation factor. Therefore this point needs to be revisited with retailers and can be the scope of a subsequent study.

The results show that retailers are supportive of having information on store attributes as part of the information system. A review of the central tendency statistical test results shows that the mean value is "agree" with the statement on having store attributes as part of the information system. The standard deviation for all of the questions relating to store attributes is less than 1 meaning that there is a narrow spread of results. This implies that there is little disagreement between retailers on the value of store information and the ability to use this to differentiate the c-store business.

The correlation test shows that there is a strong correlation between having an information system that captures store attributes and the differentiation of the store according to local market needs.

The majority of the retailers expressed an opinion that the information system will not be of value during the development of a differentiation strategy if it is unable to process store specific information that allows for local differentiation as opposed to national differentiation.

5.2.2.3 PRODUCT INFORMATION AS PART OF THE INFORMATION MANAGEMENT SYSTEM

In this section the value of having product information as part of the information system will be discussed.

In the literature review, German (1992) and Jacobs (2006) make an important point regarding product knowledge and tracking of products as an important element of the c-store business. This is confirmed in the responses received from the retailers. The results show that approximately 90% of the retailers agree that the information system must capture product information.

The specific product information that must be included in the system is product consumption trends, brand choices and buying patterns. At least 30% of the retailers strongly agree that product information is important to create differentiation and capture the local market.

The need for differentiation according to local market needs has been raised again during this section of the questionnaire and almost 40% of the retailers strongly agree that profitability can be increased only if the local stores are allowed to differentiate according to local market product choices. The central tendency statistical test for the set of questions that are based on product information showed that the mean value is "agree" with the statements on products information as an element of the information system. The standard deviation is less than 1 implying a narrow spread of results.

5.2.3 QUESTION 3: DOES AN INFORMATION SYSTEM THAT HAS CUSTOMER INFORMATION, STORE INFORMATION AND PRODUCT INFORMATION INCREASE PROFITABILITY AND BRAND EQUITY?

The results for the questions on differentiation and information systems given in section 4.3.2, 4.3.3 and 4.3.5 of this report will be used to provide answers to this question. In most cases more than 90% of the retailers agreed that differentiation will lead to an increase in profitability and brand equity. Retailers have also agreed that an information system that captures customer data, data on store attributes and product data is important and can be used as input to the development of a differentiation strategy for the forecourt c-store business. Therefore it can be inferred that an information system with these three elements will lead to an improvement in store profitability and brand equity. Local store data is of particular interest to retailers since they believe that an information system must keep local trends and not aggregate store data to product national trend which may lose sight of local differences. .

5.3 RECOMMENDATIONS

The following recommendations are made:

5.3.1 DIFFERENTIATION

An oil company must review the existing and potential retail sites to ensure that the locations are strategically placed, either along side a major road or in the proximity of high volume traffic. Network planning must be performed prior to new site investments being undertaken to ensure that there is sufficient customer traffic to support the retail site. There should be a review of the profitability of the network of sites to determine which sites have low customer traffic that may be negatively impacting the sales revenue.

A decision should be made on the disinvestment in the low value sites and reinvest in prime locations that are more strategically placed. The low value sites can be sold to developers that may consider these sites for alternative investment opportunities. The existing retailers must be compensated for any lost earnings or expenses incurred due to the disinvestment and must be offered new sites that meet the criteria for being designated as a strategic location.

There must be investment in a continuous training programme to improve customer service. Benchmarking against companies that deliver superior customer service must be undertaken to keep abreast of industry leaders. This benchmarking could be performed using the entire local oil industry and multinational companies based outside South Africa. There should be an auditing and monitoring system in place to ensure that high service standards are introduced and implemented.

A formal customer feedback system must be introduced and implemented to capture customer feedback on a regular basis. This will serve as input to improve current service levels.

5.3.2 INFORMATION SYSTEM

A back-office system must be implemented to capture information on customer preferences, buying behavior and product choices. The system must capture the effect of store image and design on the customer buying patterns. A store loyalty programme must be introduced to give rewards for customers that remain loyal to particular c-stores. The spending by these customers will increase within the store if a loyalty programme is introduced.

5.3.3 QUALITATIVE STUDY WITH WIDER GEOGRAPHIC SCOPE

This study must be repeated as a qualitative study where retailers across the South Africa and must be conducted by an independent research agency to ensure the sample includes competitor oil companies. This will increase the volume of responses and will bring different points of view into the study.

5.4 LIMITATIONS OF STUDY

This study has the following limitations that need to be considered when interpreting the results and conclusions of this study.

5.4.1 POPULATION SIZE

The population that formed part of the survey was 25 retailers within the Cape Town area. Two retailers declined to participate resulting in a 92% response to the survey. The size of the population was limiting since retailers from competitor retail service station sites within the Cape Town area could not be approached since Chevron was part of the study and this could have resulted in legal issues pertaining to protection of information and confidentiality.

The legal issues could have arisen from Chevron being privy to the data and results within the report and if competitor information were revealed then this could have lead to anti-competitive behaviour.

This limitation may translate into the results of this study not able to be inferred across the entire South African forecourt convenience store industry. This may also point to the need for a further study being conducted by an independent research agency that does not have affiliation to a specific oil company. A further study would then include the entire population of retailers to include retailers from companies like Sasol, Engen, BP, Shell and Total.

5.4.2 LIMITED LITERATURE

As mentioned in Chapter 2 of this report there is limited literature that focuses on the forecourt convenience store industry within Cape Town. No literature could be found, by an academic scholar that addresses the problem of a lack of differentiation with the forecourt c-store industry. Neither has there been any attempt to study the benefits of an information system that supports the development of a differentiation strategy for the industry.

There are many market research agencies that focus on the growth trends within the industry however none of them recommend a strategy to deal with the increasing competition.

5.5 FUTHER RESEARCH

From the discussion of the results and limitations of this study it is recommended that further research may be undertaken to support the findings of this study. The scope of the further research is given below.

5.5.1 QUANTITATIVE STUDY

This study focused on collecting primary data that is quantitative in nature to assist in answering the research questions. Due to a limitation in time, qualitative data could not be collected from retailers using an interview method. This qualitative data may be used in conjunction with the quantitative data to provide further insight into the research problem and could be used to address the research questions. The interviews could be done using one-on-one sessions with retailers and posing open ended questions where retailers could express opinions that may be different to the set of options given in the questionnaire. Additionally focus groups could be convened to express opinion and discuss the research problem and questions in a group format. This will lead to brainstorming to provide answers to the issue of a lack of differentiation in the forecourt c-store market.

5.5.2 FORECOURT CONVENIENCE STORE CUSTOMERS

The Chevron retailer population was chosen to participate in the study to collect the data on questions that are based on differentiation and information systems. The feedback from the retailers represents the needs of the customer since the retailers are closest to the customer due to the daily interaction with the customers.

The population could have included the customers visiting convenience stores if there was additional time available. This would allow the study to gain more insight into differentiation within the industry and would also validate the responses given by the retailer population.

5.6 SUMMARY OF WORK

The background of this study that was given in Chapter One provides a context to the problem statement which focuses on a lack of differentiation by major oil companies within the forecourt c-store industry in Cape Town.

The sub-problem deals with the absence of an information management system that should comprise of; customer data, store attributes and product data, to provide relevant information to build a differentiation strategy to improve profitability and brand equity.

In Chapter Two the literature review created a theoretical framework for this study. It revealed that there is no available literature that addresses differentiation or information management systems within the forecourt convenience store industry in the Cape Town area. This limitation was overcome by reviewing the research that has been done within the broader retail environment since the convenience store industry is a subset of the retail industry.

The literature review confirms that the retail industry is a highly competitive industry and that a differentiation strategy must be implemented to rise above the competitors.

The literature also revealed that there is a need for an information management system that provides companies with knowledge of the external environment and high quality information that supports the decision-making process.

The literature goes on to state that strategic planning requires information of the competitive threats within the environment and the performance gaps (internal weaknesses) within a company.



The last important element of the literature review confirmed the benefits of having information on the customer, the store attributes and the products to allow for the development of a differentiation strategy that will lead to an improvement in profitability and brand equity for companies.

In Chapter Three the research methodology was outlined and focused on the use of a questionnaire to collect data from the Chevron retailers within the Cape Town area. The questionnaire was designed by mapping it to the research questions given in Chapter One.

In Chapter Four the analysis of the data was presented. Statistical analysis was performed on the data using SPSS software to support the interpretation and discussion of the results for the next chapter.

In this chapter the discussion of the results provides insight into the factors of differentiation that will improve the competitiveness of oil companies within the forecourt c-store industry. The two important differentiation factors that emerged from the analysis of the data collected from the retailers are; store location and customer service.

The results also revealed that there is a strong agreement amongst the retailers that an information management system that has customer information, store data and product information will play an important role in development of a differentiation strategy for companies.

The recommendation to oil companies is to focus on securing strategic locations and continuously improving customer service. It is also recommended that a back-office system be implemented to capture the vital information needed to develop a differentiate strategy.

5.7 CONCLUSION

The analysis of the results from the primary data collected from the Chevron retailers in the Cape Town area confirms that there is a lack of differentiation within the forecourt industry and it is recommended that an oil company focuses on two factors, store location and customer service, to create points of difference for the customer.

There is no doubt amongst the retailer population that differentiation will lead to an increase in profitability and brand equity. This is also confirmed in the literature review in Chapter 2.

There is strong opinion amongst the retailers that differentiation must be undertaken at a local level and must match local customer needs. There is also strong support amongst the retailers for an information system that captures customer data, store data and product data. This system is viewed as a supporting mechanism for a differentiation strategy.

From the above discussion it can be concluded that study has fully addressed the research problem and provided answers to the research questions, within the limitations of the study.

BIBLIOGRAPHY

Acito, F. & Anderson, R.D. (1979). *Educators' Conference Proceedings*, American Marketing Association, 1(2), 500-503.

Aguilar, F.J. (1967). *Scanning the Business Environment*. New York: Macmillan,

Avison, D.E & Fitzgerald, G. (1988). *Information Systems Development*. London: Blackwell Scientific.

Boyle, E. (1999). *A Study of the Impact of Environmental Uncertainty on Franchise Systems: The Case of Petrol Retailing in the UK*. Retail Distribution Management, 30(5), 251-263.

Carpenter, G.S. (1999). *Competitive Differentiation Strategies: A Market-Driving Perspective*. Blacksburg: Virginia Polytechnic Institute.

Clarkson, R.M.(1996). International Journal of Retail & Distribution Management, 24(6), 22-33.

Clarke, I. , Bennison, D. & Pal, J. (1995). *Making Strategy Work in Complex Retail Environments*. International Commerce and Economics, 8(2), 21-37.

Coyles, S. & Gokey, T.C. (2002). *Customer Retention is Not Enough*. The McKinsey Quarterly, 2(1), 20-25.

Davis, G.B. & Olson, M.H. (1988). *Structure and Development*. Toronto: McGraw-Hill.

Day, G.S. (1984). *Strategic Market Planning: The Pursuit of Competitive Advantage, Strategic Market Planning*. St Paul: West Publishing Company.

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

Deshpande, R. & Zaltman, G. (1982). *Factors Affecting the Use of Market Research Information: A Path Analysis*. Marketing Research, 19, 14-31.

Donald, T. (1998). *Stop Strategic Planning and Create Shareholder Value*. Management Decision 36 (7), 456-459.

Dwyer, R.J. (2004). *Utilizing Points of Differentiation to Enhance Competitiveness and Growth: Some Thoughts for Consideration*. Performance and Measurements, 5(2), 66-71.

Eisenhardt, K.M. (1999). Harvard Business Review, 77(3), 72-84.

Fuld, L. (1989). *Competitor Intelligence*. New York: John Wiley & Sons.

Formisano, R.A. (2004). *Managers Guide to Strategy*. New York: McGraw-Hill.

German, G.A. (1992). *Food Merchandising: Principles and Practices*. New York: Lebhar-Friedman Books.

Granbois, D (1981). *An Integrated View of the Store Choice/Patronage Process*. Advances in Consumer Research, 8, 693-695.

Hambrick, D.C. (1981). *Strategic Environment, Strategy, and Power within Top Management Teams*. Management Journal, 3(1), 159-174.

Hanover, D. (2001). *Marketing to Go*. NACS CONVENIENCE STORES Report, June 2001.

Hector R.L. & Calantone R.J. (1996). *Scanning Behavior and Environmental Variation in the Formulation of Strategic Responses to Change*. Journal of Business & Industrial Marketing, 11 (1), 17-41.

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

Hitt, M.A., Ireland, R.D. & Hoskisson (2003). *Strategic Management*. Ohio: South-Western.

Hoskisson, R.E., Hitt, M.A., Wan, W.P. & Yiu, D. (1999). *Theory and Research in Strategic Management: Swings of a Pendulum*. Journal of Management, 4(2), 28-37.

Internet 1: www.wikipedia.com

Internet 2: www.joburg.org.co.za. Unauthored City Report (2006). Accessed on Monday 27 November 2006 at 5:30pm CAT.

Internet 3: www.transport.gov.za. Unauthored Vehicles Stats Report (2000). Accessed on Monday 27 November 2006 at 7:30pm CAT.

Internet 4: www.fastmoving.co.za. Unauthored Market Report (2006). *Provincial Talk - South Africa's Consumer Variation by Region*. Accessed on 23 November 2006 at 12pm CAT.

Jacobs, Q. & Hobsen, R. (2006). *Economic Climate Boosts Growth*, www.BizCommunity.com

Judge, W.Q. Jr. & Zeithami, C.P. (1992). *Institutional and Strategic Choice Perspectives on Board Involvement in the Strategic Decision Process*. Academy of Management Journal, 35 (1), 766-794.

Kahneman, D. & Tversky, A. (1982). *Variants of Uncertainty*, Cognition, 11 (1), 143- 57.

Kaplan, R.S. (2004). *Strategy Map: Guide to Aligning Intangible Assets*. Strategy and Leadership, 32(5), 1-17.

Karami, A. & Analoui, F. (2003). *Strategic Management in Small and Medium Enterprises*. London: International Thomson Business Publication.

Keller, K.L. (2003). *Building, Measuring and Managing Brand Equity*. London: Pearson Education Inc.

Knight, W. (2006). *Retail Intelligence Requires Information Excellence*. Data Management Review, August 2006, 16-17.

Kotler, P. (1999). *Kotler on Marketing*. New York: Free Press.

Lisanti, L. (2006). *Creating Differences*. Convenience Store News, April 2006.

Louis, M. (1999). *Convenience Equals Growth*. Marketing News, www.biz-community.com.

Malhotra, Y. (2000). *Knowledge Management for [E-]Business Performance*. Information Strategy: The Executives Journal, 16(4), 5-16.

MacMillan, I.C. & McGrath, R.G. (1999). *Discovering New Points of Differentiation*. Harvard Business Review, 75(4), 133-138.

Mckenna, T. (2005). *The Case for Differentiation: Separating your Store from your Competitors*. National Petroleum News, October 2005.

Mittal, B.I. & Lee, M.S. (1989). *A Causal Model of Consumer Involvement*. Economic Psychology, 10(3), 45-56.

Ntloedibe, M. (2005). USDA Foreign Agricultural Service GAIN Report, May 2005.

Porter, M.E. (1980). *Competitive Strategy*. New York: Free Press.

Rodgers, B. (2003). *Extracting Value for the Customers – A Marketing Journey*. Journal of Marketing, 12(1), 46-53.

Roussouw, D. & Le Roux, S.J & Groenewald, D. (2003). *Strategic Management*. Claremont: New Africa Books.

Saunders, M. & Philip, L. & Thornhill, A. (2003). *Research Methods for Business Students*. United Kingdom: Prentice Hall.

Schendel, D.E & Hatten, K.J. (1972). *Business Policy or Strategic Management: A Broader View for an Emerging Discipline*. Academy of Management Proceedings, 3(1), 99-102.

Simkin, L.P. (1989). *International Journal of Management Science*, 17(1), 53-58.

Smit, P.J. (1999). *Strategic Planning Readings*. Cape Town:Juta.

Sommers, M.S. & Barnes, J.G. (1999). *Fundamentals of Marketing*. Toronto: McGraw-Hill.

Spethman, B. (2005)., *Turning It at the Shelf*. Promo Magazine, April 2005.

Temtine, Z.T. (2000). *Reducing Strategic Uncertainty Through Environmental Scanning*. SAIMS Conference Paper, Sept ember 2000.

Trout, J. (2000). *Differentiate or Die: Survival in Our Era of Killer Competition*. New York: John Wiley & Sons.

Unauthored Market Report (2005). *Trends in Convenience Retailing*. PlanetRetail, 2005.

Unauthored Market Report (2005). *Shape of Convenience*. Market Watch, 2004.

Unauthored Market Report (2005). *Convenience Equals Growth*. ACNielsen. 2005.

Unauthored Customer Survey (2003). *IBM Survey of American Shoppers*. [Http://www.ibm.com](http://www.ibm.com). Accessed 1 October 2006.

Uncles, M., Ehrenberg, A., & Hammond, K.. (1995). *Patterns of Buyer Behavior Regularities, Models, and Extensions*. *Marketing Science*, 14(3), 671-678.

Walters, D. (1999). *Value-based Marketing and its Usefulness to Customers*. *Management Decision*, 37(9), 697-708.

Wee, C.H. (1986). *Advances in Consumer Research*, 13(1), 48-52.

Welman, Kruger & Mitchell 2005. *Research Methodology*. Oxford: Oxford University Press.

Werner, U., McDermott, J & Rotz, G. (2004). *Retailing Difficulties*. *Business Strategy*, 25(2), 10-17.

Williams, L.T. (1997). *Planning and Managing the Information System – A Manager's Guide*. *Industrial Management & Data Systems*, 97 (5), 187-191.

Zahay, D., Griffin, A. (2004). *Customer Learning Processes, Strategy Selection and Performance in Business-to-Business Service Firms*. *Decision Sciences*, 35(2), 50-58.

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Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

A P P E N D I C E S

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

APPENDIX 1: ETHICAL CLEARANCE

RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 - 2603587
EMAIL : ximbap@ukzn.ac.za

27 NOVEMBER 2006

MR. A NAIDOO (203507199)
GRADUATE SCHOOL OF BUSINESS

Dear Mr. Naidoo

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/06768A

I wish to confirm that ethical clearance has been granted for the following project:

"The use of an Information Management System to enable major oil companies to build a business strategy to allow for differentiation within the Forecourt Convenience Store Industry within Cape Town Area"

Yours faithfully


MS. PHUMELELE XIMBA
RESEARCH OFFICE

cc. Faculty Office (Christell Haddon)
cc. Supervisor (Mr. RM Challenor)

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The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

APPENDIX 2: PERMISSION TO CONDUCT RESEARCH

Contains the copy of approval via Email received from Chevron to conduct research using the Chevron retailers to respond to research questionnaire.

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

Alvin,

This is to confirm my approval.

I wish you every success in your studies.

Best Regards

Shashi Rabbipal
General Manager

Retail Marketing, Southern and Central Africa
Chevron South Africa (Pty) Limited
19 D.F. Malan Street, Foreshore
Cape Town, 8000
Tel : 27 21 403 7267
Fax : 27 21 403 0444
srabbipal@chevron.com

Urgency Through Compliance, Operational Excellence, and Execution

From: Naidoo, Alvin (NAID)
Sent: Wednesday, November 01, 2006 4:52 PM
To: Rabbipal, Shashi (SRBD)
Subject: FW: Research project - Forecourt C-stores industry

Shashi, for the sake of approvals that I require for the University I just need you to say approved and return this email. Thanks for your support.

From: Naidoo, Alvin (NAID)
Sent: Friday, October 27, 2006 2:12 PM
To: Soodyall-Wills, Candice; Sancho, Dakshina; Zini, Buntu (BZIN); Fataar, Naseem; Smith, Mercia (MSMI); King, Francois J (FKIN)
Subject: FW: Research project - Forecourt C-stores industry

Hello,

I am doing a research project that focus on differentiation in the forecourt C-stores industry. The real aim here is to find out the type of information that is needed from a store level that could contribute to the strategic planning and building of a differentiation strategy so that an oil company can rise above its competitors and get customers to seek out the differences.

I want to interview retailers within the Western Cape to gather their thoughts on how to differentiate ourselves within the forecourt c-store industry. My intention is conduct a survey with our Chevron retailers to get them to provide feedback. This is an independent research project and Chevron will be able to use the findings. The survey will be in the form of a questionnaire.

I will be in direct contact with the Chevron retailers and wanted the Business Consultants that own the relationship to be aware of this and help by letting the retailers know that this interview will happen within the next two weeks. The interview will probably take an hour or two at maximum.

Shashi has given me approval to proceed and the interview questionnaire has been approved by him and the Compliance group. *I would appreciate it if this note can be forwarded to retailers.*

Thanks so much for your time. Please feel free to contact me if you have any queries.

Regards,

Alvin Naidoo
Chevron
Procurement
Cape Town
Tel: +27 21 403 7615
Mobile: +27 83 266 1686

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

APPENDIX 3: RESEARCH INSTRUMENTS

FOR OFFICE USE ONLY: Respondent Code:

VOLUNTARY QUESTIONNAIRE FOR RETAILERS OF CHEVRON SOUTH AFRICA PTY LTD

Researcher: Alvin Naidoo

Supervisor: Robin Martin Challenor
School/ Programme: Graduate School of Business, MBA Programme
University of KwaZulu-Natal

Notes to the respondent

- **This is NOT a Chevron study and is an independent study that uses the Chevron network of retailers to gain opinion and attitude towards differentiation within the industry.**
- I am an independent researcher and currently work for Chevron, I need your help to :
 - Understand the type and quality of information that is required to enable an oil company to provide accurate, complete, relevant and timeous information about its C-store business so that this is inputted into the strategic planning and decision-making process that will allow the company to differentiate within this business area.
 - To understand the structure of an “information system ” for the company.
- Completing this questionnaire will greatly help me to understand your views on the information that is required to create a differentiation strategy.
- This questionnaire is voluntary and we appreciate the time and effort you will put in to complete this questionnaire. We would like you to help us, however you do not have to take part in this survey if you wish not to participate.
- If you do not want to take part, please hand in the blank questionnaire at the end of the survey session.
- Please be as open as possible when responding to the various questions. This questionnaire will remain private and confidential.

How to complete the questionnaire

1. Please be sure to read and follow all instructions for each part of this questionnaire. If you do not follow the instructions it will be difficult for us to collate and analyze the responses.
2. We are asking you about things that you should feel comfortable telling us about. If you don't feel comfortable answering a question, you can indicate that you do not want to answer it. For those questions that you do answer, your responses will be kept confidential.
3. You can mark each response by making a tick or a cross, or encircling each appropriate response with a PEN (not a pencil), or by filling in the required words or numbers.

Thank you very much for completing this questionnaire.

INFORMED CONSENT DOCUMENT
<p>I(full name) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.</p> <p>I understand that I am at liberty to withdraw from the project at any time, should I desire.</p> <p>SIGNATURE OF PARTICIPANT</p> <p>DATE.....</p>

1. Personal Particulars:

1.1. What is the name of the Chevron retail service station you own and/or operate?

.....

1.2. How long have you operated the Chevron forecourt store?

Less than 1 year ☐ 2-5 years ☐ more than 5 years ☐

1.3. What is location of your store?

Along side a major road ☐
In the direction of traffic ☐
Within a suburb ☐
Along side a major highway ☐
Along side a road with low volume traffic ☐
Close to major shopping centers and food and convenience outlets ☐

1.4. Do you offer or do the following within your store:

Co-branded Quick Service Restaurant (co-branded partner) ☐
Mechanism to collect customer feedback ☐
Store Loyalty (promotes repeat purchases) programme ☐
Identify customer types and profiles shopping at the store ☐
Identify and track product choices that customers want ☐

1.5. What is your store sales revenue?

Less than R30000 per month ☐
Between R30000 and R80000 per month ☐
Between R80000 and R120000 per month ☐
More than R100 000 per month ☐
Other (specify).....

2. General questions:

2.1. Is there a formal structure feedback loop between yourself and Chevron where information can be passed along regarding customer or product trends?

Yes ☐ No ☐ I don't know ☐

2.2. Do you have a business consultant that is allocated to your retail site?

Yes ☐ No ☐ I don't know ☐

2.3. Is your retailer role clearly described and Chevron's expectations clearly outlined for you as a store operator?

Yes ☐

No ☐

I don't know ☐

2.4. Do you have key performance metrics for your store operations that distinguishes performance?

Yes ☐

No ☐

I don't know ☐

2.5. Do you monitor the performance of your store on a formal basis?

Yes ☐

No ☐

I am not sure ☐

2.6. Do you monitor store performance on an informal basis?

Yes ☐

No ☐

I am not sure ☐

2.7. Do you monitor customer service levels within your store?

Yes ☐

No ☐

I am not sure ☐

3. Differentiation within the Forecourt C-store industry:

3.1. Differentiation for me means:

Having a different offering from the competitors with the forecourt C-store industry ☐

Having a strategic store location ☐

Providing new product offerings ☐

Providing superior customer service ☐

Knowing the customer preferences ☐

Having customer feedback loops ☐

Having a co-branded partner on the retail site ☐

Other (please specify) _____ ☐

3.2 Differentiation will lead to higher store profitability?

I Strongly Agree ☐

I Agree ☐

I Strong disagree ☐

I Disagree ☐

I do not want to answer this question ☐

.....

3.3 Differentiation will improve brand equity for Chevron?

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

3.4 Differentiation will lead to targeting profitable customers?

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

3.5 Differentiation will lead to consumers seeking out Chevron stores?

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

3.6 An information management system developed from a network of Caltex forecourt C-stores will provide Chevron with a mechanism of gathering information to build a strategy to differentiate them within the c-stores industry.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

4. Information on Customers:

4.1. An information management system that captures information at a store level and provides this to Chevron will contribute to the strategic decision-making process within the company.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

4.2. The information management system must provide knowledge/information regarding customer trends, behaviours and preferences to enable Chevron to differentiate itself according to customer needs.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

4.3. Differentiating the store offerings around local customer profiles will lead to increase in profitability at store level.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

4.4. Differentiating the store offerings around local customer preferences will lead to increase in brand equity level.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

4.5. Chevron is currently able to receive information on customer trends, customer preferences and customer behaviour from a store level.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

4.6. Does the Chevron market information system provide accurate customer buying information i.e. information that is representative of the customers visiting your store?

- All of the time ☐
Most of the time ☐
Seldom ☐
Never ☐

4.7. How long must the feedback loop be to provide vital information to Chevron i.e. the cycle time of information transferred back to Chevron on the specific store level information?

- Daily ☐
Weekly ☐
Monthly ☐
Annually ☐
Other (specify) _____

4.8. The information that Chevron will need regarding customer trends must be relevant at a store level?

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

5. Store Information

5.1. An information system that captures information regarding the store attributes and the effect on customers purchasing behaviour (e.g. store image and its effect on customers buying at a store level) and feeds this to Chevron will contribute to the strategic decision-making process within the company.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

5.2. The information system must provide knowledge/information regarding store loyalty programmes and its effect on customer buying behaviour.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

5.3. Differentiating the store by offering loyalty programmes will lead to increase in profitability at store level.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

5.4. Differentiating the C-store by the providing customers with innovative and trendy store designs will lead to increase in customer traffic.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐
-

5.5. The current Caltex store images are attractive to customers.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

5.6 Having a co-branded QSR (quick service restaurant) partner on the retail forecourt c-store will enable Chevron to differentiate itself in the market.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

5.6. Having an information management system that shows the effects of having a co-branded QSR (quick service restaurant) partner on the forecourt c-store has on sales will allow Chevron to use this to build a differentiation strategy.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

5.7 Information regarding sales from QSR (quick service restaurant) partner must be provided timely to Chevron to allow them to make strategic decisions.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

6. Product Information

6.1. An information system that captures information regarding the product movements within a store and has a feedback loop to Chevron will contribute to the strategic decision-making process within the company.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

6.2. The information system must provide timely product information (usage, trends etc.) at a store level.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

6.3. Differentiating the store by offering specific product choices that match local customer needs will lead to increase in profitability at store level.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

6.4. Gathering information on customer product choices through an in-store feedback loop that is sent to Chevron will increase profitability.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

6.5. An information system must provide accurate and timely product usage information to allow Chevron to use this in this strategic decision-making process.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

6.6 Having an information system that captures product buying patterns will enable Chevron to understand the customers.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

.....

6.7. Improving the understanding of the customer through knowing their buying patterns will improve the brand equity that customers have with the Caltex brand.

- I Strongly Agree ☐
I Agree ☐
I Strong disagree ☐
I Disagree ☐
I do not want to answer this question ☐

Thank you very much for completing this questionnaire.

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

APPENDIX 4: CONCEPT MATRIX

Contains the concept matrix used to guide the literature search

A

Concepts

Concepts	References	Sales/profitability	Brand equity/loyalty	franchising	Convenience store industry	Customer buying behaviour	Convenience buying in an emerging market	Store image	Product pricing	Service perceptions	Store location	Loyalty programmes for C-stores	Differentiation within C-stores industry	Information systems for convenience stores	Strategic decision making	Developing strategies for c-store business	Information quality in decision-making	Strategic planning	Research Methods	Competition and differentiation	Differentiation	Product differentiation	Forecourt industry
	Chanil, D. (2004)																						
	Oleksak, M (2005)																						
	Graham, JT (2006)																						
	Darby, WK et al, (1999)																						
	Evans, JR (1996)																						
	Dwyer, RJ (2004)																						
	Lisanti, L (2006)																						
	Ntloedibe, M (2005)																						
	HANOVER, D (2001)																						
	Eisenhardt, K.M et al (1999)																						
	Rossouw, D et al (2003)																						
	Spethman, B, 2005																						

<div> <div>Concepts</div> <div>References</div> </div>	Forecourt industry								
	Product differentiation								
	Differentiation			✓					
	Competition and differentiation			✓					
	Research Methods								
	Strategic planning	✓	✓						
	Information quality in decision-making		✓		✓	✓			
	Developing strategies for c-store business								
	Strategic decision making		✓						✓
	Information systems for convenience							✓	✓
	Differentiation within C-stores industry						✓		
	Loyalty programmes for C-stores								
	Store location								
	Service perceptions								
	Product pricing								
	Store image								
	Convenience buying in an emerging market								
	Customer buying behaviour								
	Convenience store industry								
	franchising								
	Brand equity/loyalty								
	Sales/profitability								
	Temime, Z.T. (2000)								
	Fuld, L. (1985)								
	McKenna, T (2005)								
	Carroll, C.F. (1966)								
	Sammon, W.L. et al (1984),								
	Sommers, M.S. and Barnes, J.G. (1999)								
	Davis, G.B. and Olson, M.H. (1988)								
	Tricker, R.I. (1982)eaumont Press.								

Concepts	References	Forecourt industry	Product differentiation	Differentiation	Competition and differentiation	Research Methods	Strategic planning	Information quality in decision-making	Developing strategies for c-store business	Strategic decision making	Information systems for convenience	Differentiation within C-stores industry	Loyalty programmes for C-stores	Store location	Service perceptions	Product pricing	Store image	Convenience buying in an emerging market	Customer buying behaviour	Convenience store industry	franchising	Brand equity/loyalty	Sales/profitability
	Jacobs (2005)					✓	✓	✓												✓			
	Day, G.S. (1984)					✓	✓	✓															
	Deshpande, R. and Zaltman, G. (1982)					✓	✓	✓															
	Kaplan, RS (2004)						✓																
	Coyle, S et al (2002)																						
	German, GA, 1992											✓											
	Clarkson, RM (1996)													✓									
	Simkin, L.P (1989)													✓									
	Clarke, I (1995)																						
	Louis, M (1999)																						
	Welman et al (2005)					✓																	

<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Concepts</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">References</div> </div>	Sales/profitability																			
	Brand equity/loyalty																			
	franchising																			
	convenience store industry																			
	Customer buying behaviour																			
	Convenience buying in an emerging market																			
	Store image	✓	✓	✓																
	Product pricing																			
	Service perceptions																			
	Store location																			
	Loyalty programmes for C-stores																			
	Differentiation within C-stores industry																			
	Information systems for convenience																			
	Strategic decision making																			
	Developing strategies for c-store business																			
	Information quality in decision-making																			
	Strategic planning																			
	Research Methods																			
	Competition and differentiation																			
	Differentiation																			
	Product differentiation																			
	Forecourt industry																			

<div> <div>Concepts</div> <div>References</div> </div>	Forecourt industry																		
	Product differentiation																		
	Differentiation																		
	Competition and differentiation																		
	Research Methods																		
	Strategic planning																		
	Information quality in decision-making		✓	✓															
	Developing strategies for c-store business																		
	Strategic decision making																		
	Information systems for convenience stores																		
	Differentiation within C-stores industry					✓	✓	✓	✓										
	Loyalty programmes for C-stores																		
	Store location																✓		
	Service perceptions																		
	Product pricing																		
	Store image																		
	Convenience buying in an emerging market																		
	Customer buying behaviour	✓																	
	Convenience store industry																		
	franchising																		
	Brand equity/loyalty																		
	Sales/profitability																		
		Rogers (2003)																	
		Coyle, S, Gokey T, 2002																	
		Zahay, Debra, Griffin, Abbie, 2004																	
		Carpenter, G.S. (1999)																	
		Trout, J. (2000)																	
		Sommers, M.S. and Barnes, J.G. (1999)																	
		MacMillan, I.C. and McGrath, R.G. (1997)																	
		Simkin, L.P 1989,																	

	Forecourt industry								
	Product differentiation								
	Differentiation								
	Competition and differentiation							✓	✓
	Research Methods				✓	✓	✓		
	Strategic planning								
	Information quality in decision-making	✓		✓					
	Developing strategies for c-store business								
	Strategic decision making								
	Information systems for convenience								
	Differentiation within C-stores industry								
	Loyalty programmes for C-stores								
	Store location								
	Service perceptions								
	Product pricing								
	Store image								
	Convenience buying in an emerging market								
	Customer buying behaviour								
	Convenience store industry								
	franchising								
	Brand equity/loyalty								
	Sales/profitability								
Concepts									
References									
	Davis, G.B. and Olson, M.H. (1988)								
	Tricker, R.I. (1982)								
	Avison, D.E. and Fitzgerald, G. (1988)								
	Hoskisson,R.E., Hitt, M.A., Wan, W.P, and Yiu, D. (1999)								
	Schendel, D.E., and Hatten, K.J. (1972)								
	Karami, A., and Analoui, F. (2003)								
	Andrews, K. (1971)								
	Ansoff, H.I. (1965)								

APPENDIX 5: SIGNIFICANCE TABLES

Contains Correlation Test Results from SPSS Software.

The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

Correlations						
		D3.2	D3.3	D3.4	D3.5	D3.6
D3.2	Pearson Correlation	1	.664**	.516*	.616**	.015
	Sig. (2-tailed)		.001	.012	.002	.945
	N	23	23	23	23	23
D3.3	Pearson Correlation	.664**	1	.763**	.598**	.076
	Sig. (2-tailed)	.001		.000	.003	.730
	N	23	23	23	23	23
D3.4	Pearson Correlation	.516*	.763**	1	.737**	.008
	Sig. (2-tailed)	.012	.000		.000	.973
	N	23	23	23	23	23
D3.5	Pearson Correlation	.616**	.598**	.737**	1	-.003
	Sig. (2-tailed)	.002	.003	.000		.989
	N	23	23	23	23	23
D3.6	Pearson Correlation	.015	.076	.008	-.003	1
	Sig. (2-tailed)	.945	.730	.973	.989	
	N	23	23	23	23	23

** . Correlation is significant at the 0.01 level (2-tailed).

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

Table A4-45: Correlations results for Section 3 of Questionnaire

Correlations							
		4.1	4.2	4.3	4.4	4.5	4.8
4.1	Pearson Correlation	1	.785**	.396	.482*	.367	.527*
	Sig. (2-tailed)		.000	.062	.020	.085	.012
	N	23	23	23	23	23	22
4.2	Pearson Correlation	.785**	1	.323	.563**	.231	.527*
	Sig. (2-tailed)	.000		.132	.005	.289	.012
	N	23	23	23	23	23	22
4.3	Pearson Correlation	.396	.323	1	.555**	-.044	.195
	Sig. (2-tailed)	.062	.132		.006	.843	.385
	N	23	23	23	23	23	22
4.4	Pearson Correlation	.482*	.563**	.555**	1	.056	.134
	Sig. (2-tailed)	.020	.005	.006		.801	.551
	N	23	23	23	23	23	22
4.5	Pearson Correlation	.367	.231	-.044	.056	1	.283
	Sig. (2-tailed)	.085	.289	.843	.801		.202
	N	23	23	23	23	23	22
4.8	Pearson Correlation	.527*	.527*	.195	.134	.283	1
	Sig. (2-tailed)	.012	.012	.385	.551	.202	
	N	22	22	22	22	22	22

** . Correlation is significant at the 0.01 level (2-tailed).

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

Table A4- 46: Correlations results for Section 4 of Questionnaire

Correlations									
	s5.1	s5.2	s5.3	s5.4	s5.5	s5.6	S5.7	S5.8	
s5.1 Pearson Correlation	1	.321	-.012	.229	-.106	-.219	-.024	.591**	
Sig. (2-tailed)		.136	.956	.293	.631	.315	.912	.003	
N	23	23	23	23	23	23	23	23	
s5.2 Pearson Correlation	.321	1	.365	.165	.068	.156	.116	.226	
Sig. (2-tailed)	.136		.087	.452	.758	.477	.599	.299	
N	23	23	23	23	23	23	23	23	
s5.3 Pearson Correlation	-.012	.365	1	.315	.339	.397	.301	.079	
Sig. (2-tailed)	.956	.087		.143	.113	.061	.162	.720	
N	23	23	23	23	23	23	23	23	
s5.4 Pearson Correlation	.229	.165	.315	1	-.073	.238	.407	-.027	
Sig. (2-tailed)	.293	.452	.143		.742	.274	.054	.903	
N	23	23	23	23	23	23	23	23	
s5.5 Pearson Correlation	-.106	.068	.339	-.073	1	.209	.150	-.298	
Sig. (2-tailed)	.631	.758	.113	.742		.339	.495	.168	
N	23	23	23	23	23	23	23	23	
s5.6 Pearson Correlation	-.219	.156	.397	.238	.209	1	.192	-.085	
Sig. (2-tailed)	.315	.477	.061	.274	.339		.381	.700	
N	23	23	23	23	23	23	23	23	
S5.7 Pearson Correlation	-.024	.116	.301	.407	.150	.192	1	.232	
Sig. (2-tailed)	.912	.599	.162	.054	.495	.381		.288	
N	23	23	23	23	23	23	23	23	
S5.8 Pearson Correlation	.591**	.226	.079	-.027	-.298	-.085	.232	1	
Sig. (2-tailed)	.003	.299	.720	.903	.168	.700	.288		
N	23	23	23	23	23	23	23	23	

** Correlation is significant at the 0.01 level (2-tailed).

Table A4- 47: Correlations results for Section 5 of Questionnaire

Correlations						
	p6.1	p6.2	p6.3	p6.4	p6.7	
p6.1 Pearson Correlation	1	.069	-.072	-.137	-.024	
Sig. (2-tailed)		.754	.742	.532	.912	
N	23	23	23	23	23	
p6.2 Pearson Correlation	.069	1	.042	.405	-.533**	
Sig. (2-tailed)	.754		.848	.055	.009	
N	23	23	23	23	23	
p6.3 Pearson Correlation	-.072	.042	1	-.436*	-.066	
Sig. (2-tailed)	.742	.848		.038	.765	
N	23	23	23	23	23	
p6.4 Pearson Correlation	-.137	.405	-.436*	1	-.163	
Sig. (2-tailed)	.532	.055	.038		.458	
N	23	23	23	23	23	
p6.7 Pearson Correlation	-.024	-.533**	-.066	-.163	1	
Sig. (2-tailed)	.912	.009	.765	.458		
N	23	23	23	23	23	

** Correlation is significant at the 0.01 level (2-tailed).

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

Table A4- 48: Correlations results for Section 6 of Questionnaire

APPENDIX 6: SUPERVISORS DECLARATION

Contains Declaration from Supervisor (Robin Martin Challenor). Mr. Robin Martin Challenor advised that this document will be signed after submission to the GSB administration (Christel Haddon).

SUPERVISORS DECLARATION

I the undersigned hereby declare that I have supervised the research conducted by Alvin Naidoo entitled **The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within Cape Town Area.**

I am satisfied ~~that the student has made an attempt to follow my guidelines~~ and in my opinion, the work is adequate enough to be examined.

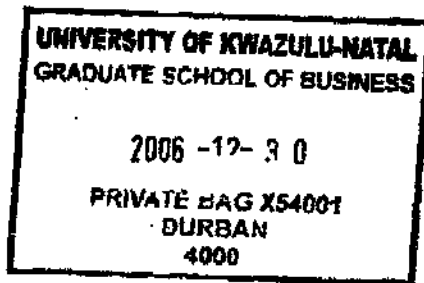
Mr. Robin Martin Challenor

Signature:

RM Challenor

Date:

January 24 2007



The Use of an Information Management System to Enable Major Oil Companies to Build a Business Strategy to Allow for Differentiation within the Forecourt Convenience Store Industry within the Cape Town Area

End