

MBA TREATISE

ASSESSING A MARKETING STRATEGY FOR AN ENGINEERING CONSULTING COMPANY

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DECLARATION:

In accordance with Rule G4.6.3, I hereby declare that the above-mentioned treatise is my own work and that it has not previously been submitted for assessment to another university or for another qualification.

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ABSTRACT

The engineering consulting industry in South Africa witnessed an overwhelming growth before the 2010 Fifa World Cup. The country had a lot of infrastructural development that needed the services of consulting engineers. A lot of people saw the challenge as a business opportunity and started their own consulting engineering companies. The demand for consulting engineering services was high before the 2010 Fifa World Cup; this changed after the completion of projects that were due for the world cup and some had to close or retrench staff due to scarcity of projects.

The completion of 2010 Fifa World Cup projects is not the only challenge faced by the engineering consulting sector; government policies such tendering and procurement procedures that do not acknowledge performance, lack of funding etc. It is therefore important that companies look for better ways of gaining competitiveness in order to get more projects. These companies must not only rely on government projects but do marketing on the private sector as well. The purpose of the research is to assess and develop a marketing strategy for Company X Consulting engineers.

A literature study on most successful marketing strategies employed by other service oriented companies was conducted. The literature study also comprised of the perception of marketing amongst consulting engineering companies.

From the literature study mentioned above; questionnaires were drawn towards the development of a marketing strategy for Company X consulting engineers. The findings of the questionnaires were analysed and recommendation were made for the development of a marketing strategy for Company X.

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CHAPTER 1

INTRODUCTION, PROBLEM DEFINITION & KEY CONCEPTS

1.1 INTRODUCTION

In preparation for the 2010 FIFA World Cup, the Mandela Bay Development Agency has unveiled a number of development projects in the Nelson Mandela Bay Metropolitan area, encompassing Port Elizabeth, Uitenhage and Despatch. The aim is to transform the metropole into an entertainment, transport and business hub for 2010 and beyond (*Engineering News Online*, 5th May, 2009).

The Eastern Cape at large is currently faced with a deteriorating infrastructure in hospitals. For example, the Eastern Cape MEC, P. Masualle, has stated that R13 billion should be set aside for the development of public health requirements (21 April 2010, Eastern Cape Department of Health 2010/11 budget vote presentation in Bisho). These new developments have led to an increase in competition among local consulting engineering companies. Together with the emergence of new companies, well-established competitors from other provinces are opening up offices in the Nelson Mandela Bay region. Because the Eastern Cape is one of the so-called ‘disadvantaged’ provinces in South Africa in terms of infrastructure in general, it is seen as providing great expansion opportunities for consulting engineering practices.

The introduction of new government policies such as Broad-Based-Black Empowerment Equity and Governmental Procurement policies, including Affirmative Action and Employment Equity, have also played a role in increased competition in the sense that companies need to comply with these regulations to be eligible for government tenders. “The optimum combination of elements changes as the product passes through its life-cycle, as environmental forces changes, as the consuming and intermediary groups adapt, and as competition responds” (Tom Cannon 1998). Traditionally, and before the introduction of the policies such as Broad-Based-Black Empowerment Equity and Affirmative Action, consulting engineering companies had been obtaining projects or work through experiential marketing (in terms of working with well-known companies because of relationships formed in the past), recommendations and tendering. However contemporary market dynamics have created new challenges for companies such as Company X Consulting Engineers.

The majority of consulting engineering companies are members of Consulting Engineering of South Africa (CESA), which used to be called South Africa Association of Consulting Engineers (SAACE). Established in 1952 with only 30 members, in 2008 the CESA website reported that it had grown to 18 000 members in South Africa (see www.saace.co.za).

CESA represents a body which promotes its members' joint interests and, because of its standing, provides quality assurance for clients (see www.saace.co.za). The association strives to create equal ground amongst competitors. CESA members abide by policies that ensure all member practices provide good services without any possible price fixing.

Company X Consulting Engineers is situated in Port Elizabeth, with offices in Somerset-West, East London, Queenstown and Pretoria. The company was initially established in 1963 as Electrical consulting engineers. Thanks to subsequent growth the company has expanded to include Mechanical consulting engineering services. Company X Consulting Engineers is a member firm of Consulting Engineering South Africa (CESA) and therefore has to abide by the association's hand-book regulations and code of conduct.

Company X's work or projects have been obtained through:

- Tendering for Government & Private Clients' Projects
- Referrals from previous consortium member firms, and
- Being one of the well-recognised companies in the Eastern Cape.

Many consulting engineering companies have ignored the importance of marketing: this can be attributed to a lack of understanding of its importance and how it can be implemented. Marketing (in its simple form) takes place when projects in hand are about to be completed. Management commitment and acceptance of marketing concepts are often very limited in consulting engineering sector. Most consulting companies' understanding of the subject can be described as conservative (Jaafar, Aziz and Wai 2008). This therefore means that the principles of marketing have been disregarded by most consulting engineering companies and therefore this can lead to unnecessary inefficiency.

The future of consulting engineering services will depend on recognising the need to be competitive and innovative in order to succeed. The proposed research will investigate and assess service industry trends and inadequacies in the current marketing strategies of Company X. The outcomes of the proposed research will then be used to develop marketing strategies that will assist Company X to be more competitive.

Marketing is now a function that needs to be recognised by Company X if it is to reap the benefits of increasing competition and continuously changing expectations of clients while abiding by the strictures of professional ethical conducts.

1.2 MAIN PROBLEM

Professional services are defined as “*organised activities and programmes by professional services firms that are designed to retain present clients and attract new clients by sensing, serving, and satisfying their needs through the delivery of appropriate services on a paid basis in a manner consistent with credible professional goals and norms*”(Kotler and Connor: 1977). It is therefore of great importance that consulting engineering companies need to start engaging in the principles of marketing and allocate resources accordingly so that they can achieve the best results from their marketing strategies. Also, consulting engineering companies need to understand the true meaning of marketing to gain a sustainable competitive advantage in their field of practice.

Without excluding the traditionally used marketing strategies and considering the changing environment, it is clear that new marketing strategies need to be developed for Company X to gain and maintain a competitive edge. Current strategies used for marketing are simply not enough to achieve the desired results that would be expected in a clearly defined marketing strategy: the marketing process needs to be continuous. The desired results would be a continuous inflow of projects and establishing itself as a competitive leader in the industry. In South Africa, after 1994, new government policies such as Broad Based Black Economic Empowerment and Affirmative Action etc. were implemented to cater for individuals that were previously disadvantaged, therefore giving preference to companies that have majority black shareholders. It is for this reason that Company X Consulting Engineers need to revisit their company policies and structures as well as marketing strategies to be able to be more competitive.

Company X Consulting Engineers’ current marketing strategies consist of opening up websites, conducting introductory meetings with clients, architects, project managers, property developers etc. The continuation of such strategies has failed to bring more work to Company X Consulting Engineers. Through all of the abovementioned strategies the amount of work projects has been constant but has not increased.

This therefore means that the current strategies are not as effective as would be desired. Success is measured by the number of work projects in hand and the rate at which they come in. The key research question for this investigation is thus as follows:

How can Company X Consulting Engineers improve their current marketing strategies to gain a more competitive advantage?

1.2.1 Sub-problem

To address the main problem the following sub-problems will be investigated:

- To assess the level of skills and expertise employed by competitors in comparison to Company X and how clients perceive the Company X. This will be addressed through literature research on what strategies the competitors employ and what makes them successful. Factors explored include elements such as personal skills and technological software. In addition the following elements will be taken into consideration intellectual property, experience curve, scarce skills, cost of hiring new talent and mobility of modern workers, balanced life style for employees, time it takes for engineers to be productive, and effects of skills development.
- How the existing marketing strategies employed by Company X can be improved to retain existing customers. It will be of the utmost importance to identify what strategies for measuring success are in place and whether the measurement tools are aligned with what the client is expecting.
- How innovation can assist in retaining and attracting customers. Currently any engineering design is mostly measured by its sustainability, environmental friendliness, and energy efficiency. Also, property owners and developers are looking at ways of driving down the costs of maintaining a building.

1.3 RESEARCH OBJECTIVES

The overall purpose of this study is to evaluate the efficiency (or lack thereof) of the current marketing strategies employed by Company X. Once the current strategies have been identified and weighed in comparison to those utilized by other service oriented companies, a specific model to cater for the needs of a consulting engineering company will be developed. The research objectives are listed below:

- To conduct a literature study that will identify current successful marketing strategies employed by service oriented companies and compare them to the current marketing strategies of Company X. This will assist in determining whether there is a relationship between other service oriented companies in general and an engineering consulting company.
- To identify and assess the most competent skills employed by successful consulting engineering companies in comparison to what is currently available at Company X. Competent skills will be assessed in the form of study qualifications, professional registration, professional associations and technology.
- Engineering companies get awarded certificates of good practice and ratings, which are then used as ways of marketing. Therefore the degree of success of measuring tools that determine good practice and acceptable standards will be investigated.
- To assess the impact innovation on advancing a company to gain competitive advantage and to show how it can be used as a marketing tool.

1.4 DELIMITATION OF THE RESEARCH

The study will focus on a Mechanical and Electrical Consulting engineering company and will make comparisons in terms of skills (skills referring to qualification, experience and professional registrations etc.). It will also be assumed that, typically, consulting engineering companies do not have proper business structures such as a human resources department, marketing department etc. Consequently the role of marketing in engineering practices is generally left to senior engineers. The focus will be on typical clients of a consulting engineering company, i.e. architects, property developers and officials employed by departments of public works.

Since Company X has different offices that operate as business entities, the study will be limited to the Eastern Cape. The East London office will be viewed as a competitor as well. The questionnaires will be distributed via email to the East London office; other competitors that have been identified will be approached and questionnaire lists will also be emailed to them.

Because consulting engineering practices are generally not structured along the traditional function roles found in commerce and industry, only directors and senior engineers will be interviewed from the competitors and clients that are used as respondents of this research. Senior engineers have a minimum six years' experience with Btech/Bsc degrees or higher and a Professional registration status with the Engineering Council of South Africa.

1.4.1 Geographic Demarcation

South Africa has a lot of consulting engineering companies: therefore for the purpose of convenience the study will focus mainly on firms in the Eastern Cape. The research will be conducted at Company X Consulting Engineers' offices based in Port Elizabeth, East London, Pretoria and other Consulting engineering firms that have been identified and are based in Port Elizabeth. The clients targeted will also be geographically based in the Eastern Cape and it will be those that have work relations with Company X. An email with questionnaires will be sent to all the respondents mentioned above.

1.4.2 Organisational Departments

Company X Consulting Engineers is a mechanical and electrical engineering service oriented company. Therefore the study will investigate competitors that offer similar services.

From the clients' perspective, it will be mostly architectural, property developers and owners of buildings (or their representatives as the Public Works Departmental buildings are owned by the government but have representatives from within government departments).

1.5 METHODOLOGY

The following procedures will be used:

1.5.1 Literature Survey

Chapter 2 will include a literature survey relevant to this study. The chapter will cover how consulting engineering companies interpret marketing needs; the purpose will be to determine whether marketing can be used as a competitive tool. The chapter will further investigate how other service oriented companies prosper in their markets using good marketing strategies; similarities will be used to develop a marketing strategy (which will be discussed in chapter 5). The new approaches to marketing used by successful companies will also be reviewed. Finally the chapter will look at strategies for retaining and attracting new customers: these will be covered under client expectations and satisfaction.

From the literature survey, a theoretical framework that defines key components in marketing applicable to service oriented companies will be constructed.

The influence of new government policies such as Affirmative Action, Broad Based Black Economic Empowerment etc. will also be investigated to determine their influence on marketing and whether Company X meets the requirements. This section will be covered in chapter 3 and the results will be discussed in chapter 4.

The intent of the research is to assess current marketing strategies used globally by other service oriented companies; relevant topics will be selected and be used in developing a new marketing strategy for Company X Consulting Engineers (refer to Chapter 5). Information will be selected in such a way that it will assist in developing a successful marketing strategy specifically designed for an engineering firm such as Company X.

1.5.2 Empirical Study

The empirical study will comprise three sections that will be distributed to Company X, and to other consulting firms and clients. The three types of questionnaires will include (see Appendix A):

- Section A elicits Demographic Data: the factors in question will include a company's profile, years of the company's establishment, number of employees, age of employees, education of employees, number of projects taken during the last year, types of projects, most important departments and additional services offered by the respondent.
- Section B focuses on the role of marketing and consists of twelve questions; the purpose of this section is to determine whether marketing from consulting engineers does have an impact on the awarding of projects.
- Section C Part 1 referred to the client's perception of Company X Consulting Engineers: this section also has fifteen questions.
- Section C Part 2 encompasses the competitor's perception of marketing. This section consists of fifteen questions. The purpose of this section was to determine whether the leading competitors perceived marketing as a valuable tool for competitiveness, and if so what strategies were utilised.

The main aim of the empirical study was to gather data and compare other service oriented companies' marketing strategies and look for a gap that could improve the current marketing strategies employed at Company X.

1.5.3 Data Analysis

The results from the questionnaire surveys (refer to Appendix A) will be discussed and analysed in chapter 4. The data will be received via emails from respondents. The data analysis will be used to draw up conclusions and recommendations that will be presented in chapter 5.

1.6 OUTLINE OF THE STUDY

The study comprises five chapters.

Chapter One provides an outline of the scope of the study, together with a focus on the following: the relevance and importance of the topic, the problem statement, the research objectives, the delimitations of the research, and the research methodology to be employed.

Chapter Two will discuss the perception of marketing by consulting engineering companies, the strategies that are used by other service oriented companies, new marketing approaches used by successful service oriented companies, client expectations and client satisfaction.

Chapter Three will discuss the research methodology, which will include the literature survey, empirical study, sampling and population, data collection and questionnaire, validity and reliability tests.

Chapter Four will include a discussion of the results that were obtained from the questionnaires described in chapter 3.

Chapter Five will outline the conclusions and recommendations flowing from the study.

1.7 SUMMARY

Chapter 1 introduced the research problem, to be investigated as part of the overall research, together with its sub-problems and the objectives of the study. The chapter also identifies the geographical demarcation to be covered and the organisational departments that will form part of the overall research. The research methodology chosen for the investigation is also described in this chapter. The chapter is then concluded with an outline of the research.

The following chapter (chapter 2) provides a Literature Survey, and investigates existing industry trends in terms of marketing.

CHAPTER 2

LITERATURE SURVEY

2.1 INTRODUCTION

Engineering Consulting work in the construction industry involves planning, cost estimating, design, implementation and construction supervision. The success of an engineering company is traditionally measured by the innovativeness and cost effectiveness of a company's handling of a particular project. Owing to the need for infrastructural development in South Africa, a number of consulting engineering companies have emerged. This therefore means that competition in the consulting engineering practice has increased which in turn calls for a need for these companies to have strategies that will help them maintain a competitive position and gain more market share. Marketing is a tool that can be used by engineering consulting companies to gain and maintain competitive advantage but, unfortunately, this is a factor that has been ignored by many engineering consulting companies.

Marketing has been used in its simplest form by engineering consulting companies. Rudimentary marketing activities tend to occur, especially during the completion stages of a project when companies start to realise the need to start soliciting more work. In the above context the following question arises: "how do these companies sustain themselves in the market place to enhance their competitiveness and how do they maintain profitability"? The American Marketing Association (2007) defines marketing as "*the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large*". In terms of this definition, engineering companies need to put resources in place that will assist in achieving their goal of being market leaders, with an ability to retain clients and attract more clients. The American Marketing Association's definition needs to be deconstructed and the steps be followed properly.

The marketing strategy of a company should be aligned with the goals of the organisation.

This chapter will discuss the following:

- How marketing is interpreted by consulting engineering companies,
- How other service orientated companies prosper in the market because of their good marketing strategies,
- The new approach of marketing that is successfully used by other service providers and
- Client expectations and satisfaction.

2.2 MARKETING AS INTERPRETED BY CONSULTING ENGINEERING COMPANIES

2.2.1 Marketing and Professional Companies

The definitions of marketing are worded differently by various authors (see Table 2.1) but have one thing in common: they all agree that marketing is a business process that is very important to a company's existence and they all acknowledge that it should be pursued in order to retain and attract more customers. Moreover marketing thinking and practices within companies need to accommodate changing environments.

Author	Year of Publication	Definition
The American Marketing Association	2007	The activity, set of institutions and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.

Author	Year of Publication	Definition
Kotler and Armstrong	2006	The process by which companies create value for customers and build strong customer relationships in order to capture value from customers in return.
Thomas and Housden	2002	Marketing is the process of identifying customer needs and satisfying them in a way which is acceptable to both parties – customers feel that their needs have been recognized and fulfilled at a fair price; the supplier makes a fair profit.
Kurtz and Boone	2006	Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, services, organizations, and events to create and maintain relationships that will satisfy individual and organisational objectives.

Table 2.1 – Definitions of Marketing

Engineering consulting is about offering a service to clients. This concept of ‘service’ permeates the following list of distinguishing factors between professional services and other services offered:

- The service should be provided by qualified personnel, be advisory, and focus on problem solving.
- The professionals should have an identity, i.e. be known in the market for their specialities and operate under a specific name such as an architect or management consultant.
- The service should be an assignment given from the buyers to the sellers.
- The professional should be independent of suppliers of other services or goods.

Professional services (e.g. Engineering Consulting) are time bound with specifics to detail and people are the role players in the company. This concept has led to the misuse or inadequate employment of marketing by Consulting Engineering firms whereby they rely on their people, technological software and experience.

A more appropriate view of marketing has now become a necessity for companies to prosper as they cannot rely only on the abovementioned approach to gain competitiveness.

Kotler and Connor (1997:71-76) define marketing in professional services as “*organised activities and programmes by professional services firms that are designed to retain present clients and attract new clients by sensing, serving, and satisfying their needs through the delivery of appropriate services on a paid basis in a manner consistent with credible professional goals and norms*”. It is therefore important for consulting engineering companies to have dedicated marketing departments that will provide the necessary resources that can satisfy the true principles of marketing. As it is the marketing situation in most consulting engineering companies is currently assigned to senior personnel and it becomes a part-time job to them because most of their time is dedicated to finding engineering solutions.

According to Jaafar, Aziz and Wai (2008) engineering consulting companies regard marketing as a process for attracting new clients when there is a need for more projects. The marketing department is managed by partners/directors/senior engineers who have other obligations to fulfil in their projects. These obligations are usually confined to engineering related work.

This therefore defeats the purpose of having a proper marketing strategy as there is no real dedicated focus: 'marketing' occurs only when the perceived need arises. Marr, Sherrard and Prendergast (1996) argued that in New Zealand on the other hand the most intensive marketing activities relate to client relations and to the development of proposals.

They (Marr, Sherrard & Prendergast, 1996) also argues that due to the presence of employees bearing marketing responsibilities, marketing is becoming a legitimate management tool in New Zealand: service quality is considered the most important method for ensuring successful marketing strategies besides competing via fee scales or price. In the past engineering consulting companies used only one component of marketing, namely pricing: however this does not seem to be working to any company's advantage as some will use pricing to their detriment. The consulting engineering companies in South Africa are members of Consulting Engineering of South Africa, which has fee guides and therefore restricts companies so as to ensure that they use pricing ethically. In addition to the regulation of fees, the Government Gazette also has rules and regulations that will prevent the misuse of fees. It is therefore a major requirement that these companies must look at marketing principles holistically.

The principles of marketing have been misinterpreted or not used completely by consulting engineering companies. The evidence is in the lack of coordination of marketing techniques: the majority of consulting engineering companies compete on price but neglect service quality and client satisfaction. Service quality and client satisfaction are intangible, yet they are among the success factors that will enhance the position of a consulting engineering company(Marr, Sherrard & Prendergast, 1996).

2.3 MARKETING OF SERVICE ORIENTED COMPANIES

In simple terms services are defined as deeds, processes and performances or products such as goods (tangible products) e.g. accounting, banking, cleaning, consultancy, education, insurance, know how, medical treatment, transportation etc. A service is an act or performance offered by one party to another. Although the process may be tied to a physical product, the performance is essentially intangible and does not normally result in ownership of any of the factors of production (Lovelock and Wright 2001:6).

Engineering consulting is a professional service that requires interaction between the designated professional and a client. Lovelock and Wright (2001:6) grouped these interactions into three and named them 'contact services'. They are described as follows:

- High-contact services which involve significant interaction among customers, service personnel, and equipment and facilities.
- Medium-contact service which involves only a limited amount of contact between customers and elements of the service organisation.
- Low-contact services which require minimal or no direct contact between customers and the service organisation.

From the above set levels of customer/client contact, it is evident that companies need to align themselves with one of the levels to provide suitable resources that will enable them to fulfil the customer/client obligations.

Once the company has identified the level it wants to operate in, with its resources, it then selects the right customers/clients that it wants to do business with, i.e. it practices market segmentation. Because service oriented companies differ, it is therefore difficult for some to choose one segment, e.g. hotels, airlines and restaurants.

Lovelock and Wright (2001:76) define market segmentation as the process of dividing a market into different groups within which all customers share relevant characteristics that distinguish them from customers in other segments. A segment is defined as a group of current or prospective customers who share common characteristics, needs, purchasing behaviour or consumption patterns.

Owing to the difficulty and the need for flexibility, companies are now opting for focused or mass customization which is defined as: offering a service with individual product elements to a large number of customers at a relatively low price. It is therefore important that companies be creative and innovative to attract a large number of clients or customers using a service that has characteristics that meets the needs of a large number of customers and clients. Most successful companies are now well informed about their customers/clients and can be selective on how best to realize the potential of new clients: this is because they have identified them according to what they offer or require.

Most successful service and non-service oriented companies have now progressed from a notion of viewing business as merely another transaction. They build and maintain strong relationships with their customers and clients.

Sometimes companies fail to understand customers' needs accurately because they fail to focus on customer relationships: they tend to neglect existing customers and focus on acquiring new ones, rather than viewing all their customers as assets that they need to retain. In the past much energy was thus expended on acquiring new customers, while the existing ones were neglected.

Building relationships with desirable customers can be profitable but what really constitutes relationships is mutual recognition and knowledge between a company and its customers/clients.

Relationship marketing (or relationship management) is a philosophy of doing business, a strategic orientation that focuses on keeping and improving current customers, rather than on only acquiring new customers (Ziethaml and Bitner 1996:171). It is evident from most literature that there has been a shift from a transaction to a relationship in marketing whereby customers/clients are long-term partners with the service provider and there is a shared goal of achieving good quality, service and innovation. Lovelock and Wright (2001:99) refer to membership relationship which they define as a "formalized relationship between the firm and a specified customer that may offer special benefits to both parties". Lovelock and Wright (2001:100) provide a matrix that shows relationships with customers, illustrated in Table 2.2.

Types of relationships between Service Organisations and its Customers		
Nature of Service Delivery	“Membership” Relationship	No Formal Relationship
Continuous Delivery of Service	Insurance	Radio Station
	Cable Tv subscription	Police Protection
	College Enrolment	Lighthouse
	Banking	Public Highway
Discrete Transaction	Long Distance calls from subscribe phone	Car Rental
	Theatre Series Subscription	Mall Service
	Travel on commuter ticket	Toll highway
	Repair under warranty	Pay phone
	Health treatment for HMO Member	Movie theatre
		Restaurant

Source: Lovelock and Wright (2001:100).

Table 2.2 Relationship with Customers

From Table 2.2, the type of relationship for an engineering consulting company can be categorised under “Membership” relationship and the nature of the service delivery would be continuous. Consulting engineering companies deal a lot with fixed time frames on projects. Therefore during a specific contract period, the interaction with the clients is continuous until project handover.

The goal of relationship marketing is to build and maintain a base of committed customers who are profitable to the organisation: this can be achieved through attracting, retaining and maintaining good relationships with the customers. As mentioned before the best tool to achieve this is through market segmentation whereby the company identifies the potential market (customers/clients) it wants to operate in.

Owing to the fierce competition in different industries, the challenge for most companies is to retain their customers and clients against predatory competitors that may use better marketing strategies, innovation and price competition etc. to attract new customers.

Relationship marketing leads to customer retention that provides benefits for both customers and the service providing company. The following could be the kinds of benefits that a customer obtains from a service provider (Ziethaml and Bitner 1996:173):

- The customer can receive greater value than expected from competitors.
- The customer can enjoy a sense of well-being and quality of life.
- Customer stress is reduced at the beginning of a project. This could be reduced through a customer's learning curve.
- The customer trusts the provider to provide a consistent level of quality service.

The company providing service can also enjoy benefits as stipulated below and these are directly linked to the company's bottom line:

- Increasing purchases. The customer/client (when satisfied) will tend to want to do more business with the organisation.
- Lower costs than those associated with attracting new customers, e.g. trial and error to achieve the new customer's specifications, advertising and so on.
- Free advertising through word of mouth (recommendations to other potential customers).
- Employee Retention in the sense that people will want to work with customers that are happy. Therefore if there is a stable relationship with the customer then employees are more likely to stay.
- Lifetime value through realising the full profit potential of a customer.

What has become evident in most successful service oriented companies is the importance of an alignment of the marketing strategy with the client's desired results. This is achieved through translation of the customer/client's expectations that will give rise to specific service quality standards. This assists companies to gain competitive advantage.

A quality competitive advantage is based on some distinctive qualities of the product which will give superior value to the buyer, either by reducing its costs or improving its

performance and which will therefore give the firm the capacity to charge a price higher than that of its competitors (Lambin 2000). Services often invite performance and pricing abuses. The problem is especially acute for services that are high in credence attributes, and whose quality and benefits are hard to evaluate even after delivery (Lovelock and Wright 2001). This therefore calls for companies to use ethics through avoiding exploitation of customer ignorance or unfair practices. To succeed, Ziethaml and Bitner (1996) identified the following as being impediments towards a company's success:

- Inadequate standardization of service behaviours and actions,
- Absence of formal goal setting, and
- Lack of customer-defined standards.

2.3.1 Marketing Analysis

Building relationships within a company must not be confined to customers only but should include others in the company and also external partners. Through this an understanding of macro and micro environment is required. A company's marketing environment consists of the actors and forces outside marketing that affect marketing management's ability to build and maintain successful relationships with target customers. Successful companies know the vital importance of constantly watching and adapting to the changing environment (Kotler and Armstrong, 2008:64). The marketing environment is made up of a microenvironment and a macroenvironment which are defined, by Kotler and Armstrong (2008:64), as follows:

- Microenvironment – the actors close to the company that affect its ability to serve its customers. These include company, suppliers, marketing intermediaries, customer markets, competitors and publics.
- Macroenvironment – the larger societal forces that affect the microenvironment. These include demographic, economic, natural, technological, political and cultural forces.

Some companies have gone a step further by doing a market share analysis and a quality of market share analysis. These types of analysis can assist a company in predicting future performance: they measure the units or value and this can be complemented by an analysis of the customer base.

Companies have developed marketing strategies that will assist them in gaining the competitive advantage. This has been achieved through taking other company groups into account. These groups will include those constituting top management, finance, research and development, purchasing, operations and accounting. These groups are normally within the microenvironment of a company and are used to build a company's mission, as well as defining its objectives, broad strategies and policies (Kotler and Armstrong, 2008:86). Though the said groups are different departments within a company, they must work together with the marketing department so that a single set of common objectives can be determined.

In terms of big companies' marketing, some have taken marketing intermediaries to help promote, sell and distribute their goods to final buyers.

A high level of satisfaction leads to increased customer loyalty. Increased customer loyalty is the single most important driver of long-term financial performance (Lambin 2006:220). It is true that the more customers are satisfied with the product or service, the more likely it is that they will want to work with that company. Jones and Sasser (1995) also argue that as satisfaction increases, so does loyalty. Companies have developed methods of measuring satisfaction and dissatisfaction from customers. After these methods have been implemented, a follow-up corrective measure is then determined so that any dissatisfaction that is identified can be eliminated.

One of the tools used for successful marketing is branding. Following Kapferer and Thoenig (1989) and Lambin (1989) as illustrated in Lambin's Market driven Management (Lambin 2006:228-230), the following have been identified as functions that are used by a buyer which the company aligns itself with to gain competitive advantage:

- A landmarking function – as perceived by customer, it associates the attributes (both tangible and intangible) of a company with the customers' expectations,
- A decision simplification function – since easily recognisable by customers, it makes routing purchasing possible,
- A guarantee function – a brand owner would strive to give constant high quality products or service to the customer's satisfaction,
- A personalisation function – since the brand can communicate the value system of the customers,

- A pleasure-giving function – a brand can be associated with this function because of its ability to meet the needs of the customers and in turn be seen as satisfying their desires,
- A communication function – it enables the company to directly communicate with the end-customers regardless of the actions of the middlemen,
- A protection function – through property rights the brand name can be protected against imitations and counterfeits,
- A positioning tool – it assists the company to position itself against competitors, and
- A capitalisation tool – it serves to capture not only the past advertising investments put into it but also the capital (i.e. of satisfaction) generated by the brand.

In view of the above, the brand is a valuable asset to the company, a type of capital to be managed, maintained and continuously developed. The value of a brand is therefore determined by the perceptions of the customers.

2.4 NEW MARKETING APPROACH

“It is becoming more and more difficult to apply the concepts of position, scale and static capabilities where competitors and industries are neither static nor clearly defined. As traditional bases of advantage become less durable and relevant, companies must supplement them with a greater focus on adaptive advantage to facilitate competitive success in a constantly changing and unpredictable environment” (www.bcg.com)

. Changes in the business environment have forced companies to acknowledge the new focus of marketing. These changes are defined by the Boston Consulting Group as follows:

- Increasing volatility in market positions – this has been brought about by the innovativeness of competitors and the quick response marketing strategies they practise.
- The ubiquity of information – this is due to the technological era that companies live under and how easy it now is to access information.
- Blurred company and industry boundaries – this reflects the new economics of information and may require changing the unit of analysis from the company to the multiplayer business system.

- A growing concern about the social and ecological environments, which makes it increasingly difficult for companies to consider their strategies apart from these concerns.
- Changing organisational structures, cultures and values which have brought greater employee mobility but also weaker job security and lower motivation, making it more difficult for companies to harness creativity and passion in pursuit of advantage.

To successfully compete in future, in order to gain competitive advantage, Boston Consulting Group has identified the following dimensions as the basis of a new marketing approach.

2.4.1 Adaptive Advantage

Adaptive advantage refers to the flexibility of companies to quickly respond to the changing environment. This enables companies to unite reflection with execution and to balance deduction with experimentation. Companies need to constantly challenge competitors' business models to deliver greater value to customers (www.bcg.com).

2.4.2 Signal Advantage

Because information in this century is so readily available, companies need to be able to focus on the right information, extract relevant signals, rapidly process them, and align the company's behaviours accordingly. Signal advantage is integrally linked to adaptive advantage because sensing and acting upon environmental change are the first steps in developing adaptive strategies (www.bcg.com).

2.4.3 Social Advantage

Because companies are dependent on customers in the social sphere, they need to be cognisant of the effects of their products/services within the society and must maintain ecological sustainability. Through abiding by social and ecological regulations they can avoid risks of unnecessary fines, taxes, strikes etc. (www.bcg.com).

2.4.4 Simulation Advantage

A company with simulation advantage decreases the costs and increases the yield of experimentation – the very heart of an adaptive system – through virtual reality and other simulation techniques. It is also able to better tap into the actual economic behaviours of consumers by constructing models that allow it to modulate variables, such as pricing, design, or placement in testing consumers' responses (www.bcg.com).

2.4.5 People Advantage

“Adaptive strategy decentralizes strategic innovation under the pressure of rapid change and requires a company to harness the creativity of a more autonomous and highly motivated workforce” (www.bcg.com).

2.4.6 Client Development

Client development is a key area of marketing for professional services. “Client development is the management of client relationships in such a way as to retain existing business, while simultaneously maximising the likelihood of identifying opportunities for further work and progressing them to the point of agreement for more work to be done” (Forsyth, 2003:273-278). Service oriented companies or professional service companies have a lot of dealings with customers and clients: it is therefore important that these interactions are carried out ethically and in a manner that is acceptable to the customers and clients. The highest technical standards of current work need to be achieved so as to increase the opportunities for obtaining future work.

2.5 CLIENT EXPECTATIONS & SATISFACTION

In determining the client's expectations it is of the utmost importance that any company distinguishes between needs, wants and demands. Kotler (2008:6) defines needs as *‘a state of felt deprivation of some basic satisfaction’*. He (2008:6) defines wants as *‘the form human needs take as shaped by culture and individual personality’*; and demands as *‘human wants backed by buying power’*.

Understanding customer needs and wants is not always a simple task and it is useful to establish a distinction between articulated and unarticulated needs which themselves can be further subdivided into sub-categories as follows:

Articulated needs

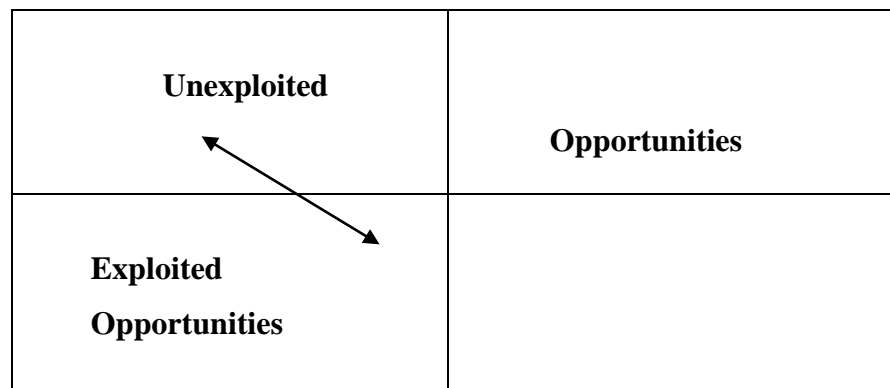
- Stated needs, i.e. what the customer says
- Unstated needs, i.e. what the customer expects
- Imaginary needs, i.e. what the customer dreams of.

Unarticulated needs

- Real needs, i.e. the well-being of the customer
- Unconscious needs, i.e. what unconsciously motivates the customer

Figure 2.1 illustrates that response only to the customer's articulated needs may be misleading, leaving interesting opportunities unexploited. The objective of strategic marketing is to provide customers with an appropriate solution based on a good understanding of their real needs whether they are articulated or not.

Unarticulated Needs



Articulated Needs

Served Customer

Unserved Customer

Source: Hamel and Prahalad (1994:103)

Figure 2.1 Beyond Articulated needs

2.5.1 Customer Expectations

Expectations as to what constitutes good service vary from one business to another. Lovelock and Wright (2001:80) define expectations as internal standards that customers use to judge the quality of a service experience. These expectations are influenced by the experience customers have had previously with another service provider and at times this determines whether the customer does want to do business with the new service provider. Alternatively, their decision to do business will be based on factors such as the service provider's marketing skills, recommendations by other customers, advertising etc.

Lovelock and Wright (2001:81-84) define several different levels of expectations as follows:

- Desirable service level – the wished for a level of service quality that a customer believes can and should be delivered.
- Adequate service level – the minimum level of service that a customer will accept without being dissatisfied.
- Predicted service level – the level of service quality a customer believes a company will actually deliver.
- Zone of tolerance – the range within which customers are willing to accept variations in service delivery.

These service levels are evaluated by customers through the following:

- Product attributes, i.e. all features of goods or services that can be evaluated by customers.
- Search attributes, i.e. product characteristics that consumers can readily evaluate prior to purchase.
- Experience attributes, i.e. product performance features that customers can only evaluate during service delivery, and
- Credence attributes, i.e. product characteristics that customers may not be able to evaluate even after purchase and consumption.

Successful service oriented companies are well informed about their customers or clients. It is through market segmentation that they group them according to their needs. The service managers need to understand how customers view the service offering and to explore the factors that determine customer expectations.

2.5.2 Customer Satisfaction

Customers usually have a variety of choices to choose from in products and services. Their choice is mainly influenced by the satisfaction of their needs. Those who are satisfied with the product or service will continue to use it, while dissatisfied customers will opt for a better product/service choice. It is therefore important that marketing managers or marketers set the right levels of expectations and make sure that they deliver in order to retain and gain more customers or deliver more than their promise. Customer value and customer satisfaction are key building blocks for developing and managing customer relationships. Satisfied customers also extended the market process through favourably telling others about the good service/product they received, i.e. via recommendations to other potential customers.

Although every successful marketer wants to provide a service that satisfies customers, this is not the only goal. Companies cannot lose sight of other basic business goals such as achieving competitive advantage or making a profit (Lovelock and Wright, 2001:274). Further, Lovelock and Wright describe the following as being the benefits to a company of customer satisfaction:

- Insulates customers from competition,
- Encourages repeat patronage and loyalty,
- Enhances/promotes word of mouth advertising,
- Lowers costs of attracting new customers,
- Reduces failure costs, and
- Can create sustainable advantage.

Successful companies base their efforts in improving service quality on their understanding of their customers' expectations. Even when they do not meet the expectations of their customers, companies will seek the underlying causes and try to prevent a repeat of their failure. It is therefore important that customer expectations and satisfaction should not be viewed in isolation as expectation can lead to satisfaction.

2.6 SUMMARY

The consulting engineering sector in South Africa has witnessed significant growth in the last decade. Since 1994, the South African consulting engineering sector has also faced a number of challenges that were legislated by the new democratically elected government. These challenges include policies such as Broad Based Black Empowerment Equity, Affirmative Action, Gender Equality and Green Building/ environment designs.

The challenges have brought the realisation (to consulting engineers) that marketing is one of the most important tools that needs to be used to gain and maintain competitive advantage in the market. Consulting engineering has been widely accepted as a professional service and it has also been accepted that the principles of marketing have not been adequately employed by these companies. In countries such as New Zealand, engineering consulting companies are using marketing intensely as a tool for competitive advantage. South African companies on the other hand have tended to rely on pricing and recommendations by others because of previous work relations.

Engineering consulting is a professional service that requires interaction between the designated professional and a client. The interactions are categorised as high-contact (i.e. involving significant interaction with relevant stakeholders), medium-contact (involving a limited amount of interaction) and low-contact (requiring limited or no interaction).

The engineering consulting sector falls under high-contact services because projects are mostly specific and time bound: for this reason the customer's input and feedback from the professionals is a requirement for the success of a project. In terms of relationship marketing, consulting engineering is categorised under Continuous Membership relationship. This is evident through the constant interactions between a professional engineer and the client.

Successful companies in the service industry have moved away from viewing business as just a transaction but put emphasis on building and maintaining relationships. It is equally important that during the process of attracting new customers, existing customers are always retained.

The literature reveals that companies concentrate mainly on attracting new customers while the existing ones are left behind. This can be detrimental to a company as the existing customers can be attracted by competitors. Therefore marketing must be about relationship building which will ensure customer retention.

Relationship marketing is about building and maintaining a base of commitment to customers who are profitable to an organisation; a successful relationship is one where the customer and the service both provide and receive benefit.

Most successful service oriented companies have aligned their marketing strategies with the customer's desired results; they have therefore translated the customer's expectations into service quality standards. Fierce competition in the markets has led to the collapse of small companies and unethical behaviour by some; companies should take caution in not abusing their customers.

Companies operate in macro and micro environments: it is therefore important that they understand the forces that influence market trends. It is for this reason that relationships should not be limited to customers but be extended to other companies and external partners; therefore companies need to be flexible and be prepared for any change in order to be able to adapt quickly.

A new set of dimensions for marketing approaches has been identified for the future whereby a company needs to adapt in order to gain competitive advantage.

These dimensions are adaptive advantage (quick response to changes), signal advantage (focus on right information), social advantage (being aware of their product's impacts on society and the environment), simulation advantage (increase yield of experimentation) and people advantage (invest in people through motivating them).

Customer satisfaction leads to more business for the company: it is therefore important that companies maintain relationships aimed at customer retention. Customer knowledge will simplify the process of customer satisfaction; it is therefore important that companies can distinguish between needs, wants and demands so as to put appropriate resources in place. Customer knowledge must not be limited to customer satisfaction but extended to customer expectations. Through knowing this, companies can align their marketing objectives with the expectations.

The following chapter, chapter 3, will be the discussion of the research methodologies used in this research.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 1 of this thesis states that this thesis is an exploratory study; the findings from the analysed data will lead to the development of a marketing strategy for a consulting engineering practice. The investigation begins by assessing the existing marketing strategies employed by service oriented companies (refer to Chapter 2). A set of successful of strategies will be extracted and shall inform questionnaire design.

The outcomes of the questionnaire will be used to identify current successful marketing strategies employed by service oriented companies. The most relevant and successful ones will be recommended for a consulting engineering practice, in this case Company X Consulting Engineers.

3.2 RESEARCH DESIGN

Marketing has been a foreign terminology for consulting engineering companies and previously there were no challenges that led them to concentrate on marketing principles; however current legislative challenges have brought the realisation that marketing is a tool that needs to be used to gain and maintain competitive advantage. Thus far few research studies aimed at investigating the role of marketing have been conducted for engineering consulting companies: for this reason the present study falls into the Exploratory type research category. Exploratory research is conducted when there are few or no studies to which new researchers can refer for information about the research problem (Collins and Hussey, 2003:11).

There are two types of processes that can be used for research namely quantitative and qualitative and these are discussed below:

Quantitative research is objective and involves the collection and analysis of numerical data and the application of statistical tests. Quantitative research is used to answer questions about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena (Leedy & Ormrod, 2005: 95).

This research uses the qualitative approach that is subjective and will examine and reflect the perceptions of respondents in order to gain an understanding that will lead to the development of a marketing strategy for a consulting engineering practice.

Qualitative research can employ several different research approaches and in all of these approaches there are two common characteristics, i.e:

- A focus on phenomena occurs in natural settings or in the real world, and
- These said phenomena are studied in their full complexity.

Table 3.1 illustrates and summarises the differences between qualitative and quantitative research.

Difference with respect to:	Quantitative Research	Qualitative Research
Underpinning philosophy	Rationalism: 'That human beings achieve knowledge because of their capacity to reason' (Bernard 1994:2)	Empiricism: 'The only knowledge that human beings acquire is from sensory experiences' (Bernard 1994:2)
Approach to Inquiry	Structured/rigid/predetermined methodology.	Unstructured/flexible/open methodology.
Main Purpose of Investigation	To quantify extent of variation in a phenomenon, situation, issue etc.	To describe variation in a phenomenon, situation, issue etc.
Measurement of Variables	Emphasis on some form of either measurement or classification of variables.	Emphasis on description of variables.
Sample Size	Emphasis on greater sample size.	Fewer cases.

Difference with respect to:	Quantitative Research	Qualitative Research
Focus of Inquiry	Narrow focus in terms of extent of inquiry, but assembles required information from a greater number of respondents.	Covers multiple issues but assembles required information from fewer respondents.
Dominant Research Value	Reliability and objectivity (value free).	Authenticity but does not claim to be value-free.
Dominant Research Topic	Explains prevalence, incidence, extent, nature of issues; discovers regularities and formulates theories.	Explores experiences, meanings, perceptions and feelings.
Analysis of Data	Subjects variables to frequency distributions, cross-tabulations or other statistical procedures.	Subjects responses, narratives or observation data to identification of themes and describes these.
Communication of Findings	Organisation more analytical in nature, drawing inferences and conclusions, and testing magnitude and strength of a relationship.	Organisation more descriptive and narrative in nature.

Source:

http://books.google.co.za/books?id=x_kp_WmFzoC&pg=PA17&lpg=PA17&dq=tabulated+differences+between+qualitative+and+quantitative+research&source=bl&ots=mPtby_6i16&sig=TxlKwyAle_amGYxSOpanU7H_vM&hl=en&ei=ly3HTNzgK8L7lwfw74WDAg&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCwQ6AEwBA#v=onepage&q&f=false

Table 3.1 Difference between Qualitative and Quantitative Research

3.2.1 Literature Survey

Chapter two of this research contains a literature survey and explores the following:

- How marketing is interpreted by consulting engineering companies,
- How other service orientated companies prosper in the market because of their good marketing strategies,
- The new approach of marketing that is successfully used by some service providers and
- The client expectations and satisfaction.

3.2.2 Empirical Study

The empirical study of this research was conducted through administered questionnaires that were distributed to clients and competing companies. The questionnaires consist of two sections: one section to be completed by clients and the other section to be completed by competing companies. The questionnaires have been distributed to twelve companies that are clients to Company X; the other section of the questionnaires has been distributed to ten engineering consulting companies.

3.2.3 Sampling and Population

A sample is made up of some of the members of the population. “A population may refer to a body of people or to any other collection of items under consideration for research purposes” (Collis & Hussey, 2003:155). For the purpose of convenience, it was decided that:

- It will be too costly, impractical and time-consuming to include all consulting engineering companies in South Africa in this investigation: therefore a few well-recognised companies in the Eastern Cape were selected;
- The types of clients selected are those who have work relations with Company X;
- Confidentiality will be guaranteed to all respondents and
- It was also decided that the questionnaire should be emailed to the relevant stakeholders.

The researcher planned to use information gathered from the sampling processes and procedures in order to analyse the data and draw conclusions relevant to the research question.

3.2.4 Data Collection

Qualitative data collection methods play an important role in impact evaluation in several ways: they provide information useful for inferring the processes behind observed results; they provide data so that we can assess changes in people's perceptions of their own well-being; and they can complement, expand or clarify quantitative evaluation findings. Qualitative methods are characterized by the following attributes (www.okstate.edu.org):

- They tend to be open-ended and have less structured protocols (i.e., researchers may change the data collection strategy by adding, refining, or dropping techniques or informants);
- They rely more heavily on interactive interviews: respondents may be interviewed several times to follow up on a particular issue, clarify concepts or check the reliability of data;
- They use triangulation to increase the credibility of their findings (i.e., researchers rely on multiple data collection methods to check the reliability and authenticity of their results) and
- Usually their findings cannot be generalised to any specific population; rather each case study produces a single piece of evidence that can be used to seek general patterns among different studies of the same issue.

The qualitative data-collection methods most commonly used in evaluation can be classified in two broad categories:

- Interviews
- And questionnaires.

It is essential that data collection methods are consistent with ethics and that the willing respondents need to be informed about the nature of the study.

Data was collected for this research by means of questionnaires and the reasons for choosing it are tabled in Table 3.2: Advantages and Disadvantages of various data collection methods.

Technique	Advantages	Disadvantages
Using variable information	Is inexpensive, because data is already there.	Data is not always easily accessible. Ethical issues concerning confidentiality may arise. Information may be imprecise or incomplete.
Observing	Gives more detailed and context-related information. Permits collection of information on facts not mentioned in an interview. Permits tests of reliability of responses to questionnaires.	Ethical issues concerning confidentiality or privacy may arise. Observer bias may occur. (Observer may only notice what interests him/her). The presence of the data collector can influence the situation observed. Thorough training of research assistants is required.
Interviewing	Is suitable for use with both literates and illiterates. Permits clarification of questions. Has higher response rate than written questionnaires.	The presence of the viewer can influence responses. Reports of events may be less complete than information gained through observation.
Small scale flexible interview	Permits collection of in-depth information and exploration of spontaneous remarks by respondents.	The interviewer may inadvertently influence the respondents. Analysis of open-data is more difficult and time-consuming.

Technique	Advantages	Disadvantages
Large scale fixed interview	Is easy to analyse.	Important information may be missed because spontaneous remarks by respondents are usually not recorded.
Administering written questionnaires.	Is less expensive. Permits anonymity and may result in more honest responses. Does not require research assistants. Eliminates bias due to phrasing questions differently with different respondents.	Cannot be used with illiterate respondents. There is often a low rate of response. Questions may be misunderstood.
Participatory and projective methods.	Provide rich data and may have positive spin offs for knowledge and skills by researchers and informants.	Require some extra training of researchers.

Source: http://www.idrc.ca/en/ev-56606-201-1-DO_TOPIC.html

Table 3.2 Advantages and Disadvantages of various data collection techniques.

Creswell's data analysis spiral is equally applicable to a variety of qualitative studies and the following steps were undertaken (shown in figure 3.1) following the data collection:

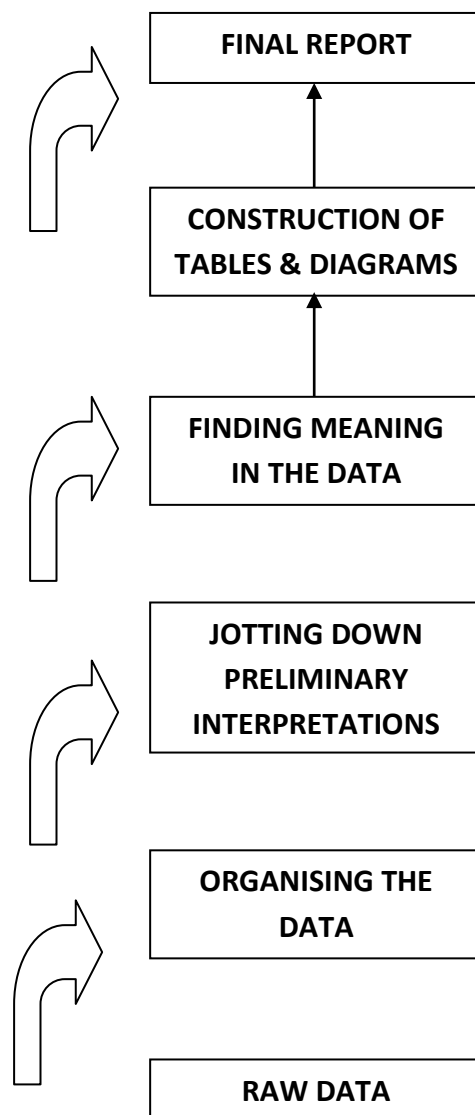


Figure 3.1 Creswell's Data Analysis Spiral (Leedy & Ormord, 2005:151).

3.2.5 The Questionnaire

An administered questionnaire has been used to collected data on this research. The reasons for selecting this method of data collection are summarised above on page X in Table 3.2.

A questionnaire is a list of carefully structured questions, chosen after considerable testing, with a view to eliciting reliable responses from a chosen sample (Collins & Hussely, 2003:173). The main aim of a questionnaire is to elicit the unbiased perceptions of the respondents. Questionnaires are cheaper, less time consuming and can give a reliable perception of respondents thanks to their anonymity.

The questionnaire is designed in such a way that there is no section that requires the respondents to fill in their names: this may ensure that respondents are more truthful than they would be in a personal interview.

Potential respondents have little or nothing to gain by answering and returning the questionnaire, and so many of them do not. Because of this reason, the following have been planned as precautionary measures:

- The questionnaire is designed so as not to be overly time-consuming;
- The cover letter of the questionnaire clearly states the purpose of the research, and it poses an interesting matter/challenge in the Building and Construction Industry;
- The researcher shall be persistent in getting the respondents' cooperation; and
- The respondents have made a commitment to return the questionnaire.

The questionnaire consists of three sections that will be distributed to Company X, other consulting firms and clients.

The three types of questions will elicit data as follows:

- Section A – Demographic Data and the Company's profile, i.e. years of the company's existence, number of employees, age of employees, education of employees, number of projects taken during the last year, types of projects, most important departments and additional services offered.
- Section B – Company's Role in terms of Marketing Activities. This section contains 12 questions dealing with marketing research, marketing departments, responsibilities of the marketing personnel and marketing objectives and so on.
- Section C – This section concentrates on the clients' (Part 1) perception of marketing by determining their opinion on several attitude statements on a five-point Likert scale (ranging from 1 strongly disagree to 5 strongly agree).
- Part 2 of this section elicits the competitor's current marketing trends which are also measured on a five-point Likert scale (ranging from 5-most important and 1-less important).

The main aim is to gather data and compare other service oriented companies' marketing strategies and look for a gap that will improve the current marketing strategies employed at Company X. The questionnaire is accompanied by a cover letter that explains the aim of the study and guarantees confidentiality to the respondents.

3.3 Validity and Reliability

Reliability is concerned with the research findings, which according to Collins & Hussely (2003:173) are reliable when two or more researchers obtain the same results. On the other hand, validity is concerned with the extent to which the research findings accurately represent what is happening in the situation.

There are four general classes of reliability estimates, each of which estimates reliability in a different way and these are listed below:

- Inter-Rater or Inter-Observer Reliability – Used to assess the degree to which different raters/observers give consistent estimates of the same phenomenon.
- Test-Retest Reliability – Used to assess the consistency of a measure from one time to another.
- Parallel-Forms Reliability – Used to assess the consistency of the results of two tests constructed in the same way from the same content domain.
- Internal Consistency Reliability – Used to assess the consistency of results across items within a test.

Types of validity are mentioned below and are considered to be useful for quality measurement:

- Face Validity – this is when one looks at the instrument, at face value, to see if it really measures the particular characteristic it purports to measure;
- Content Validity – this approach assumes that there is a very good detailed description of the content domain;
- Criteria-Related Validity – this approach refers to checking the measurement against some related criterion.
- Predictive Validity – this assesses the ability to predict something it should theoretically be able to predict.

3.4 SUMMARY

This chapter explores the methodologies that were used to compile this research. The chapter compares the two processes of research (Qualitative and Quantitative) and describes the reasons for selecting qualitative research. The chapter then outlines the steps that were taken to conduct the research on how data was collected and questionnaires were formed.

The following chapter analysis the data collected by means of questionnaires.

CHAPTER 4

DATA ANALYSIS: PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

Chapter 3 discussed the methodologies that were used to conduct this research and the design of the questionnaire. This chapter will discuss and analyse the findings obtained from the questionnaire. The objective of the survey is to determine the importance of marketing in the engineering consulting sector and to find shortcomings that need improvement so that they can be applied to Company X Consulting Engineers. The survey assesses the following:

- Role of Marketing;
- Clients' perceptions of Company X; and
- Competitors' perceptions of Marketing.

The questionnaires were emailed to the clients of Company X, i.e. architects, property developers and public sector officials (Department of Public Works). A different set of questionnaires was distributed via email to other engineering consulting companies to assess their perception of marketing, i.e. if it is deemed as a tool for competitiveness. Because of the number of consulting engineers, only some of the companies in the Eastern Cape were selected to represent both competitors and clients; the population size was twenty-two companies.

4.2 ANALYSIS OF EMPIRICAL RESULTS

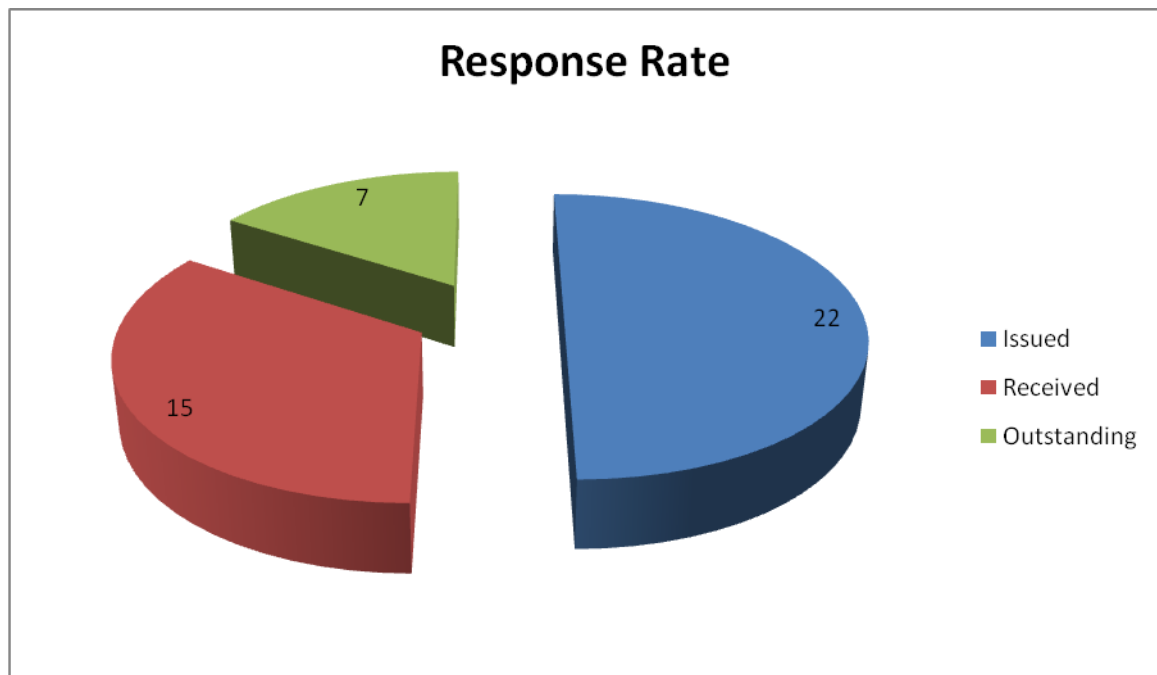
4.2.1 Response Rate

The population was divided into two sections, i.e. clients (twelve companies) and competitors (ten companies). Individuals that were assumed to have influence in their companies were requested to complete the questionnaires on behalf of their companies. From the total population size of twenty-two, fifteen were returned with a response rate of sixty-eight per cent. However the return rate from the client companies was only 50%. The reason for the significant absence of respondents from the clients is attributed to the fact that many individuals in decision making positions were extremely busy, and this is usually the case between September and December of each year. A summary of the population and response rates is shown in Table 4.1 and Chart 4.1:

Table 4.1: Summary of the Population and Response Rate.

Response	Number of Responses	Clients	Competitors
Total Issued	22	12	10
Total Not Received	7	6	1
Total Received	15	6	9
Percentage	68%	50%	90%

Chart 4.1: Response rate.



4.2.2 Questionnaire

The questionnaire is comprised of three sections; Section A to Section C. Section A elicited respondents' biographical details.

Section B concerned the role of marketing and consisted of twelve questions. Section B was issued to clients and its purpose was to determine whether marketing from consulting engineers does have a role in the awarding of projects. Section C Part 1 referred to the clients' perceptions of Company X Consulting Engineers: this section also had fifteen questions.

Section C Part 2 concerned the competitors' perceptions of marketing. This section consisted of fifteen questions. The purpose of this section was to determine whether the leading competitors perceived marketing as a valuable tool for competitiveness, and if so what strategies were utilised.

4.2.2.1 Biographical Information

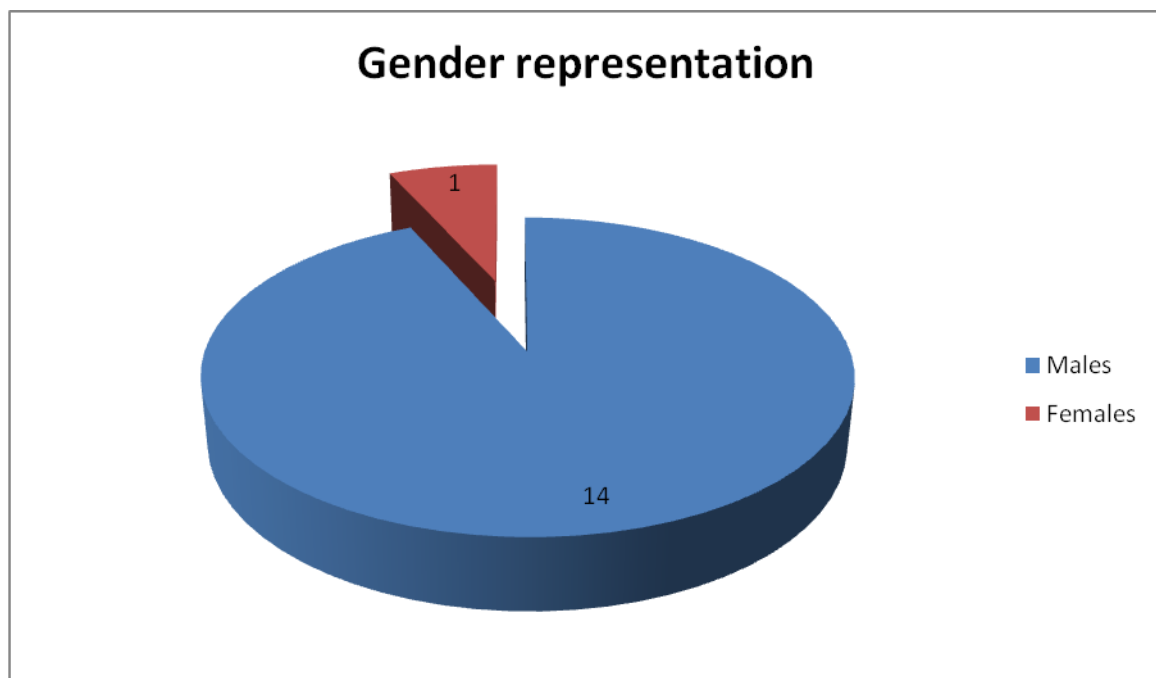
Biographical information was illustrated and analysed as per table 4.2 below:

Table 4.2: Section A – Respondent company profile.

Please Indicate your Title.		
Title	Number of Responses	Percentage
Dr	0	0
Mr	14	93.33%
Miss/Mrs	1	6.66%
TOTAL	15	100%
Please indicate your gender		
Gender	Number of Responses	Percentage
Male	14	93.33%
Female	1	6.66%
TOTAL	15	100%
Please indicate your age		
Age	Number of Responses	Percentage
20 – 29	3	20%
30 – 39	9	60%
40 – 49	2	13.33%
50+	1	6.66%
TOTAL	15	100%
What is your qualification?		
Qualification	Number of Responses	Percentage
Matric certificate	0	0%
Diploma	3	20%
Degree	12	80%
TOTAL	15	100%
Please indicate your daily work activity		
Work Activity	Number of Responses	Percentage
Client Liaison	12	23.53%
Designing	12	23.53%
Cost Estimation	9	17.65%
Draughting	3	5.88%
Contract Management	13	25.49%
Other	2	3.92%
TOTAL	51	100%
Please indicate your work experience		
No of Years	Number of Responses	Percentage
1 – 4 years	7	46.66%
5 – 9 years	5	33.33%
10 – 19 years	2	13.33%
20 +	1	6.66%
TOTAL	15	100%

Please indicate your work experience with the current employer		
No of Years	Number of Responses	Percentage
1 – 4 years	0	0
5 – 9 years	6	40%
10 – 14 years	5	33.33%
15 – 19 years	2	13.33%
20 +	2	13.33%
TOTAL	15	100%
Please indicate the number of projects undertaken by your company in 2009		
No. Of Projects	Number of Responses	Percentage
1 – 20	5	33.33%
21 – 40	4	26.66%
41 – 60	4	26.66%
61 – 80	1	6.66%
81+	1	6.66%
TOTAL	15	100%
Please indicate the number of employees in your company		
No. Of People	Number of Responses	Percentage
1 – 10	2	13.33%
11 – 20	3	20%
21 – 30	2	13.33%
31 – 40	1	6.66%
41 +	7	46.66%
TOTAL	15	100%
Please indicate how many years your company has been in existence		
No of Years	Number of Responses	Percentage
1 – 5 years	0	0
6 – 10 years	4	26.66%
11 – 20 years	2	13.33%
21 – 30 years	1	6.66%
31 – 50 years	1	6.66%
51+	7	46.66%
TOTAL	15	100%
Please indicate the type of projects that your company has undertaken		
Type of Project	Number of Responses	Percentage
Commercial Buildings	11	21.57%
Industrial Buildings	11	21.57%
Residential Buildings	10	19.61%
Business and Retail	10	19.61%
Other	9	17.65%
TOTAL	51	100%

Chart 4.2: Gender representation.



From a population of twenty-two and only fifteen received respondents, only 6.67% is represented by a female. This can be attributed to the fact that the engineering consulting sector is small and that there are fewer females involved in engineering.

Chart 4.3: Age of respondents.

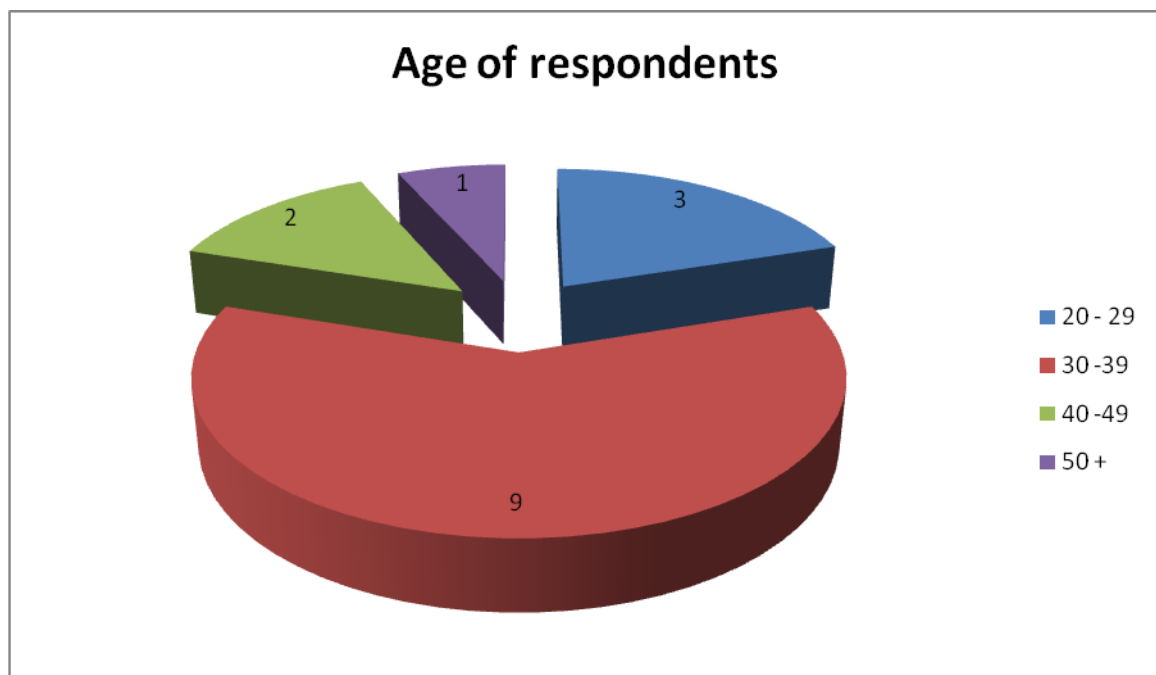


Chart 4.3 illustrates that most of the respondents are in their mid thirties. The respondents requested to complete the questionnaire were those identified as having influence (i.e. the decision-makers) in their places of work. It can be assumed that the individuals between the ages of 30-39 years are often more innovative and more advanced when it comes to technology. The reason for this likelihood is that professional bodies require continuous professional development for engineers to qualify as members.

Chart 4.4: Education levels of respondents.

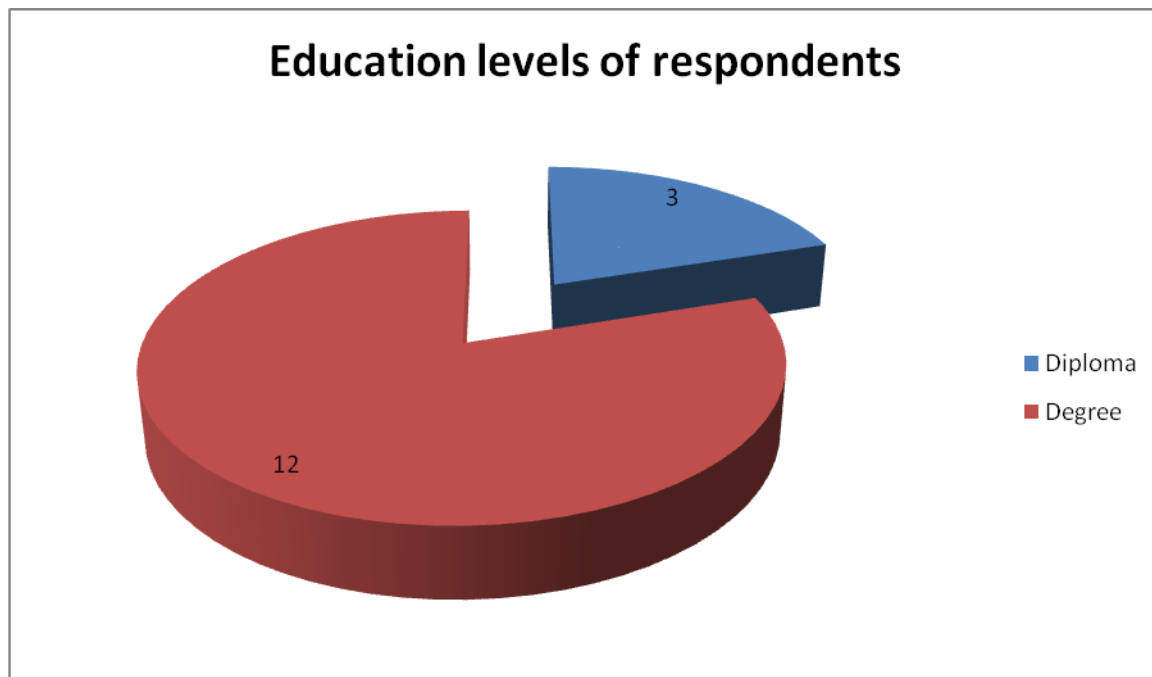
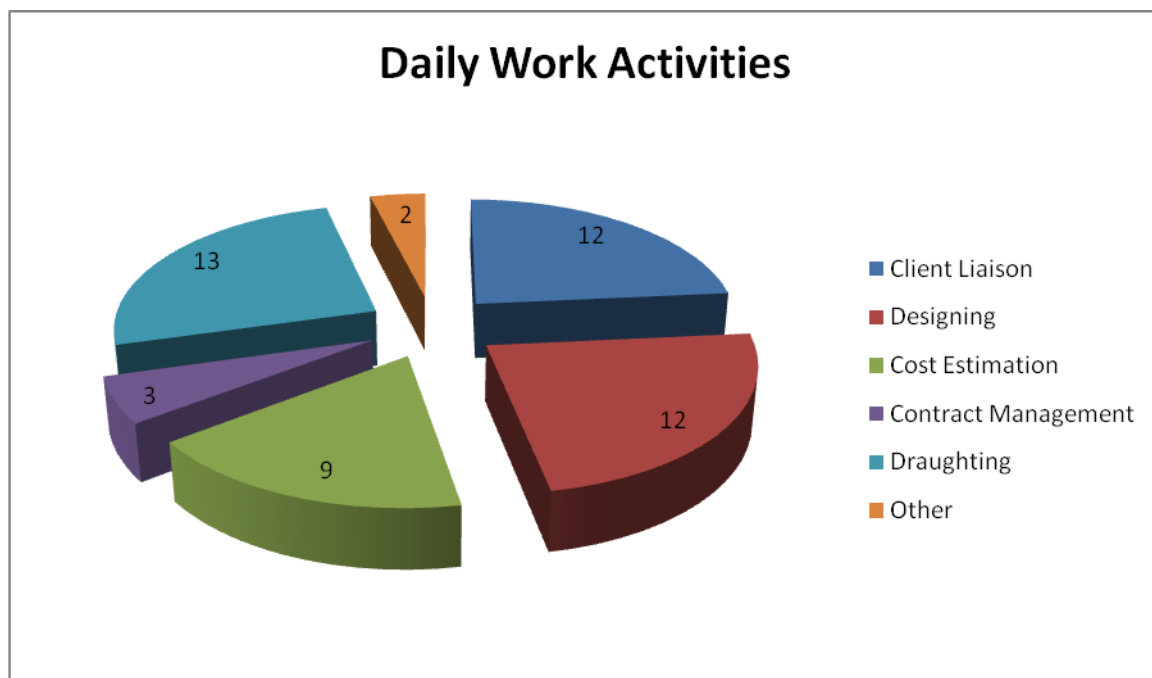


Chart 4.4 illustrates the education levels of the respondents. A large majority (80%) possess a tertiary (degree) qualification. This can be attributed to the fact that in the engineering consulting sector a degree coupled with professional registration is of utmost importance.

Chart 4.5: *Daily work activities.*



Client Liaison, designing and contract management were the main work activities for both clients and engineers. The 2 (3.92%) shown in chart 4.5 came from the clients' side and included training and office management, client body (those representing clients in various construction projects) and project management.

Chart 4.6: *Years of experience with the current employer.*

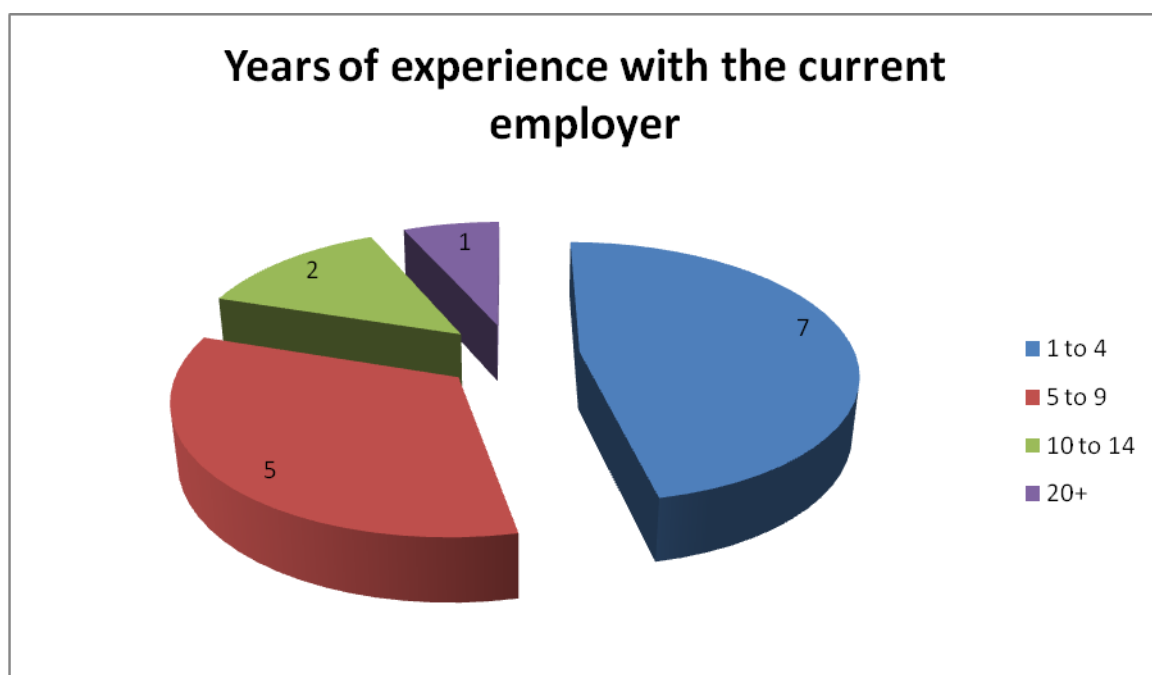


Chart 4.6 illustrates the number of years that the respondents have been with their current employer. The biggest group (46.67%) have been with the current employer between 1 and 4 years. This might be because they joined the consulting industry after they had completed their graduate training which is a minimum of two years after graduation. Alternatively they might have started counting their years of experience from after they had obtained their professional registration.

Chart 4.7: Years of work experience.



A questionnaire that required the respondents to indicate their total years of experience in their respective industries was also sent out and the results are illustrated in chart 4.7. The pie chart is mostly dominated by individuals who have 5 to 9 and 10 to 14 years of experience. This is corroborated by Chart 4.3 where the majority of the respondents fall between the ages of 30 and 39.

Chart 4.8: Number of projects undertaken by the respondent's company.

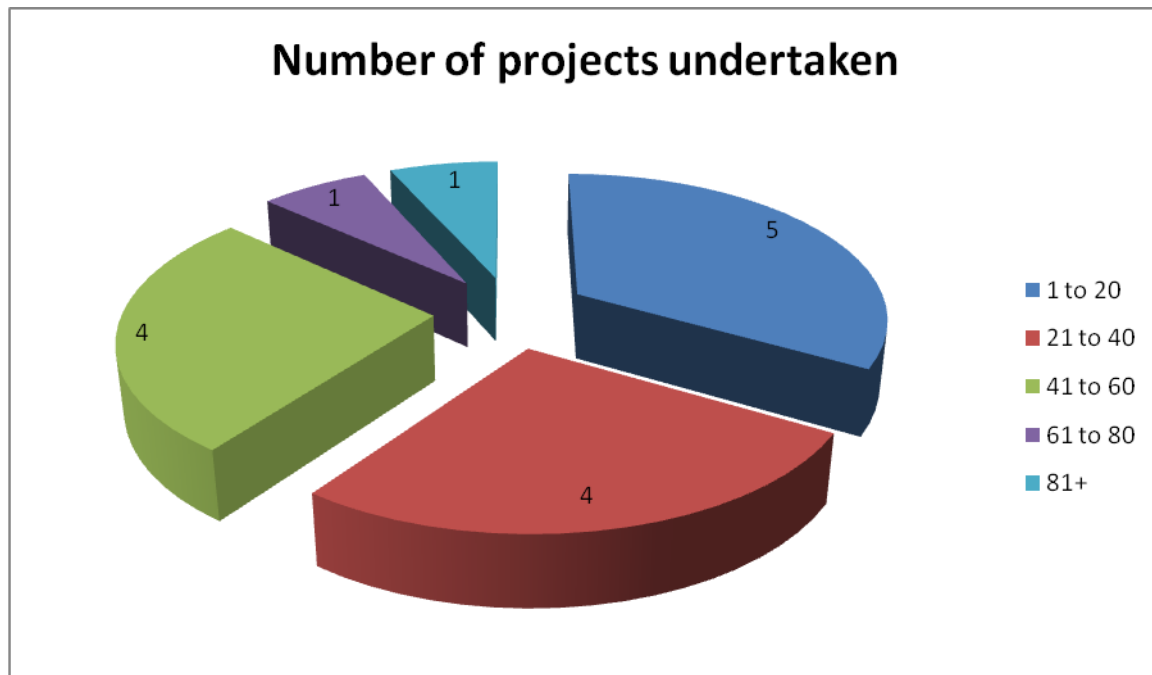


Chart 4.8 indicates the number of projects that the respondents' companies have undertaken in the past year. The majority (86.66%) of respondents indicated that their companies would usually have taken on more projects than they have in 2009. This is attributed to the fact that the construction industry has been slow after the preparations for 2010 Soccer World Cup. There are not a lot of new developments in the Eastern Cape.

Chart 4.9: Number of Employees.

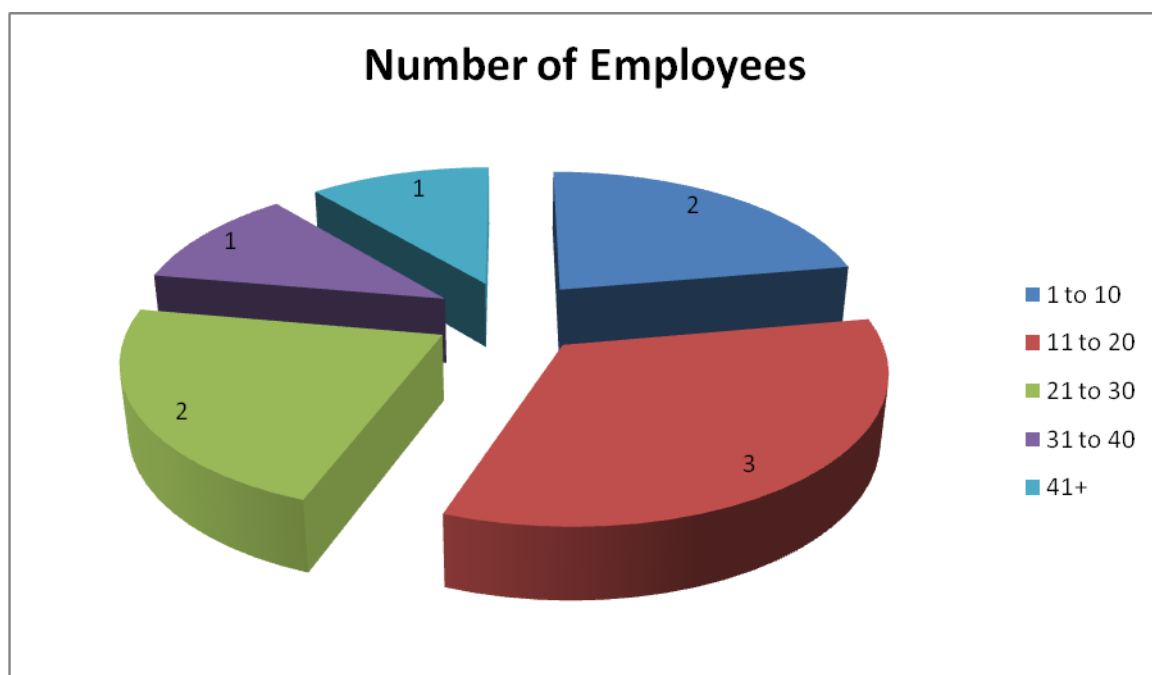


Chart 4.9 shows the size of the respondents' companies in terms of the number of employees. Chart 4.10 shows the number of years that the respondents' company has been in existence. The majority, (seven on the pie chart, 4.10) i.e. 46.66%, of the respondents' companies are well-developed and have been in existence for more than 50 years. The majority of respondents have a large number of employees (46.66% - three on the pie chart 4.9). Only 26.66% (four on the Chart 4.10) of the companies have been in existence for fewer than 10 years. The 46.66% could indicate the competitiveness of the companies due to experience and relationships built over the years.

Chart 4.10: Respondent's company existence in years.

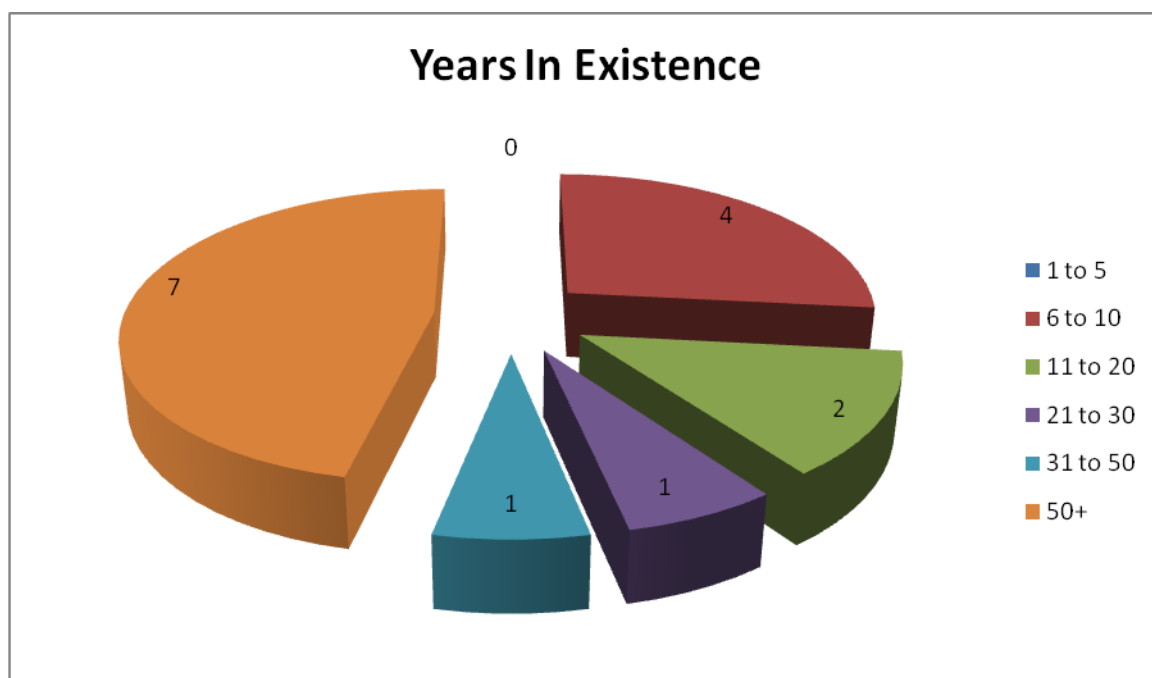


Chart 4.11: *Type of projects undertaken.*

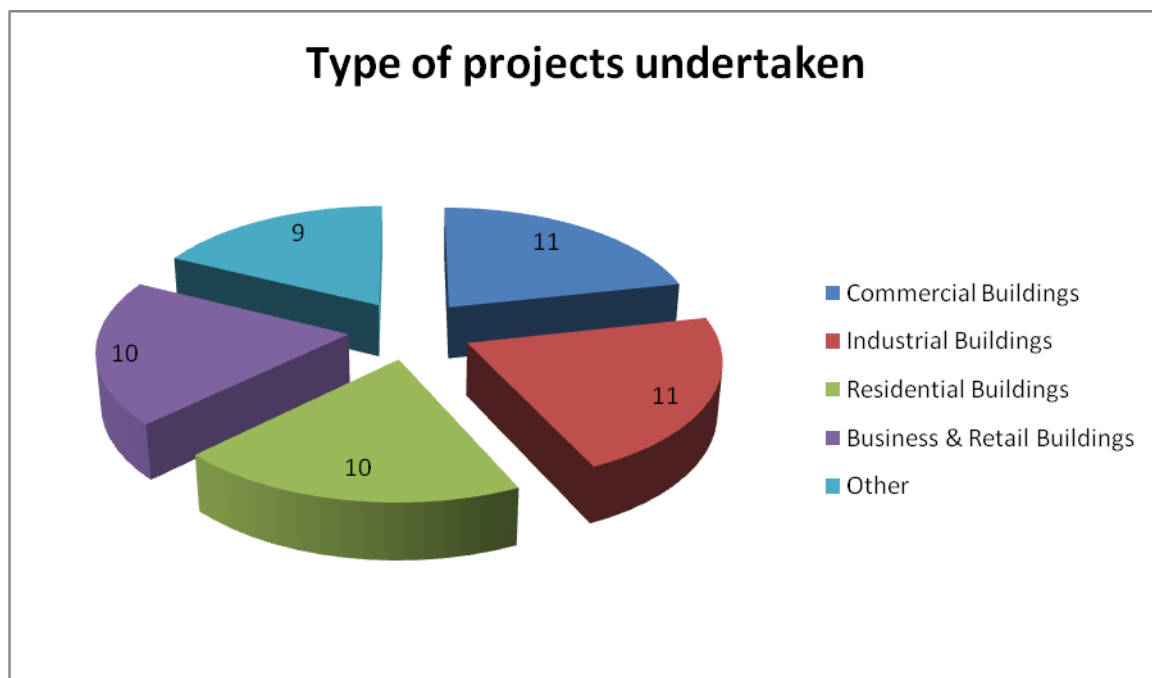


Chart 4.11 illustrates the number of projects that have been undertaken by respondents as well as the type of work they get involved with. Commercial and Industrial were the majority by 21.57% (indicated as 11 on pie chart 4.11) per sector. This can be attributed to the fact that most of the respondents are based in Port Elizabeth and economy is driven by the commercial and industrial sectors. The nine percent portion of “other” represents the health care industry, e.g. hospitals and clinics.

4.2.2.2 Section B – Role of Marketing

Table 4.3: Section B – Role of Marketing.

No.	Activity	Yes	No
1	Does your company conduct market research on consulting engineers?	0%	100%
2	Is your company's decision to appoint consultant engineers influenced by marketing activities from consulting engineers?	0%	100%
3	Do previous work experiences with consulting engineers influence future work association?	100%	0%
4	Do you feel that the formation of consortiums gives a competitive advantage?	100%	0%
5	Do you feel that consulting engineering companies who are accredited by industry professional associations influence how jobs are awarded?	67%	33%
6	Does receiving promotional literature (such as brochures, website updates) from consulting engineers have an influence on how jobs are awarded?	33%	67%
7	Does track record and duration of the company's existence influence awarding of jobs?	83%	17%
8	Does the professional individual carry more credibility than the practise he/she works for?	50%	50%
9	Does legislation (such as BEE, AA and EE) dictate which companies you select when assembling a professional team?	100%	0%
10	Do competence and skills' levels influence your decision when assembling a professional team?	100%	0%
11	Does social/community involvement of companies influence your selection when assembling a professional team?	33%	67%
12	Do marketing activities by consulting engineers affect your decision during the assembly of a professional team?	100%	0%

Table 4.3 and Chart 4.12 illustrate the data from returned questionnaires that were sent to respondents to determine whether they consider the role of marketing as being sufficiently efficient. The outcome indicates that none of the companies do market research about consulting engineering companies: the 100% 'no' response shows that no market research is done.

Marketing activities employed by consulting engineering companies with other stakeholders (architects, property developers and Department of Public Works) are ineffectual despite the fact that they can influence the appointment of consulting engineers. This conclusion is based on the 100% 'no' response to question no. 2. This can be attributed to the fact that consulting engineers do not regard marketing as a competitive tool and therefore do not use the proper marketing strategies.

There was a 100% 'yes' response to question 3 (i.e. whether previous work experience does influence future work association). The 100% response rate could be attributed to the fact that these companies will tend to work with consultants with whom they have good working relationships. In relation to this, companies tend to form consortiums with fellow consulting engineering companies so as to build and maintain strong working relationships.

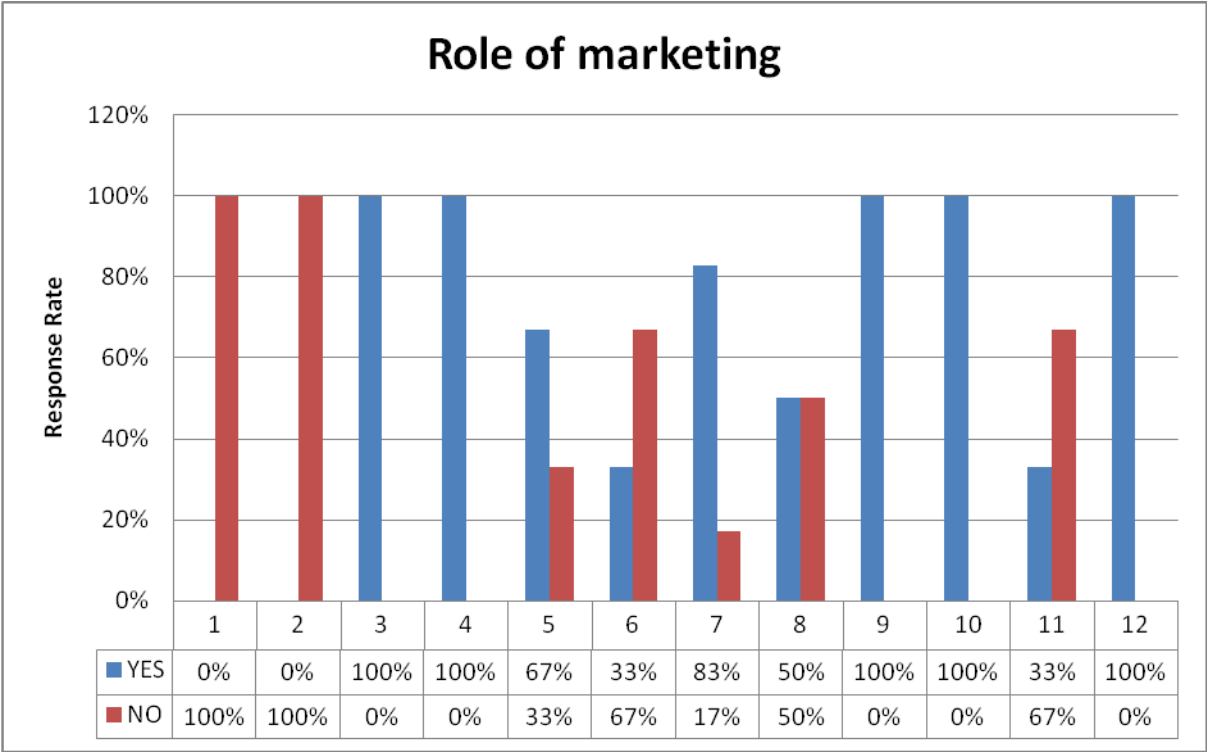
Sixty-seven percent of the respondents believed that a company that belongs to an accredited industry professional body will carry more weight when it comes to the awarding of jobs. Professional bodies of the industry have their rules and regulations that companies are required to adhere to and which also ensure that they act ethically.

When it comes to existing marketing strategies employed by consulting engineering companies, sixty-seven percent of respondents felt that they are not effective. These ineffectual strategies include promotional literature such as brochures, together with website updates and presentations with no follow-up. A large majority of the respondents (eighty-three percent) felt that the existence of a company (in years) and its track record influences the awarding of jobs. There appears to be a consensus that there is a positive correlation between years of existence and vast experience in the field of engineering. However there was a fifty-fifty response when it came to determining whether an individual carries more weight than the employer.

Legislative challenges such as Broad-based Black Empowerment, Affirmative Action and Employment equity played a significant role in terms of influencing the awarding of projects with a response rate of 100% **YES (see Question 9)**. Skills and competency levels for 'assembling a professional team' also scored 100% **YES** on the questionnaire. This could be linked to the fact the more experienced the company is, the most skills the consulting engineering companies are seen to possess.

It was also interesting to see that sixty-seven percent of the respondents (from the construction industry) felt that social/community involvement does not influence the assembly of a professional team.

Chart 4.12: Section B – Role of marketing.



4.2.2.3 Section C – Part 1 Clients’ perceptions of Company X Consulting Engineers.

Table 4.4: Section C: Part 1 – Clients’ perceptions of Company X Consulting Engineers.

STATEMENT		STRONGLY AGREE					STRONGLY DISAGREE	
		5	4	3	2	1		
1	Company X is a strong name brand in the engineering consulting sector.	20%	20%	40%	20%	0%		
2	Company X professional team conveys the technical information in an understandable manner.	0%	80%	20%	0%	0%		
3	Company X offers cost effective and acceptable technical solutions.	0%	40%	60%	0%	0%		
4	Company X complies with appropriate and relevant regulations.	40%	20%	40%	0%	0%		
5	The technical drawings are clear and understandable.	0%	60%	40%	0%	0%		
6	There are no discrepancies between drawings and technical specifications.	0%	40%	60%	0%	0%		
7	Projects are well-managed in terms of time and costs.	20%	40%	20%	20%	0%		
8	Issues that require follow-up are attended to via email, telephones, fax etc.	20%	60%	20%	0%	0%		
9	Company X engineers always practice ethics.	60%	20%	20%	0%	0%		
10	Company X always base decisions on more ethical information that is disclosed to clients.	20%	40%	40%	0%	0%		
11	Company X offers innovative designs.	0%	80%	20%	0%	0%		
12	Company X offers energy efficient designs.	0%	60%	40%	0%	0%		
13	Company X consults clients after project completion to check for customer satisfaction.	0%	40%	40%	20%	0%		
14	Service offered by Company X meets the client’s requirements and expectations.	20%	40%	40%	0%	0%		
15	Company X engineers are always available to attend to client queries.	20%	40%	40%	0%	0%		

Clients and those companies that influence the awarding of projects were requested to complete Section C Part 1 – Client’s Perceptions of Company X Consulting Engineers as illustrated in Table 4.4 above and graphical representation below in Chart 4.13. The purpose of this section is to determine how Company X is perceived as a service provider. The responses were measured by means of the Likert scale (Strongly Agree - 5 and strongly disagree - 1). 3 would mean that the respondent agrees with the statement. The response rate is illustrated by percentages on the table. All the “most important” and “important” responses were combined in this section of analysis.

About eighty percent of respondents believed that Company X is a strong brand name in the Eastern Cape engineering consulting sector. This can be attributed to Company X's longevity: it has been in existence for more than 50 years and the relationships built over years have been properly maintained.

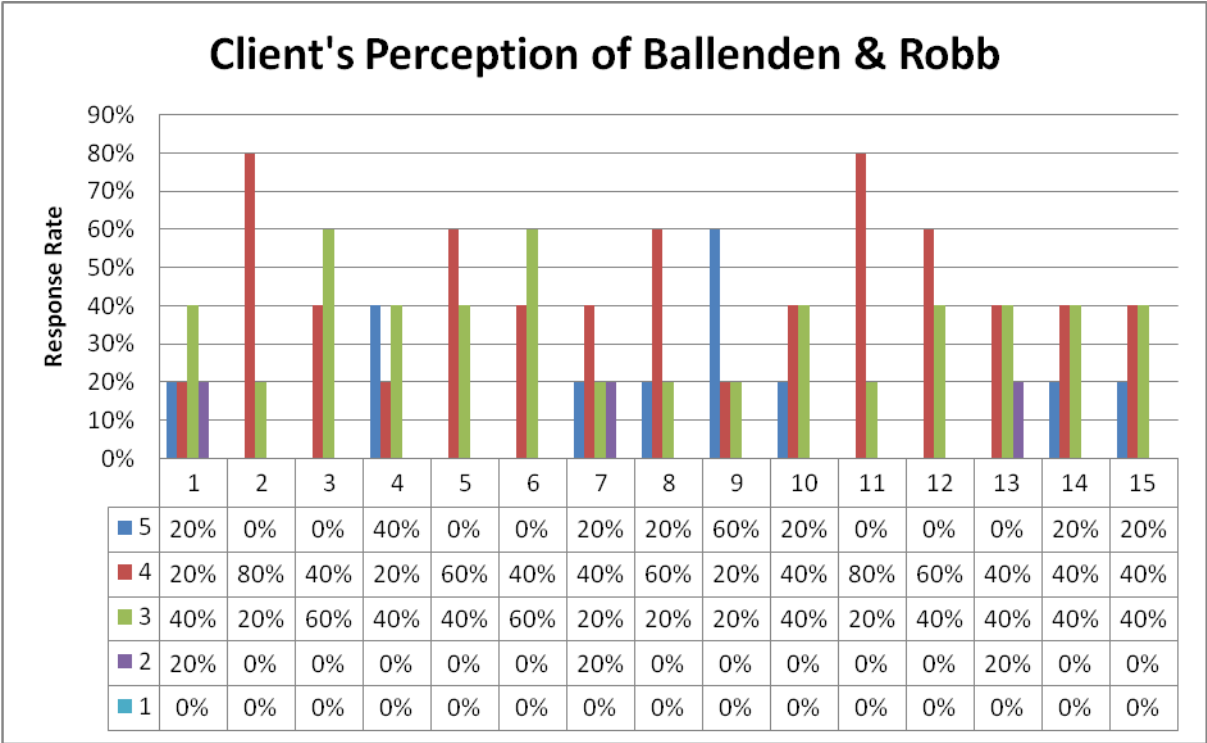
The questionnaire also asked the respondents whether they believed that the technical information conveyed by Company X is understandable. Eighty-percent strongly believed that the information was understandable while twenty percent agreed but not strongly.

In terms of cost efficiency and acceptable solutions, the respondents agreed that Company X offered appropriate solutions. Because none of the respondents strongly agreed, it means that this is an avenue that needs to be addressed by Company X. The response rate with regard to appropriate use of regulations was positive with forty percent strongly agreeing and sixty percent agreeing to the statement.

With regard to innovation and energy-efficient designs, the responses of respondents rated fairly strong agreements of eighty and sixty percent respectively. This positive response can be attributed to efficient designs and innovation embarked on by the construction industry and Company X's adherence to the good practises of the industry.

Only twenty percent of the respondents strongly agreed that Company X does provide feedback and check for customer satisfaction while the other eighty percent merely agreed. The same responses as above were obtained with regard to the availability of relevant personnel to answer to any queries from clients, i.e. twenty percent strongly agrees that relevant people from Company X attend to client queries and eighty percent merely agreed.

Chart 4.13: Section C: Part 1 – Clients’ perception of Company X Consulting Engineers.

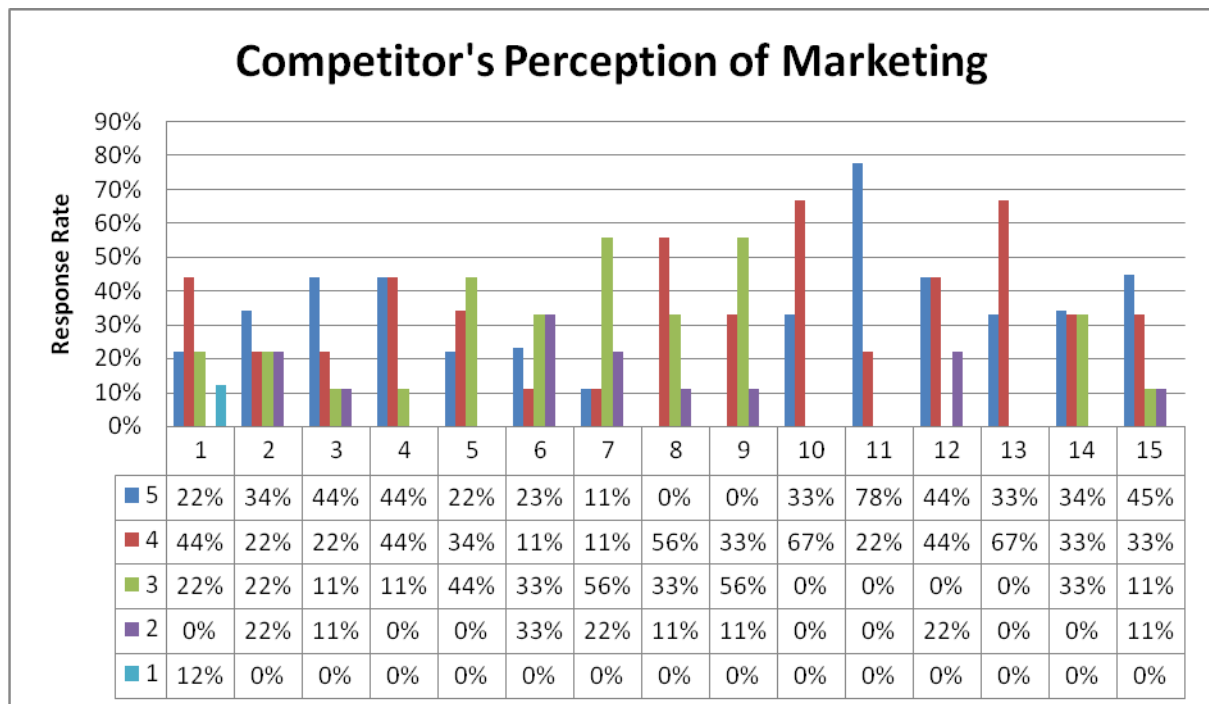


4.2.2.4 Section C – Part 2 Competitors’ perceptions of marketing

Table 4.5: Section C: Part 2 – Competitors’ perceptions of marketing

STATEMENT		MOST IMPORTANT			LEAST IMPORTANT	
		5	4	3	2	1
1	Forming a consortium with other professional disciplines determines competitive advantage.	22%	44%	22%	0%	12%
2	A dedicated marketing function is a requirement for success.	34%	22%	22%	22%	0%
3	Market research is essential to developing a clear marketing strategy.	44%	22%	11%	11%	0%
4	The company’s marketing objectives are clearly defined and aligned with company goals.	44%	44%	11%	0%	0%
5	Marketing objectives are reviewed periodically.	22%	34%	44%	0%	0%
6	The company’s success and new developments are frequently shared with clients.	23%	11%	33%	33%	0%
7	Senior staff mentors their juniors in marketing protocols.	11%	11%	56%	22%	0%
8	Price competitiveness is very important for customer attraction.	0%	56%	33%	11%	0%
9	The company uses traditional strategies for retaining its existing customers.	0%	33%	56%	11%	0%
10	Innovation plays a big role in attracting and retaining new customers.	33%	67%	0%	0%	0%
11	Company staff should be continuously empowered in terms of knowledge and education.	78%	22%	0%	0%	0%
12	Marketing efforts should be continuous and specifically targeted.	44%	44%	0%	22%	0%
13	The company has sufficient knowledge of their clients.	33%	67%	0%	0%	0%
14	Professional employees are always motivated.	34%	33%	33%	0%	0%
15	Our company follows up on the customer satisfaction levels after project completion.	45%	33%	11%	11%	0%

Chart 4.14: Section C: Part 2 – Competitors’ Perceptions of Marketing Graphical Representation.



All the “most important” and “important” responses were combined in the analysis. The results from the Competitors’ Perceptions of Marketing questionnaire are illustrated in Table 4.5 and Chart 4.14.

Sixty-six percent of respondents believe that the formation of consortiums with other professional disciplines or companies determines competitive advantage. The reason is that companies will choose the most experienced and skilled companies for their consortiums which will make a strong and powerful team; on the other hand only twelve percent felt that formation of consortiums was less important in gaining competitive advantage. The other twenty-two percent were uncertain.

With regard to having a dedicated marketing function to be successful in marketing, only fifty-six percent strongly felt it was most important; while forty-four percent were uncertain. Using market research to develop a clear marketing strategy received a score of sixty-six percent for ‘most important’ while eleven were uncertain and eleven percent felt it was less important. The existence of ‘Periodic marketing reviews’ scored sixty-six percent from respondents who felt that it was very important while forty-four felt it was less important.

Surprisingly client/customer updates were very important only to twenty-two percent of the respondents, while fifty-six percent were uncertain and twenty-two percent felt it was not important.

The marketing strategy of price competitiveness scored fifty-six percent for most important, thirty-three percent for uncertainty and eleven percent for less important. This could be attributed to the fact that in the industry professional bodies have regulations to avoid the unethical use of this strategy.

Innovation and continuous empowerment of employees both scored a hundred percent under 'most important' strategy. The respondents were also asked whether they felt that marketing efforts should be continuous in a company. Eighty-eight felt this statement was most important while twenty-two felt it was not very important.

The respondents were also asked whether they felt that it was very important to have sufficient knowledge about their customers. There was a hundred percent positive responsive rate to this statement. Seventy-eight percent of the respondents felt that it was very important for companies to follow up with customers after completion of projects, while eleven percent was uncertain and eleven percent felt it was least important.

4.3 TESTS FOR RELIABILITY AND VALIDITY

Reliability is concerned with the research findings (Collins & Hussely, 2003:173). Findings are said to be reliable when two or more researchers obtain the same results: this therefore reflects on accuracy.

The questionnaire was divided into two sections whereby one type of questionnaire was directed at the respondents that normally provide work/projects for consulting engineers, i.e. architects and members of departments of public works. The other questionnaire was distributed to competing consulting engineering companies. For the sake of reliability testing, two groups from both consultants and clients were assembled and required to discuss some of the questions from the questionnaire.

The architects and members from public works were grouped separately and asked to discuss the following statements and questions (they are mentioned on the first part of the following part of the following paragraphs) that were extracted from Table 4.3 and Table 4.4:

- Company X consulting engineer's professional team conveys the technical information in an understandable manner. The results obtained from the architects with regard to this question were not different than what was completed in Table 4.4. Eighty percent of the respondents still felt that the technical information provided by Company X consulting engineers, during projects, is indeed understandable while twenty percent still did agree but not strongly.
- Company X consulting engineers manage projects well within the construction period and within budget. Project management in terms of time and budget is most crucial to the success of a project. The respondents (sixty percent of) still strongly felt that projects were well managed by Company X consulting engineers in term of budgets and construction period.
- Do previous work experiences with consulting engineers influence future work association? A hundred percent response rate affirming that previous work experiences have an influence on future work association was received. The reason for this is that relationships are built during project stages and when consulting engineering companies do well they stand a chance of being awarded more projects.
- Do marketing activities by consulting engineers affect your decision during the assembly of a professional team? The respondents affirmed, by a hundred percent, that marketing activities by consulting engineering companies do have an influence in the awarding of jobs. The marketing activities referred to ranged from company introduction, its track record and what it offers in terms of the service it provides.

The response received from the discussion with architects and public works representatives was not different from what was completed in the questionnaire and the results were positive; in view of the high correlation the study is deemed reliable.

A group of engineers was brought together to discuss the following statements which were extracted from Table 4.5 of the questionnaire:

- Forming a consortium with other professional disciplines determines competitive advantage. The engineers (sixty-six percent) still strongly felt that when a good professional team, in a form of consortium, is put together it gives a competitive advantage. There was a portion (twelve percent) that felt that it puts emerging companies at a disadvantage because they are not even given a chance to prove their worth.
- Market research is essential to developing a clear marketing strategy. A total of sixty-six percent believed that market research is essential as it will assist them to use their resources efficiently. Eleven percent felt it was less important with the statement citing that first-mover advantage, experience and maintenance of relationships gives more advantage.
- Price competitiveness is very important for customer attraction. The statements were rated from 5 to 1, most important to less important respectively. A rating of 4 was given to this statement by fifty-six percent, thirty-three gave a rating of 3 and eleven percent gave it a two. The eighty-nine percent felt that if price competitiveness was not regulated by industry professional bodies, it would have been used unethically. The eleven percent was comfortable with this statement as they relied on industry regulators such as CESA and Governmental documents (e.g. the government gazette).
- Our company follows up on the customer satisfaction levels after project completion. A total of seventy-eight percent felt that it was very important that customer satisfaction be continuous: this response rate is presumably based on the assumption that more work/projects will be awarded in favour of those who satisfy the customer. On the other hand, twenty-two percent felt that this was not important as they believed that the services they offer do not have come-backs, i.e. they are confident about the services they provide and feel that the client should be satisfied as they have followed all relevant regulations and good practices.

The results from the discussions with the consulting engineers were not different to what was provided in the questionnaire. The positive correlation between the questionnaire and group discussion confirms that the study is reliable.

4.4 SUMMARY

This chapter analysed the data obtained from the questionnaire that was sent to clients and consulting engineers in the Eastern Cape. Clients are defined as those companies that provide projects to consulting engineers: they include architects, property developers and officials from departments of public works.

Company X consulting engineers is a mechanical and electrical service provider; therefore the competitors selected as part of the population are those providing similar services.

The aspects that were highlighted in the questionnaires involved the role of marketing as perceived by clients: the purpose of this section was to determine whether marketing does play a significant role in the construction industry, especially with regard to consulting engineers. Another section was produced and issued to clients to determine, specifically, whether the current marketing activities utilized by Company X are effective. The last section was sent to competitors of Company X who are well recognised in the industry, to determine whether they use marketing to gain competitiveness.

The following chapter, i.e. chapter five, will present the conclusions and recommendations of the study.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Questionnaires were formulated around the literature survey and the main problem. The results from the questionnaire survey were then presented and analysed in Chapter 4. The aim was to highlight the main research findings and interpret them.

The purpose of this chapter is to draw conclusions from the literature survey (Chapter 2) and the empirical study analysis (Chapter 4) to provide answers to the main research question that is: ‘How can Company X Consulting Engineers improve their current marketing strategies to gain a more competitive advantage?’ together with its sub-problems.

5.2 RESEARCH FINDINGS ANALYSIS

5.2.1 Biographical Information

Kotler and Connor (1977) define marketing in professional services as “organised activities and programmes by professional services firms that are designed to retain present clients and attract new clients by sensing, serving and satisfying their needs through the delivery of appropriate services on a paid basis in a manner consistent with credible professional goals and norms”. A biographical study was conducted and the results were illustrated in Table 4.2. The following conclusions can be drawn in conjunction with Kotler and Conner’s definition of marketing.

Table 4.2: Section A – Respondent company profile.

Please Indicate your Title.		
Title	Number of Responses	Percentage
Dr	0	0
Mr	14	93.33%
Miss/Mrs	1	6.66%
TOTAL	15	100%
Please indicate your gender		
Gender	Number of Responses	Percentage
Male	14	93.33%
Female	1	6.66%
TOTAL	15	100%
Please indicate your age		
Age	Number of Responses	Percentage
20 – 29	3	20%
30 – 39	9	60%
40 – 49	2	13.33%
50+	1	6.66%
TOTAL	15	100%
What is your qualification?		
Qualification	Number of Responses	Percentage
Matric certificate	0	0%
Diploma	3	20%
Degree	12	80%
TOTAL	15	100%
Please indicate your daily work activity		
Work Activity	Number of Responses	Percentage
Client Liaison	12	23.53%
Designing	12	23.53%
Cost Estimation	9	17.65%
Draughting	3	5.88%
Contract Management	13	25.49%
Other	2	3.92%
TOTAL	51	100%
Please indicate your work experience		
No of Years	Number of Responses	Percentage
1 – 4 years	7	46.66%
5 – 9 years	5	33.33%
10 – 19 years	2	13.33%
20 +	1	6.66%
TOTAL	15	100%

Please indicate your work experience with the current employer		
No of Years	Number of Responses	Percentage
1 – 4 years	0	0
5 – 9 years	6	40%
10 – 14 years	5	33.33%
15 – 19 years	2	13.33%
20 +	2	13.33%
TOTAL	15	100%
Please indicate the number of projects undertaken by your company in 2009		
No. Of Projects	Number of Responses	Percentage
1 – 20	5	33.33%
21 – 40	4	26.66%
41 – 60	4	26.66%
61 – 80	1	6.66%
81+	1	6.66%
TOTAL	15	100%
Please indicate the number of employees in your company		
No. Of People	Number of Responses	Percentage
1 – 10	2	13.33%
11 – 20	3	20%
21 – 30	2	13.33%
31 – 40	1	6.66%
41 +	7	46.66%
TOTAL	15	100%
Please indicate how many years your company has been in existence		
No of Years	Number of Responses	Percentage
1 – 5 years	0	0
6 – 10 years	4	26.66%
11 – 20 years	2	13.33%
21 – 30 years	1	6.66%
31 – 50 years	1	6.66%
51+	7	46.66%
TOTAL	15	100%
Please indicate the type of projects that your company has undertaken		
Type of Project	Number of Responses	Percentage
Commercial Buildings	11	21.57%
Industrial Buildings	11	21.57%
Residential Buildings	10	19.61%
Business and Retail	10	19.61%
Other	9	17.65%
TOTAL	51	100%

- With regard to organised activities and programmes, there was a low response from respondents in terms of client liaison. A conclusion that can be drawn is that consulting engineering companies do not regard marketing as a continuous activity that can be used to retain and attract customers. The findings highlighted that in terms of the experience of executing engineering problems, their experience is vast; therefore they feel that they have the appropriate resources to deliver appropriate services to their clients.
- The company experience, employee experience and education also highlighted that there are employees who could be given marketing responsibilities to legitimise marketing as a marketing tool. Marr, Sherrard and Prendergast (1996) argue that through the presence of competent personnel, service quality can be used as an important method towards good marketing.
- The credibility of the companies that took part in this research is affirmed by their registration with the Consulting Engineering of South Africa (CESA). The conclusion that can be drawn from this is that they abide with the relevant industry regulations.
- Chart 5.2 indicates the fee earning of CESA registered companies by type of client, the chart affirms the results that are shown in table 4.2. The results highlight that the majority of work/projects undertaken by consulting engineers is private. The majority were sourcing work from private clients in the form of commercial building and industrial building.

5.2.2 Role of Marketing

To draw proper conclusions, one needs to understand the market of consulting engineers. Chart 5.1 illustrates the South African Consulting Engineering Industry fee earnings by province for the period of January 2010 to June 2010. The total industry was annualised at R8 913 million, of which nine percent was generated in the Eastern Cape. This research only covers the Port Elizabeth region of the Eastern Cape and therefore a share of this nine percent.

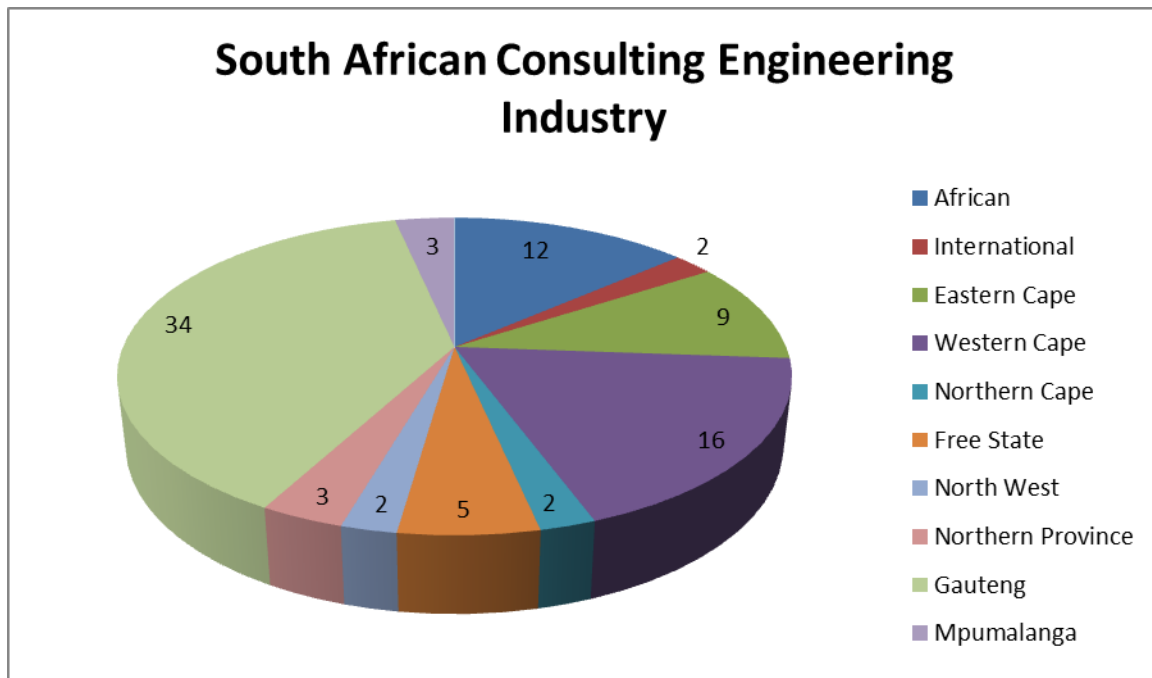


Chart 5.1 Fee earning by Province: January-June 2010

Source:

http://www.saace.co.za/sites/default/files/CESA%20MIS%20Report%20JUN10_Final.pdf

The pie chart is divided into geographic locations that the South African Consulting Engineers operate in. The following figures were revealed by the Consulting Engineers South Africa (CESA):

- Africa – 12%
- International – 2%
- Eastern Cape – 9%
- Western Cape – 16%
- Northern Cape – 2%
- Free State – 5%
- North West – 2%
- Northern Province – 3%
- Gauteng – 34%
- Mpumalanga – 3%
- Kwazulu Natal – 12%.

The abovementioned percentage figures of fee earnings (9%) for the Eastern Cape illustrates how tough the industry is, with only nine percent earned in this Province. It appears that the demand for projects is higher than the supply that is currently available. Companies need to use strategies that will assist them in getting a bigger share of available projects to be profitable. Marketing is therefore one of the strategies that can be used to gain and maintain competitiveness.

It is also important to scrutinize the industry sector that is served by consulting engineers. This can allow companies to more easily identify the segment they want to operate within. Chart 5.2 illustrates the South African Consulting Engineering fee earnings by type of client; the data was recorded in June 2010.

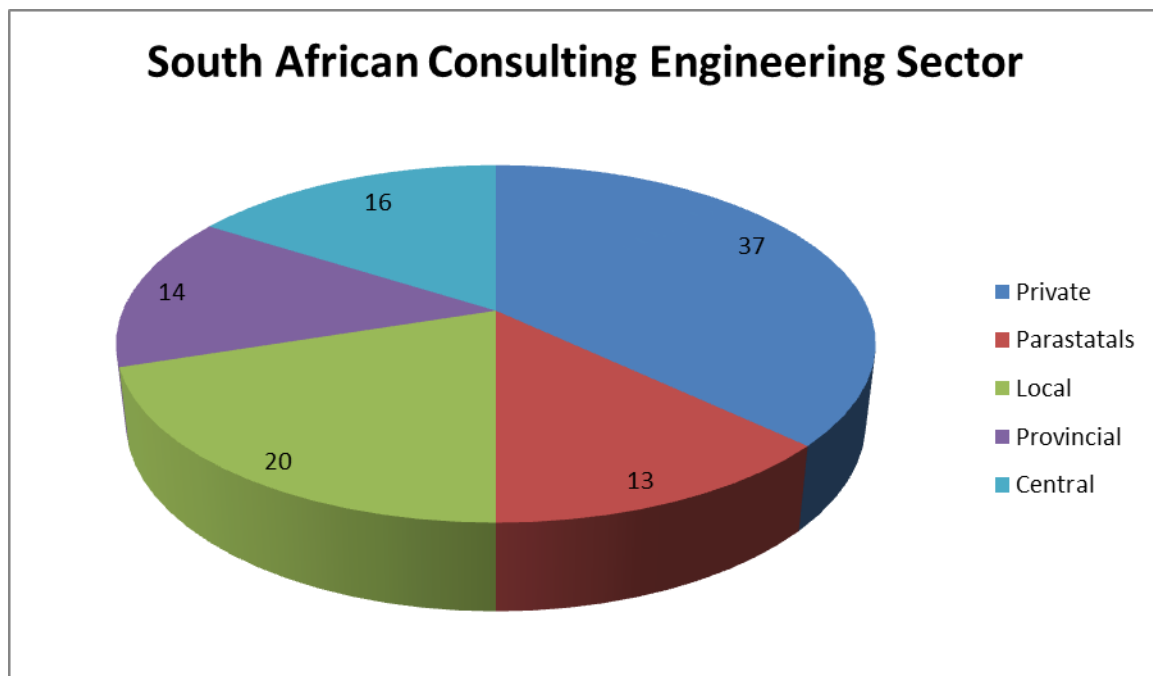


Chart 5.2 Fee earning by type of client

Source:

http://www.saace.co.za/sites/default/files/CESA%20MIS%20Report%20JUN10_Final.pdf

The majority of earnings by consulting engineers, members of CESA, were obtained from the private sector, i.e. thirty-seven percent. Local government followed with twenty percent, while the other allocations are as follows: central government (sixteen percent), provincial government (fourteen percent) and parastatals (thirteen percent).

- In view of Chart 5.1, it is clear that marketing in the consulting sector of Eastern Cape is of the utmost importance for companies to sustain themselves. The study was conducted in the Port Elizabeth area and therefore the nine percent (shown in Chart 5.1) represents the whole of the Eastern Cape. The nine percent represents all consulting engineering services in the Eastern Cape and not only mechanical and electrical engineering services as this study represents. The conclusion that can be drawn from the chart is that in order to get a stake of the small percentage of work available in the Port Elizabeth area, companies need to market themselves extensively to gain a competitive advantage and be profitable.
- Jaafar, Aziz and Wai (2008) argue that consulting engineers regard marketing as a process for attracting new clients when there is a need for more projects. This statement was confirmed as being true from the findings given in Table 4.3. The indication is that marketing efforts by consulting engineering companies do not have an impact on the suppliers of jobs e.g. architects, property developers etc. The findings also indicated that the current marketing strategies by consulting engineering companies do not have an influence on the awarding of jobs/projects. A conclusion drawn from the above is that the role of marketing in the consulting engineering sector is not used as it should be.
- The results from Table 4.3 highlighted that previous work experiences play a part in the awarding of jobs or future work association. Good work experiences lead to the formation of relationships and hence some consulting engineering companies form consortiums. Good working experiences and relationships lead to the provision of good services and might result in customer retention.
- The importance of being a member of an industry accredited professional body e.g. Engineering Council of South Africa, Consulting Engineers of South Africa also becomes apparent. The conclusion that can be drawn is that companies are forced by the professional bodies they are affiliated with to act in ethical manner. This avoids corruption and factors such as price fixing. Ziethaml and Bitner (1996:205) identify inadequate standardization of service behaviours and actions as one of the impediments towards a company's success. The professional bodies require their members to abide by certain rules and regulations; they set guides and standards of good practice.

- Many consulting engineering companies use promotional literature such as brochures and website updates to market themselves. The results from chapter 4 have shown that such initiatives are generally not effective.
- It is apparent that the marketing strategies used by consulting engineering companies are not effective and that proper marketing strategies are lacking. Kurtz and Boone (2006:7) in their definition of marketing mention that “it is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, services, organizations, and events to create and maintain relationships that will satisfy individual and organizational objectives”.
- In view of the above definition, consulting engineering companies appear not to apply extensive marketing in its entirety. Only a part (promotion) of the definition is regarded as marketing. In addition, marketing is applied only when there is a need for new projects and is not a continuous exercise or function. “Marketing” is thus selectively defined and used in an ad hoc reactive way.
- The results, with regard to the role of marketing, highlighted that experiential marketing is regarded as the most important strategy for consulting engineers. A consulting engineer once noted that “you are as good as your last project”. The conclusion is that through the good services they provide to customer/clients, they build good relationships that will guarantee chances of getting more projects from their clients. In the relationship building process, customer satisfaction and team satisfaction seem to be the leading aspects. A high level of satisfaction will lead to customer/client loyalty. Furthermore, increased customer loyalty is the single most important driver of long-term financial performance (Lambin 2006:215).
- Working (good) relationship building seems to be one of the important marketing strategies for consulting engineers. The results indicated an equal response rate on whether individuals are more important than the companies they work for. Regardless of how the relationship is built or with whom, it is important that relationships be built and enhanced all the time.
- The legislative challenges inherent in Broad Based Black Empowerment, Affirmative Action and Employment Equity remain to be influential in the way jobs are awarded. This can be linked to companies abiding by the laws of the country and laws of the professional bodies they subscribe to.

- Consortia or the assembling of project teams has highlighted that skills and competency levels play an influential role. Skills and competency levels of staff appear to correlate with the duration of existence of such companies. The trend is that the more experienced the company, the more skills it has i.e. ‘corporate wisdom’ it has accumulated.

5.2.3 Clients’ Perceptions of Company X Consulting Engineers

The results of the section are illustrated in chapter 4, Table 4.2.3 and Chart 4.13. This section addresses the first sub-problem (see Chapter 1, section 1.2.1) which seeks to assess the perceptions of Company X consulting engineers by clients. Company X’s clients are mostly from local government and provincial government sectors whereas far fewer of the Company clients fall within the private sector. The purpose of this section was to determine the influence of Company X’s market analysis. The following conclusions were drawn:

- Literature defines branding as “a name, term, sign, symbol, or design, or a combination of these that identifies the products or services of one seller or group of sellers and differentiates them from those of competitors” (Kotler and Armstrong, 2008:230). The results have highlighted that Company X is perceived as a strong brand by the majority of respondents. The strength of the brand, for Company X, has been built and enhanced over its years of existence through good working relationships and service quality.
- The literature also highlights that “one of the successful marketing tool is branding. It enables the company to directly communicate with the end-customer regardless of the actions of the middlemen” (Lambin, 2006:230). In view of this statement, the majority of respondents affirmed that the clarity of technical information provided is of great importance. In conclusion, the clarity in technical information is vital as it impacts on the success of the company. The results have also indicated that uncertainties in the technical information can lead to variation orders, extras that may be unnecessary, therefore clarity will lead to cost effective and acceptable technical solutions.
- Ethics are moral standards of behaviour expected by a society (Kurtz & Boone, 2006). The respondents have indicated that Company X does comply with appropriate and relevant regulations to maintain high moral standards of practise. This can be attributed to the professional body (Consulting Engineering South Africa) that

Company X is a member of. The association guides their members to act in good faith and with acceptable standards. This therefore confirms what the respondents have highlighted which is, Company X engineers always apply good ethics in their projects and all the information is disclosed to the clients. The involvement of clients in project cycles is a good way of developing the client relationship that can retain existing business, (as mentioned in Chapter 2).

- Non-personal communication channels are media that convey messages without personal contact. This is one of the most important and most used ways of communicating in the consulting engineering sector. The target audience has to receive communication messages that are not contradicting. The empirical results have shown a positive feedback on whether there were discrepancies between documents and drawings issued by Company X during project stages. The results show that the communication channels used by Company X are satisfactory to their clients/customers and do not create conflict. The respondents also highlighted satisfaction in the type of communication (meetings, emails and telephones) used which leads to the conclusion that feedbacks are provided on time.
- In chapter 2 it was mentioned that consulting engineers deal a lot with projects that are time based and require a lot of interaction with clients. Cost penalties are applied for delays because the extra time spent on the project may increase the budget. The results have showed that clients perceive Company X as being good in time and cost management. It is thus evident that cost and time efficiency are very important in a consulting engineering practice.
- The recent trend in the engineering approach has been a focus more concerned about innovativeness and green design (energy efficient and environmentally friendly designs). This approach has been used as a competitive tool. Chapter 2 refers to the need for companies to be more innovative than competitors and to be quick to respond to market changes. The results have highlighted that Company X does well in green design and innovation. Consequently a conclusion is that Company X is perceived to be one of the industry innovative companies.
- Although every successful marketer wants to provide a service that satisfies customers, this is not the only goal. Companies cannot lose sight of other business goals such as achieving competitive advantage or making a profit (Lovelock and Wright, 2001:274).

- One of the important marketing tools that companies need to use is customer satisfaction and meeting customer requirements and expectations. The results have highlighted that there was a low response from the clients with regard to customer feedback. It can therefore be concluded that Company X does not check sufficiently for customer satisfaction after the completion of a project.
- In consulting engineering projects, the scope of work is usually clearly defined by the customer at the beginning of a project. This therefore simplifies the consulting engineer's role in terms of meeting the requirements and expectations.
- The results have indicated that the respondents were satisfied with the level by which both articulated and unarticulated needs were being met.

5.2.4 Competitors' Perceptions of Marketing

Table 4.5 and Chart 4.14 illustrate the results for questions concerning the competitors' perceptions related to marketing. The purpose of this section was to answer the first sub-problem (see Chapter 1, section 1.2.1: Sub-problems). The first sub-problem involved gauging the level of skills and expertise of successful competing companies in the region. A further intention was to determine whether marketing played a role in their success, and, if so what strategies were used.

Chart 5.3 illustrates the percentage share of consulting engineers that are members of CESA from June 2009 to June 2010 (see Appendix B). The focus, for the purpose of this study includes mechanical building services, electrical/electronic and project management. These disciplines constitute just over fifteen percent (15.2%) of the whole percentage share of CESA members. The total percentage represents all disciplines in South Africa and is therefore not a true reflection of the Eastern Cape. However, fee earning statistics by province (see Chart 5.1: Fee earning by Province) could indicate that these numbers might be less for the Eastern Cape. These figures illustrate the importance of competitiveness amongst consulting engineers in the Eastern Cape, Port Elizabeth area. The scarcity of projects on both the private and public sector may force companies to close down or retrench their employees. Competitive marketing is the area that will address such happening.

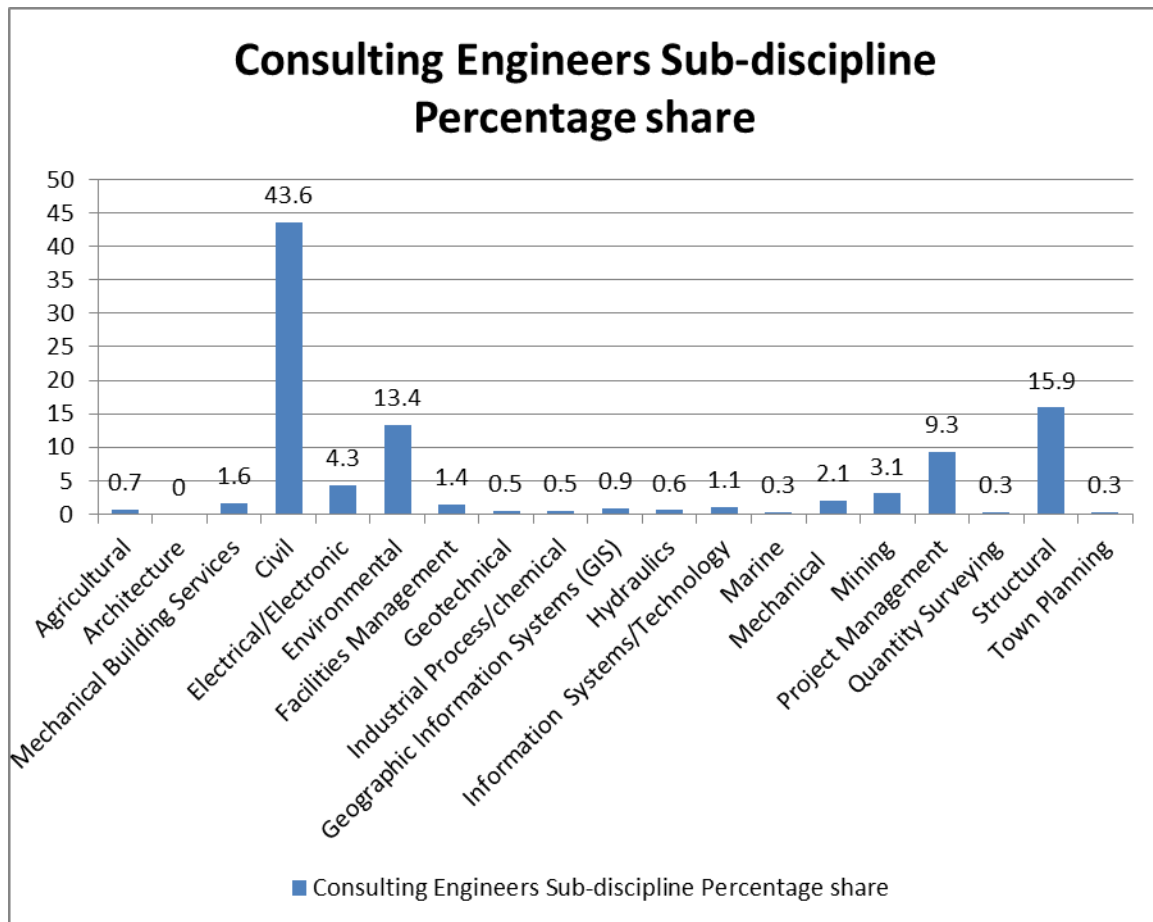


Chart 5.3 Sub-disciplines: June 2009-June 2010, Percentage Share

Source:

http://www.saace.co.za/sites/default/files/CESA%20MIS%20Report%20JUN10_Final.pdf

The following is the analysis of the competitors' perception of marketing which are illustrated in Table 4.5 and Chart 4.14 of chapter 4. The measuring instrument used was a Likert scale design providing options ranging from "most important" to "less important" and scored from five to one respectively. A score of three is considered as "important" and for the analysis was combined with "important", a two from the scale was combined with less important.

- The result from the questionnaires indicated that companies prefer the formation of consortiums to leverage competitive advantage. The selection of these consortiums is dictated by the good working relationships that were formed in the past. This results therefore confirms that previous working relationship do influence future association with other professionals.

- Engineering consulting companies have been regarding marketing as only a function that must be used when there is need for more projects. The existing departments for marketing are managed by individuals that are not fully dedicated to marketing because of other engineering related work that they are involved in. From the results of Table 4.5, it can be concluded that consulting engineering companies do see that there is need for a dedicated marketing function. This function will dedicate its resources to the application of proper marketing principles that will assist in gaining a competitive edge.
- Marketing research is the process of gathering relevant data and using information to make good marketing decisions. The results have affirmed this statement by highlighting the importance of market research from a competitor's perspective. The conclusion, as confirmed by the results in Table 4.5, is that market research is essential to developing a clear marketing strategy.
- After marketing research has been conducted, it is easier for a company to know or decide which markets they want to explore with their current resources. The results have indicated that the respondents felt their marketing objectives are clearly defined and aligned with company goals. It can thus be concluded that marketing research does assist the companies in their marketing plans and that research should be conducted periodically. The periodic review of marketing objectives assists in determining what is achieved and helps to rectify what has not been achieved.
- Client development involves the management of client relationships in a way that clients will be retained and new business attracted. This statement was confirmed by the results which indicated that client development is very important and respondents indicated that they involve their clients in their success and new innovative ideas as part of developing the client relationship.
- Despite the fact that consulting engineering companies feel that a dedicated marketing function is a requirement for success, the results have shown that junior staff members are not mentored in the marketing department. This therefore also confirms the conclusion that marketing is not yet regarded as an important function that will assist in being more competitive.

- The results from chapter 4 have indicated the importance of pricing as a competitive tool to attract and retain clients. However, it needs to be regulated in a way that will limit price collusion - hence the presence of ECSA and Government gazettes. The conclusion that can be drawn is that pricing is very important as a marketing tool but it needs strict regulations.
- While traditional marketing (promotional literature and presentation etc.) is still being used by most consulting engineering companies, it is imperative to their success that they employ the new approach that is mentioned in Chapter 2. The literature reveals that this is the approach that is widely used by successful companies. From the results, a conclusion can be drawn that traditional marketing strategies are no longer efficient hence most companies battle to attract new customers. Included in the new approach to marketing is for companies to be adaptive and innovative to retain and attract new clients. The results have confirmed that consulting engineers view these two aspects as being equally important.
- While the results and literature have shown that marketing is not used continuously by consulting engineers, they have however indicated that continuous education and marketing efforts are important and required. Market research also was revealed as playing an important role because it will assist them in targeting profitable markets.
- “Client development is the management of client relationships in such a way as to retain existing business, while simultaneously maximising the likelihood of identifying opportunities for further work and progressing them to the point of agreement for more work to be done (Forsyth, 2003:253)”. The results validated this statement, consulting engineers believe that sufficient knowledge of their clients and their expectations will increase the opportunities to get more work. This included professional staff members that are always motivated (and likely to do best), customer satisfaction feedback sessions, and most importantly, being able to determine the needs of their clients.

5.3 RESOLUTION OF THE MAIN PROBLEM

Chapter one introduced the main research question, i.e. **How can Company X Consulting Engineers improve their current marketing strategies to gain competitive advantage?**

The research findings point to the following answers to this main research question:

5.3.1 Use of a Marketing Plan

For Company X Consulting engineers to be effective in pursuing a new approach that will improve their current strategies, it is essential that a marketing plan be developed. The marketing plan should clearly define or include specific objectives, necessary resources, planned activities and expected results. It is also essential that these strategies be regularly reviewed and improved where necessary. A traditional marketing plan will consist of: Executive Summary, Market Situation Analysis, SWOT analysis, Specification of Marketing Objectives, Formulation of Marketing Strategies, Preparation of Action Programmes and Budgets and Development of Control Procedures (Hoffman et al, 2005:54). Company X needs to focus on the Market Situation Analysis, by means of which they can achieve a worthy target audience. Market analysis will assist them in determining what is available in the industry and where the industry is going; from there they could align their strategies. The SWOT Analysis (formulation of strategies) will assist them in determining what resources they have and whether they can be used to achieve their objectives. Also it will give them an overview of the industry in terms of opportunities that might exist, threats that might possibly come from competitors and from governmental regulations and weaknesses that need to be addressed so as to help them improve their current situation.

In summary, a marketing plan will give Company X a road map showing where they want to go and how to get there. However, a marketing plan is only a document and it is only effective when it is implemented. Therefore, after developing a plan with timelines, follow up sessions will be required to determine the effectiveness of the plan and to indicate where further improvements need to be made.

5.3.2 Client Behaviour

For Company X to prosper, it is important that clients are always kept satisfied. Consulting engineering services, like other service oriented companies discussed in Chapter 2 Section 2.3, can no longer see themselves as merely conducting a business transaction. Now they need to concentrate on relationship building transactions. It is also evident from the empirical study that it is important to keep clients satisfied all the time. This is illustrated by the eighty-nine percent positive response rate from the respondents when they were asked about the importance of client satisfaction.

Company X needs to use a client-driven marketing strategy; the marketing efforts must aim to win, satisfy, retain and attract more clients. This necessitates innovation and market targeting. Evaluation of an attractive market segment and innovation (gaining first mover advantage) will provide a competitive advantage. Once the market has been identified, company X needs to study their targeted clients in term of needs, expectations and satisfaction.

There are different levels of expectations that have been identified by Lovelock and Wright (2001:81-84), as discussed in chapter 2 section 2.5.1. Because the competition is fierce in the consulting engineering sector, the levels of expectation should be highly client based. The companies should achieve desirable service levels of expectation that are defined as “the wished for a level of service quality that a client believes can and should be delivered”. Therefore Company X must employ client awareness programmes to simplify the process of knowing what the client expects. The fact that a hundred percent of the respondents in the questionnaire survey recorded a positive response with regard to sufficient knowledge indicates that they felt it assists in determining the client’s expectations and standards.

Client behaviour does not end with knowing what is expected from the client but should encompass client satisfaction as well. Table 4.5 showed that most respondents (competitors of Company X) felt that it was very important that client feedback be obtained after project completion to determine the satisfaction levels of clients. The expectations of a client dealing with a consulting engineering company would include good service quality and cost effective results.

5.3.3 Best Marketing Approach

As has been pointed out this study aims to provide a review of successful marketing strategies adapted by other service oriented companies. Furthermore, these strategies are to be used in developing a marketing strategy for Company X consulting engineers. Hence the following are identified as key requirements for developing a successful strategy:

5.3.3.1 Adapt to Change

Consulting engineering is one of the sectors that experiences frequent changes dictated by technological advances, global environmental challenges and governmental policies. Company X needs to constantly conduct market analysis so as to determine where the industry is going: industry forecasts will assist them with preparation for change.

Market analysis will not only assist in preparation but it will help them to become more innovative, while gaining first move advantages that will provide extra competitiveness. Currently the engineering industry has to ensure that it provides services that are environmentally friendly and energy efficient. It is therefore important that a consulting engineering company seeks solutions that will benefit both the client and the environment.

5.3.3.2 Signal Advantage

Signal advantage is discussed in chapter 2 (section 2.4.2) as integrally linked to adaptive advantage because sensing and acting upon the presence of environmental change are the first steps in adaptive strategies (www.bcg.com). Company X management and staff needs to equip themselves with sufficient resources to enable them to sense industry signals. The sensing of such signals will make it easier for them to choose markets that are profitable.

5.3.3 People as Assets

Because consulting engineering is client based and therefore requires high levels of communication with the clients, it is important that Company X invests in their employees. The employees need to be equipped with sufficient and relevant skills that are aligned with Company X's goals and marketing objectives.

Company X needs to keep employees motivated so that greater productivity can be ensured.

5.4 CONCLUSION

The research has explored marketing strategies of other service oriented companies and has also confirmed that marketing is a function that is not being properly utilised by consulting engineering companies such as Company X. Hence the recommendations made in section 5.5 need to be implemented towards developing an effective marketing strategy for Company X.

A conclusion that can be drawn, from the results, that the role of marketing will bear good results for Company X. The results indicated that the clients of Company X acknowledge that there are marketing activities, employed by Company X, but they did not have an effect in the decision to select or appoint a consulting engineering firm. This therefore confirms that the market principles are just effective enough.

The results also indicated that previous work experiences does have influence on future work association, the conclusion that can be drawn from this is that relationship marketing is very important. Relationship marketing refers to, in this context, satisfying the client and the professional team in terms of producing quality work. This therefore brings another conclusion, that consulting engineering companies form consortiums to gain a competitive edge. The consortiums are built or formed based on the strengths of companies i.e. market leaders are selected. The strengths will come in the form of skills and competency levels that a company has; therefore the more skilful and competent the company is the more likely it will be selected to form part of a consortium.

It also became apparent, from the results that companies try as much as they can to operate in ethical and law abiding manner. Therefore the industry standards and governmental legislatures play an important role in making sure that the industry operates in a field that is suitable for any company.

The manner in which a company is perceived by its clients is very important, attached to perception is branding. Many people like to be associated with strong brand names, this therefore the reason that the research had to determine the client's perception of Company X. The can conclusion that can be drawn from the results is that to create a strong brand, companies should support the brand through the offering of a better service than what the competitors are offering. In the case of an engineering company innovation, environmental friendliness and energy efficient designs seem to be some of the important factors that could assist in getting ahead of competitors.

The majority of the consulting engineering firms did acknowledge the importance of marketing. The reason marketing is not as effective as it should be is because it is used a second function i.e. senior engineers are responsible for it but have engineering issues to attend to. The conclusion is that a dedicated marketing function is required to implement it properly and make sure that is continuously carried out.

The results also indicated that half of the respondents felt that price competitiveness was not that important, this can be attributed to the industry regulatory bodies that set the price standards so as to avoid price collusion. It can therefore be concluded that price competitiveness is as important as any other aspect of marketing and it should not be applied in isolation to be very successful.

The majority respondents indicated that it is of great importance to have knowledge of their clients. The conclusion that can be drawn is that more knowledge on what the client expects from a consulting engineer will ensure that the engineer prepares services that will meet the clients' expectations. This will avoid conflicts and reduce the time spent on projects due to uncertainty.

5.5 RECOMMENDATIONS

The research findings confirm that modern marketing principles are not properly used by most consulting engineering companies. Hence the following recommendations are made to assist Company X to develop an appropriate marketing strategy: Company X needs to have a dedicated marketing function that will have set objectives that are time driven and reviewed periodically. The marketing functions should be continuous.

- Included in the dedicated marketing department's functions would be market research of the clients and industry trends, together with identification of innovative initiatives that can put Company X in a competitive position.
- Since a consulting engineering practice is client driven, the target market should be carefully selected and aligned with Company X's goals and objectives. This would require research on potential clients and existing ones; this would assist in meeting and satisfying their expectations.
- Engineers should meet fortnightly to discuss the problems they have encountered in their projects and brainstorm possible solutions. The two week brainstorming session could lead to the articulation of innovative ideas.
- A dedicated marketing individual should work closely with engineers so that innovative engineering ideas can be combined with marketing strategies to attract and serve a specific market.
- The research findings indicated that some respondents felt that Company X did not review projects sufficiently for customer satisfaction: it is therefore imperative that client retaining strategies be implemented.
- It is also recommended that Company X do more marketing in the private sector because they are currently focusing mainly on governmental projects.

The research study has assessed the current marketing strategies that are used by some successful service oriented companies and those used by consulting engineering companies. The research findings revealed some of the misconceptions that consulting engineering companies have about marketing and how marketing principles are not properly used or applied. From the assessment of the marketing strategies, only appropriate ones were selected and recommended to Company X. The success of the abovementioned strategies will depend on their implementation and continuous review. The reviewing sessions should provide opportunities of rectifying or improving matters that require such action.

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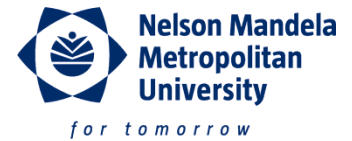
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APPENDIX A: QUESTIONNAIRE COVER LETTER



Dear Respondent

I am a post-graduate student studying towards my MBA (Masters in Business Administration) at the Nelson Mandela Metropolitan University Business School. The topic of my research project involves an investigation of assessing current marketing strategies and developing them for an engineering consulting practice. The empirical results of the study will be made available to the participants on request.

You are part of our selected sample of respondents whose views we seek on the above-mentioned matter. We would therefore appreciate it if you could answer a few questions in this regard, which should not take more than twenty minutes of your time. Please note that the information gathered will not be used against any organisation in any way and that all your responses will be strictly confidential. Please return the completed questionnaire by the 15th of November 2010. We thank you in advance for your highly appreciated contribution towards this study.

There are no correct or incorrect answers. Please answer the questions as accurately as possible. For each statement, tick the number which best describes your experience. For example, if you strongly agree with the statement, tick the number 5. If you strongly disagree with the statement, tick the number 1. **Tick only one answer for each statement, but answer ALL QUESTIONS please.**

Thank you very much.

Mr M.B. Maliti

Research supervisor: Dr J. Burger (Tel. 041-504 3816)

APPENDIX B: QUESTIONNAIRE

SECTION A

RESPONDENTS COMPANY PROFILE

Please make a cross (X) or enter the relevant information in the blocks provided.

Please indicate your TITLE

(Mr., Miss, Dr.,etc.):

GENDER:

Male

☐

Female

☐

AGE GROUP:

20 – 29	30 – 39	40 - 49	50 – 59	>60
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Please indicate your HIGHEST
EDUCATIONAL QUALIFICATION:

Please indicate your DAILY WORK:

ACTIVITY	MARK (X)
Client Liaison	
Designing	
Cost Estimation	
Draughting	
Contract Management	

If other, please specify:

For HOW LONG have you been working for your present employer (in years?)

1 – 4	5 – 9	10 – 14	15 - 19	>20
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How many years of EXPERIENCE have you got in your present job?

1 – 4	5 – 9	10 – 14	15 - 19	>20
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How many PROJECTS has your company undertaken in 2009?

1 – 20	21– 40	41– 60	61 – 80	81 – 100	> 100
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What is the NUMBER of employees in your company?

1 - 5	6 – 10	11– 20	21 – 30	31 – 40	> 50
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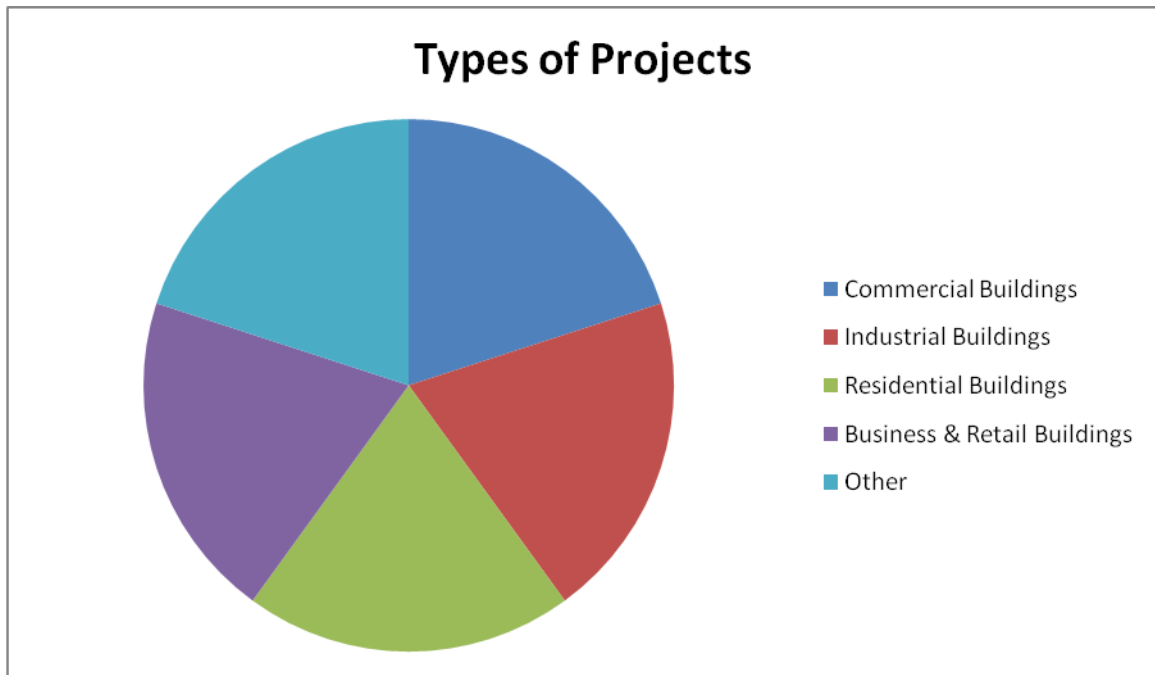
How many YEARS has your company been established?

1 – 5	6 – 10	11– 20	21 – 30	30 – 50	> 50
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How often does your company WORK with consulting engineers?

0 - 5%	6-10	11-20	21-50	51-60	61-70	71-80	81-90	90-100

In terms of the types of projects your company undertakes, please indicate the percentage on the pie chart for the previous four years.



SECTION B

ROLE OF MARKETING ACTIVITIES

No.	Activity	Yes	No
1	Does your company conduct market research on consulting engineers?		
2	Is your company's decision to appoint consultant engineers influenced by marketing activities from consulting engineers?		
3	Do previous work experiences with consulting engineers influence future work association?		
4	Do you feel that the formation of consortiums gives a competitive advantage?		
5	Do you feel that consulting engineering companies who are accredited by industry professional associations influence how jobs are awarded?		
6	Does receiving promotional literature (such as brochures, website updates) from consulting engineers have an influence on how jobs are awarded?		
7	Does track record and duration of the company's existence influence awarding of jobs?		
8	Does the professional individual carry more credibility than the practise he/she works for?		
9	Does legislation (such as BEE, AA and EE) dictate which companies you select when assembling a professional team?		
10	Do competence and skills' levels influence your decision when assembling a professional team?		
11	Does social/community involvement of companies influence your selection when assembling a professional team?		
12	Do marketing activities by consulting engineers affect your decision during the assembly of a professional team?		

SECTION C: Part 1 – Client’s Perception of Company X.

Please indicate the extent to which you agree or disagree with the statement by marking X on the box.

STATEMENT		STRONGLY AGREE STRONGLY DISAGREE				
		5	4	3	2	1
1	Company X is a strong name brand in the engineering consulting sector.					
2	Company X professional team conveys the technical information in an understandable manner.					
3	Company X offers cost effective and acceptable technical solutions.					
4	Company X complies with appropriate and relevant regulations.					
5	The technical drawings are clear and understandable.					
6	There are no discrepancies between drawings and technical specifications.					
7	Projects are well-managed in terms of time and costs.					
8	Issues that require follow up are attended to via email, telephones, fax etc.					
9	Company X engineers always practice ethics.					
10	Company X always base decisions on more ethical information that is disclosed to clients.					
11	Company X offers innovative designs.					
12	Company X offers energy efficient designs.					
13	Company X consults clients after project completion to check for customer satisfaction.					
14	Service offered by Company X meets the client’s requirements and expectations.					
15	Company X engineers are always available to attend to client queries.					

SECTION C: Part 2 – Competitors’ Perceptions of Marketing.

Please indicate the extent to which you feel the statements are most or least important by marking an X on the appropriate box.

STATEMENT		MOST IMPORTANT LEAST MPORTANT				
		5	4	3	2	1
1	Forming a consortium with other professional disciplines determines competitive advantage.					
2	A dedicated marketing function is a requirement for success.					
3	Market research is essential to developing a clear marketing strategy.					
4	The company’s marketing objectives are clearly defined and aligned with company goals.					
5	Marketing objectives are reviewed periodically.					
6	The company’s success and new developments are frequently shared with clients.					
7	Senior staff mentor their juniors in marketing protocols.					
8	Price competitiveness is very important for customer attraction.					
9	The company uses traditional strategies for retaining its existing customers.					
10	Innovation plays a big role in attracting and retaining new customers.					
11	Company staff should be continuously empowered in terms of knowledge and education.					
12	Marketing efforts should be continuous and specifically targeted.					
13	The company has sufficient knowledge of their clients.					
14	Professional employees are always motivated.					
15	Our company follows up on the customer satisfaction levels after project completion.					

APPENDIX C: SUB-DISCIPLINES: JUNE 2009 – JUNE 2010, PERCENTAGE SHARE

Sub-discipline	June-09	Dec-09	June-10	Change in market share Last 6 months	Change in market share Last 12 months
Agricultural	2.0%	0.6%	0.7%	0.2%	-1.3%
Architecture	0.3%	0.0%	0.0%	0.0%	-0.3%
Mechanical building services	2.0%	2.6%	1.6%	-1.0%	-0.4%
Civil	51.1%	52.8%	43.6%	-9.2%	-7.5%
Electrical/Electronic	4.8%	4.0%	4.3%	0.3%	-0.5%
Environmental	4.7%	3.5%	13.4%	9.9%	8.7%
Facilities Management (New)	1.8%	1.3%	1.4%	0.1%	-0.5%
Geotechnical	1.2%	0.5%	0.5%	0.0%	-0.7%
Industrial Process/Chemical	0.5%	0.5%	0.5%	0.1%	0.0%
GIS	0.4%	0.8%	0.9%	0.0%	0.5%
Hydraulics (New)	0.5%	0.2%	0.6%	0.3%	0.0%
Information Systems/Technology	0.4%	1.2%	1.1%	-0.2%	0.7%
Marine	0.0%	0.1%	0.3%	0.2%	0.3%
Mechanical	1.2%	2.3%	2.1%	-0.1%	0.9%
Mining	8.7%	2.5%	3.1%	0.6%	-5.6%
Project Management	10.0%	6.9%	9.3%	2.4%	-0.6%
Quantity Surveying	0.1%	1.7%	0.3%	-1.4%	0.3%
Structural	9.7%	18.3%	15.9%	-2.4%	6.2%
Town Planning	0.4%	0.2%	0.3%	0.1%	-0.1%
Total	100%	100%	0.0%	0.0%	0.0%

Source:

http://www.saace.co.za/sites/default/files/CESA%20MIS%20Report%20JUN10_Final.pdf

APPENDIX D: MARKET SHARE (% of fee earnings)

Survey period								
Province	Dec-06	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
Eastern Cape	10.69	9.90	9.25	8.80	5.30	7.80	10.40	9.34
Western Cape	15.98	17.70	18.20	13.30	12.90	9.40	17.00	16.29
Northern Cape	2.06	1.12	1.65	1.90	1.00	1.60	0.80	1.62
Free State	4.19	4.37	4.68	4.10	2.40	2.20	3.00	4.63
North West	4.38	3.87	8.16	2.80	3.50	1.90	2.30	2.05
Limpopo	3.52	3.57	2.43	2.90	2.80	3.20	3.20	2.73
Gauteng	32.10	34.06	34.94	32.80	38.90	45.10	30.00	33.74
Mpumalanga	2.94	3.10	3.94	3.20	3.30	2.60	2.90	2.94
Kwazulu Natal	12.49	13.75	11.29	13.90	12.30	20.20	17.30	11.92
African	9.77	7.04	4.51	10.70	12.50	3.90	10.70	12.34
International	1.88	1.52	0.95	5.60	5.20	2.10	2.40	2.40
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source:

http://www.saace.co.za/sites/default/files/CESA%20MIS%20Report%20JUN10_Final.pdf

APPENDIX E: MARKET SHARE BY CLIENT (% of fee earnings)

Survey Period							
Client	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
Central	8.9%	9.1%	9.7%	7.0%	6.4%	15.7%	16.4%
Provincial	12.7%	9.6%	15.8%	17.7%	10.7%	9.9%	13.9%
Local	28.8%	25.9%	21.0%	27.9%	23.0%	27.4%	20.4%
State Owned	11.4%	10.7%	12.8%	10.4%	9.8%	12.8%	12.7%
Private	38.2%	44.6%	40.7%	37.0%	50.2%	34.2%	36.6%
Total	100%	100%	100%	100%	100%	100%	100%

Source:

http://www.saace.co.za/sites/default/files/CESA%20MIS%20Report%20JUN10_Final.pdf