EVALUATION OF THE VAAL TRIANGLE TECHNIKON'S DELIVERED VALUE TO ITS STAKEHOLDERS

by

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ABSTRACT

This study focuses on the Vaal Triangle Technikon, East Rand Campus. In this era of globalization more and more organizations are getting access to the same technologies, the same information, and the same processes. It is getting increasingly difficult to establish a sustainable advantage in the marketplace. Only those organizations that can truly add value to their customer's experience of their market offering are the organizations those customers stay loyal to. There are quite a few institutions of higher learning in South Africa that prospective students can choose from. This study emphasizes the necessity of a model that can assist the Vaal Triangle Technikon, East Rand Campus, to evaluate and improve the delivered value to its stakeholders. The main object of this study is therefore the development of such a model that could be implemented in a follow-up study.

In this study, empirical research is supplemented by a literature study to guide and assist the researcher in the development of the determined model. Key conclusions and recommendations have been formulated as input into the first phase of the evaluation of the delivered value of the Vaal Triangle Technikon, East Rand Campus.

TABLE OF CONTENT

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE

ORIENTATION

1.1 INTRODUCTION

According to Kotler and Armstrong (2001:666) traditional marketing theory and practice have focused on attracting new customers rather than retaining existing ones. Although attracting new customers remains an important marketing task, more and more companies are shifting the emphasis toward relationship marketing. Companies have to move from a product and selling philosophy to a customer and marketing philosophy. Organizations must outperform competitors in order to win and keep customers. To win in the marketplace, companies must become adept not just in building products, but in building customers. The answer lies in outperforming competitors in delivering customer value and satisfaction. Relationship marketing can be defined as the creation, maintenance, and enhancement of strong relationships with customers and other stakeholders (Kotler and Armstrong, 2001:667). Beyond designing strategies to attract new customers and create transactions with them, companies are going all out to retain current customers and build profitable, long-term relationships with them.

Johnson & Gustafsson (2000:3) states that companies today are facing some new marketing realities. Changing demographics, more sophisticated customers, and overcapacity in many industries; means that there are fewer customers to go around. Companies are realizing that losing a customer means losing more than a single sale. They are losing the entire stream of purchases that the customer would make over a lifetime of supporting the company. The key to building lasting relationships is the creation of superior customer value and satisfaction. By giving customers no reason to switch, and every reason to stay, they are insulated from the competition (Johnson & Gustafsson, 2000:3).

1.2 PROBLEM AWAKENING

Every company must be able to satisfy and retain customers. That is the key to its business performance. Providing high quality products and services builds strong relationships with customers and ensures future revenue streams.
Attracting and retaining customers can be a very difficult task for the company to perform. There is a vast variety of product and brand choices, prices, and suppliers for the consumer to choose from. Consumers buy from the firm that they believe offers the highest customer delivered value (Johnson & Gustafsson, 2000:5).

As more and more companies are getting access to the same technologies; the same information and the same processes, it is getting increasingly difficult to establish a sustainable competitive advantage in the marketplace. More and more companies are competing for the rands and cents of the same customers. Only those companies who can truly add value to their customer's experience of their market offering are the companies that those customers stay loyal to.

These realities also apply to institutions of higher education. There are quite a few institutions of higher learning in South Africa that prospective students can choose from. In the developed, modern societies, formal education is provided by national education systems. A national education system is a social structure with specific qualities and characteristics that give it a nature and identity unique among the structures of society. Although all education systems comprise of the same basic components, are bound by the same structural principles, should function along similar lines, and should be created with the same general objectives in mind, they all differ from one another.

According to Stace (1995:3) the basic reasons for these variations are the following:

- Man/student/customer who stands centrally in every education system is a dynamic being with continually changing needs.
- Man/student/customer's environment will influence his cultural development. This cultural development in return will influence man/student/customer's perceptions, which in turn will influence his perceived delivered value.

In each particular environment these elements have a specific impact on the principles of the structure and function of an education system. For this reason the Vaal Triangle Technikon, East Rand Campus will be studied as a separate unique education system, with a unique environment and unique students with unique perceived delivered value.

According to Lane (1995:67) technikons are the suppliers of career-educated technologists and therefore are finding themselves in a favorable position to grow in terms of student numbers. The East Rand Campus is a satellite of the Vaal Triangle Technikon. It is situated in Kempton Park and is the only technikon in the East rand. The East Rand Campus offers the same course syllabus to its students and writes the same examinations as the Vaal Triangle Technikon in Vanderbijlpark. The East Rand Campus was established in 1995 and is boasting registered student numbers of one thousand two hundred. Since the East Rand Campus is still in it's early stages of development and is situated in a different environment and market as the main campus at Vanderbijlpark, it is necessary to study the East Rand Campus as a separate entity.

In this study, an assumption is made that it is just as important to an institution of higher education to deliver value to its students as any other firm in any other industry. The assumption is also made that if a model can be developed to assist this institution in measuring and improving the value it is delivering to its students, it can gain a sustainable competitive advantage over other competing technikons.

This brings the writer to the following questions:

- What makes a prospective student choose one technikon over another?
- Will it impact their survival if a technikon do not deliver value to their students?
- What constitute value to a student at a technikon?
- Since environments and markets differ – what constitute value to the students at the Vaal Triangle Technikon, East Rand Campus?

It is essential that the preceding questions are studied within a certain theoretical framework in order to prevent any bias in the study approach.

1.3 CONCEPTUAL FRAMEWORK

An education system is a highly complex organization consisting of a variety of social structures, which are collectively involved in the provision of education in a community. In all these structures, humans should be working to meet the needs of humans.

For the purpose of the study two theoretical models has been adapted (refer to Figure 1.1), to study the delivered value of the Vaal Triangle Technikon, East Rand Campus. Michael Porter's value chain analysis and Tony Manning's value systems form the bases of the conceptual framework. Porter's value chain describes a way of looking at a business as a chain of activities that transform inputs into outputs that customers' value. Customer value derives from three basic sources: activities that differentiate the product, activities that lower its cost, and activities that meet the customer's need quickly. Value chain analysis attempts to understand how a business creates customer value by examining the contributions of different activities within the business to that value (Porter, 1985:30).

Value chain analysis takes a process point of view. It divides the business into sets of activities that occur within the business, starting with the inputs a firm receives and finishing with the firm's products/services to customers. Value chain analysis can help managers to identify their firm's strengths and weaknesses by looking at the business

as a process – a chain of activities – of what actually happens in a business rather than simply looking at it based on organizational lines or historical financial figures (Pearce & Robinson, 2000:206).

According to Porter (1985:26) a typical value chain framework divides activities within the firm into two broad categories: primary activities and support activities. Primary activities include involves the product, marketing and transfer to the buyer. Support activities assist the firm as a whole by providing infrastructure or inputs that allow the primary activities to take place on an ongoing basis. Judgment is required across individual firms and different industries because what may be seen as a support activity in one industry may be a primary activity in another (Pearce & Robinson, 2000:207).

The value chain concept is well known and widely used. The initial step in value chain analysis is to divide a company's operations into specific activities or business processes, usually grouping them similarly to the primary and support activity categories (Thompson & Strickland, 1998:115). It seems logical to divide the Vaal Triangle Technikon's activities into primary and support activities based on their mission statement. According to the Vaal Triangle Technikon's mission statement their primary activities are: lecturing, research, and community outreach. Their support activities are: administration, human resource management, student support, and study support activities.

Value however is more than a sequence of actions. Value is a concept. It is a product of resources, imagination, attitudes, and actions. Value may be born in many places – in the mind of the consumer, in the R&D laboratory, or a passage chat between colleagues at work. Consumers do not just buy the "what" but also the "how" (Manning, 1998:7). Since value is a concept that can be born in the mind of the consumer it is important to first establish what the consumer values in their relationship with the organization. By analyzing the customer's view about their relationship with the organization, many insights can be attained about what are really important to customers. Customers are reasonable. Many are quite realistic about their relationship

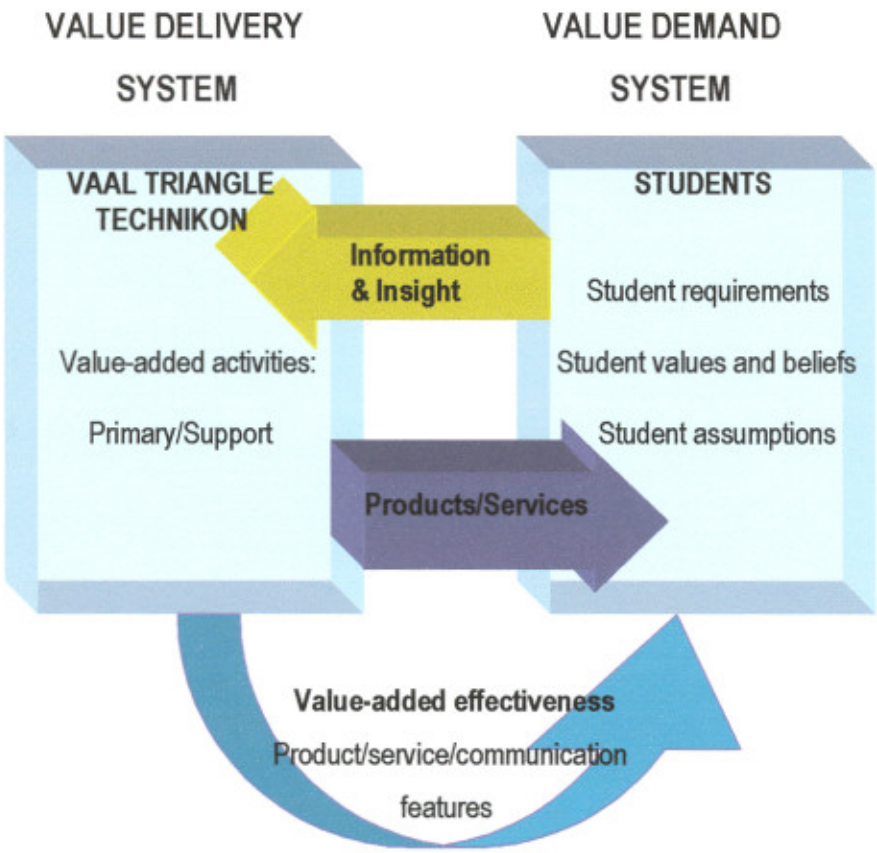
with the organization. They understand that that an organization is constrained by resources and technology (Stone, Woodcock & Machtynger, 2000:29). Many organizations spend huge amounts of money on activities that they perceive as delivering value to their customers, but they do not. These valuable resources are wasted.

For the purpose of this study, the activities of the Vaal Triangle Technikon, East Rand Campus are not going to be divided into primary and support activities, based on the mission statement. The customers/students are first asked which delivered activities (value added activities) would add value to their learning experience at the Vaal triangle Technikon, East Rand Campus. After the survey the identified value activities are then divided in primary and support activities. The reasoning behind this is based on one of the pure marketing concept's principles, namely customer orientation. This principle states that an organization should focus on customer needs first and coordinate all activities towards creating long-term customer relationships based on customer value and satisfaction (Strydom, Jooste & Cant, 2001:25).

The second theoretical model is Manning's Value Systems (Manning, 1998:203). Contrary to what many managers think, sustained superior performance is not necessarily the product of a SWOT analysis. Of all the factors that affect long-term financial performance, customer loyalty is far the most important (Kim & Mauborgne, 1997:22).

The purpose of business activity is to put together a set of relationships, which maximize added value. Symbiotic partnerships raise customer's costs of buying elsewhere and raise competitors' costs of attacking you. The tighter the bonds, the higher the barriers (Kay, 1993:78).

Figure 1.1: Value-added activities of the Vaal Triangle Technikon, East Rand Campus.



Source: Adapted from Manning (1998:203)

Today most companies boast about their customer service. "Customer intimacy" has almost become a cliché. Companies spend fortunes to capture and keep customers loyal yet customers still leave companies for their competitors.
According to Manning (1998:204), this situation will continue to happen as long as managers think their view of the world is the only view. Too much strategizing in companies is aimed at persuading customers to see things from the companies' perspective, rather than clearly understanding the customers view point. Companies and their customers live in different worlds.

Each has their own ways of thinking and seeing, their own mental models, their own value systems, and their own needs and wants (Reichheld, 1996:20). Connecting these different worlds isn't easy. Strategy must connect the customer's value demand system and the company's value delivery system. The two value systems change over time. When the customer's value system changes, the company's value system should also change (Manning, 1998:205).

The conceptual framework is a combination of Porter's (1985:26) value chain and Manning's (1998:203) value systems. Refer to figure 1.1.

1.4 DEFINING TERMINOLOGY

- **Marketing concept:** The management philosophy that holds that achieving organizational goals depends on determining the needs and wants of customers and delivering the desired satisfaction more effectively and efficiently than competitors do (Kotler & Armstrong, 2001: 18).

- **Student delivered value:** The students' assessment of the product/service's overall capacity to satisfy his or her needs. The difference between total student value and total student cost – "profit" to the student (Horovitz, 2000:19).

- **Student values and beliefs:** A descriptive thought that a person holds about something (Doyle, 1998:51). According to Schiffman & Kanuk (2000:474) consumer values and beliefs refer to the accumulated feelings and priorities they have concerning "things". Beliefs consist of a very large number of mental or verbal statements, which represents a person's particular knowledge, and assessment of "something" (person, organization, product, service, or brand).

- **Value-added activities:** Those new product solutions, and/or new ways of providing service and support to customers, and/or new ways of interacting with

customers that truly improve their experience with the organization (Fahey, Srivastava, Sharon & Smith, 2001:3).

- **Value-added effectiveness:** Effectiveness is a measure of the level of value, which can be created from a given level of resources. The assessment of effectiveness is essentially related to how well the organization is matching its products/services to the identified needs of its chosen customers. Unlike cost analysis, the potential sources of value added or effectiveness are likely to be many and varied (Johnson & Scholes, 1999:169).

- **Value chain:** The value chain consists of all the resources and processes required to generate and quantify the demand for a product/service, acquire materials and skills, turn those materials and skills into products/services, deliver the product to customers, and collect revenues from those sales. This is described as a chain because each process is dependent on the rest of the chain. A failure in any one process affects the rest (Rippenhagen, 2002:24).

- **Value:** According to the Oxford Dictionary (Hawkins, 2000:748) value is the amount of money or other commodity or service etc. considered to be equivalent to something else or for which a thing can be exchanged. Value is also defined as the desirability, usefulness, or importance of a thing. It is also the difference between the values the customer gains from owning and using a product/service and the costs of obtaining the product/service (Irons, 1997:57).

1.5 PROBLEM STATEMENT

The goal of this study is to determine those activities of the Vaal Triangle Technikon, East Rand Campus that will truly add value to the students learning experience at the institution. These activities are determined by conducting an empirical study.

This study determines those activities by enquiring from the students themselves, which activities adds value to their learning experience. As mentioned above the technikon and their students live in different worlds with different viewpoints. Instead of just assuming that by the provision of activities described in the mission statement, management delivers value to the students, the goal is to ask the students themselves. The empirical study is supplemented with a literature study of theoretical models and literature relevant to delivering value to customers.

The purpose of these investigations is to develop a model for the Vaal Triangle Technikon, East Rand Campus that can be used by management to evaluate and improve the value they deliver to their students. The core focus of this study is only the development of the value-added model. This study is a preliminary investigation into the issues that will form the make-up of this model. The development of measurements; and the implementation and refinement of this model at the Vaal Triangle Technikon, East Rand Campus will be the focus of a follow-up study that can be conducted for a doctorate qualification. The most important aim of the development of a value-added model is to help the Vaal Triangle Technikon, East Rand Campus to be a learning organization, where it constantly updates its understanding and ability to respond through knowing how it is performing relative to its external environment.

The goals of this study are categorized as the main objective and sub-objectives.

1.5.1 Main Objective

The evaluation of the Vaal Triangle Technikon, East Rand Campus's delivered value to its stakeholders.

1.5.2 Sub-objectives

- Determining value activities important to students studying at the Vaal Triangle Technikon, East Rand Campus.
- Ranking the important value activities for students at the Vaal Triangle Technikon, East Rand Campus.
- Developing a value-added model for the evaluation of the Vaal Triangle Technikon, East Rand Campus's delivered value to its stakeholders.

1.6 RESEARCH METHODOLOGY

The research methodology is quantitative in nature and is an empirical study. The investigation, however, is not an in-depth study of the topic. The research objective is one of exploratory research. Here the objective is to gather preliminary information that will help define the problem at hand (Kotler & Armstrong, 2001:140). This preliminary information is used to develop a value-added model for the Vaal Triangle Technikon, East Rand Campus. The statement of the problem and research objectives (refer to above) guides the entire research process.

The research methodology is divided into the major data collection methods as well as the sampling approach followed. The two major data collection methods used is secondary research and primary research.

1.6.1 Secondary Research

Internal as well as external secondary data sources has been consulted to form a better understanding of the topic and all the aspects the topic entails (Strydom, *et al*, 2001:97). Other research projects (very few were discovered) about similar topics were consulted to help in the structuring and studying of the topic. External secondary

sources were used to try and assist the researcher in determining generic value activities for institutions of higher learning.

1.6.2 Primary Research

Survey research was the approach used by the researcher. Survey research is the gathering of primary data by asking people questions about their knowledge, attitudes, preferences, and buying behaviour (Martin, Loubcher & Van Wyk, 1996:53).

Structured questionnaires with structured responses have been given to third year students of the Vaal Triangle Technikon, East Rand Campus. These questionnaires were completed at the technikon during lectures. The questionnaires were handed out in class and collected as soon as the questionnaires were completed. Students' experiences and opinions regarding the activities they think will add value to their learning experience at the technikon were investigated.

1.6.3 Sampling Method

Non-probability sampling was selected as sampling approach. The sampling method was convenience sampling. By using this method the researcher selects the population based on availability. The researcher used her judgment to select the population members who are good prospects for accurate information (Tull & Hawkins, 1993:79). In this study it was felt that input was required from the third year students since they have been on the campus longer and have a better understanding of how things operate on campus.

1.7 LIMITATIONS OF STUDY

The model is specifically developed for the Vaal Triangle Technikon, East Rand Campus. The identified value activities are as perceived by the third year students of the technikon only. As the purpose of the study is not the implementation of the model, the validity cannot be proven. The model cannot be generalized to other tertiary institutions. Once its validity has been tested, by implementing the model at the technikon, further applications can be considered. The implementation of the model falls outside the scope of this study and can be conducted as a follow-up study for a doctorate qualification.

1.8 CHAPTER OUTLINE

- **Chapter 1**: Introduction: Background to the study is given; problem awakening is described; fundamental terminology is defined; methodology used is briefly outlined and chapter outline is given.

- **Chapter 2**: Literature review of all relevant topic pertaining to value added concepts. Theoretical models are discussed and literature related to value added concepts and a tertiary institution is reviewed.

- **Chapter 3**: The research methodology followed is discussed with detailed reference given to sampling methods; data-collection methods and analytical methods followed.

- **Chapter 4**: Results analysis, interpretation of the findings, conclusions and recommendations is given. The value-added model is developed together with a discussion on how the model functions.

1.9 SUMMARY

Since it is becoming increasingly difficult for organizations to compete for the attention and loyalty of customers in the marketplace, organizations must move away from a product and selling philosophy to one of building customers. More and more organizations are competing for the rands and cents of the same customers. Only those organizations who can truly add value to their customers' experience of their market offering are organization that those customers stay loyal to. These realities are just as true for an institution of higher education.

The Vaal Triangle Technikon, East Rand Campus is such an institution of higher education. The main purpose of the study is to determine those activities of the Vaal Triangle Technikon, East Rand Campus that will truly add value to the students learning experience at the institution. These activities are used as an input into the development of a value-added model for the evaluation of the technikons delivered value to its stakeholders. The purpose of this chapter is to provide a conceptual framework to guide the development of a value-added model.

The research methodology during this study consists of an empirical study together with secondary research to gather information for a better understanding of the topic. The research objective is one of exploratory research to gather preliminary information that is in the development of a value-added model for the Vaal Triangle Technikon, East Rand Campus.In the following chapter theoretical models are discussed and literature related to value added concepts and a tertiary institution is reviewed.

CHAPTER TWO

LITERATURE STUDY

2.1 INTRODUCTION

As the millennium has come and gone, organizations are finding themselves facing challenges in the marketplace that may no longer be resolved by working harder on the same policies from the past to sustain customer loyalty. Many of the shortcomings facing organizations could be the fact that many managers form teams from each functional department to compete in separate groups to achieve set targets. These compartmentalized structures causes that customer development gets missed out in a rush to optimize each unit's own results. Servicing customers requires an organization-wide approach. Being just customer-conscious is no longer enough if large parts of the organization continue to handle tasks that have nothing to do with the external customer and perform their tasks in isolation (Anon, 1997:12).

Contributing to the above problem is the fact that management does not always understand the process-driven approach in the consumer service value-chain. As long as organizations remain rigid structures divided by functional departments key core processes such as product development and customer-delivery fulfillment are neglected (Doyle, 1998:6). This is one of the reasons the researcher has decided not to divide the Vaal Triangle Technikon, East Rand campus's activities in its logical functional departments.

One of the most important challenges facing organizations today is the measurement of the costs of the "knowledge" content of products and services. Economists now acknowledge that more value is added through design, styling, process re-engineering and a whole range of ill-defined activities. The concern is increasingly shifting to one of

identifying those non-added-value activities that do not justify continuing resources. Organizations are either stripping them out or re-deploying the resources to more profitable customer-related tasks (Grant & Schleisinger, 1995:17).

Changes in customer needs and perceptions have also emerged. Reverence for past experience concerning what the customer wants and how they can be reached is no longer a reliable guide to what is needed in today's globalized marketplace. Market and social conditions have changed, new technology and competitors have emerged; the environment in which companies must operate has changed. Companies need to develop an ongoing plan to retain customers. This requires monitoring outside events, habits, preferences and other customer features that could trigger off defections. Organizations should have a audit that they could conduct at least every three years were they review their current status in terms of value-added activities (Willman, 1997:7). The researcher believes that the development of a structured value-added model could be used by the Vaal Triangle Technikon, East Rand Campus as a continuous tool for the evaluation and improvement of the current value delivered to their students.

Customer satisfaction is, further more, not sustainable if vast parts of the organization are not capable of contributing to customer development and delivery system fulfillment. An insulated compartmentalized organization does not provide the best basis for satisfying the customer. The corporate budget process sometimes relies too much on reverence for the past and is too short-term-focused to be of use in providing a basis for an in-depth appraisal of long-term customer relationships. The organizations of the future need a broader range of skills and competencies than in the past: geo-demographics, customer value analysis and financial accounting (Galbraith & Lawler, 1993:217).

2.2 VALUE-ADDED

The term "value" can have many different meanings. For some, it is what you pay; for others, it is a service that brings truly innovative benefits that outstrip what is currently offered. It is firstly important to define value and then to determine how to translate the definition into day-to-day encounters. This is what allows the value to be expressed and received (Lynch, 1993: 52). Since the study is at the Vaal Triangle Technikon, East Rand Campus, the students are seen as their customers. The term student is seen as synonymous with customer and the two terms may be used interchangeably during the course of this study.

Students receive value when the benefits from a product or service exceed what it costs to acquire and use it. According to Horovitz (2000:20) this is the fundamental equation for calculating value. The greater the difference between the two, the higher the value (Value = benefits – costs: the benefit element of the equation). A benefit is what the product and/or service do for the student.

If the benefits provided by the product and/or service are greater then or different to those offered by other companies, but cost the same, then the organization is offering better value. If one of those benefits conferred is significantly better than what others are able to provide at equal cost, then the organization/technikon offer superior value (Jackson & Wang, 1996:133). It is apparent from the previous discussion that better or superior value of products or services is always compared to other organizations or competitors. It seems therefore necessary for an organization to compare its products or services with other organizations and competitors. This process is called benchmarking. For this reason a discussion on benchmarking follows later in this chapter.

2.2.1 Creating Customer Value

As stated previously in chapter one more and more companies are competing for the rands and cents of the same customers. Only those companies who can truly add value to their customer's experience of their market offering are the companies that those customers stay loyal to. There are several ways in which extra value can be provided through the benefit side of the equation. One-way is to focus on one or a few of the products' or service's attributes and expanding the benefits offered beyond the current range. For the Vaal Triangle Technikon, East Rand Campus, this could mean expanding the current number of courses offered and/or improving speed and efficiency of the registration process and/or improving the professionalism of academic and administration staff.

The Vaal Triangle Technikon, East Rand Campus can also extend the benefits by creating solutions. This means additional products/services are provided to create complete solutions for the students learning experience. Opportunities for extending value exist before, after and around the classical activities the student carries out with the technikon. Examples of this could be providing educational, as well as, social support activities, such as study support, on-line learning and sport and recreational activities.

Most solutions have some element of value added which sets them apart from being a pure commodity. Even a commodity may be chosen by the consumer from a particular source because there is recognition of a guarantee of quality, and so has an added value. According to Day (1990:62) over time many of these added values themselves become simply accepted, only being remarkable if they are absent. These then are threshold values and such values are critical to customer satisfaction. Because they have become normality, however, they rarely offer distinctiveness. They do not make the supplier of these values stand out from competition.

To be distinctive, values have to be additional, or incremental. Such incremental values are those values, which create difference in the eyes of the student, meeting a need which competition fails to touch, at least as adequately (Irons, 1997:34). It is also important to remember that what was valued by the consumer at a particular point in time, no longer is a reasonable or satisfactory solution. The consumer has moved on and has built a collective experience, which sees a need for new solutions, and, so, new definitions of satisfaction are required (Horovitz & Panak, 1995:179). This statement confirms the need that organizations have to survey the ever-changing satisfaction needs of their customers on ongoing bases. If this statement is true for any organization it must be true for the Vaal Triangle Technikon, East Rand Campus.

The third way to create value through additional benefits is to go from a solution to a positive "experience". This implies adding intangibles to the tangible. This experiential dimension is not limited to certain industries. In every business, there are elements that will improve the "experience" a customer gets from an organization. For the Vaal Triangle Technikon, East Rand Campus such elements could be:

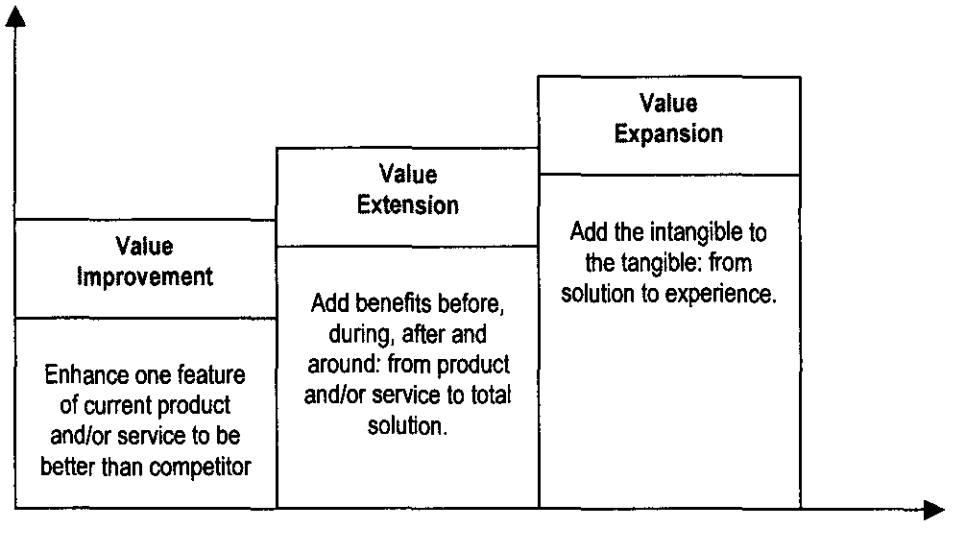
- Peripheral elements such as the student's account: is it easy to understand and does it clearly indicate all cost items?
- The relationship created: is there an open relationship with two-way communication between the technikon and its students?
- The core element - use of the product. Is it easy for the student to learn and understand how the technikon operates? Are the students provided with user-friendly documentation and/or a hotline?

According to Treacy & Wiersema (1998: 86) organizations can gain leadership positions by delivering superior value to their customers. Organizations can pursue any one or all of three strategies, called value disciplines, for delivering superior customer value:

- *Operational excellence:* The organization provides superior value by leading its industry in price and convenience. It works to reduce costs and to create a lean and efficient value-delivery system.
- *Customer intimacy:* The organization provides superior value by precisely segmenting its markets and then tailoring its products and/or services to match exactly the needs of the targeted customers. It specializes in satisfying unique customer needs through a close relationship with and intimate knowledge of the customer.
- *Product leadership:* The organization provides superior value by offering a continuous stream of leading-edge products and/or services that make their own and competing products obsolete.

The three ways to increase value through benefits is summarized in figure 2.1.

Figure 2.1: Three ways of increasing value through benefits.



Source: Berry (1995:133)

2.2.2 Analyzing Value Added (Effectiveness)

Effectiveness is a measure of the level of value, which can be created from a given level of resources. The assessment of effectiveness of the Vaal Triangle Technikon is essentially related to how well the technikon is matching its products and/or services to the identified needs of its students and the competencies necessary to underpin this effectiveness (Johnson & Scholes, 1999:171). If the technikon is to compete on a value-added basis, it is important to remember that a detailed assessment of value-added must be done from the viewpoint of the student. Although this may seem a self-evident statement, many organizations, including tertiary institutions, do not do this for certain reasons:

- Value of the product and/or service is often conceived by top management and not tested out with customers/students. It can result in a false view of what core competencies the organization need to satisfy customer needs. This may also result in distorted mission statements which influences the strategic direction an organization may take.
- Customer's/student's concept of value change over time – either because they become more experienced or because competitive offerings become available, which offer better value for money. In order to avoid some of these pitfalls it is becoming increasingly necessary to undertake research on customer perceived use value (Faulkner & Bowman, 1995:12).

2.2.3 Analyzing Perceived Value by Customers

Before any organization, including the Vaal Triangle Technikon, East Rand Campus can be competitive they need to have a clear understanding of what activities are valued most by their customers/students (Johnson & Scholes, 1998:133). This cannot be done by the technikon by just sitting around and reflecting on how their students view the world. In-depth research needs to be done to reveal the issues from the students'

perspective (Blanchard, Carlos & Randolph, 1995:112). This analysis of perceived value may be done as follows:

- The first step is to identify the relevant student segment within which students and competitors can be identified.
- The second step is to ask what characteristics/activities of the product and/or service students value most. This may be done by research, for example conducting a survey among the relevant students.
- The third step is to rate how important these characteristics/activities are to the students, from most important to least important.
- Different competitors can then be profiled against the characteristics/activities, which have been identified in order to consider the relative strengths of competitors. This step falls outside the scope of this study, since it is only an exploratory study, but will be followed in the follow-up study (Dyson, 2000:415).

2.3 CUSTOMER RELATIONSHIPS

The importance of customer/student focus is clear from the points raised so far. Without such a focus it would be difficult for any organization to build around the experiences their customers internally construct. Sadly, in many organizations the term customer focus is merely a way of redressing what they do already, but in customers' terms. If an organization is to be truly marker-led, then it is necessary for it to be driven by customers. Its ambitions and aims should be fulfilled through customers having their problems solved (Beinhocker, 1999:96).

Customer relations can be misdirected if it is not focused on the opportunity to consolidate business processes with customers. As stated previously, most organizations within an industry have access to the same raw materials, skills and technologies. An organization must be able to bring something extra to the customer's table. The creating, maintaining and enhancing strong relationships with its customers

and other stakeholders will enable organizations to add more value to customers' experience. According to Clancy & Shulman (1994:82) relationship management can be defined as the process of creating, maintaining and enhancing strong, value-laden relationships with customers and other stakeholders. The key to building lasting relationships is the creation of superior customer value and satisfaction. An organization can improve its offer in two ways:

- First, it can increase total customer value by strengthening or augmenting the product, services, personnel, or image benefits of its offer.
- Second, it can reduce total customer cost by lowering its price or by lessening the buyer's time, energy, and psychic costs (Anderson & Narus, 1998:55).

Highly satisfied customers produce several benefits for the organization. Satisfied customers are less price sensitive, talk favorably to others about the organization and its products/services, and remain loyal for a longer period of time. A slight drop from complete satisfaction can create an enormous drop in loyalty. This implies that organizations, such as the Vaal Triangle Technikon, East Rand Campus, must aim high if they want to hold on to their students. Customer delight creates an emotional affinity for a product and/or service, not just a rational preference, and this creates high customer loyalty (Bolton & Lemon, 1999:175).

2.4 THEORETICAL MODELS

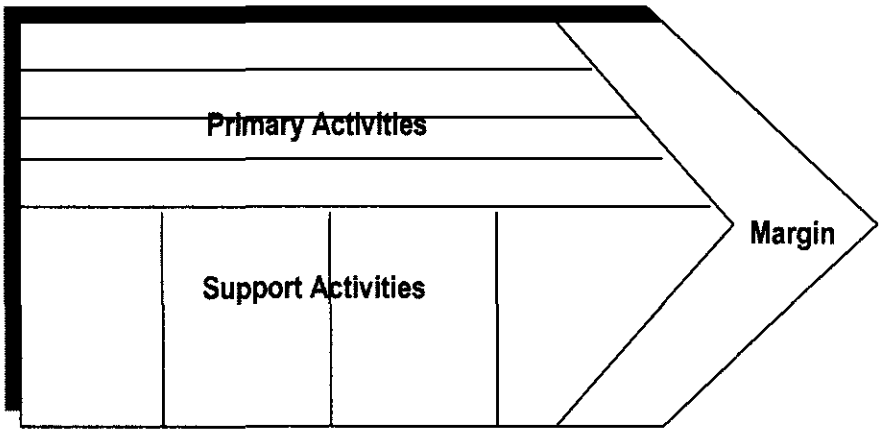
2.4.1 Porter's Value Chain

Each organization department can be thought of as a link in the organization's value chain. That is, each department carries out value-creating activities to design, produce, market, deliver, and support the firm's products and/or service. The organization's success depends not only on how well each department performs its work, but also how well the activities of various departments are coordinated. The value chain analysis

assists organizations to relate activities within and around the organization, to an analysis of the competitive strengths of the organization (Hamel & Prahalad, 1990:79).

Value analysis was originally introduced as an accounting analysis to shed light on the "value added" by separate steps in complex manufacturing processes, in order to determine where cost improvements could be made or value creation improved, or both.

Figure 2.2: Porter's Value Chain.



Source: Johnson & Scholes (1999:158)

The two basic steps of identifying separate activities and assessing the value added by each activity were linked to an analysis of an organization's competitive advantage by Michael Porter (1985:25). According to Duncan, Ginter & Swayne (1998:7) the primary analytical tool of strategic cost analysis is a value chain identifying the separate activities, functions, and business processes that are performed in designing, producing, marketing, delivering, and supporting a product and/or service.

The chain of value-creating activities it takes to provide a product and/or service usually starts with raw material supply and continues on through parts and components production, manufacturing and assembly, wholesale distribution, and retailing to the

end user of the product and/or service. The value chain normally provides a profit margin as measure of the added value, in term of cost savings, to the consumer. This profit margin is not applicable to the Vaal Triangle Technikon, East Rand Campus, since it is a non-profit organization.

The term value chain describes a way of looking at a business as a chain of activities that transform inputs into outputs that customers' value. Customer value derives from three basic sources, namely activities that:

- differentiate the product;
- lower its costs;
- meet the customer's needs quickly (Pearce & Robinson, 2000:206).

One of the key aspects of value chain analysis is the recognition that organizations are much more than a random collection of machines, money and people. These resources are of no value unless deployed into activities and organized into routines and systems, which ensure that products and/or services are produced which are valued by the final consumer. Porter argued that an understanding of strategic capabilities must start with and identification of these separate value activities. That is therefore the purpose of this study as an initial identification of the value activities indicated by the students, through a survey.

Porter identified primary and support activities. Primary activities are directly concerned with the creation or delivery of a product and/or service. Support activities help to improve the effectiveness or efficiency of primary activities (Rappaport, 1996:183). Refer to figure 2.2 for an example of a typical value chain.

In most industries it is very rare that a single organization undertakes all the value activities from the product design through to the delivery of the final product and/or service to the final consumer. There is usually specialization of role and any one organization is part of the wider value, system that creates a product and/or service.

The wider value system falls outside the scope of this exploratory survey, since only the Vaal Triangle Technikon, East Rand Campus's value activities are identified. However, the researcher must take cognizance of the wider system in the development of the value-added model.

2.4.2 Manning's Value Systems

According to Manning (1998:203) there are two major role players as systems in the delivering of value. These are the organization and the customer. For the purpose of this study the systems would be the Vaal Triangle Technikon, East Rand Campus, and their enrolled students. These two systems are each unique with its' own needs, values, experiences and expectations. In Manning's (1998:204) point of view too much strategizing in organizations is aimed at persuading customers to see things the organization's way rather than to clearly understand the way of the consumer.

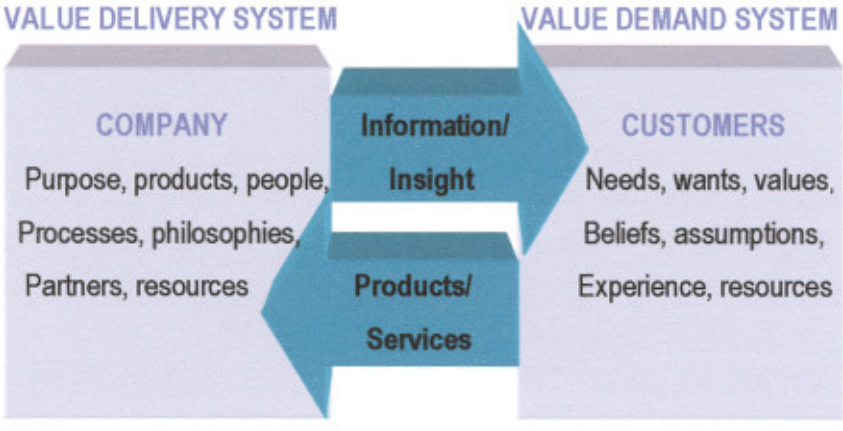
Organizations and their customers live in separate different worlds. In order for organizations to provide customers with a valued product they must connect the customer's value demand system with the organization's value delivery system, and bond them tightly together. Connecting these different worlds is not easy. The two value systems change over time. When the customer's values change the organization must know about it.

To forge a binding relationship, the organization needs to clearly understand the customer's needs. The value delivery system must be designed to satisfy those needs. This principle also applies to the Vaal Triangle Technikon, East Rand Campus. In order for the technikon to provide their students with value-added products and services, they need to first understand what value activities are required by their students. This information can be obtained through research.

Customers are not all knowing. They are often conservative. Their imagination is often limited and they are technologically ignorant. But they are one of the most valuable

resources of an organization. Every organization must include their ideas and insights in the quest for competitive advantage. Refer to figure 2.3 for Manning's value systems.

Figure 2.3: Manning's Value Systems



Source: Manning (1998:205)

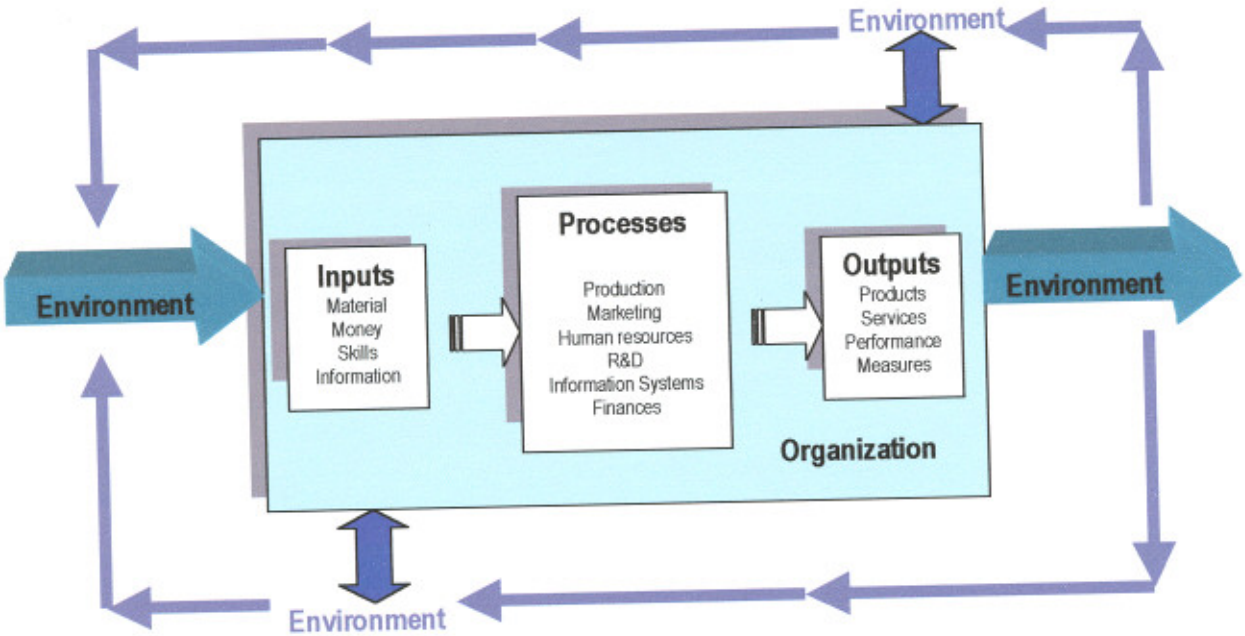
2.4.3 Open Systems

In order to develop a value-added model for the Vaal Triangle Technikon, East Rand Campus it is necessary to understand the systems theory and related topics. According to Kreitner & Kinicki, 2000:189) systems theory is a framework for seeing interrelationships rather than things. It is based on the premise that good performance results from a sequential process of transforming inputs into desired outputs. Systems theory further implies that behaviour is goal directed and that there are natural delays between actions and consequences.

An open system is an organism that must constantly interact with its environment to survive. The concept of systems and open systems comes from the physical sciences. Physical sciences view living organisms as systems whose various parts are interrelated, interdependent, and function as a whole. Also, as an open system these

living organisms interact with their environments by taking sustenance and other inputs and giving of outputs such as energy, waste, or other byproducts.

Figure 2.4: Organization as an open system



Source: Coulter (2002:78)

For this reason organizations can be viewed as open systems in much the same way a living organism is an open system. It takes it inputs and through some type of processing, produces outputs. The inputs have to come from somewhere and the outputs must be distributed somewhere (Coulter, 2002:76).

According to Massaro (1999:146) institutions of higher education operate within their own unique environment, which have a direct influence on how they function. The Vaal Triangle Technikon, East Rand Campus, can also be viewed as an open system. They interact with their external environment by taking inputs such as materials, human effort, money and information, transforming it and providing outputs such as academic courses, student and staff support, and community outreach programs.

As an open system the Vaal Triangle Technikon, East Rand Campus, do not operate as an isolated entity, and is affected by its environment and can also have an impact on its environment. In the development of an value-added model it is very important to understand all the forces that shape the value offered by the Vaal Triangle Technikon, East Rand Campus, since they operate as an open system in an environment. Figure 2.4 shows a simple example of an organization as an open system.

2.4.4 The Marketing Concept

The marketing concept is a philosophy of customer satisfaction and mutual gain. The marketing concept holds that achieving organizational goals depends on determining the needs and wants of target markets and delivering the desired satisfaction more effectively and efficiently than competitors do. This management philosophy takes an outside-in perspective. It starts with a well-defined market; focuses on customer needs, coordinate all activities affecting customers, and makes profit by creating long-term customer relationships based on customer value and satisfaction. Under the marketing concept, customer focus and value are the paths to sales and profit (Kotler, 1999:19).

Many organizations claim to practice the marketing concept but do not. Implementing the marketing concept means more than simply responding to customers' stated desires and obvious needs. Customer-driven companies research their current customers to learn about their desires. To be customer driven usually works well when clear needs exist and when customers know what they want. When customers do not know what they want or even what is possible, it is more the responsibility of the organization to understand customer needs even better than customers themselves do, and creating products and services that will meet existing and latent needs, now and in the future. When consumer are not certain of what they want the organization should study competitors offerings and do benchmarking to keep abreast with possible new value-adding solutions for their customers (Bowman & Asch, 1997:286).

In conclusion, the marketing concept guides the manner in which the activities in the organization are performed. In order to grow and survive in the long-term all organizations, whether they are profit seeking or non-profit seeking, should apply the principles of the marketing concept. The organization as a whole must direct all of its actions at satisfying consumer needs and preferences within the limitations of its resources. Each decision taken within the organization must be taken with due consideration to customers' needs and preferences.

A critical prerequisite for achieving customer satisfaction is total employee involvement. Every department in the organization must clearly understand the importance of their role in achieving customer satisfaction. This quest for customer satisfaction must be a continuous process as customer needs are continually evolving. The organization must start with the customer to end with the customer (Bevan, 2000:4).

2.5 BENCHMARKING

Benchmarking is the process of comparing the organization's products, services and processes to those of competitors and/or leading firms in other industries to find ways to improve quality and performance. Benchmarking has become a powerful tool for increasing an organization's competitiveness (Kotler & Armstrong, 2001:684).

If value chain activities are to be performed as effectively and efficiently as possible, each organizational unit needs to benchmark how it performs specific activities against best-in-industry competitors. A strong commitment to searching out and adopting best practices is integral to implementing strategy and then continuously improving on how well it is executed. Benchmarking how well an organization performs particular activities and processes provides valuable yardsticks and represent solid methodology for identifying areas in which to improve (Johnson & Scholes, 1999:181).

The tough part of benchmarking is not whether or how to do it but rather gaining access to information about companies' practices and costs. Benchmarking can be accomplished by collecting information from published reports, trade groups, and industry research firms. Talking to knowledgeable industry analysts, customers and suppliers will also help gathering information. Usually, though, benchmarking requires field trips to the facilities of competing and non-competing organizations to observe how things are done, ask questions, compare practices and processes, and exchange data.

The problem is that benchmarking sometimes involves competitively sensitive information and competitors cannot be expected to be completely open (Thompson & Strickland, 2001:136). In short, the objectives of benchmarking are to identify the best practices in performing n activity, to learn how other organizations have actually achieved better results, and to take action to improve an organization's competitiveness whenever benchmarking reveals that its costs and results of performing an activity do not match those of other organizations (either competitors or non-competitors).

Based on the above discussion it is clear that benchmarking should be included in the development of a value-added model for the Vaal Triangle Technikon, East Rand Campus. This inclusion of benchmarking in the model is of further importance since the technikon is viewed as an open system.

2.6 SUMMARY

Since only those organizations who can truly add value to their customers' experience of their market offering are the organizations that those customers stay loyal to, it is evident that the concept of value should be clearly understood. Organizations can gain leadership positions by delivering superior value to their customers. This chapter therefore reviews all the relevant topics regarding value-added such as - creating

customer value; analyzing perceived value by customers; and value-added effectiveness. For the development of a value-added model relevant theoretical models and related topics such as – Porter's value chain; Manning's value systems; customer relationships; and benchmarking, are discussed.

Before any organization, including the Vaal Triangle Technikon, East Rand Campus can be competitive they need to have a clear understanding of what activities are valued by their customers/students. The in-depth research process, which is needed to analyze the perceived value, is discussed in the following chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Research is the process, which involves the planning, gathering, and analyzing information relevant to a specific decision or problem. The main sources of this information include secondary data sources and primary data collection (Bevan, 2000:56). For the purpose of this study, secondary data and primary data were utilized.

According to Irons (1997:172) research is the systematic investigation; collation and analysis of information on specific aspects in the environment an organization compete in. The term systematic is of particular importance. A considerable amount of knowledge, information, first-hand experience of markets and beliefs are available. Unless it is collected in a systematic – not necessarily in a complex way – a lot of valuable data goes to waste, which could have been used to improve performance and decision-making. So research is developing understanding of an organization and what it offers relative to existing and potential markets.

3.2 RESEARCH APPROACH

There are different types of research studies that may be undertaken. Here is a brief discussion of four types of research studies as highlighted in Bevan (2000:61):

- *Exploratory research:* This type of study is done to learn more about the nature and scope of a specific problem and to investigate the more likely solutions. Often the researcher will have no formal hypothesis and may be interested in studying a new phenomenon.

- *Descriptive research:* The purpose of this type of research is to provide a more accurate picture of some aspect of the market such as the estimation of demand or identification of the target market in terms of demographics and psychographics.
- *Causal research:* This type of research is used to determine cause-and-effect relationships between variables. Such research is common in experimental studies. The researcher has some control over the conditions of the experiment. Tull & Hawkins (1993:188) define experimentation as the manipulation of one or more variables by the experimenter in such a way that its effect on one or more other variables can be measured.
- *Ex post facto research:* Ex post facto means "from what is done afterwards". The phrase also means "after the fact" or "retrospectively" and refers to those studies which investigate possible cause-and-effect relationships by observing an existing condition or state of affairs and searching back in time for possible causal factors (Cohen & Manion, 1995:146).

As stated in section 1.7, the chosen approach for this study is exploratory research using questionnaires with quantifiable responses to learn more about the nature and scope of the value-added activities preferred by the students of the Vaal Triangle Technikon, East Rand Campus. Questionnaires as a contact method will be discussed in more detail in section 3.5. Stone, *et al* (2000:89) states that quantitative research involves running detailed questionnaires on many respondents. Questionnaires are usually structured, mostly requiring specific answers, although room may be left for a broader range of responses. Quantitative research generally involves the collection of primary data from large numbers of individuals, frequently with the intention of projecting the results to a wider population. The aim is to generalize about a specific population, based on the results of a representative sample of that population (Martin, *et al*, 1996:125).

3.3 DATA COLLECTION APPROACH

Information is the very foundation of research. Without information or data it is not possible to make analyses, draw conclusions or put forward recommendations. There are two main sources of data: primary and secondary. Secondary data are defined as existing data, which can be used in solving the problem at hand. Primary data are original data collected specifically for solving the problem at hand (Martin, *et al*, 1996:99). Secondary data as well as primary data were used in the research process of this study.

3.3.1 Secondary Research

Secondary research plays a vital role in the research process. Because secondary data by definition are existing data, such data have the advantage of being readily available, whereas there is an inevitable delay before the results of primary surveys become available. Secondary data are most useful in the spheres of formulating the decision problem, suggesting methods and types of data for meeting information needs, and serving as a source of comparative data for the interpretation and evaluation of primary data (Kinnear & Taylor, 1994:182).

Bailey (1988:295) defines secondary research as the analysis of a document or data gathered or authored by another person. The secondary analyst generally has a research goal different from that of the first researcher. The advantages of secondary research are:

- Saving of time and money by use of available data rather than collection of original new data.
- Less invasion of privacy by using existing data rather than collecting new data.
- Ease in making comparative analyses (Bailey, 1988:296).

The researcher is seldom fortunate enough to find secondary data that meet every requirement. Very often it is not available in the required format, or its format and method of collection and scope are compromise designed to satisfy a large number of interested parties. Tull & Hawkins (1993:84) mention four common problems, which reduce the relevance of secondary data:

- Different units of measurement than what is required by the researcher.
- It may be necessary to use surrogate data because the specific required information is not available.
- The definition of classes or categories may vary greatly.
- Relevant information may well be available but not for the required time period.

Different books and published articles relevant to the topic under investigation were consulted to help the researcher in the problem formulation, research design, and together with the primary survey, the development of the value-added model.

3.3.2 Primary Research

There are different methods that can be used for gathering primary data. Three of those methods are observational research, survey research, and experimental research (Kotler & Armstrong, 2001:144). The survey method is the selected method for this study. Survey research is the most widely used method for primary data collection, and is often the only method used in a research study.

The major advantage of survey research is its flexibility. It can be used to obtain many different kinds of information in many different situations. Depending on the survey design, it also may provide information more quickly and at lower cost than observational or experimental research. Survey research also presents some problems. Sometimes people are unable to answer survey questions because they cannot remember or have never thought about what they do and why. People may also be unwilling to respond to unknown interviewers or about things they consider private.

Respondents may answer survey questions even when they do not know the answer to appear smarter or more informed. Respondents may even try to help the interviewer by giving pleasing answers (Martin, *et al*, 1996:123).

Bevan (2000:61) describes the survey method of one, which involves gathering information by interviewing people. This interviewing may take place on a face-to-face basis; via the telephone; or it may involve written communication in the form of respondents completing the questionnaire themselves. Below are some examples of various survey techniques.

- *Structured single-call personal interview:* A separate sample of respondents is drawn for each survey and a structured questionnaire is used.
- *Focus group interviews:* Groups are made up of between six to twelve people who are brought together to discuss a particular topic under the leadership of the interviewer. An unstructured approach is followed in the sense that open-ended questions are asked and respondents are encouraged to talk freely.
- *Telephone interviews:* Structured questions are asked with the aid of a telephone and responses are usually captured directly on a database.
- *Mail surveys:* Structured questionnaires are mailed to respondents and they are requested to complete it and return the completed form by mail.
- *Panels:* With this method a panel of a representative sample of respondents is brought together for the purpose of collecting data from them at regular and frequent intervals. Respondents are usually given a diary in which to record the data requested (Mulder, 1993:57).

The researcher applied a variation of the mail survey for the purpose of this study. A structured questionnaire were given to students at the Vaal Triangle Technikon, East Rand Campus. A more detailed discussion of the methodology followed is given in section 3.5.

3.4 SAMPLING PLAN

Ideally the researcher would like to study the entire population or universe, to give more weight to the findings. Because of time and money constraints the researcher often must settle for a sample. The logic of sampling is relatively straightforward. The researcher should first designate a population of interest. The researcher then attempts to select a subset of some predetermined size from this population. The subset should adequately represent the entire population so that the information gathered from the subset ideally could be representative of the entire population.

It will be difficult to supervise all interviews adequately and to give attention to all the detail. Having fewer, but more careful interviews, would be better. Problems of record keeping are much greater if an entire population is used. More records simply provide more opportunity for greater error. Another final advantage of the sample over the full population survey is that the sample may achieve a greater response rate and greater cooperation in general from respondents and thus may be more accurate (Bailey, 1988:84).

3.4.1 Universe/Population versus Sample

The term universe or population means a group that is homogeneous in terms of one or more characteristics as defined by the researcher. With this defining of a group the researcher has a specific purpose at hand. A population is normally large in size, although size is not the determining factor.

A sample is a group that is selected out of the population. A sample is smaller in size, but still representative. A sample must always be viewed as an approximation of the whole rather tan as a whole itself. The purpose of sampling is to present the researcher with a more manageable group for research purposes. If the sample is representative of

the population, information gathered from the sample can be generalized to the greater population (Mulder, 1993:55).

For the purpose of this study the population has been defined as all registered third year students at the Vaal Triangle Technikon, East Rand Campus. The third year students were chosen because they have the most experience with the technikon and how it operates. According to Wilcox & Ebbs (1992:43) students are important to the character of the institution in that they are the material for much of its work. They come with personal inclinations and then informally relate to one another in patterns that uphold their predispositions or alter them. As a result the student body becomes a major force in defining the institution.

Therefore, for the purpose of this study, their opinions, beliefs and attitudes are very important in establishing the most important value activities the technikon should pursue to measure and improve.

No specific sample size was decided upon and all available third year students were used to complete the questionnaire. By all available third year students, it is meant that only the ones that were on the campus and attending the classes in the particular week the questionnaires were distributed, were the ones chosen for the sample. One-hundred-and-sixty-eight (168) students completed the questionnaires. There are three-hundred-and-ten (310) third year students currently registered at the Vaal Triangle

Technikon, East Rand Campus, which implies that the samples represent 54% of the possible population. The one hundred and sixty eight students are from all the different courses offered at the campus. Since the type of course studied should not play a role in determining overall activities valued by the average student, students were not identified by course studied.

3.4.2 Sampling Technique

The sampling technique that was used in this study is one of non-probability, namely convenience sampling. Convenience sampling is when respondents are selected on the basis of convenience or availability. The convenience sample is a useful tool in the exploratory research project in which ideas and insight are more important than scientific objectivity (Martin, *et* al, 1996:253). All the available third year students that were on campus at the time the questionnaires were handed out, formed part of the sample.

In non-probability sampling the probability that a student will be chosen is not known. The obvious disadvantage of this technique is that the researcher cannot claim that the sample is representative of the larger population. This greatly limits the researchers ability to generalize the findings beyond the specific sample studied. The researcher tried to give more third year students an equal chance of being chosen by distributing the questionnaires via the lecturers on different days of the week. Due to time restraints the questionnaires were only distributed in class for a time period of one week. Any absent student had no chance of being chosen as sample element. The final number of students who did complete the questionnaire were 168 (section 3.4.1) who represents 54% of the selected population. The findings of the study may therefore be seen as the opinions of the third year students of the Vaal Triangle Technikon, East Rand Campus.

3.5 CONTACT METHOD

3.5.1 Research Instrument

A variation of the mail survey has been chosen as the contact method for this study. A structured questionnaire with structured responses were developed and made available to the students. Because of time and money constraints the questionnaires were not

mailed to the chosen sample, but handed out during class time under the supervision of the researcher, with the help of the lecturers. The questionnaires required twenty minutes to be completed.

Strydom (1994:162) defines a questionnaire as a standard of set questions about some aspects of individual's life history, feelings, preferences, or actions presented in a standard way and scored with a standard scoring sheet.

The purpose of the questionnaire to the students is to:

- Determine the which activities at the Vaal Triangle Technikon, East Rand Campus, will contribute to an increase in the value the students receive when studying at the technikon.
- Determine the activities' degree of importance.
- Rank the activities in terms of degree of importance.
- Give students the opportunity to add activities not included in the questionnaire.

3.5.2 Questionnaire Development

Taking the above criteria into consideration, one questionnaire was developed and distributed to the students of the Vaal Triangle Technikon, East Rand Campus. The following aspects were adhered to in the development of the questionnaire:

- The questionnaire was pre-tested among a third year class. The students' feedback was used to correct mistakes and unclear questions.
- The questionnaire was prepared only in English because the communication medium in class is mainly in English.

The questionnaire consists of four questions. Questions 1 to 3 are closed-ended questions and question 4 is an open-ended question. Close-ended questions have fixed alternatives, in which the respondent select one or more of the specific categories

provided by the researcher. Open-ended questions are questions in which response categories are not specified (Bailey, 1988:119).

Statements 1.1 to 1.14 are **Likert scale statements**, which require a respondent to indicate a degree of agreement or disagreement with a series of statements, related to the attitude object. The sum of these statements reveals the attitude to or perception of the students towards certain activities at the technikon. Questions 1.3, 1.5, 1.11, 1.12, and 1.14 are negative statements used to check reliability.

Statements 2.1 to 2.19 require from the students to indicate the degree of importance of nineteen different activities when they select a technikon to study at.

Question 3 uses the same activities as question 2, but here the students are required to rank the activities in terms of importance to them as students. This is done in accordance to the steps followed when analyzing perceived student's value as discussed in section 2.2.3.

Question 4 is an open-ended question to allow the students more spontaneous responses regarding the activities they would prefer that the researcher did not envision when preparing the questionnaire. This provides for all possible answers. The complete questionnaire is available in Appendix 1.

3.6 SUMMARY

The chosen research approach for this study is exploratory research using questionnaires with quantifiable responses to learn more about the nature and scope of the value-added activities preferred by the students of the Vaal Triangle Technikon, East Rand Campus. The two main sources of data that are utilized are secondary data in the form of a literature review and primary data by means of the survey method.

The sampling technique that was used in this study is one of non-probability, namely convenience sampling. Structured questionnaires were distributed to third year students during class via lecturers. The number of completed questionnaires was one hundred and sixty eight who represents fifty four percent of the selected population. The research findings and recommendations are discussed in the following chapter.

CHAPTER FOUR

RESEARCH FINDINGS AND RECOMMENDATIONS

4.1 INTRODUCTION

Statistical data analysis is the culmination of the long process of problem formulation, data instrument construction, and data collection (Bailey, 1988:370). In this chapter the data gathered from the structured questionnaires are analyzed and interpreted. Conclusions are drawn and recommendations made. It is necessary to analyze the data so that the research questions can be answered. The statistical analysis is in an equation form supplemented by tables and graphs.

4.2 QUANTITATIVE RESPONSES FROM STUDENTS

The quantitative responses of the questionnaires completed by the students of the Vaal Triangle Technikon, East Rand Campus are discussed in this section. The analyses and interpretation of the responses will be given together with the quantitative analysis. This section together with the literature study is used as input into the development of the value-added model.

Remark:
The responses from question 1 and question 2 of the questionnaire (Appendix 1), require the student to attach a degree of agreeability or importance to statements made regarding activities at the Vaal Triangle Technikon, East Rand Campus. In order to compare the agreeability and importance of the responses, the researcher developed a formula, which will be named the agreeability and importance index, respectively. This formula was adapted from Geldenhhuys (1997:159). Values are assigned to the degree of agreeability and importance as follows:

Table 4.1: Agreeability Index (AI)

Strongly Agree	Agree	Neither Agree Or Disagree	Disagree	Strongly Disagree
5	4	3	2	1
(a)	(b)	(c)	(d)	(e)

(a), (b), (c), (d), and (e) is the response number for every category

Table 4.2: Importance Index (II)

Most Important	Important	Average Importance	Not very Important	Least Important
5	4	3	2	1
(a)	(b)	(c)	(d)	(e)

(a), (b), (c), (d), and (e) is the response number for every category

$$\text{AI / II} = \frac{[5 * (a)] + [4 * (b)] + [3 * (c)] + [2 * (d)] + [1 * (e)]}{5 * [(a) + (b) + (c) + (d) + (e)]} * 100\%$$

This "agreeability index (AI)" and "importance index (II)" is used for the duration of this section's discussion. The researcher emphasizes the fact that all the students did not necessarily complete all the statements; therefore the total number of responses is included per statement number.

4.2.1 Questionnaire responses

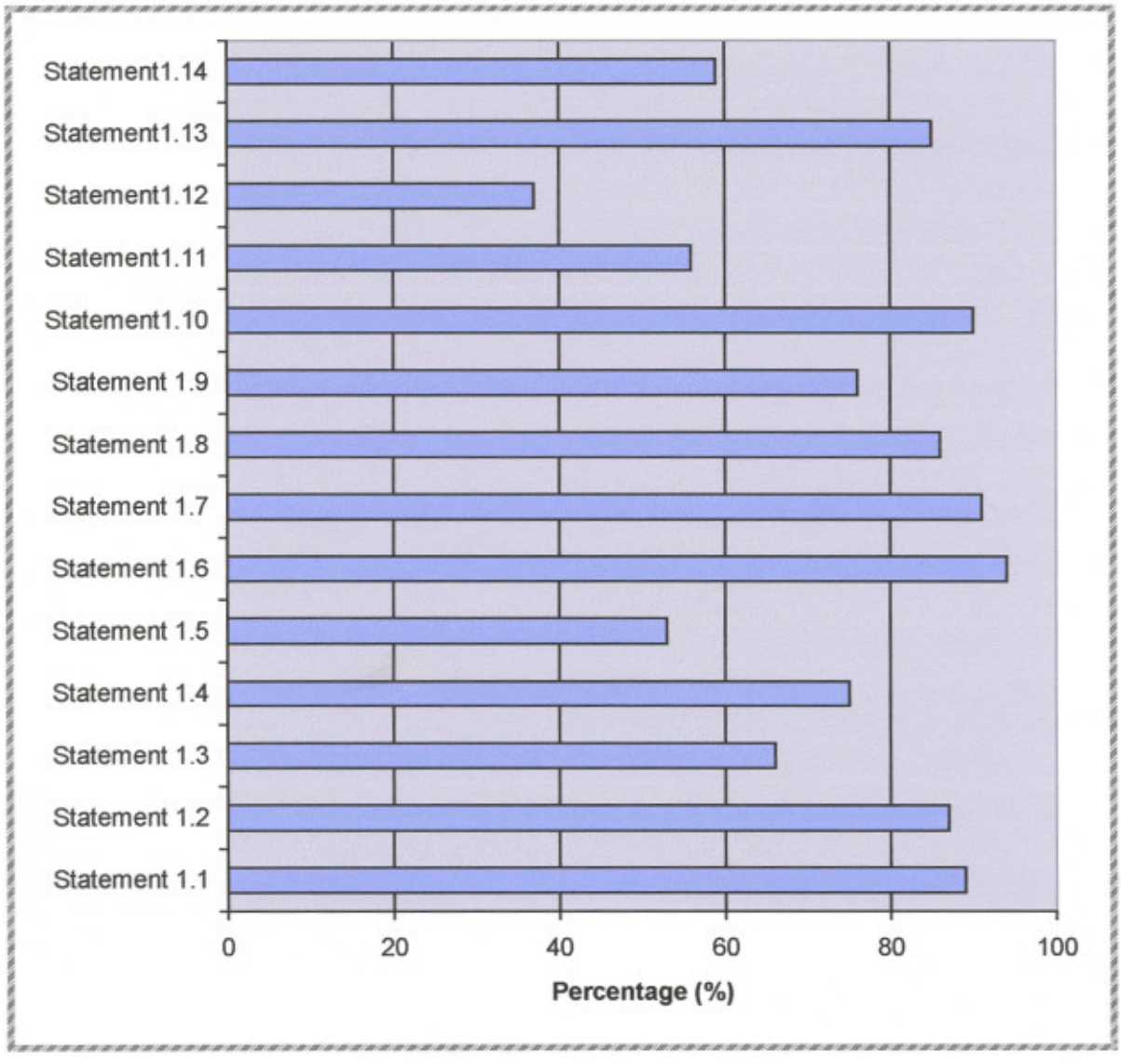
- ***Quantitative responses for Question 1***

Table 4.3: Quantitative responses for Question 1

Statement	Strongly Agree	Agree	Neither Agree Or Disagree	Disagree	Strongly Disagree	n =	AI (%)
1.1	89	69	9	1	0	168	89
1.2	69	86	6	3	1	165	87
1.3 (Negative)	11	4	3	57	93	168	100-34= 66
1.4	24	101	25	12	5	167	75
1.5 (Negative)	3	20	33	83	25	164	100-47= 53
1.6	134	26	2	2	3	167	94
1.7	96	64	4	1	1	166	91
1.8	95	47	10	10	5	167	86
1.9	32	92	28	9	6	167	76
1.10	96	58	8	2	0	164	90
1.11 (Negative)	10	11	22	80	43	166	100-44= 56
1.12 (Negative)	7	53	60	39	2	161	100-63= 37
1.13	63	88	6	7	1	165	85
1.14 (Negative)	11	6	10	88	50	165	100-41= 59

Statements 1.3, 1.5, 1.11, 1.12, and 1.14 are negative statements. Students, who indicated disagreement with the statement, would have agreed with the positive opposite of the statement. To calculate their agreeability index, the determined percentage is deducted from one hundred.

Figure 4.1: Agreeability Index (AI) for Question 1



- ***Quantitative responses for Question 2***

Table 4.4: Quantitative responses for Question 2

Question	Most Important	Important	Average Importance	Not very Important	Least Important	n =	II (%)
2.1	92	67	6	0	1	166	90
2.2	110	47	7	0	1	165	92.12
2.3	95	59	7	1	2	164	89.76
2.4	85	56	17	3	1	162	87.28
2.5	43	66	42	10	4	165	76.24
2.6	107	40	11	4	4	166	89.16
2.7	77	47	21	14	6	165	81.21
2.8	50	81	28	4	2	165	80.97
2.9	97	48	7	8	2	162	88.40
2.10	37	72	38	11	5	163	75.34
2.11	49	87	26	5	0	167	81.56
2.12	68	74	24	1	1	168	84.64
2.13	55	80	20	6	3	164	81.71
2.14	98	56	7	3	3	167	89.10
2.15	87	70	10	1	0	168	88.93
2.16	79	57	17	6	3	162	85.06
2.17	22	55	61	23	4	165	67.88
2.18	71	63	20	7	5	164	82.65
2.19	124	33	5	3	2	167	92.81

The importance index is given in the form of a graph as displayed in figure 4.2. The researcher ranked the nineteen activities, in order of importance, based on the results of the importance index (Table 4.3). These are the value activities, which are deemed the most important to the least important by the students of the Vaal Triangle

Technikon, East Rand Campus. These identified value activities serve as a starting point for the value-added model, since it determines which activities the technikon should focus on to increase the perceived value the students receive from studying at the technikon.

Figure 4.2: Importance Index (II)

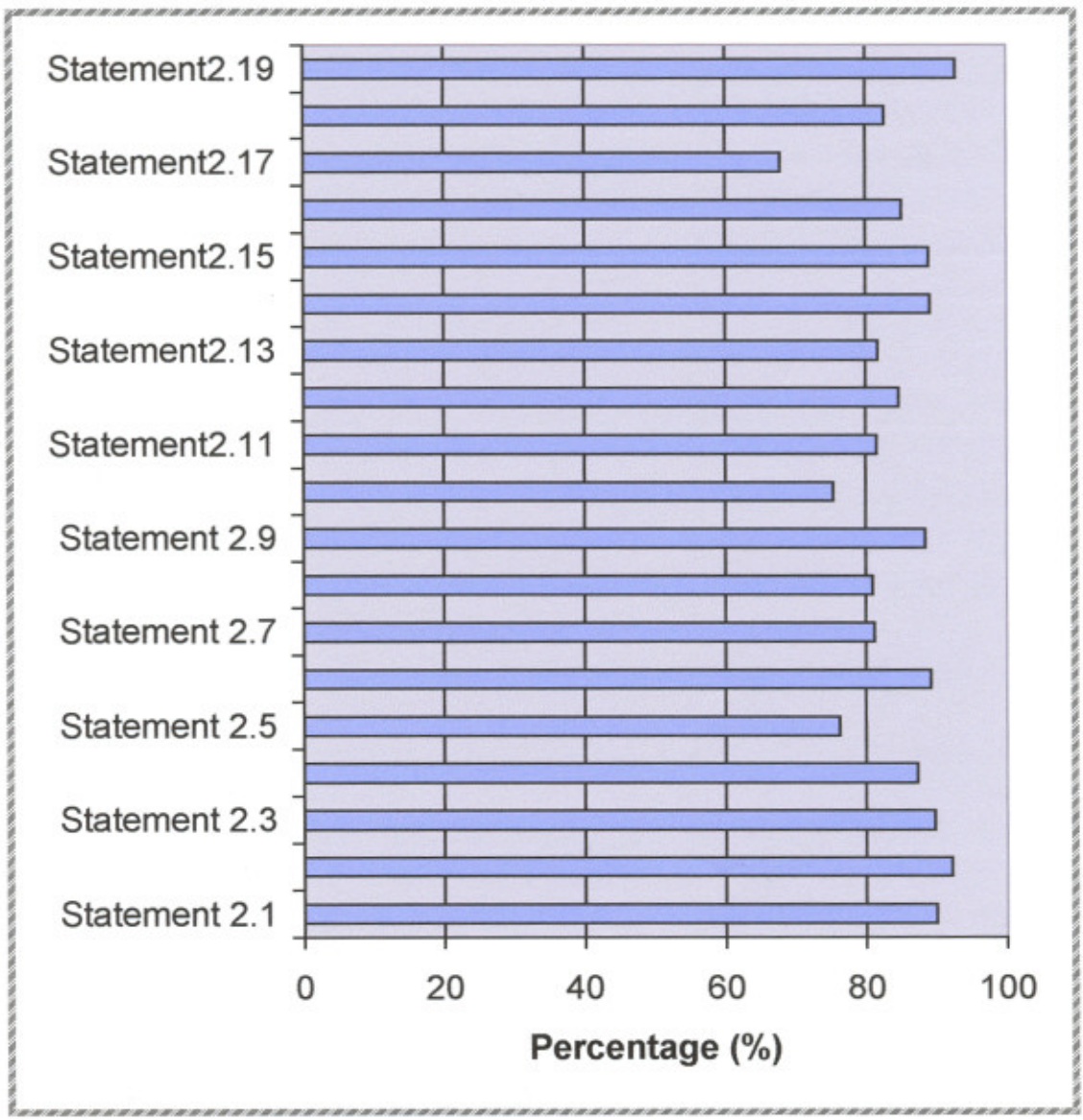


Table 4.5: Ranking of value activities based on the importance index.

Rank	Activity	Question Number	Importance Index
1.	Well-equipped facilities.	2.19	92.81%
2.	Availability of technology.	2.2	92.12%
3.	Highly qualified personnel.	2.1	90.00%
4.	High academic standards.	2.3	89.76%
5.	Location of campus.	2.6	89.16%
6.	Good relationships between staff and students.	2.14	89.10%
7.	Management commitment towards staff and student development.	2.15	88.93%
8.	Affordable class fees.	2.9	88.40%
9.	Study support.	2.4	87.28%
10.	Effective procedure for recruiting, training, and promoting all levels of employees.	2.16	85.06%
11.	Providing students opportunities to have input in improving processes and procedures.	2.12	84.64%
12.	Capability of technikon to identify new market opportunities and potential environmental threads.	2.18	82.65%
13.	Promptness to attend to student and staff complaints.	2.13	81.71%
14.	Efficient registration process.	2.11	81.56%
15.	Provision of hostels.	2.7	81.21%
16.	Technikon has a reputation of quality research.	2.8	80.97%
17.	Student activities.	2.5	76.24%
18.	Involvement in community outreach programs.	2.10	75.34%
19.	Sound relations with trade unions.	2.17	67.88%

- ***Quantitative responses for Question 3***

In question three the students are asked to rank the nineteen activities indicated in question 2, one being the most important, through to nineteen being the least important. Only seventy-one (71) out of the one-hundred-and-sixty-eight (168) students completed this question, which gives a completion rate of 42%. This implies that the findings of question three cannot be generalized to the whole population and thus

cannot be seen as the views of the registered third year students of the Vaal Triangle Technikon, East Rand Campus. However, the researcher decided to include the analysis of the seventy-one responses for the sake of completeness and interest. There is a correlation between the analysis of the importance index (table 4.3) and the analysis of question three (table 4.4), especially among the first ten activities, but the validity of the correlation can not be proven due to the low completion rate of the question.

Table 4.6: Average ranking order of value activities by students of the Vaal Triangle Technikon, East Rand Campus.

Activity	Average Ranking
1. Highly qualified personnel.	**5.671**
2. High academic standards.	**6.143**
3. Study support. E.g. tutors, supplemental training.	**6.381**
4. Availability of technology to staff and students.	**7.329**
5. Affordable class fees.	**7.466**
6. Location of technikon campus.	**8.285**
7. Good relationships between staff and students.	**8.810**
8. Efficient registration process.	**9.569**
9. Availability of well equipped facilities.	**9.910**
10. Provision of hostels.	**10.155**
11. Technikon has a reputation of conducting quality research.	**10.638**
12. Providing students opportunities to provide input to improve processes and procedures.	**11.155**
13. Capability of technikon to identify new market opportunities and potential environmental threats.	**11.380**
14. Management commitment to student and staff development.	**11.603**
15. Promptness in attending to student and staff complaints.	**12.034**
16. Effective procedures for recruiting, training and promoting all levels of employees.	**12.310**
17. Student activities. Eg. Sport, choir, associations.	**12.443**
18. Involvement in community outreach programs.	**12.483**
19. Sound relations with trade unions.	**14.517**

4.2.2 Student Suggestions

In question four students are given the opportunity to make any suggestion in terms of activities at the Vaal Triangle Technikon, East Rand Campus that would increase the value of their learning experience at the technikon. The question is in the format of an open question as to encourage students to give spontaneous answers. It is important to emphasize the fact that this question was not completed on all the questionnaires. There were questionnaires where the same suggestions were made by the students. The number of responses is written in brackets behind the given suggestion. The following suggestions were made:

- Availability of experiential training to third year students in all offered courses. ***(20 responses)***
- Better location for current campus with a student life. ***(15 responses)***
- Access to Internet to all students to develop research skills. ***(13 responses)***
- Provision of hostels to students who live far away. ***(12 responses)***
- Provision of transport from and to the campus. ***(12 responses)***
- Bigger computer center with equipment that is in working condition. ***(10 responses)***
- Provision of a cafeteria to students. ***(9 responses)***
- Active marketing of campus to make it a household name. ***(9 responses)***
- Bigger classrooms with adequate tables and chairs. ***(7 responses)***
- The selection of a SRC on academic performance, who has a vision to serve the students. ***(5 responses)***
- Leadership programs offered to third year students. ***(1 response)***
- Provision of evening or part-time classes. ***(1 response)***
- Provision of a B-Tech degree. ***(1 response)***
- Provision of activities such as arts and culture. ***(1 response)***
- Provision of a healthcare clinic. ***(1 response)***
- Friendly and efficient administration staff that is willing to assists students with their queries. ***(1 response)***

- Cooperation between staff and students. ***(1 response)***
- Access control for students and staff using cards. ***(1 response)***
- Secured parking for students and staff. ***(1 response)***
- Assistance to students in regards to study skills. ***(1 response)***
- Provision of a psychologist to assist students with personal problems. ***(1 response)***
- Sport and academic achievers to be recognized at a formal ceremony. ***(1 response)***

4.3 CONCLUSIONS AND RECOMMENDATIONS REGARDING VALUE ACTIVITIES

4.3.1 Conclusions

It was the purpose of the study, as set out in the sub-objectives in section 1.5.1, to determine the value activities important to students studying at the Vaal Triangle Technikon, East Rand Campus. It can be seen from the above analysis that students at the Vaal Triangle Technikon, East Rand Campus value the provision of well-equipped facilities, the availability of technology to staff and students, the provision of highly qualified staff and the maintaining of high academic standards, as activities that a technikon should spend its resources on. These are only the top four activities as shown in table 4.3.

The agreeability and importance indexes were used to rank the value activities in order of importance as set out in sub-objective 1.5.2 of the study. The results of the agreeability and importance indexes can be viewed in figure 4.1, figure 4.2 and table 4.3. The most important value activity is the provision of well-equipped facilities to the students. The second most important value activity is the availability of technology to the staff and students. The third most important value activity is the provision of highly qualified personnel. The rest of the ranking of the value activities as set apart in table 4.3 with the least important value activity as sound relations with trade unions.

4.3.2 Recommendations

Based on the conclusions in section 4.2.1 it is clear that the current value needs of the students at the Vaal Triangle Technikon, East Rand Campus can be categorized as the provision of well-equipped facilities and technology. Since the technikon is still in its early stages of development there is a lack of facilities and access to technology for its growing number of students. It is for this reason why it is understandable why students value well-equipped facilities. In order for the technikon to retain their current students and attract potential new students it is of the utmost importance for management to allocate resources for the establishment of the infrastructure to deliver facilities and technology to their students.

Management of the technikon must ensure that they maintain their current policy regarding the support and development of their staff in order to ensure that they continuously improve their qualifications and skills. This will ensure that they satisfy the value need of their students for highly qualified staff and high academic standards.

These identified value activities should be used as input into the evaluation of the current value delivery system as seen in figure 4.3. By knowing what the students require from the technikon, the technikon can then evaluate the current status of their facilities, availability of technology, staff qualifications, and academic standards. If these activities can be upgraded and improved students will receive expected value from their learning experience at the Vaal Triangle Technikon, East Rand Campus. The evaluation of the current value delivery system falls outside the scope of this study and will be done as part of a further qualification.

The third and final sub-objective of the study (section 1.5.3) is the development of a value-added model for the Vaal Triangle Technikon, East Rand Campus. The empirical study that was conducted in this study is the analysis that needs to be done for phase one (current students) of the model as stipulated in figure 4.3. The next section is the development of the model accompanied by a discussion on how the model functions.

4.4 DEVELOPMENT OF VALUE-ADDED MODEL

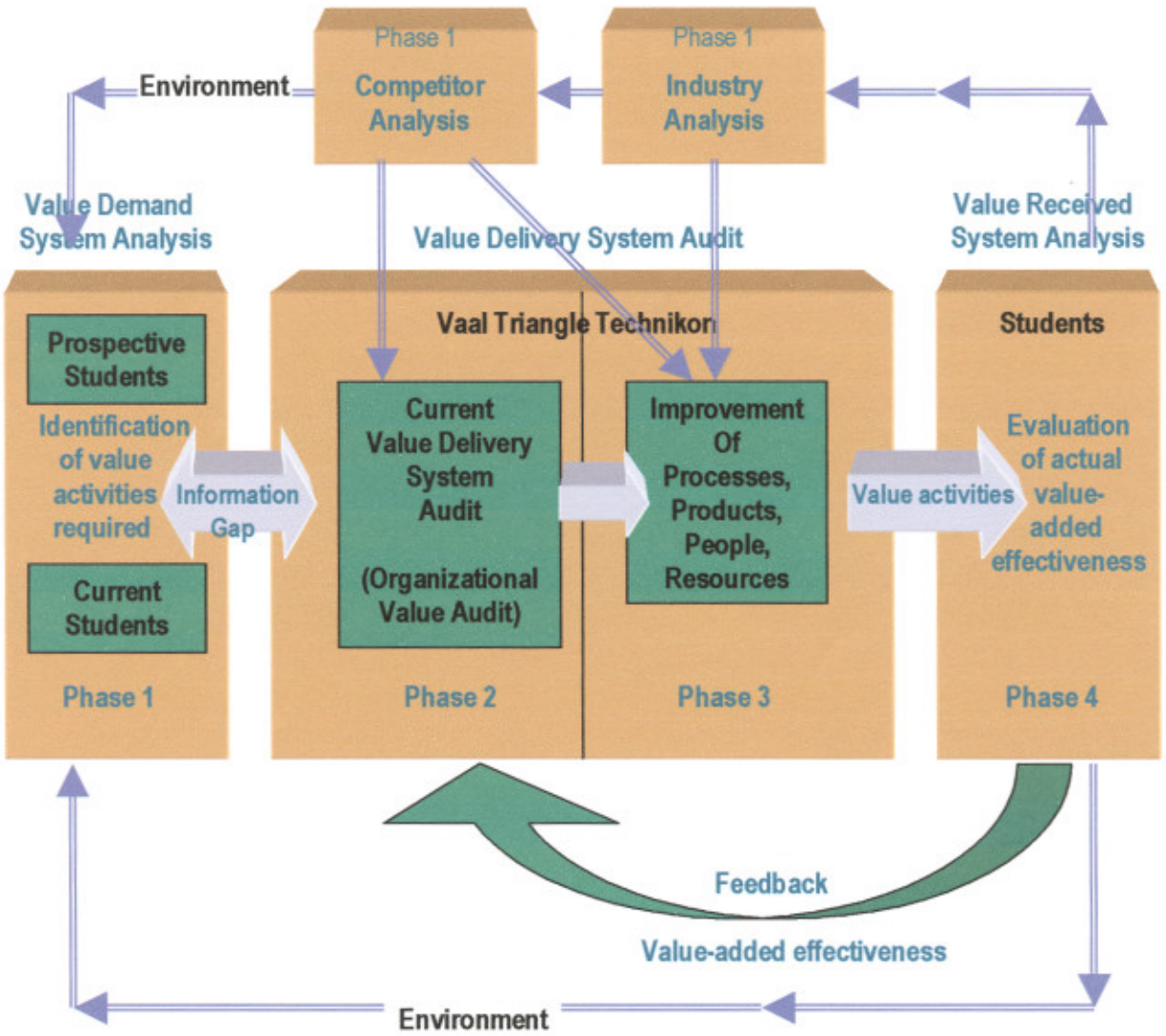
Based on the literature study and the information gathered from the questionnaires the following model was developed to assist the Vaal Triangle Technikon, East Rand Campus to evaluate and improve the delivered value to its stakeholders (refer to figure 4.3).
The model consists of the following aspects:

- The Vaal Triangle Technikon, East Rand Campus is the ***value delivery system*** (Manning, 1998:204), at the center of the model. Based on the open systems theory (Massaro, 1999:146) the technikon is an organism that must constantly interact with its environment to survive. The technikon has its own unique environment with its own forces that interacts with it. The technikon's primary forces are their current and prospective students, other competitor institutions of higher learning in the same region, and the industries to whom the technikon supply with employable students.

- The ***value demand system*** (Manning, 1998:204) consists of the current and prospective students of the technikon who have specific expectations. There is an information and insight gap between the technikon and its students in terms of the students' value requirements and expectations. By applying the marketing concept, the technikon needs to determine what value expectations the students have before they can provide them with activities that the students truly value.

- The ***value-received system*** consists of the technikon students who have experienced the technikon's improved value delivery meganism. Their inputs are crucial in the continuous improvement of the technikon's value delivery

Figure 4.3: Value-added model for the measurement, evaluation and improvement of the Vaal Triangle Technikon, East Rand Campus's value delivery meganism.



meganism. The feedback form the value-added effectiveness audit, together with the information from the current delivery system audit must be used to upgrade and improve the processes, products, philosophies, partners and resources of the value delivery system. This is a continuous, cyclical process that should be repeated at least every three years.

- The ***value-received system*** consists of the technikon students who have experienced the technikon's improved value delivery meganism. Their inputs are crucial in the continuous improvement of the technikon's value delivery meganism. The feedback form the value-added effectiveness audit, together with the information from the current delivery system audit must be used to upgrade and improve the processes, products, philosophies, partners and resources of the value delivery system. This is a continuous, cyclical process that should be repeated at least every three years.

- The ***industry*** is a very important part of the technikon's functioning. The technikon educates the industry's future employees. As stated in the open system model (Massaro, 1999:146), the technikon is reliant on the industry to employ their students and the industry is reliant in the technikon to provide them with highly skilled and well-equipped employees. Input from the industry is very important for the technikon to determine whether their current courses are satisfying the needs of the industry.

- As part of benchmarking (see section 2.5), it is very important for the technikon to be aware of their ***competitors***. By analyzing other technikons and universities' processes, products, people, philosophies, partners, and resources, valuable information can be obtained to identify areas of weakness in the technikon's current value delivery system. This same information can also be used to improve the technikon's processes, products, people, philosophies, partners, and resources.

The model will assist the technikon in its measurement, evaluation, and improvement of its current value delivery system. The analysis of the value-added effectiveness takes place in four phases. These four phases are discussed in more detail.

Phase 1: There can be an information gap between what the technikon thinks its students require from them and what the students actual requirements are in terms of

value activities. The model starts with the student in mind and ends with the student. During this phase a complete identification of the value activities required by current and prospective students are made. The empirical study discussed in chapter three and four is used as input during this phase. The identified value activities, as set apart in section 4.1 and 4.2 serve as input into what the students require from the technikon to provide them with. The requirements of the students serve as guideline for the technikon to eliminate unnecessary resource allocation to activities that are not required by the students. Based on the empirical study it is clear that management must allocate resources for the development and provision of well-equipped facilities and technology (see section 4.1 and 4.2).

As part of this phase a competitor and industry analysis are also done. The inputs gained from industry will help the technikon to determine whether the courses and course content are still relevant. Changes in courses and content sometimes require changes in processes, people and resources. Information gathered about competitors is used to analyze their processes, products, people, philosophies, partners, and resources. Gaining insight into the activities offered to students by competitors can serve as input into the evaluation and improvement of the status of the technikon's current value delivery system. These analyses fall outside the scope and purpose of this study and will be conducted as part of a further study.

Phase 2: In phase one the technikon determines what value activities they require from the technikon. In phase two the technikon evaluates the effectiveness of the current value activities based on the information gathered in phase one. A complete organizational value-added audit is done in order to determine the technikon's current value-added status. Here students and staff (academic and administrative) are involved.

Phase 3: Activities that are not delivering the required value to students as identified in phase two, must now be improved. If processes must be improved, and/or people be trained, and/or philosophies changed, and/or products improved, this is the phase in

which to do it. All necessary changes and improvements are done during this phase. This phase requires time for all implementations and improvements to be done before there can be moved on to the next phase.

Phase 4: After all improvements have been made the improved value activities are delivered to the students. After a period of time it will become necessary to evaluate the effectiveness of these improved value-added activities. The same students that have been consulted in phase one will now be asked whether their value requirements have been met. The feedback received from the students will be used as input into the next value-added audit the technikon conducts.

Phase 2, 3, and 4 is part of the theoretical development of a value-added model as stipulated in 1.5.2 and requires an additional empirical study. This falls outside of the scope of this study and will be studied in more detail in a separate study (see section 4.4).

This value-added evaluation is a continuous process and once it is done it should be repeated frequently as the students change and as the environment around the technikon changes. The feedback from one evaluation serves as input into the next evaluation.

4.5 RECOMMENDATIONS FOR FURTHER STUDY

This study is only an exploratory study and is a pre-study for a further qualification. The purpose of this study is only the development of a value-added model. The development of measurements and the implementation of the model at the Vaal Triangle Technikon, East Rand Campus fall outside the scope of this study and should be done as a separate study. The researcher would like to conduct this separate study as part of a doctorate qualification.

Measurements that must be developed are the prospective student analysis (current student analysis has been done for the purposes of this study), competitor analysis, industry analysis, organizational value audit, and the value-added effectiveness analysis. Once the measurements have been developed the analyses must be conducted, results analyzed and findings implemented at the technikon. After implementation the final evaluation of the value-added effectiveness must then be conducted and further improvements suggested.

The value and validity of this model can only be tested once it is implemented at the Vaal Triangle Technikon, East Rand Campus. Any changes or improvements can then be made to the model. Once this model's validity has been established it can be broadened to other technikons, universities as well as other industries.

4.6 SUMMARY

In this very competitive marketplace were organizations are competing for the same rands and cents of the consumer, only the organization that delivers true value to their customers can rely on their loyalty. Even institutions of higher education find themselves competing for the rands and cents of current and potential students. Those institutions that can deliver and increase the delivered value to their stakeholders will gain a leadership position in the market.

The main objective of this study is the evaluation of the Vaal Triangle Technikon, East Rand Campus's delivered value to its stakeholders. The study determined the value activities important to students studying at the technikon and ranked these activities in importance. For this purpose an empirical study was conducted supplemented by a literature study of the relevant topics. The most important activities to the students are the provision of well-equipped facilities and access to technology such as the Internet. It has then been recommended to management of the technikon to allocate the necessary resources for the development and supply of these facilities and technology.

This study also emphasizes the necessity of a model that can assist the Vaal Triangle Technikon, East Rand Campus, to evaluate and improve the delivered value to its stakeholders. This study therefore developed such a model. The development of measurements and implementation of the model at the Vaal Triangle Technikon, East Rand Campus falls outside the scope of this study but should be done in a follow-up study.

As the millennium has come and gone, the Vaal Triangle Technikon, East Rand Campus finds itself at the forefront of new challenges. By always placing the needs of their students first and by always providing them with activities that increases their value at the institution, they can ensure that they can become one of the leading role players in delivering value to its stakeholders.

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APPENDIX 1: QUESTIONNAIRE TO STUDENTS

VAAL TRIANGLE TECHNIKON

QUESTIONNAIRE: STUDENTS

VALUE-ADDED ACTIVITIES OF THE VAAL TRIANGLE TECHNIKON, EAST RAND CAMPUS

Dear Student

Your cooperation is requested in the completion of the following questionnaire. The purpose of this survey is to determine which activities at the Vaal Triangle Technikon, East Rand Campus would contribute to an increase in the value you receive when studying at this technikon. You have been selected because your experience as senior student at this technikon is invaluable in determining how this institution can improve the current value it is offering to its students.

THANK YOU FOR YOUR PARTICIPATION

1. STATEMENTS

Please indicate, **(with an x)**, your level of agreement with the following statements:

Example:

Having breakfast every morning is good for my health.	Strongly Agree	Agree	Neither agree or Disagree	Disagree	Strongly Disagree

Please indicate:

1.1 Having lecturers that are highly qualified will add value to my learning experience.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.2 A good, strong relationship between my lecturer and I has a positive impact on my learning experience.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.3 It is not very important to me to have access to the Internet.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**

1.4 The types of courses offered was important in your selection of this technikon	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.5 The content of the courses offered is not very important when selecting a technikon.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.6 A technikon must have a well-equipped library that supports a student's research needs.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.7 For a technikon to deliver value to their students learning experience, they should provide them with technical efficient laboratories.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.8 A technikon that makes the latest technology available to its students will increase the value of their students' learning experience.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.9 Being able to participate in student activities such as sport, choir, associations, and ext. at technikon is very important to me.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.10 A technikon should provide its students with study support, e.g. tutors, supplemental training.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.11 It is a technikon's primary responsibility to provide education to its students and they do not need to provide extra student activities, such as sport, choir, associations, ext.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.12 The value I receive as student at this technikon would not be increased by having an efficient registration process.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.13 Well-trained staff that assists me in a friendly, efficient manner will provide me with a sense of value.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**
1.14 Studying at a technikon that promotes high academic standards will not increase my sense of value.	**5. Strongly Agree**	**4. Agree**	**3. Neither agree or Disagree**	**2. Disagree**	**1. Strongly Disagree**

2. Please indicate which of the following are important factors when you have to choose a technikon to study at:

2.1 Highly qualified personnel.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.2 Availability of technology to staff and students.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.3 High academic standards.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.4 Study support. E.g. tutors, supplemental training.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.5 Student activities. E.g., sport, choir, associations.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.6 Location of technikon campus.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.7 Provision of hostels.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.8 Technikon has a reputation of conducting quality research.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.9 Affordable class fees.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.10 Involvement in community outreach programs.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**

2.11 Efficient registration process.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.12 Providing students opportunities to provide input to improve processes and procedures.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.13 Promptness in attending to student and staff complaints.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.14 Good relationships between staff and students.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.15 *Management commitment to student and staff development.*	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.16 Effective procedures for recruiting, training and promoting all levels of employees.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.17 Sound relations with trade unions.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.18 *Capability of technikon to identify new market opportunities and* potential environmental threads.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**
2.19 Availability of well equipped facilities.	**5. Most Important**	**4. Important**	**3. Average Importance**	**2. Not very Important**	**1. Least Important.**

3. **Please prioritize/rank these same factors in degree of importance when choosing a technikon to study at with 1 as very important and, 19 as the least important.**

Example:
Please prioritize/rank the importance of the following activities in your daily life, with 1 as the most important and 4 as the least important.

	(Prioritize/Rank)
Start every day with breakfast.	2
Eat three large meals a day.	4
Study at least an hour a day.	1
Spend at least an hour with my friends a day.	3

	(Prioritize/Rank)
Highly qualified personnel.	
Availability of technology to staff and students.	
High academic standards.	
Study support. E.g. tutors, supplemental training.	
Student activities. E.g. sport, choir, associations.	
Location of technikon campus.	
Provision of hostels.	
Technikon has a reputation of conducting quality research.	
Affordable class fees.	
Involvement in community outreach programs.	
Efficient registration process.	
Providing students opportunities to provide input to improve processes and procedures.	
Promptness in attending to student and staff complaints.	
Good relationships between staff and students.	
Management commitment to student and staff development.	
Effective procedures for recruiting, training and promoting all levels of employees.	
Sound relations with trade unions.	
Capability of technikon to identify new market opportunities and potential environmental threats.	
Availability of well equipped facilities.	

4. Please indicate any other factors or activities, not mentioned above, that will add value to your learning experience at the Vaal Triangle Technikon, East Rand Campus.