

**"A STRATEGIC EVALUATION OF ZESCO'S
BUSINESS PLAN "**

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DECLARATION

I declare that this research is my own work. It is submitted for the degree of Masters in Business Administration (MBA) at the University of KwaZulu-Natal. It has not been submitted for any degree or examination in any other university.

Signed 

Date 

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ABSTRACT

Applied research has value to the extent that it assists management to make better decisions. It is only through a scientific thinking process that we come to understand, and take into consideration, the complex set of factors that operates in any given situation. Having analysed the results from the data analysis the manager exercises good judgment by using both the research findings and drawing on the personal and invaluable resources of past experience. In sum, research indicates the direction of problem solving; experience and common sense, in conjunction with scientific research results. One without the other is not completely effective.

This Dissertation sets out to carry out a strategy evaluation of the ZESCO Business Plan using a set strategy evaluation criteria of; suitability, acceptability and feasibility. In conducting this evaluation, it is recognised that; although it is impossible to demonstrate conclusively that a particular business strategy is optimal or even guarantee that it will work, one can nevertheless, test it for critical flaws using a set criteria.

The results from the evaluation revealed that; in terms of suitability some of the strategies scored lowly due to the low disposable incomes of ZESCO's customers; in terms of acceptability of ZESCO's strategies to its principle stakeholders, there is a need for it to improve the input from these stakeholders when formulating its strategies and lastly the feasibility analysis revealed that ZESCO will struggle to implement its strategies.

Lastly the importance of carrying out Business Research is well summed up by Sekaran (2000: 4) "the difference between the manager who uses common sense alone to analyze and make a decision in a given situation, and the investigator who uses a scientific method, is that the latter does a systematic inquiry into the matter and proceeds to describe, explain, or predict phenomena based on data carefully collected for the purpose."

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LIST OF ABBREVIATIONS

1.	Acquired Immune Deficiency Syndrome	AIDS
2.	African Development Bank	ADB
3.	Antiretrovirals	ARV's
4.	Build Operate and Transfer	BOOT
5.	Business Information Systems	BIS
6.	Census Supervisor Areas	CSA
7.	Chief Executive Officer	CEO
8.	Common Market for Eastern and Southern Africa	COMESA
9.	Copperbelt Energy Company	CEC
10.	Corporate Performance Indicator	CPI
11.	Development Bank of Southern Africa	DBSA
12.	Energy Regulation Board	ERB
13.	Government Republic of Zambia	GRZ
14.	Government Republic of Zambia	GRZ
15.	Greenwich Meridian Time	GMT
16.	Human Immuno Virus	HIV
17.	Independent Power Producer	IPP
18.	Kariba North Bank Company	KNBC
19.	KiloVolts	kV
20.	Living Conditions Monitoring Survey	LCMS III
21.	Management Buy Out	MBO
22.	Megawatts	MW
23.	Movement for Multipart Democracy	MMD
24.	Poverty Reduction Strategy Paper	PSRP
25.	Power Rehabilitation Project	PRP
26.	Primary Sampling Units	PSU
27.	Probability Proportional to Estimated Size	PPES
28.	Research and Development	R & D
29.	Resourced Based View	RBV
30.	Short Term Energy Markets	STEM
31.	Southern African Development Community	SADC

32.	Special Purpose Vehicle	SPV
33.	Standard Emuneration Areas	SEA
34.	Strategic Business Unit	SBU
35.	Strengths, Weaknesses, Opportunities & Threats	SWOT
36.	Structural Adjustment Program	SAP
37.	Tanzania Electricity Supply Corporation	TANESCO
38.	Third National Development Plan	TNDP
39.	Total Quality Management	TQM
40.	United National Independence Party	UNIP
41.	Value Chain Analysis	VCA
42.	Zambia Consolidated Copper Mines	ZCCM
43.	Zambia Demographic and Health Service	ZDHS
44.	Zambia Electricity Supply Corporation	ZESCO

CHAPTER ONE

INTRODUCTION

1.1 Introduction

A fundamental shift is occurring in the world economy. We are moving rapidly away from a world in which national economies were relatively self contained entities, isolated from each other by barriers to cross border trade and investment, by distance, by time zones, language, and national differences in language in government regulation, culture, and business systems (Hill, 2003).

This is leading to increased competition not just locally but internationally. In order to prosper in this environment, managers need to greatly enhance their decision making capabilities by applying a scientific thinking process which takes into consideration the complex set of factors in which they operate in. This process is known as Business Research. According to Sekaran (2000) business research can be described as a systematic and organized effort to investigate a specific problem encountered in the work setting that needs a solution. It comprises a series of steps designed and executed, with the goal of finding answers to the issues that concern the Manager in the work environment. This means that the first step in research is to know where the problem areas exist in the organisation, and to identify as clearly and specifically as possible, the problems that need to be studied and resolved. Once the problem that needs attention is clearly defined, then steps can be taken to gather information, analyse the data, and determine the factors that are associated with the problem and solve it by taking the necessary corrective measures.

In this study, the business research process will be applied to analyse and evaluate ZESCO's 2004-2009 Business Plan. ZESCO is one of three Zambian electricity suppliers.

The Zambian electricity power sector is made up of three key players. ZESCO Limited is the biggest of the three. The others are Copperbelt Energy Company (CEC) which

sources all its electricity from ZESCO and then distributes it to the key mining industry on the Copperbelt Province and Lunsefwa Hydro Power Company which generates 40MW of electricity and sells it all to ZESCO. ZESCO is a parastatal company, created in 1969 and wholly owned by the Government of the Republic of Zambia (GRZ). Its annual sales turnover in 2004/5 was K784 Billion. The company's business is to generate, transmit, distribute and supply electricity to local and international markets. The company has in addition recently ventured into the telecommunications business as a carrier of carriers using its own infrastructure. ZESCO is a vertically integrated national electricity utility with an installed capacity of 1600MW. The main generation stations are Kafue Gorge Power Station with 900MW, Kariba North Bank power station 600MW capacity and Victoria Falls Power Station with 108MW. The Corporation also has mini-hydro power plants with total capacity of 24MW and nine diesel power plants with a capacity of 6.3MW, which serve islanded mini grids in rural areas (ZESCO 2004-2009 Business Plan).

This study is aimed at analysing ZESCO'S 2004 – 2009 Business Plan using three strategy evaluation criteria of; suitability, acceptability and feasibility. It is a qualitative study.

1.2 Motivation for the Research

The Zambian Government and its cooperating partners, such as the World Bank, have recognised deficiencies in ZESCO's previous strategic approach and performance and have consequently adopted a policy approach that embraces enhanced stakeholder beneficiation. In other words the Government wants ZESCO to operate on a purely commercial basis as opposed to the past when the Government was content for ZESCO to be merely a generator, transmitter and distributor of electricity with no real profit motive.

In a bid to improve the performance of ZESCO, the Government had considered the option of engaging a private management operator on a ten-year concession to run ZESCO. However, in 2003 after observing improvements in performance following the

appointment of a new management team at ZESCO, coupled with the consideration of the strategic national importance of the utility, the Government opted for commercialisation instead of concessioning (ZESCO, 2004-2009 Business Plan).

Commercialisation is the transformation of an entity into a commercially viable organisation as opposed to privatization, which is the transfer of ownership and control of an entity from the public into private hands (ZESCO, 2004-2009 Business Plan).

A commercialised ZESCO would cease to operate on cost recovery or subsidy basis and be judged on profitability. The aims of the commercialisation are three fold: (ZESCO, 2004-2009 Business Plan).

- a) Improve technical performance,
- b) Improve financial performance and
- c) Improved service to customers.

To further emphasise the importance that the Zambian Government attaches to the commercialisation of ZESCO, in his 2005 Budget speech, the Zambian Minister of Finance Mr. Magande had this to say. “The process to commercialise ZESCO reached an advanced stage in 2004 with most of the reform measures having been undertaken. These measures included the amendment of the Energy Regulation and Electricity Acts, settlement of the outstanding electricity bills for Central Government and water utilities. However, it should be noted that the challenge still remains to fully sustain the organisation by all stakeholders, remaining current on their bills” (Times of Zambia, 2005).

1.3 Value of the Study

The supplier of electricity is a strategic industry in any economy and Zambia is not an exception. Such industries are subject to high risks, require large scale investment in order to achieve economics of scale and these give rise to extensive external economics when successful. “Strategic trade policy suggests that by encouraging such industries,

the nation can reap the large external economies that result from them and enhance its future growth prospects” (Salvatore, 2003 p. 291).

“In some cases it may be economically efficient to have one large firm supply an entire market. Such a case arises in a natural monopoly where a single firm can achieve economies of scale over the entire range of market output” (Schiller (2000, p. 72). In these cases a monopoly structure may be economically desirable.

Zambia’s most important industry is the copper mining industry, which accounts for about 70% of Zambia’s foreign exchange earnings. In 2004 mineral exports increased to US\$1,588million from US\$1,052million the previous year (Times of Zambia, 2005).

ZESCO has over the years supplied reliable and quality electricity to the mines. The consumption of electricity by the mines is about 50% of ZESCO’s total generation. The mining sector is very critical to the Zambian economy since the bulk of export earnings are derived from copper exports. In addition, the mining sector’s contribution to GDP is the largest. Mining customers are dependent on a reliable energy for production since mining is a high risk operation requiring 100% reliability in the supply of electricity. Consequently, any disruption of electricity supply to the mines can have severe repercussions for the economy as a whole. The mines would be flooded and mineral production would suffer. In addition electricity is the only source of energy, which can be used in the electrolysis of copper and other minerals to separate it from the other minerals (ZESCO 2004-2009 Business Plan).

Secondly, Zambia has been trying to diversify its economy away from mining to agriculture and tourism. In his 2005 Budget speech the Minister of Finance mentioned that the Government will promote large scale farming through the provision of serviced land, better infrastructure and investment incentives. It is supporting the electrification of the 150,000 hectare Nansanga farming block in Serenje farm block (Times of Zambia, 2005). Both these sectors need the development of a robust and efficient electricity infrastructure in previously under serviced areas. All these require large scale investments by ZESCO.

From the above explanations it is evident that ZESCO's role in Zambia's economy is critical. It has embarked on a five year strategic Business Plan which broadly aims to improve technical performance, improve financial performance and improve services to its customers. In order to achieve these objectives, it has formulated seven strategies.

The value of this study is thus to evaluate whether or not ZESCO's strategies are suitable, acceptable and feasible as the success of ZESCO's 2004-2009 Business Plan is important not only for its long term viability but for the economic development of Zambia as a whole. This implies that there is a direct relationship between the success of the Business Plan and the continued growth in Gross Domestic Product (GDP) in Zambia. This is illustrated by the high demand for new power capacity from the new mining investors. It must be noted that very little economic development can take place without the availability of electricity. Increasing the generation capacity is one of its strategies and ZESCO must achieve this in order to meet the growing demand for power. In summary, the results from the evaluation of this study, will indicate ZESCO's ability achieve the objectives of its 2004-2009 Business Plan and recommend measures to address the shortcomings in its Business Plan. The importance of ZESCO to Zambia's economic development thus makes this study very valuable.

1.4 Problem Statement

According to Sekaran (2000) it is useful to define a problem as any situation where a gap exists between the actual and desired ideal state. It is important to know what exactly the issue is for which one seeks answers. Symptoms of problems are not defined as the real problem. Without addressing the central issue, the desired results will not be achieved because the right problem would not have been addressed.

For this study, the problem being investigated is whether ZESCO's Business Plan can be considered to be valid or not given the prevailing external environmental circumstances in which it operates and its own internal resources and capabilities. In order to undertake

the evaluation a set criteria of suitability, acceptability and feasibility is applied. More specifically the problem being investigated is as follows;

“If a set criteria of strategy evaluation; suitability, acceptability and feasibility, were applied to ZESCO’s 2004-2009 Business Plan, would it be considered to be valid or not?”

The above statement is also the hypothesis to be tested in this study. Cooper and Schindler (2003 p. 50) say “when a position is formulated for empirical testing, we call a hypothesis”.

According to Sekaran (2000) the problem statement is a clear, precise and succinct statement of question or issue that is to be investigated with the goal of finding an answer or solution.

1.5 Objectives of the Study

According to Sekaran (2000) the difference between successful organisations lies in the quality of decisions made by the managers in the system. Scientific thinking equips managers with an awareness and comprehension of the multiplicity of factors operating in their environment. Cooper and Schindler (2001 p. 5:6) say “during the last two decades, we have witnessed dramatic changes in the business environment. Emerging from a historically economic role, business organisation has evolved in response to the social and political mandates of national public policy, explosive technological growth, and continuous innovations in global communications. These changes have created new knowledge needs for the manager to consider when evaluating any decision”.

For many executives strategy evaluation is simply an appraisal of how well a business performs. Has it grown? Is the profit rate normal or better? If the answers to these questions are in the affirmative, it is argued that the firm’s strategy must be sound. Despite this unassailable simplicity, according to Rumelt (in Glueck, 1980) this line of

reasoning misses the whole point of strategy; that the critical factors determining the quality of long term results are often not directly observable or simply measured, and that by the time strategic opportunities do affect directly operating results, it may well be too late for an effective response. According to Rumelt (in Glueck, 1980) although it is impossible to demonstrate conclusively that a particular business strategy is optimal or even guarantee that it will work, one can nevertheless, test it for critical flaws using a set criteria of; consistency, consonance, advantage, and feasibility.

Thus this research is an attempt to look beyond the obvious facts regarding the short term health of ZESCO and appraise instead those more fundamental factors and trends that govern success in strategy evaluation and analysis. A summary of the criteria to be applied is given below.

- **Suitability:** Is a broad assessment of whether the strategy addresses the circumstances in which the organisation is operating, the extent to which new strategies would fit with future trends and changes in the environment; or how the strategies might exploit the core competencies of the organisation (Johnson and Scholes, 2002).
- **Acceptability:** Is concerned with the expected performance outcomes such as return or risk if the strategy were implemented, and the extent to which these would be in line with the expectations of stakeholders (Johnson and Scholes, 2002).
- **Feasibility:** Is concerned with whether the strategy could be made to work in practice (Johnson and Scholes, 2002).

1.6 Research Methodology

This study is a qualitative research which will utilise a case study. The 'case' for this study is the ZESCO 2004-2009 Business Plan. According to Robson 2002 (cited in Saunders 2003, p.93) defines case study as a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence.' Hussey (1997 p. 65) further says "A case

study is an extensive examination of a single instance phenomenon of interest and is an example of a phenomenological methodology”

This study can also be described a deductive approach, in which you develop a theory and hypothesis and design a research strategy to test the hypothesis (Saunders *et al*, 2003).

The problem statement defined in section 1.4 will be the hypothesis to be tested using defined set strategy evaluation criteria.

“A unit of analysis is a kind of case to which the variables or phenomenon under study and the research problem refer, and about which data is collected and analysed. A case study approach implies a single unit of analysis, such as a company or a group of workers, an event, a process or even an individual. It involves gathering detailed information about the unit of analysis, often over a very long period of time, with a view of gaining in depth knowledge” (Hussey, 1997: 66).

In order to evaluate the seven strategies in the Business Plan, a set criterion of strategy evaluation as espoused by Rumelt will be utilised.

Qualitative research is fundamentally interpretive. This means that the researcher makes an interpretation of the data. The researcher filters the data through a personal lens that is located in a specific socio political and historical moment. One cannot escape the personal interpretation brought to qualitative data analysis (Wilcott, 1994).

Chapter three will illustrate the sources of data and how this data was collected. This data consists of both primary and secondary. Primary sources are original sources of raw data without interpretation or pronouncements that represent an official opinion or position (Cooper and Schindler, 2001).

For this study, the following primary data sources were used.

- The main source of primary data for this study is the ZESCO Business Plan.

- Living Conditions Monitoring Survey Report (2002-2003). This is a report prepared by the Central Statistics Office (CSO) in Zambia which details the socio-economic conditions prevailing in the country.
- Energy Regulation Board regulations regarding the conditions of ZESCO's operating license. This document is called the 'General Conditions of the Licensed Activity'.
- Questionnaire administered to key ZESCO personnel.
- Unstructured interviews and email correspondence with Senior ZESCO management.

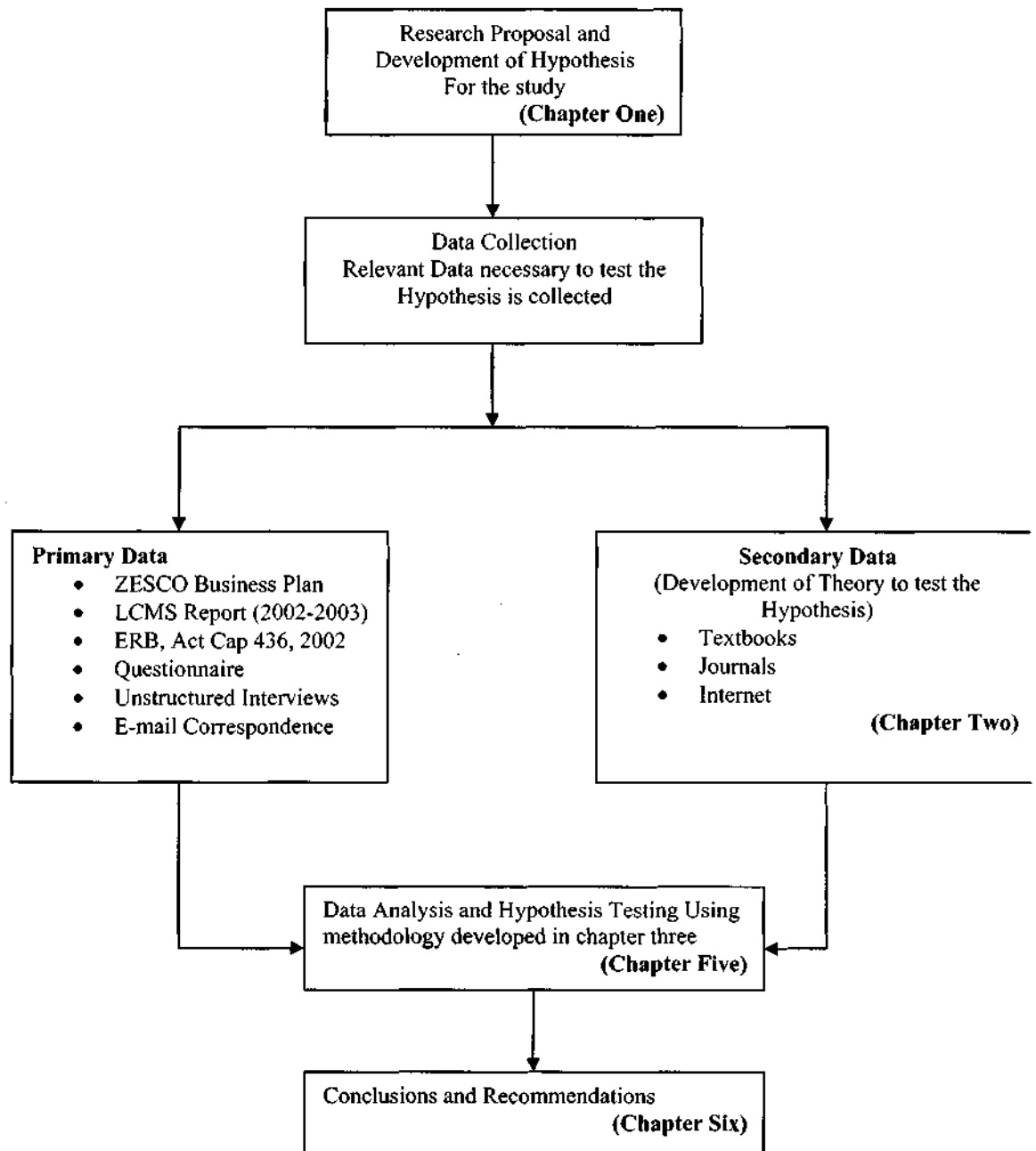
The main sources of secondary data for this study were:

- Journals.
- Textbooks.
- Internet.
- Newspapers.

In the collection of data there will be an emphasis on collecting relevant data. Relevant in this case implies data which is necessary in the evaluation of the Business Plan.

The second of the chapter on methodology will detail how the 'case' which is the Business Plan will be evaluated. Measurement will be introduced as a way to gauge the extent of the validity of each of the strategies in the Business Plan. It will be explained how the study will ensure that there is validity, reliability and practicality. An explanation of how the hypothesis will be tested will be provided and finally the conclusion.

Figure 1.1 Research Methodology



1.7 Limitations of the Study

There were limitations in accessing information from ZESCO as some of the information required was considered to be confidential. However, the 2004-2009 ZESCO Business Plan was made available. This limitation on additional information did not allow for a more detailed analysis especially in trying to conduct a financial feasibility test of each the seven strategies. There were also a lot of delays in getting responses from Zambia.

Secondly, in conducting the Human Resources feasibility test, the information required would have entailed conducting one on one interviews with a wide range of ZESCO staff. This was not done due to the inability of the researcher to travel to Zambia.

Thirdly, the cost constraints of travelling to Zambia meant that the Researcher could not conduct interviews with ZESCO's key stakeholders which would have been vital in analysing the acceptability of ZESCO's strategies.

Fourthly, in conducting the corrections to the study, the researcher had very limited access to academic material such as electronic journals and textbooks which can only be accessed from the university. The researcher had since returned to Zambia.

1.8 Literature Review

For this research, the main focus of literature review will be the Strategic Management Process. This consists of strategy formulation, strategy implementation and strategy evaluation. However, there will be an emphasis on the literature relating to the strategy evaluation criteria; Suitability, acceptability and feasibility.

The main sources of the literature will be textbooks, journals, electronic databases, and the Internet.

According to Sekaran (2000) the purpose of literature review is to ensure that no important variable is ignored that has in the past been found to have an impact on the problem.

This principle has been adhered to as far as relevance and availability of information allows.

1.9 Structure of the Study

This introductory chapter commences the report by giving a brief overview on the purpose of Business Research in modern business and it then introduces ZESCO, the company being investigated for this study. The problem statement is presented and then an indication of the scope of the research and research methodology are presented. Lastly, it gives an overview of the structure of the study.

Chapter two details the theoretical literature on the strategic management process. It begins by discussing the factors in the external environment that organisations need to consider when formulating their strategies and then presents literature on internal analysis of organisations. Having analysed the external and internal factors that affect organisations, organisations need to make their strategic choices. This chapter also details literature regarding how organisations can conduct a strategy evaluation of their strategies. All the main strategy evaluation criteria are presented.

In chapter three, having undertaken a broad literature review on the strategic management process, the most appropriate strategy evaluation criteria are selected. In this Chapter the Research Methodology is presented to evaluate, analyse and measure the extent to which the strategies are valid or not. This in effect presents the methodology which will be applied to the ZESCO's 2004-2009 Business Plan.

Chapter four presents a detailed assessment of ZESCOs' external environment. This includes relevant variables such as political, regulation, economic, social and technology

factors affecting ZESCOs' operations. The ZESCO Business Plan is also presented in chapter four, and a detailed appraisal of ZESCOs' internal resources is undertaken by subjecting them to scrutiny using the relevant sections of the model presented in Chapter three.

In chapter five, the ZESCO strategies presented in Chapter Four are analysed and evaluated against the background of the internal and external environment using the relevant sections of the model presented in Chapter three. The hypothesis will also be tested. The main strategy evaluation criteria to be used will be suitability, acceptability and feasibility.

Conclusions and recommendations will be drawn in chapter six, based on the results obtained from chapter five. These results should conclusively indicate whether or not the ZESCO Business Plan is valid or not. It will then recommend 'the way forward for ZESCO'.

1.10 Conclusion

Applied research has value to the extent that it assists management to make better decisions. It is only through a scientific thinking process that we come to understand, and take into consideration, the complex set of factors that operates in any given situation. Having analysed the results from the data analysis the manager exercises good judgment by using both the research findings and drawing on the personal and invaluable resources of past experience.

In sum, research indicates the direction of problem solving; experience and common sense, in conjunction with scientific research results. One without the other is not completely effective.

In Zambia, the Government has set out to rejuvenate the economy, which was not performing well by embarking on structural reforms. These reforms are aimed at attracting new capital investments in the economy to increase the productive capacity and

efficiency. In this regard the Government promulgated the privatisation policy to put into place the framework for private sector participation in the economy. However, in ZESCO's case the Government decided to commercialise rather than privatise or concession with the principle aim of making it more efficient, reliable, and operating on commercial principles. The Government felt that it is in the medium and long-term interest of the country that ZESCO is commercialised and not concessioned to a private operator. The development of the electricity infrastructure in Zambia still requires a Corporation like ZESCO because most areas are unprofitable. The developments so far have been possible because ZESCO has been able to take power to remote areas and cross-subsidise customers. A private operator would not undertake such a role without incentives from the Government.

The ZESCO Business Plan was a response to the above Government policies and also to the forces of globalisation which are forcing companies the world over to become more efficient and competitive. In any economy, especially a third world like Zambia, the electricity sector is an important developmental tool and its success has a direct bearing on the economic development of the country. This makes ZESCO's Business Plan a key success factor in the Zambian Government's ability to rejuvenate the economy.

Against this background, this study sets out to test the validity of the ZESCO Business Plan using set strategy evaluation criteria of suitability, acceptability and feasibility.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

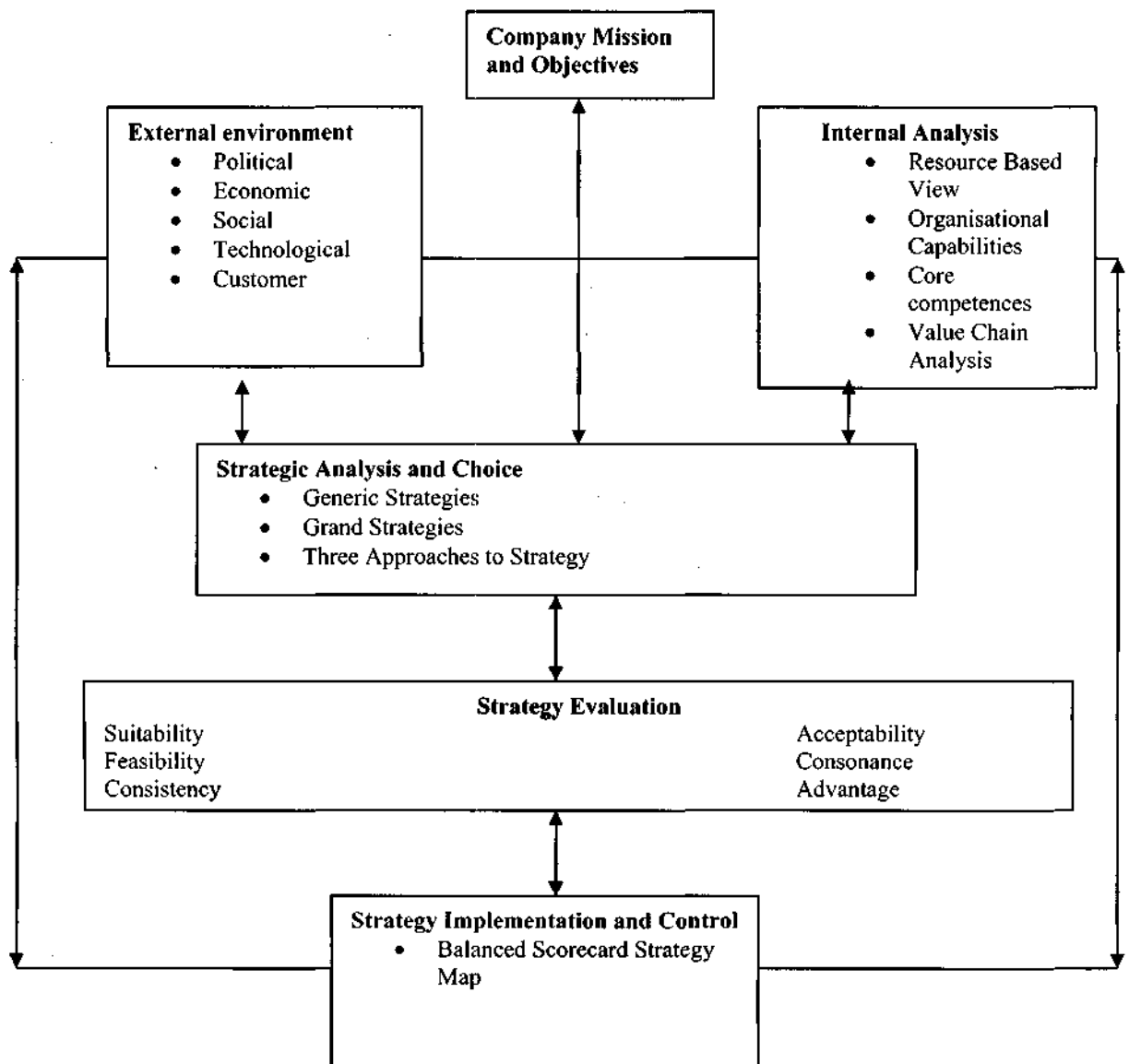
The underpinnings of Strategic Management hinge upon managers gaining an understanding of competitors, markets, prices, suppliers, distributors, governments, creditors, shareholders and customers in their respective markets. As such, companies competitive strategies must consist of moves to attract customers withstand competitive pressures and strengthen the firm's market position. Thus, companies need to embrace corporate strategy in order to survive and thrive in today's competitive and dynamic business environment.

The purpose of this Chapter will be to undertake a literature review of the strategic management process highlighting the cardinal issues. Since the core of this literature review is strategy, it is important to start by asking, "What is strategy?" "Corporate strategy is concerned with an organisation's basic direction for the future: its purpose, its ambitions, its resources and how it interacts with the world in which it operates. Every aspect of the organisation plays a role in this strategy, its people, its finances, its production methods and its environment including its customers" (Lynch, 2003 p. 5). Strategy consists of competitive moves and business approaches to produce successful performance. It is management's game plan for running the business, strengthening the firm's competitive position, satisfying customers and achieving performance targets (Internet 1).

With the parameters of this definition of strategy, we can now give an overview of the strategic management process. According to David (2003), the strategic management process consist of three stages; strategy formulation, strategy implementation and strategy evaluation. Strategy formulation includes developing a vision and mission, identifying an organisations external opportunities and threats, determining internal

strengths and weaknesses, establishing long term objectives, generating alternative strategies, and choosing particular strategies to pursue.

Figure 2.1 Strategic Management Process



Adapted from: Pearce and Robinson (2003)

However, for the purpose of this study, the literature review in this chapter will cover the fundamental aspects of corporate strategy which are vital in evaluating the 2004-2009 ZESCO Business Plan as this is the core of this study.

ZESCO like any organisation is greatly influenced by factors in the external environment such as political, economic, social and technological. These factors are important to understand so that companies such as ZESCO can then choose the strategies that fit with future trends and changes in their respective environment and ultimately be able to exploit the opportunities that arise using the organisations core competencies and capabilities.

Secondly, having undertaken a thorough analysis of its external environment, ZESCO needs to identify those resources, capabilities and competences that can enable it take advantage of existing and projected opportunities and minimise the impact of major threats. In undertaking an internal analysis of ZESCO, the following will be utilised; resource based view and analysis of organisational capabilities and core competences. As such, the literature review on internal analysis in this chapter, will discuss these topics.

Lastly, the core of this study is the evaluation of ZESCO's 2004-2009 Business Plan. In evaluating the seven strategies in the ZESCO Business Plan, a set criterion of strategy evaluation as espoused by Rumelt (cited in Glueck, 1980) will be utilised. The strategy evaluation criteria to be utilised will consist of suitability, acceptability and feasibility. This criterion has been selected as it clearly determines which strategies will lead to the success or failure of the selected strategies. The literature review in this chapter will discuss this selected criterion which will later be utilised to evaluate ZESCO's strategies. The evaluation of the strategies takes into cognisance ZESCO's internal and external environmental analysis. Recommendations are then made based on the results of the strategy evaluation.

2.2 Mission Statement

In order to develop their strategy, organisational members must first identify the organisations current mission, objectives, and strategies (Robins and Decenzo, 2001). Strategic mission is a statement of a firm's unique purpose and scope of its operations in product and market terms (Hitt *et al* 2003). It answers the question "what business or businesses are we in?" (Robins and Decenzo, 2001 p. 90). According to Hitt *et al*, (2003) it gives a description of who will be served, what those target customers needs are and how those needs will be satisfied. Achieving the mission "drives the business, mobilises the workers, and gets the high quality product to the market" (Robins and Decenzo, 2001 p. 90). Once its mission has been identified, the organisation can begin to look outside the company to ensure that the strategy aligns well with the environment (Robins and Decenzo, 2001).

2.3 The External Environment

According to Pearce and Robinson (2003) a host of external factors influence a firm's choice of direction and action and, ultimately, its organisational structure and internal processes. These factors, which constitute the external environment, can be divided into three interrelated subcategories: factors in the remote environment, factors in the industry environment and factors in the operating environment.

The underlying thinking of the external environmental analysis is that the enterprise has to react to changes in its external environment. This reflects the idea that strategy requires a fit between capabilities and the external environment and so it is necessary for an enterprise to react to changes (Internet 2). According to Hoskisson (2003), the firm understanding of the external environment is matched with knowledge about its internal environment to form its strategic intent, to develop its strategic mission and to take strategic actions that result in strategic competitiveness and above average returns.

The environmental conditions in the current global economy differ from those previously faced by firms. Technological changes and the continuing growth of information gathering and processing capabilities demand more timely and effective competitive actions and responses. The rapid sociological changes occurring in many countries affect labour practices and nature of products demanded by increasing diverse consumers. Government regulations policies and laws also affect where and how firms may choose to compete. It is important that any part of the analysis should focus on those changes in the external environment that are of importance to the business, not just change in general (Internet 2).

2.3.1 Economic Factors

According to Pearce and Robinson (2003 p.56), economic factors concern the nature and direction of the economy in which a firm operates. Because consumption patterns are affected by the relative influence of various market segments, each firm must consider economic trends in the segments that affect its industry. On both the national and international level, managers must consider the general availability of credit, the level of disposable income, and the propensity of the people to spend. Prime interest rates, inflation rates, and trends in the growth of the gross national product are other economic factors they should monitor.

2.3.2 Social Factors

According to Pearce and Robinson, (2003 p.56) the social factors that affect a firm involve the beliefs, values, attitudes, opinions and lifestyles of persons in the firm's external environment, as developed from cultural, ecological, demographic, religious, educational, and ethnic conditioning. Like other forces in the remote external environment, social forces are dynamic, with constant change resulting from the efforts of individuals to satisfy their desires and needs by controlling and adapting to environmental factors. Social, cultural, demographic and environmental trends are shaping the way people live, work, produce, and consume. David (2000, p. 85) says new

trends are creating a different type of consumer and consequently, a need for different products, different services and different strategies (David, 2003 p. 85).

According to Pearce and Robinson (2003 p.56) translating social change into forecasts of business effects is a difficult process, at best. Nevertheless, informed estimates of the impact of such alterations as geographic shifts in populations and changing work values, ethical standards, and religious orientation can only help a strategizing firm in its attempts to prosper. David (2003) says in America, significant trends for this decade include consumers becoming more educated, the population aging, minorities becoming more influential, people looking for local rather than federal solutions to problems, and a fixation on youth decreasing.

2.3.3 Political Factors

According to Pearce and Robinson (2003 p. 57) the direction and stability of political factors are a major consideration for managers when formulating company strategy. Political factors define the legal and regulatory parameters within which firms must operate. Political constraints are placed on firms through fair-trade decisions, antitrust laws, tax programs, minimum wage legislation, pollution and pricing policies, administrative jawboning, and many other actions aimed at protecting employees, consumers, the general public, and the environment. Since such laws and regulations are most commonly restrictive, they tend to reduce the potential profits of firms. However, some political actions are designed to benefit and protect firms. Such actions include patent laws, government subsidies, and product research grants. Thus, political factors either may limit or benefit the firms they influence.

David (2003) says for industries and firms that depend heavily on government contracts or subsidies, political forecast can be the most important part of an external audit. David (2003, p. 90) goes on to say “strategists today must possess the skills that enable them to deal more legalistically and politically than previous strategists, whose attention was directed more towards economic and technical affairs of the firm”.

2.3.4 Technological Factors

The fourth set of factors in the remote environment involves technological change. To avoid obsolescence and promote innovation, a firm must be aware of technological changes that might influence its industry. Creative technological adaptations can suggest possibilities for new products, for improvements in existing products, or in manufacturing and marketing techniques (Pearce and Robinson 2003 p. 57).

According to David (2003) technological forces represent major opportunities that must be considered in formulating strategies. Technological advancements can dramatically affect organisations products, services, markets, suppliers, distributors, competitors, customers, manufacturing processes, marketing practices, and competitive position. The impact of the Internet and e-commerce is the latest wave of change derived from technological advancement (Internet 2). The internet is changing the very nature of opportunities and threats by altering the life cycle of products, increasing the speed of distribution, creating new products and services, erasing limitations of traditional geographic markets, and changing the historical trade off between production standardisation and flexibility.

2.4 Internal Analysis

The overall purpose of internal analysis is to identify those particular characteristics of the enterprise (resources, capabilities and core competence) that will allow it to meet existing future customer requirements better than present or future competitors. This implies the need for two fundamental tests in assessing capabilities, value to future customers, and distinctiveness from competitors (Internet 2).

According to Pearce and Robinson (2003, p. 123) three ingredients are critical to the success of a strategy. First, the strategy must be consistent with conditions in the competitive environment. Specifically, it must take advantage of existing or projected opportunities and minimize the impact of major threats. Secondly, the strategy must place

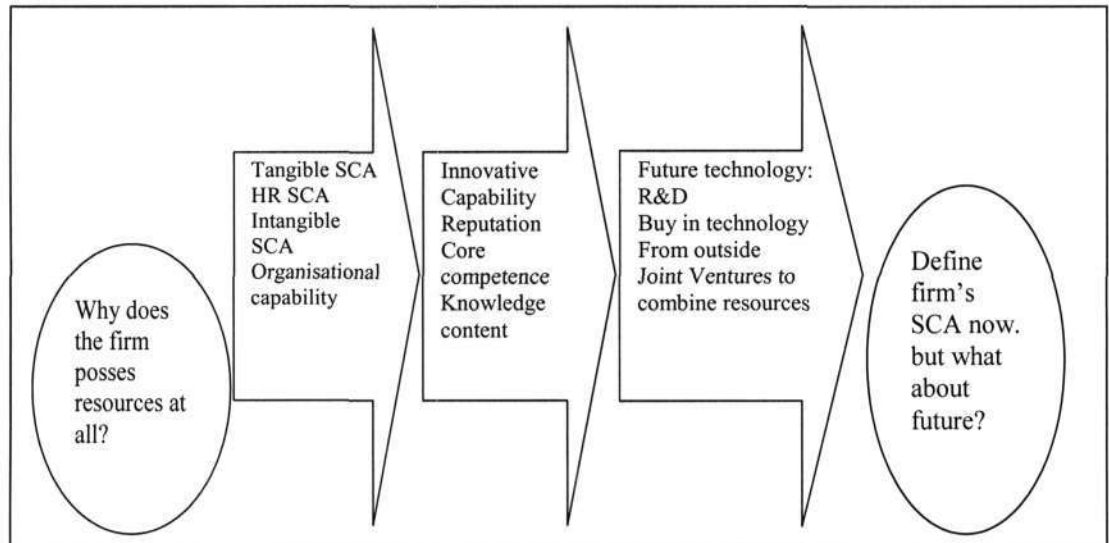
realistic requirements on the firm's resources. In other words the firm's pursuit of market opportunities must be based not only on the existence of external opportunities but also on competitive advantages that arise from the firm's key resources. Finally, the strategy must be carefully executed.

2.4.1 Resource Based View

The fundamental premise underlying the Resource Based View (RBV) theory is the recognition that firms own or control of resources that support unique strengths, allowing the firm to perform activities better or at lower cost than rivals (Fleisher and Bensoussan 2003 p. 207). It derives its strength from its ability to explain in clear managerial terms why some competitors are more profitable than others, how to put the idea of core competence into practice (Collis and Montgomery, 1995).

The resources based view of strategy (Internet 2) has become more important for two main reasons. First, the external world is seen as becoming unpredictable and so there are limitations to the value of studying its present state in detail. Secondly, business success may result from exploiting and building upon the unique qualities of enterprise and these can only be understood by looking inwards.

Figure 2.2 Identifying the Resources that Deliver Sustainable Competitive Advantage



Adapted from Lynch, 2003

Any organisation has three basic resources, tangible assets, intangible assets and organisational capabilities (Pearce and Robinson, 2003 p. 125). Resources cannot be evaluated in isolation, because their value is determined in the interplay with market forces. A resource that is valuable in a particular industry or at a particular time might fail to have the same value in a different industry (Collis and Montgomery, 1995). These assets and capabilities determine how efficiently and effectively a company performs its functional activities. Following this logic, a company will be positioned to succeed if it has the best and most appropriate stocks of resources for its business and strategy. Thus the RBV inextricably links a company's internal capabilities and its external industry environment (Collis and Montgomery, 1995).

Resources must pass through several tests to determine if they are capable of delivering competitive advantage (Fleisher and Bensoussan 2003 p. 208).

2.4.1.1 Competitive Superiority

Collis and Montgomery (1995) say perhaps the greatest mistake companies make when evaluating their resources is that they do not assess them relative to competitors. According to Lynch (2003), the resource must be comparatively better than the competition. It is not enough to have a 'low cost high quality' factory – it must have lower costs and higher quality than that of competitors. Fleisher and Bensoussan (2003 p. 209) further go on to say 'the necessary condition for a resource to be valuable is, of course, customer demand. The asset, capability, competence must support the provision of a product or service that meets minimum customer needs tastes, preferences and price.

2.4.1.2 Inimitability

If rivals can copy a resource, then profits generated by that resource will be short lived (Fleisher and Bensoussan p. 2003). However, inimitability doesn't last forever as competitors are able to match or better any resource as soon as they can (Pearce and Robinson 2003 p. 128). Despite this, some firms are able to develop costly to imitate capabilities. According to Hitt *et al* (2003 p. 90), "as firms evolve, they pick up skills, abilities and resources that are unique to them, reflecting their particular path through history."

According to Collis and Montgomery (1995) the other source of inimitability is causal ambiguity. Causal ambiguous resources are often organisational capabilities. These exist in a complex web of social interactions and may depend critically on particular individuals. The final source of inimitability, economic deterrence, occurs when a company pre-empts a competitor by making a sizeable investment in an asset. The competitor could replicate the resource but, because of limited market potential, chooses not to. This is most likely when strategies are built on large capital investments that are both scale sensitive and specific to a given market.

Lynch (2003) says although many resources can eventually be copied, such processes can be delayed by a number of devices; tangible uniqueness, casual ambiguity and investment deterrence.

According to Galvin (2004) organisational assets may also be (intangible) assets that can resist the imitation efforts of competitors. Organisational assets (Human Resource Management Policies, Organisational Culture) contribute order, stability, and quality to the firm.

2.4.1.3 Resource Scarcity

If firms possess a resource and few and if any others do, and it is central to fulfilling customers' needs, then it becomes a distinctive competence for the firm. The way resource scarcity contributes value is when it can be sustained overtime (Pearce and Robinson 2003, p. 128). Competitive advantage results only when firms develop and exploit capabilities that differ from those shared with competitors (Hitt, *et al*, 2003 p. 75).

2.4.1.4 Substitutability

Non-substitutable capabilities are capabilities that do not have strategic equivalents (Hitt, *et al*, 2003). According to Fleisher and Bensoussan (2003, p. 211) substitutability can impact not only products and services, but can also affect the underlying capabilities and competencies upon which products and services are built.

2.4.1.5 Appropriability

If competitively valuable resources are immobile, the firm stands a much higher chance of capturing the quasi rents that flow from them (Fleisher and Bensoussan, 2003 p. 211). Collis and Montgomery (1995) say basing a strategy on resources that are not inextricably bound to the company can make profits hard to capture. Pearce and Robinson, (2003 p. 131) say "possessing valuable resources will not generate

commensurate profits unless resources are applied in an optimum way and aligned to related activities for the firm to pursue its chosen sources of competitive advantage.” They add that “traditional formulation – externally positioning the firm to capitalize on its strengths and opportunities and to minimize its threats and weaknesses remains essential to realizing the competitive advantage envisioned from the RBV of the firm.”

In summary, according to Collis and Montgomery (1995) in a world of continuous change, companies need to maintain pressure constantly at the frontiers building for the next round of competition. Managers must therefore continually invest in and upgrade their resources, however good those resources are today, and leverage them with effective strategies into attractive industries in which they can contribute to a competitive advantage.

However, according to Galvin (cited in Hoopes *et al*, 2003), studies of this type do not untangle which resources, let alone which industry structure factors, explain differences in performance and thus fail to test core premises (resource value, rareness) of RBV.

2.4.2 The Analysis of Organisational Capabilities

Capabilities are the firm’s capacity to deploy resources that have been purposely integrated to achieve a desired state (Hitt, *et a*, 2003 p. 85). According to Ulrich and Smallwood (2004) organisational capabilities emerge when a company delivers on the combined competencies and abilities of its individuals. An employee may be technically literate or demonstrate leadership skill, but the company as a whole may or may not embody the same strengths. If it does, employees who excel in these areas will likely be engaged, if not, they may be frustrated. Additionally, organisational capabilities enable a company to turn its technical know how into results. A core competency in marketing, for example, won’t add value if the organisation is not able to spark change. There is no magic list of capabilities appropriate to every organisation. According to Ulrich and Smallwood (2004) a capabilities audit can help you monitor your company’s intangible assets. It will highlight which ones are most important given the company’s history and

strategy, measure how well the company delivers on these capabilities, and lead to an action plan for improvement. Collis and Montgomery (1995) say a valuable resource maybe an organisational capability embedded in a company's processes, and culture.

2.4.3 Analysis of Core Competence

Core competencies are resources and capabilities that serve as a source of competitive advantage over rivals. Core competencies emerge over time through an organisational process of accumulating and learning how to deploy different resources and capabilities (Hitt, *et al*, 2003 p. 86). According to Johnson and Scholes (2002 p. 156) core competences are activities or processes that critically underpin an organisations competitive advantage.

Collin and Montgomery (1995) say sometimes the valuable resource is a combination of skills, none of which is superior by itself but which, when combined, makes a better package. Therefore the concept of core competence can act as a vehicle for Strategic Business Unit (SBU's) to find common interests, problems, capabilities or opportunities. Javidan (1998) suggested that close co-operation among SBU's in relation to their core competences will facilitate the organisational learning and enhance the company's ability to leverage its resources.

Johnson and Scholes (2002 p. 156) says "the difference in performance between organisations in the same market is rarely explainable by differences in their resource base since resources can be imitated or traded. Superior performance will also be determined by the way in which resources are deployed to create competences in the organisations activities."

The ability to differentiate (Internet 2) between general capabilities and true competence can make the difference between success and failure. There are many areas that an organisation may possess core competencies. These may include superior skills in producing high quality products, in delivering customer orders accurately and swiftly and

mastery of an important technology. Other areas of core competencies are better after sales capability and a highly effective sales force (Internet 2).

2.5 Evaluating Business Strategy

According to Rumelt (cited in Glueck, 1980) for many executives strategy evaluation is simply an appraisal of how well a business performs. Has it grown? Is the profit rate normal or better? If the answers to these questions are affirmative, it is argued that the firm's strategy must be sound. Despite its unassailable simplicity, this line of reasoning misses the whole point of strategy; that the critical factors determining the quality of long-term results are often not directly observable or simply measured, and that by the time strategic opportunities or threats do directly affect operating results, it may well be too late for an effective response. Thus, strategy evaluation is an attempt to look beyond the obvious facts regarding the short-term health of a business and appraise instead those more fundamental factors and trends that govern success in the chosen field of endeavour.

Managers must use a set of criteria according to Rumelt (cited in Glueck, 1980) in order to determine or select which strategies will lead to success. According to Rumelt (cited in Glueck, 1980) of the many tests which could justifiably be applied to a business strategy, most will fit within one of these broad criteria.

- Consistency: The strategy must not present mutually inconsistent goals and policies.
- Consonance: The strategy must represent an adaptive response to the external environment and to the critical changes occurring within it.
- Advantage: The strategy must provide for the creation and/or maintenance of a competitive advantage in the selected area of activity.
- Feasibility: The strategy must neither overtax available resources nor create unsolvable sub problems.

A strategy that fails to meet one or more of these criteria is strongly suspect. A summary of Rumelt's (cited in Glueck, 1980) Criteria for evaluating strategies is presented in Table 2.1.

Table 2.1 Rumelts' Criteria for Strategy Evaluation

CONSISTENCY

A strategy should not present inconsistent goals and policies. Organisational conflict and interdepartmental bickering are often symptoms of managerial disorder, but these problems may also be a sign of strategic inconsistency. There are three guidelines to help determine if organisational problems are due to inconsistencies in strategy:

- If managerial problems continue despite changes in personnel and if they tend to be issue-based rather than people-based, then strategies may be inconsistent.
- If success for one organisational department means, or is interpreted to mean, failure for another department, then strategies may be inconsistent.
- If policy problems and issues continue to be brought to the top for resolution, then strategies may be inconsistent.

CONSONANCE

Consonance refers to the need for strategists to examine *sets of trends* as well as individual trends in evaluating strategies. A strategy must represent an adaptive response to the external environment and to the critical changes occurring within it. One difficulty in matching a firm's key internal and external factors in the formulation of strategy is that most trends are the result of interactions among other trends. For example, the day-care explosion came about as a combined result of many trends that included a rise in the average level of education, increased inflation, and an increase in women in the workforce. Although single economic or demographic trends might appear steady for many years, there are waves of change going on at the interaction level.

FEASIBILITY

A strategy must neither overtax available resources nor create unsolvable sub problems. The final broad test of strategy is its feasibility; that is, can the strategy be attempted within the physical, human, and financial resources of the enterprise? The financial resources of a business are the easiest to quantify and are normally the first limitation against which strategy is evaluated. It is sometimes forgotten, however, that innovative approaches to financing are often possible. Devices such as captive subsidiaries, sale-leaseback arrangements, and trying plant mortgages to long-term contracts have all been used effectively to help win key positions in suddenly expanding industries. A less quantifiable, but actually more rigid, limitation on strategic choice is that imposed by individual and organisational capabilities. In evaluating a strategy, it is important to examine whether an organisation has demonstrated in the past that it possesses the abilities, competencies, skills, and talents needed to carry out a given strategy.

ADVANTAGE

A strategy must provide for the creation and/or maintenance of a competitive advantage in a selected area of activity. Competitive advantages normally are the result of superiority in one of three areas : (1) resources, (2) skills, or (3) position. The idea that the positioning of one's resources can enhance their combined effectiveness is familiar to military theorists, chess players, and diplomats. Position can also play a crucial role in an organisation's strategy. Once gained, a good position is defensible – meaning that it is so costly to capture that rivals are deterred from full-scale attacks. Positional advantage tends to be self-sustaining as long as the key internal and environmental factors that underlie it remain stable. This is why entrenched firms can be almost impossible to unseat, even if their raw skill levels are only average. Although not all positional advantages are associated with size, it is true that larger organisations tend to operate in markets and use procedures that turn their size into advantage, while smaller firms seek product/market positions that exploit other types of advantage. The principal characteristic of good position is that it permits the firm to obtain advantage from policies that would not similarly benefit rivals without the same position. Therefore, in evaluating strategy, organisations should examine the nature of positional advantages associated with a given strategy.

Source: Adapted from Richard Rumelt, "The Evaluation of Business Strategy," in W.F. Glueck, ed., *Business Policy and Strategic Management* (New York: McGraw-Hill, 1980) pp. 359-367.

Johnson and Scholes (2002) have added two more criteria to Rumelts' (in Glueck, 1980) original criteria. These are suitability and acceptability. Johnson and Scholes (2002 p. 384) says "acceptability is concerned with the expected performance outcomes (such as the return or risk) of a strategy and the extent to which these would be in line with expectations whilst suitability is concerned with whether a strategy addresses the circumstances in which the organisation is operating".

2.5.1 Suitability

According to Johnson and Scholes (2002 p. 384) suitability is concerned with whether a strategy addresses the circumstances in which an organisation is operating – the strategic position. Johnson and Scholes (2002 p. 384) further go on to say that "suitability is the extent to which new strategies would fit with the future trends and changes in the environment, or how the strategy might exploit the core competencies of the organisation".

2.5.1.1 SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats)

According to Pearce and Robinson (2003 p.134), SWOT is based on the assumption that an effective strategy derives from a sound "fit" between a firm's internal resources (strengths and weaknesses) and its external situation (opportunities and threats). A good fit maximizes its strengths and minimises threats. Strengths and weaknesses are essentially internal to the organisation and relate to matters concerning resources, programs and organisation in key areas. These include (Internet 4).

- Sales – marketing, distribution, promotion, support;
- Management – systems, expertise, resources;
- Operations – efficiency, capacity, processes;
- Products – services, quality, pricing, features, range and competitiveness;
- Finances – resources, performance;
- Research and Development (R & D) – effort, direction, resources;
- Costs – productivity, purchasing;

➤ Systems – organisation and structures.

A company's internal strengths usually represent competitive assets; its internal weaknesses usually represent competitive liabilities. The desired condition is for the assets to outweigh the liabilities by a hefty margin (Internet 5). The external threats and opportunities confronting a company can exist or develop in the following areas: (Internet 4). The company's own industry where structural changes may be occurring, the market place which may be altering due to economic or social factors, competition which may be creating new threats or opportunities and new technologies which maybe causing fundamental changes in products and processes.

Other external factors that may be posing a danger to the firm are: (Internet 5) new regulations, vulnerability to rise in interest rates, unfavourable demographic shifts, adverse shifts in foreign exchange rates, political upheaval in a country and other political, economical, social and technological factors.

Having undertaken a SWOT Analysis a strategist then seeks to exploit what a company does best by embedding its expertise, strengths, core competencies and its strongest competitive capabilities in its strategy (Internet 6).

Jack Welch (2001) the former CEO of GE says "business success is less a function of grandiose predictions that it is a result of being able to respond rapidly to real changes as they occur. That's why strategy has to be dynamic and anticipatory".

2.5.1.2 Impact Analysis

Ambrossini *et al* (1998) another way of applying a SWOT analysis is through the application of an impact analysis. After the organisations strengths, weaknesses, opportunities and threats are identified, they are collated into a matrix. A scoring mechanism is also utilised to provide clarity to the analysis as a means of getting managers to assess the environment

- The environmental changes that are most critical to its success or failure.
- The internal strengths that will remain as strengths or become weaknesses in the changing environment.
- The internal element that is most influenced by each external change.

According to Ambrossini *et al*, (1998) in applying the impact analysis the following is a guide to the interpretation of the scores:

- A positive (+) score denotes that a strength that a company possesses would help it take advantage of, or counteract, a problem arising from an environment change or a weakness that would be offset by an environmental.
- A negative (-) score denotes that a strength would be reduced by the environmental change or a weakness would prevent the organisation from overcoming the problems associated with an environmental change.
- A zero (0) score indicates that current strength or weakness would not be affected by an environmental change.

2.5.2 Acceptability

According to Johnson and Scholes (2002) acceptability is concerned with the expected performance outcomes such as return or risk if the strategy were implemented, and the extent to which it would be in line with the expectations of stakeholders.

The purpose of this section is to present the various tests for acceptability of strategies which will be applied to test the validity of ZESCO's strategies in chapter five.

The table below illustrates the different criterion of acceptability.

Table 2.7 Some Criteria for understanding the Acceptability of Strategic Options

CRITERIA	USED TO UNDERSTAND	EXAMPLES	LIMITATIONS
Return Profitability	Financial return of investments	Return on capital Payback period Discounted cash flow (DCF)	Apply to discrete projects Only tangible costs/ benefits
Cost-benefit	Wider costs/ benefits (including intangibles)	Major infrastructure projects	Difficulties of quantification
Real options Shareholder Value Analysis (SVA)	Sequence of decisions Impact of new strategies on shareholder value	Real options analysis Mergers/acquisitions	Quantification Technical detail often difficult
Risk Financial ratio projections	Robustness of strategy Test assumptions/robustness	Break-even analysis Impact on gearing & liquidity "What if?" analysis	Tests factors separately
Sensitivity analysis			
Stakeholder reactions	Political dimension of strategy	Stakeholder mapping Game theory	Largely qualitative

Source: Johnson and Scholes 2002 p. 390

2.5.2.1 Stakeholder Attractiveness and Analysis

According to Fleisher and Bensoussan (2003 p. 298) stakeholder analysis systematically identifies important groups of people or individuals who can exert a significant amount of influence on the organisation and its competitors. Stakeholder analysis can serve as a powerful technique in helping executives decide which stakeholders are important to a company's and competitor's activities and operations, what their interests are, when and how to initiate actions regarding them, and how to allocate organisational resources among critical stakeholders in order to maximize the likelihood of competitive success. Hilt *et al* (2003 p. 24) go on to say "stakeholders are the individuals and groups who can affect, and are affected by, the strategic outcomes achieved and who have enforceable claims on a firm's performance."

Hilt *et al.*, (2003) classifies stakeholders into three categories:

- Capital Market Shareholders – those who have invested capital in the firm in the expectation of earning a positive return on their investment.
- Product Market Stakeholders – this includes customers whose interests are maximized when the quality and reliability of a firm's products are improved, but without a price increase. This group of stakeholders also includes unions, suppliers and host communities.
- Organisation Stakeholders – these include employees, managers and non-managers.

Lynch says the key issue with regard to stakeholders is that the organisation needs to take them into account in formulating its mission and objectives. If it does not, they may object and cause real problems for the organisation. According to Pearce and Robinson (2003) in defining and redefining the company mission, strategic managers must recognise the legitimate rights of the firm's claimants. These include not only stockholders and employees but also outsiders affected by the firm's actions. Each of these interest groups has justifiable reasons for expecting that the firm satisfy their claims.

In summary, according to Fleisher and Bensoussan (2003 p. 299) stakeholder analysis can be used to assist in decision making situations where various stakeholders have competing interests, resources are limited, and stockholder needs must be appropriately balanced. Managers also use strategic analysis to anticipate the mind and degree or magnitude of influence, positive or negative, these stakeholders will have. This can help companies to develop strategies to get the most effective support possible for organisational initiatives and reduce any obstacles to successful strategy implementation.

2.5.3 Feasibility

Feasibility is concerned with whether an organisation has the resources and competencies to deliver a strategy (Johnson and Scholes, 2002). Can the strategy be attempted within the physical, human, and financial resources available? The financial resources of the business are according to Rumelt (cited in Glueck, 1980) the easiest to quantify and are normally the first limitation against which strategy is measured. Rumelt (cited in Glueck, 1980) says “the less quantifiable but actually more rigid limitation is that imposed by the individual and organisational capabilities that are available”.

Noy (2001) says in assessing the organisations ability to carry out a strategy, it is helpful to ask three questions:

- Has the organisation demonstrated that it possesses the problem solving abilities or special competences required by strategy? A strategy, as such, does not and cannot specify in detail each action that must be carried out. A strategy that requires tasks to be accomplished which fall outside the realm of available or easily obtainable skill and knowledge cannot be acceptable. It is either infeasible or incomplete.
- Has the organisation demonstrated the degree of coordinative and integrative skill necessary to carry out strategy? The key tasks required of a strategy not only require specialised skill, but also make considerable demands on the organisations ability to integrate disparate activities.
- Does the strategy challenge and motivate key personnel and is it acceptable to those who must lend support? The purpose of strategy is to be able to deploy the unique and distinctive resources of an enterprise. If key managers are unmoved by a strategy, not excited by its goals or methods, or strongly support an alternative, it fails in a major way.

2.6 Conclusion

This chapter set out to discuss the theoretical literature on strategy evaluation and other aspects of the strategic management process which are fundamental in evaluating ZESCO's 2004-2009 Business Plan as this is the core of this study.

At the core of the literature review was the evaluation of business strategy. It is important to firstly understand what strategy is. This was defined in the introductory stage of this chapter. However in order to undertake a thorough strategy evaluation of a firm, both the external and internal factors faced by a firm must be fully understood. As such, the literature review in this chapter highlighted these factors which ZESCO, like any other firm is likely to encounter. Having undertaken a thorough understanding of the external environment, strategists then need to undertake an internal analysis of the firm. The purpose for undertaking the internal analysis is to identify the firm's key resources that it can utilise in pursuit of market opportunities. In pursuing the market opportunities, the strategy must be based not only on the existence of external opportunities but also on competitive advantages that arise from the firm's key resources. The strategy must also place realistic requirements on the firm's resources.

Once a firm has decided on the strategy or strategies it intends to implement, it is important to subject them to a vigorous strategy evaluation. In this study ZESCO's Business Plan will be subjected to a thorough evaluation in chapter five using the methodology to be discussed in the next chapter. The strategies are evaluated using the methodology to be presented in chapter three of this study. The external and internal environmental analysis acts as a major input to the evaluation process. The results from the evaluation will form the basis on which the hypothesis developed in chapter one will be tested. Lastly, recommendations are presented in chapter six based on the findings of the strategy evaluation in chapter five.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter is to present the essential steps of the research methodology to be utilised for this study. It has been explained in the preceding chapters that the core of this study is the evaluation of ZESCO's 2004-2009 Business Plan. In order to evaluate the seven strategies in the Business Plan, a set criterion of strategy evaluation as espoused by Rumelt (cited in Glueck, 1980) will be utilised. Thus this chapter will detail how this evaluation will be undertaken.

This study is a qualitative research which will utilise a case study. The 'case' for this study is the ZESCO 2004-2009 Business Plan. According to Robson 2002 (cited in Saunders 2003, p.93) defines case study as 'a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence.'

Qualitative research is fundamentally interpretive. This means that the researcher makes an interpretation of the data. The researcher filters the data through a personal lens that is located in a specific socio political and historical moment. One cannot escape the personal interpretation brought to qualitative data analysis (Wilcott, 1994).

The first part of this chapter will illustrate the sources of data and how this data was collected. This consists of both primary and secondary data. This being a case study the 'principle' primary data will be the ZESCO 2004-2009 Business Plan which is essentially the 'case' for this study. In the collection of data there will be an emphasis on collecting relevant data. Relevant in this case implies data which is necessary in the evaluation of the Business Plan.

The second part of this chapter will detail how the 'case' which is the Business Plan will be evaluated. Measurement will be introduced as a way to gauge the extent of the validity

of each of the strategies in the Business Plan. It will be explained how the study will ensure that there is validity, reliability and practicality. An explanation of how the hypothesis will be tested will be provided and finally the conclusion.

3.2 The Sources and Collection of Data

Cooper and Schindler (2203, p.87) defines data as the facts presented to the researcher from the study's environment. For this study the sources of data utilised comprise both primary and secondary data. In selecting the data for this study, the research topic was clearly defined so that only relevant data was collected. Relevance in this context is the data required to undertake a strategic evaluation of the 'case' in chapters four and five of this study. This data was from both the external and internal environment.

3.2.1 Primary Data

3.2.1.1 The ZESCO 2004-2009 Business Plan

The ZESCO 2004-2009 Business Plan is the case being evaluated for this study and is thus the main source of primary data. In chapter one it was highlighted that this Business Plan is ZESCO's response to the new Government policy of turning ZESCO into a commercially run and viable company. In this study the Business Plan will be put to the 'test' in order to evaluate whether it is suitable, acceptable and feasible given the external and internal environmental factors that ZESCO operates in.

3.2.1.2 Living Conditions Monitoring Survey (LCMS) Report (2002-2003)

ZESCO like any business organisation is greatly affected by the general conditions in the economic environment for its prosperity and long term survival. Economic issues that have a direct bearing on ZESCO include;

- Consumer Price Index (inflation).
- Industrial output.

- Levels of unemployment.
- GDP growth rates.
- Household income.
- Household expenditure.

These factors have a great influence on ZESCO's ability to meet the expected goals of its seven strategies and thus their inclusion in this model.

Approximately 20% of Zambia's population has access to electricity, meaning ZESCO has direct interaction through its services to 20% of the country's population. Their beliefs, values, attitudes, opinions and lifestyles have a direct bearing on how they perceive ZESCO, which directly affects how they react to issues such as tariff increases and ZESCO's selected strategies.

In order to evaluate the Business Plan, it is of utmost importance to understand the external environment in which ZESCO operates. For this study the LCMS (2002-2003) report is utilised to obtain information from the external environment. It is prepared by the Central Statistics Office of Zambia. The current report is the most recent and it represents the most comprehensive and reliable data on Zambia's social, political, micro and macro economic environment and provides the justification for its use. The relevant data which directly affects ZESCO was selected for use.

3.2.1.3 Energy Regulation Board, Act Cap 436, 2002

According to Pearce and Robinson (2003) the direction and stability of political factors are a major consideration for managers on formulating company strategy. Political factors define the legal and regulatory parameters within which firms must operate. Since such laws and regulations are most commonly restrictive, they tend to reduce the potential profits of firms. However, some political actions are designed to benefit and protect firms. Such actions include patent laws, government subsidies, and product research grants. Thus, political factors either may limit or benefit the firms they influence.

As part of the liberalisation of the energy electricity sector in Zambia, the Government set up the Energy Regulation Board to regulate this sector. The opening up of the market and regulating the sector provides a huge challenge to ZESCO which previously had a near monopoly and was unregulated. The ERB Act Cap 436, 2002 is the legal document which provides the rules and the basis on which ZESCO is regulated. It is as such an important source of data in evaluating the Business Plan. A summary of it is provided in Appendix 2.

3.2.1.4 Questionnaire, Unstructured Interviews and e-mail Correspondence

The ZESCO 2004-2009 Business Plan is the case being evaluated for this study. After a thorough analysis of this document it was concluded that there was need for further clarifications. In doing so a survey instrument in the form of a structured questionnaire was administered to the key ZESCO personnel who formulated the Business Plan. Later extensive use of unstructured interviews through telephones and e-mails was undertaken with these key personnel. Secondly, extensive e-mail correspondence with key ERB personnel was undertaken to get further insights of the views of the regulator, Government and other key stakeholders such domestic and industrial customers on ZESCO's Business Plan. The structured questionnaire is illustrated in Appendix 1. The information gathered is used in both chapters four and five in the analysis of the internal and external environment and in the evaluation of the Business Plan.

3.2.2 Secondary Sources of Data

In chapter two of this study, extensive use of literature from journals, textbooks, the internet is utilised. In sourcing for data for this study, the following statement by Saunders (2003, p.75) was taken into account, "a critical review of the literature is necessary to help develop a thorough understanding of and insight into previous research questions and objectives. Your review will set your research in context by critically discussing and referencing work that has already been undertaken, drawing out key

points and presenting them in a logically argued way, and highlighting those areas where you will need fresh insights. It will lead the reader into subsequent sections of the project report”.

However, for the purpose of this study, the literature review in this study will cover the fundamental aspects of corporate strategy which are vital in evaluating the 2004-2009 ZESCO Business Plan as this is the core of this study.

Lastly, the Times of Zambia was utilised as a secondary data source for this study. This was primarily for information on the 2005 Zambian Government Budget Speech presented to parliament by the Minister of Finance. The importance of this data to ZESCO is that the budget provides a forum at which the Government makes major policy announcements such as on monetary and fiscal policy, taxation, and regulation. These are important variables in the external environment of ZESCO and can directly affect its ability to meet its stated objectives in the Business Plan.

3.3 Analysis and Presentation of Data

In section 3.2 of this chapter, the sources and collection of data were described. In chapter four of this study, the data will be presented. This will include;

- Factors in the external environment.
- The case study, which in this case is the ZESCO 2004-2009 Business Plan.
- The internal environment of ZESCO.
 - The analysis of ZESCO’s internal environment. The Resource Based View as described in chapter will be utilised. This will involve testing of the key resources against; competitive superiority, inimitability, resource scarcity, substitutability and appropriability.

The above data coupled with the information gathered from the structured questionnaire, the unstructured interviews and e-mail correspondence with the key ZESCO and ERB personnel will form the basis on which the data analysis will be undertaken in chapter five.

3.3.1 Researchers Role

Qualitative research is interpretative research, with the inquirer typically involved in a sustained and intensive experience with participants. This introduces a range of strategic, ethical, and personal issues into the qualitative research process (Locke et al., 2001).

It worth mentioning that for this research, the researcher is an employee of ZESCO which is the company being evaluated. He has 12 years work experience with the company, although he was not involved in the formulation and preparation of the Business Plan. He worked for many years as a Customer Services Manager.

The qualitative researcher systematically reflects on who he or she is in the inquiry and is sensitive to his or her personal biography and how it shapes the study. The personal self becomes inseparable from the researcher-self. It also represents honesty and openness to research, acknowledging that all inquiry is laden with values. The qualitative researcher uses complex reasoning that is multifaceted, iterative, and simultaneous. Although the reasoning is largely inductive, both inductive and deductive processes are at work. The thinking process is also iterative, with a cycling back and forth from data collection and analysis to problem reformulation and back. Added to this are the simultaneous activities of collecting, analysing, and writing the data (Mertens, 2003).

The above two paragraphs clearly sum up the role that the researcher will play in this study. However, despite the biases that may result due the researchers familiarity with the company, a clearly defined data analysis procedure will be illustrated in section 3.3.2 of this study which will no doubt improve the reliability and validity of the findings.

In chapter five the data analysis and presentation of results will be done. It has been well explained that in this study the core is the evaluation of ZESCO's 2004-2009 Business Plan. In evaluating the seven strategies in the Business Plan, set criterion of strategy evaluation as espoused by Rumelt (in Glueck, 1980) will be utilised. The strategy evaluation criteria to be utilised will consist of suitability, acceptability and feasibility. In

other words each of the seven strategies in the Business Plan will be tested for its suitability, acceptability, and feasibility by taking into account the important variables in the external and internal environment in which ZESCO operates. The analysis of each of these strategies will be undertaken by the researcher himself by measuring the validity of each strategy against the stated criterion. The data presented in chapter four will act as the basis on which each strategy will be analysed and measured. Each strategy will be measured using an ordinal scale.

3.4 Measurement

Measurement will be introduced as there is need to measure the extent to which each of the strategies are 'valid' or 'not valid.'

According to Cooper and Schindler (2001) measurement is to discover the extent, dimensions, quantity, or capacity of something, especially with comparison to a standard. Measurement in research consists of assigning numbers to empirical events in compliance with a set of rules. This definition implies that measurement is a three part process:

- Selecting observable empirical events.
- Developing a set of mapping rules: a scheme for assigning numbers or symbols to represent aspects of the event measured.
- Applying the mapping rule(s) to each observable event.

3.4.1 Characteristics of Sound Measurement

It is important to ask and answer the question, "what are the characteristics of a good measurement tool?"

According to Cooper and Schindler (2001), the tool should be an accurate counter or indicator of what we are interested in measuring. In this study, we are trying to measure

or test the extent of the suitability, acceptability and feasibility of ZESCO's seven strategies.

There are three major criteria for evaluating a measurement tool: validity, reliability and practicality (Cooper and Schindler, 2001).

3.4.1.1 Validity

Validity refers to the extent to which a test measures what we actually wish to measure. For this study, validity will be ensured because the topics of concern (suitability, acceptability and feasibility) have been well defined. The items to scale (the ZESCO strategies) and the scales to be used are also well defined. According to Cooper and Schindler (2001) content validity can be ensured through a careful definition of the topic of concern and the items to be scaled.

The external validity of research findings refers to the data's ability to be generalised across persons, settings and times. In this study, extensive use of information from the Living Conditions Monitoring Survey Report 111, 2002-2003 (LCMS 111 2002-2003) developed by the Central Statistics Office (CSO) in Zambia is applied to infer on ZESCO's customers. The following narration in figure 3.1 illustrates how accuracy and precision of the results is ensured and provides justification for inferring this information from the population to represent ZESCO's customers.

Figure 3.1 Validity of Data Utilised

The sampling frame used for LCMSIII survey was developed from the 2000 census of population and housing. The frame is administratively demarcated into 9 provinces, which are further divided into 72 districts. The districts are further subdivided into 155 constituencies, which are also divided into wards. Wards consist of Census Supervisory Areas (CSA), which in turn embrace Standard Enumeration Areas (SEAs). For the purposes of this survey, SEAs constituted the ultimate Primary Sampling Units (PSUs).

In order to have equal precision in the estimates in all the provinces and at the same time take into account variation in the sizes of the provinces, the survey adopted the Square Root sample allocation method. This approach offers a better compromise between equal and proportional allocation methods in terms of reliability of both combined and separate estimates. The allocation of the sample points (PSUs) to rural and urban strata was almost proportional. The allocated provincial samples were multiples of 10 so as to facilitate the rolling of equal samples during the 10 cycles of data collection.

Sample Allocation Table

Province	Total	Rural	Urban
Zambia	520	326	194
Central	50	34	16
Copperbelt	70	20	50
Eastern	60	50	10
Laupula	50	38	12
Lusaka	70	18	52
Northern	60	44	16
North-western	50	40	10
Southern	60	41	19
Western	50	41	9

The LCMSIII survey employed a two-stage stratified cluster sample design whereby during the first stage, 520 SEAs were selected with Probability Proportional to Estimated Size (PPES). The size measure was taken from the frame systematically selected from an enumeration area listing. The survey was designed to provide reliable estimates at provincial, residential and national levels

Source LCMS 111 2002-2003.

Since ZESCO draws its customers from this same population, the findings from the LCMS Report 111 (2002-2003) can be generalised to represent ZESCO's customers' statistical data such as household income and expenditure. This ensures the validity and justification of the data used. It also ensures accuracy and precision.

3.4.1.2 Reliability

Reliability has to do with the accuracy and precision of a measurement procedure. A measure is reliable to the extent that it supplies consistent results (Cooper and Schindler, 2001).

It is impossible to demonstrate conclusively according to Rumelt, (in Glueck, 1980) that a particular strategy is optimal or even guarantee that it will work. This statement illustrates the difficulty of ensuring the reliability of 'testing' strategies. In this case the reliability is highly dependent on:

- The information used to 'test' the seven strategies.
- Personal perception of the researcher in interpreting the results. This is developed from both work experience and theoretical understanding of strategy evaluation.
- The analytical tools utilised.

3.4.1.3 Practicality

Practicality is concerned with a wide range of factors of economy, convenience and interpretability. In this study, the measurement scale (nominal) is easily interpreted and clearly illustrates whether the strategy is suitable, acceptable or feasible.

3.5 Data Analysis

Data analysis usually involves reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques. Further, researchers must interpret these findings in light of the client's research question or determine if the results are consistent with the hypothesis and theories (Cooper and Schindler, 2003 p. 87). This statement summarises what the data analysis will attempt to do for this study. In the analysis of the data the, two cardinal issues to be considered are;

- Evaluating the data against a set strategy evaluation criterion of suitability, acceptability and feasibility.
- Testing the hypothesis

3.5.1 Suitability

Suitability: Is a broad assessment of whether the strategy addresses the circumstances in which the organisation is operating, the extent to which new strategies would fit with future trends and changes in the environment; or how the strategies might exploit the core competencies of the organisation (Johnson and Scholes, 2002).

The above definition of suitability will be the basis on which the suitability of each of the seven strategies will be analysed and measured.

In the suitability test, SWOT Analysis (impact analysis) as illustrated in chapter two of this study will be utilised. This will utilise the impact analysis in which scales will be used to analyse the suitability of ZESCO's strategies. The model of the impact analysis for this study will be as illustrated by Ambrossini *et al* (1998). The SWOT will utilise information from;

- Company's current situation.
- Company internal analysis.
- External environmental analysis.

The scoring system (measurement) to be applied will be as follows (Ambrossini *et al*, 1998);

- A positive (+) score denotes that a strength that a company possesses would help it take advantage of, or counteract, a problem arising from an environmental change or a weakness that would be offset by the environmental change.
- A negative (-) score denotes that a strength that a company possesses would be reduced by the environmental change or a weakness would prevent the organisation from overcoming the problems associated with an environmental change or be accentuated by the change.
- A zero (0) score indicates that the current strength or weakness would not be affected by the environmental change.

Each of ZESCO's seven strategies will then be 'tested' for their suitability using the results obtained from the Impact Analysis as the basis for arriving at the respective suitability of each strategy. For the suitability test the question to be asked is as follows:

'To what extent does a particular strategy address the circumstances (threats and opportunities) that ZESCO is operating in? Secondly, to what extent does the strategy exploit the core competence (strength) of the organisation?'

- (a) Not suitable
- (b) Suitable
- (c) Very

-3	-2	-1
0	0	0
+1	+2	+3

The above measurement tool is an ordinal scale. According to Cooper and Schindler (2001), the use of an ordinal scale implies a statement of "greater than" or "less than."

In this case what we are trying to measure is the extent or degree to which a strategy is (a) not suitable, (b) suitable or (c) very suitable.

3.5.2 Acceptability

Acceptability: The expectations of ZESCO's two principal stakeholders: Government and product market customers; will be measured against each of the seven ZESCO strategies. In analysing the acceptability of the strategies, the researcher will utilise his own extensive experiences as a Customer Services Manager at ZESCO, extensive unstructured interviews and e-mail correspondence with ERB personnel and also the data gathered in chapter four of this study. Their expectations will be measured using an ordinal scale. The question to be asked is as follows:

'To what extent are ZESCO's strategies acceptable to each of its two principal stakeholders?'

a)	Not acceptable	-3	-2	-1
b)	Acceptable	0	0	0
c)	Very acceptable	+1	+2	+3

A descriptive justification will then be presented. According to Cooper and Schindler (2001) measurement must involve quantification, which is "the assignment of numbers to objects to represent amounts or degrees of a property possessed by all of the objects."

Cooper and Schindler (2001:204) further go on to say 'the goal of measurement is to support or refute hypothesis.' In this case the hypothesis is the validity of ZESCO's strategies using acceptability as a 'test.'

3.5.3 Feasibility

Feasibility is concerned with whether an organisation has the resources and competencies to deliver a strategy (Johnson and Scholes, 2002). Can the strategy be attempted within the physical, human, and financial resources available? The financial resources of the business are according to Rumelt (in Glueck, 1980) the easiest to quantify and are

normally the first limitation against which strategy is measured. Rumelt (in Glueck, 1980) says “the less quantifiable but actually more rigid limitation is that imposed by the individual and organisational capabilities that are available”.

Feasibility: Similar principles as those applied to the suitability and acceptability test will be utilised but the question to be asked will be as follows:

‘To what extent does ZESCO possess the resources and competencies necessary to deliver on its stated strategies?’

- a) Does not possess the resources and competences required.
- b) Possesses the resources and competences required.
- c) Exceeds the resources and competences required.

-3	-2	-1
0	0	0
+1	+2	+3

3.6 Hypothesis Test

It was explained in chapter one that, the problem being investigated is whether ZESCO’s Business Plan can be considered to be valid or not given the prevailing external environmental circumstances in which it operates and its own internal resources and capabilities. In order to undertake the evaluation a set criteria of suitability, acceptability and feasibility is applied. More specifically the problem being investigated is as follows;

“If a set criteria of strategy evaluation; suitability, acceptability and feasibility, were applied to ZESCO’s 2004-2009 Business Plan, would it be considered to be valid or not?”

The results from the data analysis will then answer the hypothesis above and conclusions will be based on this.

3.7 Conclusion

The purpose of this chapter was to present the methodology to be applied to evaluate ZESCO's Business Plan and ultimately test the hypothesis stated in chapter one. It was recognised that this study is a qualitative research with the ZESCO Business Plan being the case being analysed. In order to evaluate the Business Plan against the set criterion, data had to be collected. This consisted of both primary and secondary data. This data had to be 'relevant' to the analysis of the Business Plan. The principle sources of primary data were the ZESCO 2004-2009 Business Plan, Living Conditions Monitoring Survey Report, the Energy Regulation Act, structured questionnaire, unstructured interviews and email correspondence. For secondary data the main sources were journals, textbooks, internet and newspapers. Once this data is available the next stage is to analyse it.

The strategies are to be measured against a set strategy evaluation criteria of; suitability, acceptability and feasibility. The concept of measurement is introduced as a means to discover the extent of the validity of each of the seven strategies. The measurement scale to be used will be an ordinal scale. According to Cooper and Schindler (2001), the use of an ordinal scale implies a statement of "greater than" or "less than." Since measurement involves comparison to a standard, for this study the 'standard' will be a zero (0) score, which implies that the strategy being tested is suitable, acceptable or feasible, depending on the criteria being applied.

In chapter five, the test question which has been developed for each of the strategy evaluation criteria will be applied to each of the seven ZESCO's strategies.

The extent to which the answer is "greater than" the standard is denoted by a score ranging from +1 to +3 and the extent to which the answer is "less than" the standard is denoted by a score ranging from -1 to -3. The aggregate scores obtained from each strategy evaluation criteria provide the basis on which a conclusion is derived as to whether each strategy is valid or not. The analysis will ensure that issues of validity and reliability are taken into account.

Testing for suitability, acceptability and feasibility requires a thorough understanding of the internal and external environment in which a firm operates. Thus chapter four will provide the necessary information of ZESCO's Business Plan, internal analysis and the external environment. This information will then form the background against which the test instrument derived in this chapter will be applied to each of ZESCO's seven strategies (in chapter five) using the set strategy evaluation criteria presented in the literature review in chapter two. The results from this evaluation will be the basis on which the problem statement will be answered and conclusions and recommendations made in chapter six.

CHAPTER FOUR

ZESCO's EXTERNAL AND INTERNAL ENVIRONMENTAL ANALYSIS

The purpose of this chapter is to firstly present a summation of the external environment in which ZESCO operates in and also to undertake a thorough analysis of this environment so that the key opportunities and threats are identified. ZESCO, like any business is affected by conditions in its external environment. ZESCO has to take these factors into consideration when formulating its strategies and consequently react to these changes in the external environment. The main purpose of analysing the external environment is to ensure that there is a fit between its capabilities and the external environment in its strategies.

In the second part of this study, the ZESCO 2004-2009 Business Plan is presented. The Business plan is cardinal as it is the case being evaluated in this study. The plan presents a review of ZESCO's past performance which shows that the performance has been unsatisfactory in the past five years. The main highlight of the Business Plan is the presentation of the seven strategies. The main theme of the strategies is that they are partly as a result of Government's policy to commercialise rather than to concession ZESCO to a private operator. The aims of the commercialisation are to improve technical performance, improve financial performance and improve services to customers.

In the third part of this chapter, ZESCO's internal analysis is undertaken. Firstly the resource based view is applied to identify and classify ZESCO's resources. From these resources, the organisational capabilities are identified which then are tested to determine if they are capable of delivering a sustainable competitive advantage. The criteria to be used for this test will be competitive superiority, inimitability, resource scarcity, substitutability and appropriability.

Therefore, the main purpose of this chapter is to present data and information which is cardinal in the evaluation of ZESCO's Business Plan in chapter five. As explained in earlier chapters, the evaluation is against a set criterion of suitability, acceptability and feasibility as espoused by Rumelt (1980).

4.2 ZESCO's External Environment

4.2.1 Political Environment

ZESCO is a wholly owned by the Government and thus it is directly affected by Government policies in its day-to-day operations and long term strategic directions. The Government appoints the Managing Director and the Board of Directors. The other way the Government exerts influence over ZESCO is through regulation. The Energy Regulation Board was established through an Act of Parliament in 1995 and is, responsible for issuing licences, approving tariffs and setting standards for electricity service and quality. A summation of the General Conditions of the licensed Activity (ERB Act Cap 436, 2002) is presented in Appendix 2. This basically highlights the rules and regulations under which ZESCO is regulated.

The overall objective of the energy policy is to attract new investment and competition into the energy sector in order to contribute to the growth of the economy and create employment. Two companies that have emerged as a result of deregulation and privatization are the Copperbelt Energy Company (CEC), and Lunsemfwa Hydro Power Company. CEC is a private transmission company, licensed by the ERB, which was formerly owned by the Power Division of the Zambia Consolidated Copper Mines (ZCCM). CEC owns and operates the 220kV and 66kV grid serving the mining companies on the Copperbelt and it buys all its power supplies from ZESCO.

Lunsemfwa Hydro Power Company, which has a generation capacity of 40MW, was formerly owned by ZCCM Investment Holdings. It was privatized in 2001 through a

Management Buy Out (MBO) in conjunction with Eskom Enterprises of South Africa. (ZESCO Business Plan 2004 – 2009).

The Government's views on the Privatisation of ZESCO are outlined in Appendix 3.

4.2.2 Economic Environment

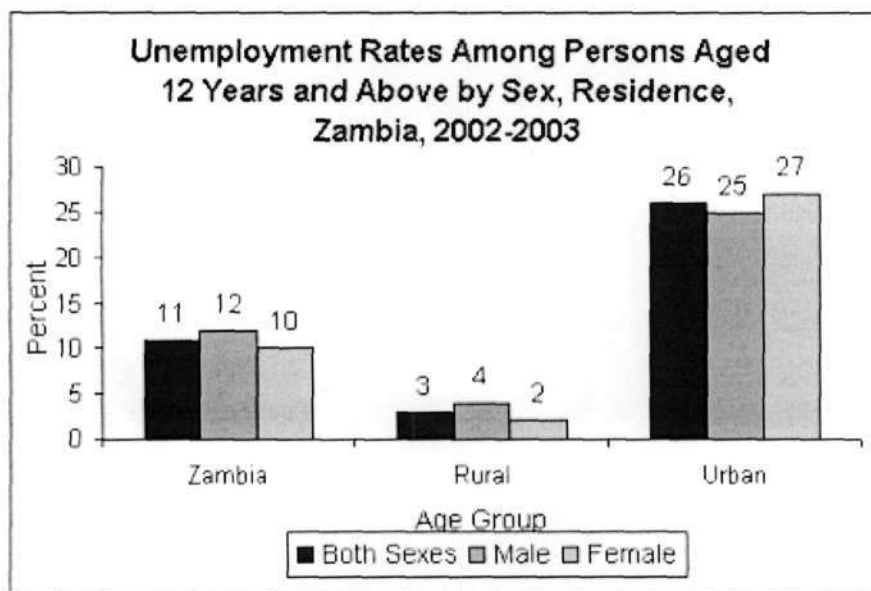
The following macroeconomic highlights are from the 2005 Budget Speech by Hon. Ngandu P. Magande, MP, Minister of Finance and National Planning (Times of Zambia, 29th January 2005). This gives a summation of the macro-economic conditions prevailing in Zambia.

- Real GDP grew by 4.6%.
- Inflation averaged at 17.5% for the year.
- Mining sector grew by 13.7%.
- Increased tourist arrivals.
- High external debt of US\$ 6.8bn. However (internet 19) 'Zambia is expected to access US\$ 3.8bn debt relief upon attaining the High Indebted Poor Countries (HPC) completion point, meaning the country's crippling US\$ 7bn debt will be cut by half.' This will free up huge resources which were previously used to service external debts. This improves Government's ability to meet its poverty alleviation obligations.
- 51% increase in exports due to high commodity prices internationally.
- Non Traditional Exports (NTE's) increased by 212.9%.
- High international oil prices offset gains from increased exports.
- Domestic credit to productive sectors increased by 20%.
- Interest rates declined from 37.7% in 2003 to 29.7% in 2004.
- Exchange rate remained stable throughout the year.
- Government support for agricultural electrification programs.

4.2.2.1 Unemployment

Though the figure below shows relatively low unemployment levels, a large proportion of those considered employed in Zambia are infact underemployed. According to Schiller (2000) underemployment is people seeking full time paid employment who work only part time or are employed at jobs below their capacity.

Figure 4.1 Unemployment Rates



Source: LCMS Report (2002-2003)

4.2.2.2 Household Income

Markets require not only people but also purchasing power, which is a function of income, prices, savings, and credit availability (Czinkota and Ronkainen, 2004).

Table 4.1 shows that households in Zambia generally receive low incomes. Both rural and urban areas have more households in the lower income groups. About 92% of rural households and 68% of urban households receive K600, 000 or less. The modal income group for rural households is 'K 150, 000 – K 300, 000' with 39% of total number of rural households. For urban households, the modal income groups are K 150, 001 – K

300, 000' and the relatively high income group 'K 800, 000 or above,' with 24% of urban households. In terms of mean monthly income, urban households receive K 790, 652 as compared with K 283, 796 for rural households. The average monthly income for urban households was almost 3 times that received by rural households (LCMS111, 2002-2003).

Table 4.1: Percentage Distribution of Household Incomes (In Kwacha)

Area	Less than K 50, 000	50, 000 – 150, 000	150, 001 – 300, 000	300, 001 – 450, 000	450, 001 – 600, 000	600, 001 – 800, 000	800, 001 +	Total	Mean income	No. of households
All Zambia	3	24	34	15	8	5	11	100	453,784	2,005,677
Rural	3	29	39	15	6	3	5	100	283,796	1,329,702
Urban	4	15	24	15	10	9	24	100	790,652	675,975

Source: Adapted from Living Conditions Monitoring Survey Report (2002 – 2003: 92)

4.2.2.3 Household Expenditure

Household expenditure is an important indicator of the welfare of a household. The status of individuals or households in society depends, among other things, on their level of consumption of goods and services. The share of food expenditure from total expenditure on goods and services is one of the measures of how constrained a household is. Generally, households in the lower income group tend to spend more of their incomes on food – Engel's Law. Therefore the proportion of food expenditure decreases with increased income (LCMS111, 2002 – 2003).

According to Czinkota and Ronkainen (2004) the share of income spent on necessities will provide an indication of the market's development level as well as how much money the consumer has left for other purchases.

Table 4.3 clearly illustrates that on average people in Zambia spend 64% of their income on food leaving very little to cover their other bills such as electricity. This is a huge threat to ZESCO.

Table 4.2: Average Monthly Expenditure in Kwacha.

Area	Monthly average expenditure on food	Monthly average expenditure on non-food	Monthly average expenditure on rent	Monthly average expenditure both food & non-food	Monthly average per capital expenditure	Households
All Zambia	317,585	115,536	44,283	490,530	111,444	2,004,613
Rural	292,887	70,596	14,330	386,676	87,911	1,330,132
Urban	366,291	203,964	103,352	695,340	157,853	674,481

Source: Adapted from Living Conditions Monitoring Survey Report (2002 – 2003 p. 103)

Note: In Table 4.2 electricity is included in ‘Monthly expenditure on rent.’

Table 4.3: Percentage Distribution of Household Expenditure

Area	% share on food	% share on non-food	% share on rental	Total	Households
All Zambia	64	26	10	100	2,004,613
Rural	75	20	4	100	1,330,132
Urban	52	32	16	100	674,481

Source: Adapted from Living Conditions Monitoring Survey Report (2002 – 2003 p. 104)

4.2.3 Social Environment

The critical issues for discussion are the demographic spread of the Zambian population, and HIV prevalence.

4.2.3.1 HIV Prevalence in Zambia

The table below illustrates that there is a high prevalence of HIV in the country.

Table 4.4 HIV Prevalence By age group

Percent HIV Prevalence among Women (15-49) and Men Aged 15-59, Background Characteristics, Zambia 2001/2002			
Background Characterist	Women (15-49)	Men (15-59)	Total
<i>Age Group</i>			
15-19	6.6	1.9	4.6
20-24	16.3	4.4	11.4
25-29	25.1	15.0	20.4
30-34	29.4	20.5	25.1
35-39	22.6	22.4	22.5
40-44	17.3	20.5	18.9
45-49	13.6	20.2	16.5
50-54	na	7.3	na
55-59	na	11.7	na
<i>Residence</i>			
Rural	12.4	8.9	10.8
Urban	26.3	19.2	23.1
<i>Province</i>			
Central	16.8	13.4	15.3
Copperbelt	22.1	17.3	19.9
Eastern	16.1	11.0	13.7
Luapula	13.3	8.6	11.2
Lusaka	25.0	18.7	22.0
Northern	10.0	6.2	8.3
North Western	8.8	9.5	9.2
Southern	20.2	14.6	17.6
Western	16.9	8.3	13.1
<i>Total (15-49)</i>	17.8	12.9	15.6
<i>Total (15-59)</i>	na	12.6	
Note: The rates for men shown by residence and province are based on Men aged in order to be comparable to those for Women. Na = Not Applicable			

Source: LCMS Report (2002-2003)

4.2.4 Technological Environment

Despite its monopoly status, ZESCO must promote innovation and be aware of technological changes that might influence its industry. A starting point would be to assess the potential substitute products and their usages in relation to its product electricity.

Table 4.5: Percentage Distribution of Household by main type of lighting energy

Area	Kerosene/paraffin	Electricity	Candle	Diesel	Open fire	Solar panel
All Zambia	51	18	11	6	11	0
Rural	63	3	5	9	16	0
Urban	27	48	24	0	0	0

Source: Adapted from Living Conditions Monitoring Report (2002 – 2003: 137)

Table 4.6 Percentage Distribution of Household by main type of cooking energy

Area	Collected firewood	Purchased firewood	Charcoal product	Charcoal purchased	Electricity
All Zambia	60	2	2	20	15
Rural	88	2	3	6	1
Urban	6	3	1	48	41

Source: Adapted from Living Conditions Monitoring Report (2002 – 2003 p. 138)

Although the usage of other forms of energy is high, (other than electricity) for lighting and cooling, according to (ZESCO Business Plan 2004 – 2009) the charcoal burners and firewood providers do not directly compete with ZESCO in that most of the customers they service live below the poverty datum line and may not afford to pay for electricity. Low rates of diffusion should be approached cautiously, because they can signal a market opportunity or lack thereof resulting from low income levels, use of substitute products, or lack of acceptance (Czinkota and Ronkainen, 2004).

In terms of technological innovation ZESCO has introduced prepayment metering as a pilot project. This is basically aimed at strategy 1 which is, 'to increase cash generation through debtor day's reduction and clearing up the billing process.

Table 4.7 ZESCO's Opportunities and Threats

Opportunities
<ul style="list-style-type: none"> • GDP growth of 4.6% • Increasing industrial output of 7.2% • Stable inflationary environment • Stable foreign exchange rates • Rising copper / cobalt prices leading to increased output by the mining companies and thus increased electricity consumption • Increase in agricultural output leading to increased demand for electricity • Opening up of new farming blocks requiring electrification • External debt write off; will improve macroeconomic environment
Threats
<ul style="list-style-type: none"> • Strict rules and standards set by regulators • Though unemployment figures seem low further analysis reveals most are under-employed • High poverty levels • Low income levels • Liberalisation which allows new entrants • High usage of other forms of energy such as charcoal, firewood and paraffin

4.3 ZESCO Organisation

ZESCO is a vertically integrated electricity utility with an installed capacity of 1640MW (Megawatts). The main generation stations are Kafue Gorge Power Station with 900MW capacity, Kariba North Bank Power Station with 600MW, and Victoria Falls Power Station with 108MW capacity. The Corporation also has mini-hydro power plants with a total capacity of 24MW and nine diesel power plants, which service rural areas. The total national demand for Zambia in 2003 was 1250MW. Lunsemfwa Hydro Power Company has a capacity of 38MW, which is also available to the national grid.

The purpose for ZESCO's existence is to sell electricity profitably. The Government of the Republic of Zambia (GRZ) is ZESCO's primary beneficiary (the reason for which the

company was created). Government requires a benefit of sustained profitability, which would be measured as profit after tax and finance charges (Corporate Performance Indicator, CPI).

Annual electricity sales in 2003/4 were about 8000GWh while revenue was about US\$160 million. ZESCO's asset base is estimated at US\$3.0 billion while its customer base is approximately 300, 000. One major customer Copper belt Energy Company (CEC) buys 50% of ZESCO's electricity supply for resale to the copper mines on the Copperbelt. The rest of the customers are exports, residential, agricultural, industrial and commercial.

4.3.1 ZESCO's Mission Statement

The current mission statement reads **"To profitably and competitively supply uninterrupted electricity at the correct voltage, to the satisfaction of our customers"**.

The Vision is **"To be better than London Electricity Company PLC"**.

The Strategy is **"To Run ZESCO as a profitable business which is customer focused"**.

4.3.2 Core Business

The core functions of ZESCO are generation, transmission, distribution, supply and customer services. The support services encompass finance, human resources, engineering development and projects.

Generation and Transmission: Responsible for the operations of the hydro power stations and the high voltage (66kV – 330kV) transmission networks. The directorate is also responsible for the National Control Centre (NCC).

Distribution and Supply: Responsible for the operation and maintenance of the distribution networks (up to 66kV) and the diesel power stations.

Customer Services: Responsible for the commercial relationships with retail customers, as well as the quality of service delivery.

Finance: Responsible for the maintenance of the books of accounts and, compliance with financial statutory regulations.

Human Resources and Administration: Responsible for the implementation of the corporate human resources policy and procedures.

Engineering Development and Projects: Responsible for the design and development of the network and procurements of goods and services for the corporation. It is also responsible for the implementation of the 250 million USD Power Rehabilitation Project (PRP).

4.4 Review of Past and Projected Performance

Tables 4.8 to 4.11 illustrate ZESCO's current and projected financial performance for the period 2004-2009. This covers the period of the Business Plan.

Table 4.8: Abridged Profit and Loss Statement

	2004/5	2005/6	2006/7	2007/8	2008/9
Income	784	936	1172	1370	1626
Cost of Sales	188	206	245	279	323
Other Trading Income	0	26	19	23	26
Operating Expenses	557	634	724	795	891
Profit btfc	64	115	226	323	443
Profit atfc	28	74	179	272	406
Profit after Dividends	24	63	152	231	345

Source: ZESCO 2004-2009 Business Plan

Table 4.9 Cash Flow Analysis

	2004/5	2005/6	2006/7	2007/8	2008/9
Net Cash from op activities	283	178	308	568	634
Net Investments	-522	-258	-357	-479	619
Taxation	-40	-40	-45	-50	-55
Financing Activities	-284	-233	-237	-168	-89
Increase/(Decrease in Cash/Equivalents	-27	-126	-170	-274	-138
Closing Balances	(14)	112	283	555	693

Source: ZESCO 2004-2009 Business Plan

Table 4.10: Balance Sheet

	2004/5	2005/6	2006/7	2007/8	2008/9
Fixed Assets	2870	3211	3675	4282	5043
Depreciation	-747	-862	-1018	-1176	-1353
Net Book Value	2123	2348	2658	3106	3670
Total Current Assets	352	463	644	709	671
Total Assets	2474	2811	3302	3815	4361
Current Liabilities	351	367	437	504	558
LT Liabilities	861	1119	1387	1602	1749
Total Capital & Reserves	1262	1325	1478	1709	2054
Total Equity & Liabilities	2474	2811	3302	3815	4361

Source: ZESCO 2004-2009 Business Plan

Table 4.11 Financial Ratios

	2004	2005	2006	2007	2008	2009
Sales Growth (Units) %		(1)	7	7	6	37
Revenue Growth (K) %		11	14	17	17	57
Operating margin (%)	75	75.9	71.2	75.8	79.36	78.64
Net Profit Margin (%)	(9)	11	15	23	29	43
ROCE (%)	(2)	3	4	6	8	15
RoE (%)	(5)	7	9	15	18	31
Debt-Equity Ratio	0.62	0.76	1.10	1.22	1.11	0.78
Current Ratio	1.24	1.39	1.79	2.21	2.32	2.79
Quick Ratio (times)	1	1	2	2	2	3
Interest Cover (times)	(5)	4	2	2	2	5
Debt Cover (times)	0	1.26	1.20	1.54	1.50	3.04
Return on Assets	2	3	4	7	10	23

Source: ZESCO 2004-2009 Business Plan

4.5 Strategic Issues

Management had conducted a thorough internal analysis and identified the following strategic issues (ZESCO Business Plan 2004-2009).

These are:

- Need to generate enough cash reserves to support operations.
- The excessive cost structure of the company.
- Static real sales growth over the past five years.
- An inefficient distribution system.
- Lack of commercial focus in the organisation.
- Ineffective operational/organisational structures.
- Lack of aggressive marketing.
- Impending medium term generation shortfall.
- Need to attend to regulatory issues in the face of deregulation and market liberalisation.

4.6 Selected Strategies

The analysis revealed that ZESCO's current strategies were not robust. There were big gaps between where the company was going on its current strategies and where its should

be going as a commercial entity. The implications of the gaps were that ZESCO required new strategies to begin working immediately if it were to close the gaps.

To close the gaps, new robust strategies were required. The strategies were meant to focus attention and at the same time reduce uncertainty by clarifying what the organisation would be pursuing over the next five years. The strategies selected were:

Strategy 1. To Increase Cash Generation Through Debtor Days Reduction and Cleaning Up Of The Billing Process.

Strategy 2. Introduce Strategic Business Units (SBUs) through Business Process Reengineering and Restructuring

Strategy 3. Reduce The Impact Of HIV/AIDS On Productivity Through Introduction Of Anti Retro Virals (ARVs) And Support Equipment

Strategy 4: To Reduce Operating Costs and Accelerate Commercialisation Process.

Strategy 5: Maintain Value of ZESCO Revenues In Real Terms Through Regular Tariff Adjustments

Strategy 6: Improve Security of Power Supplies through Developing New Hydro Power Stations, Interconnectors and Increase Revenues through Customer Base Expansion

Strategy 7: Improve Reliability of Supplies through Distribution Network Rehabilitation & Reinforcement

4.7 Zambian Demand Forecast 2003-2013

The growth in electricity consumption in the SADC region over the planning horizon is assumed to be about 1200MW per annum. The region will experience a generation capacity shortfall as early as 2007/08 if no new sources of power are identified and developed. ZESCO recognises the opportunity this scenario offers.

Table 4.12 Zambian Demand Forecast 2003-2013

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Forecast peak Demand (MW)	1210	1240	1260	1294	1323	1376	1412	1481	1523	1565	1607
ZESCO System Losses @ 3% (MW)	36	37	38	39	40	41	42	44	46	47	48
Projected Available Capacity (MW)	1410	1410	1650	1980	1980	1980	1980	2280	2580	2580	2580
Projected Capacity Surplus (MW)	164	133	352	648	617	563	525	755	1012	969	925
Projected Energy Demand (GWh)	8477	8690	8830	9066	9272	9640	9897	10375	10670	10964	11258
ZESCO Energy Losses (GWh)	254	261	265	272	278	289	297	311	320	329	338
Projected Available Energy (GWh)	9881	9881	11563	13876	13876	13876	13876	15978	18081	18081	18081
Projected Surplus Energy (GWh)	1150	930	2468	4538	4326	3947	3682	5292	7091	6788	6485

Source: ZESCO Business Plan 2004-2009

4.8 Investment Analysis

Below is a summation of the projects that ZESCO intends to undertake for the period 2004-2009.

- KNBC Upgrading \$26 million
- Zambia – Namibia 220kV Line \$12million
- Luano- kansanshi 330kV Line \$22 million
- Kansanshi-Lumwana Mine 330 kV Line \$16 million
- Mkushi Farm Block distribution \$10 million
- Business Information Systems \$12 million
- Zambia-Tanzania 330kV Line \$31 million
- Itezhi Tezhi Power Station \$120 million

4.9 Internal Analysis of ZESCO

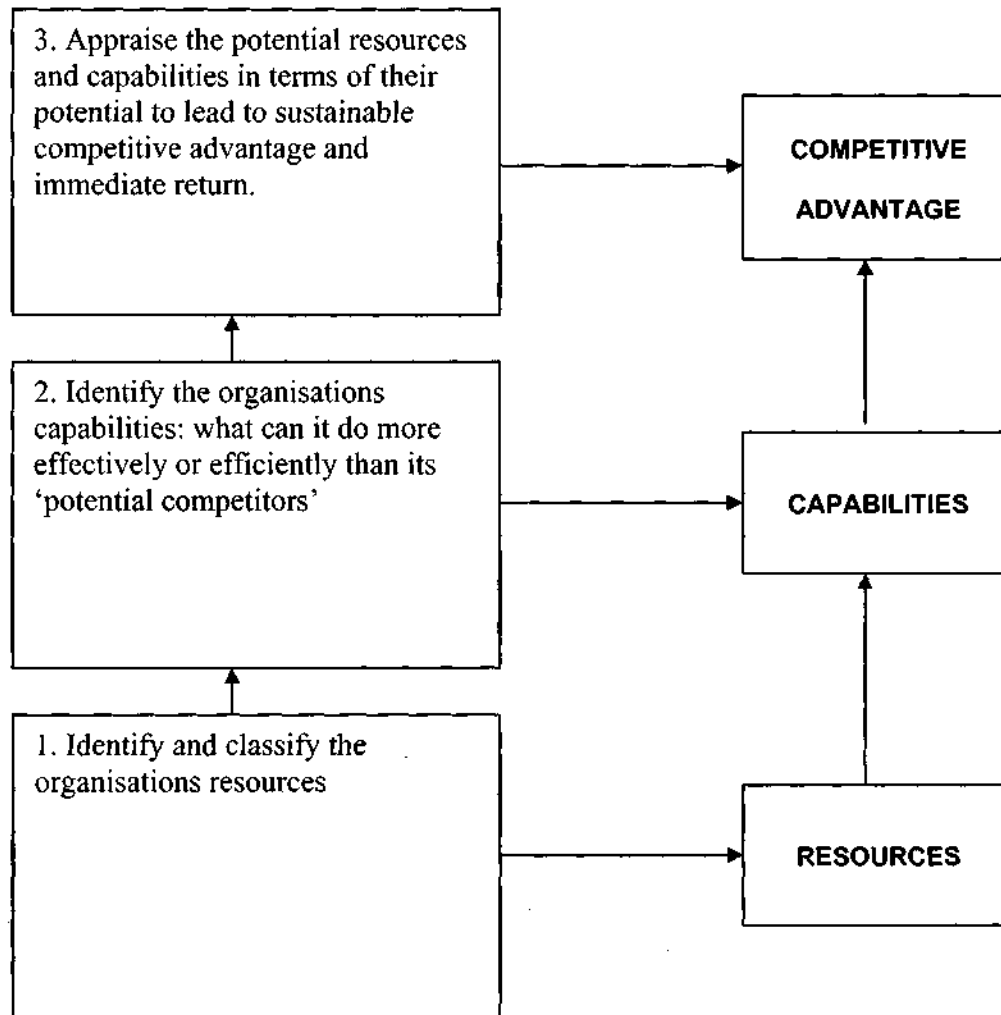
In the literature review in chapter two, it was discussed that the firms' pursuit of market opportunities must be based not only on the existence of external opportunities but also on the competitive advantage that arise from the firms' key resources. Earlier in the chapter, ZESCO's external environment was analysed and the threats and opportunities it faces were identified.

Against this background, the purpose for conducting an internal analysis of ZESCO can be summed up as follows;

- Identify and classify ZESCO's key resources.
- Identify its organisational capabilities.
- The identified organisational capability are then appraised as to whether they have the capability to deliver a sustainable competitive advantage that will allow them to meet existing future customer requirements better than present or future competitors.
- Ensure that the identified strengths can not only be used to take advantage of the opportunities but also counteract the threats arising from the external environment.

In Chapter One, it was explained that ZESCO is a vertically integrated national electricity utility with an installed electricity generation capacity of 1,640MW. Figure 4.2 illustrates the resources based view (RBV) model which will be applied to analyse ZESCO's internal resources and capabilities.

Fig. 4.2 Resource Based View for ZESCO Internal Analysis



4.9.1 Identification of ZESCO'S Key Resources

In this section ZESCO's key resources will be identified. These are the resources that are critical for it to be able to meet its stated strategies. There resources are its generating stations, transmission system, its human resources and financial resources.

4.9.2 ZESCO Generating Stations

Table 4.13 illustrates ZESCO's generating stations, their capacity. They form ZESCO's most important and valuable resource.

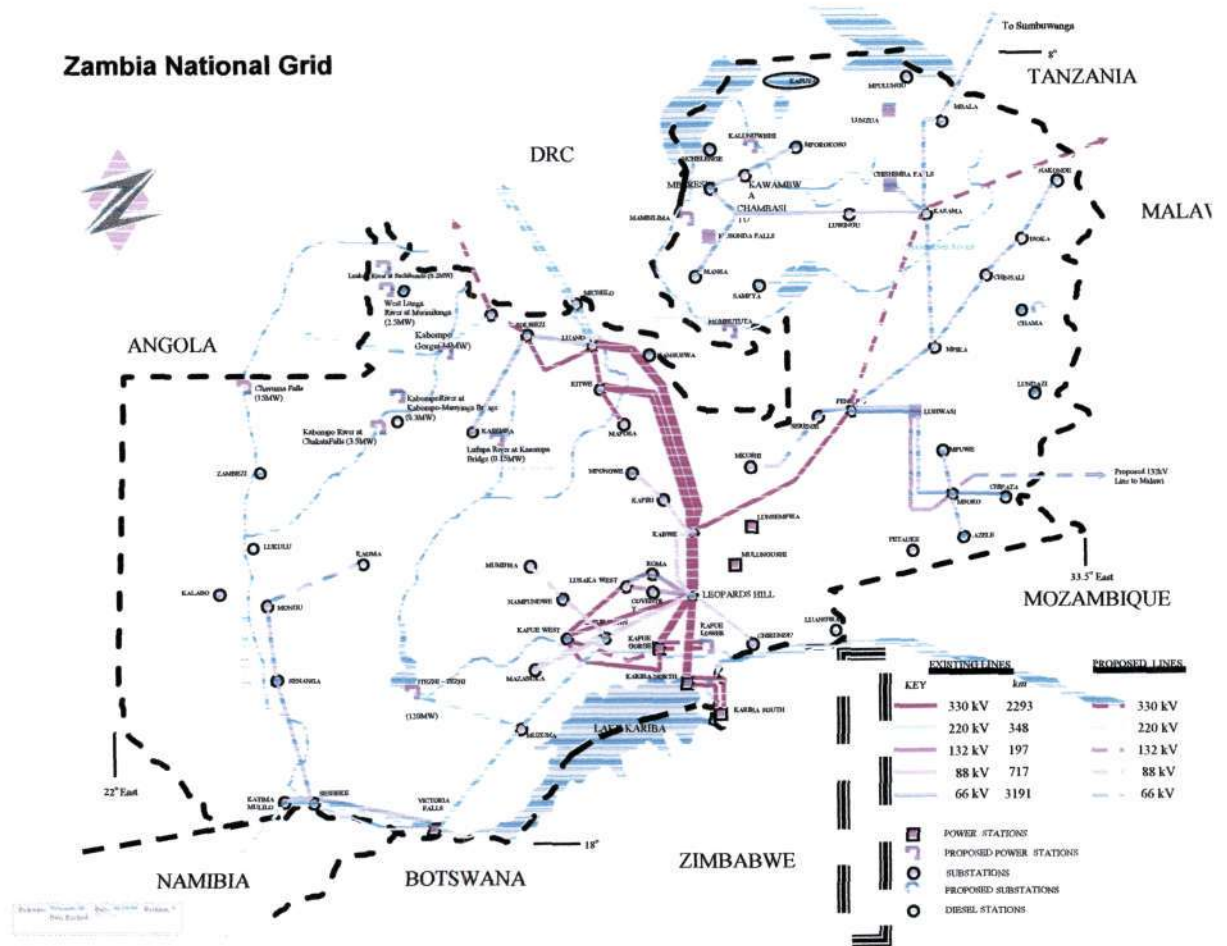
Table 4.13 ZESCO's Power Stations

Power Station	Generating Megawatts (MW) Capacity
1. Kafue Gorge	900
2. Kariba North Bank	600
3. Victoria Falls	108
4. Mini Hydros	24
5. Diesel Power Plants	6.3
Total	1638.3

Source: ZESCO Business Plan 2004-2009

4.9.3 Transmission System

Figure 4.3 Zambia National Grid



Source: National Control Centre (ZESCO, 2005).

Figure 4.3 shows the high voltage transmission system that runs from the south to the north of the country. It is strategically placed to handle power transfers in the sub region. Currently power is transmitted from the power stations in the south to the main mining load centres in the Copperbelt. In view of the new projects that are due for development in the country, the network is capable of transferring power to new markets in the region.

With the hydropower potential in the country and strategic location, including the well developed transmission system, ZESCO can play a very pivotal role in the evolving

electricity trade in the region. The electricity trade in the region is growing to be a multi billion-dollar business in which the ZESCO can tap.

Table 4.14 ZESCO Transmission Network

Voltage (Kilovolts)	Distance in Km
330Kv	2,293
220kV	348
132kV	197
88kV	717
66kV	3,191

Source: National Control Centre (ZESCO, 2005).

4.9.4 Human Resources

ZESCO has a highly qualified and experienced workforce including its members of the Boards. The company has consistently attracted a high calibre group of consultants and contractors for projects that it outsources. Currently there are 3666 employees in ZESCO (182 engineers, 152 technologists, 266 technicians, 628 craftsmen, 197 accountants and 2181 other disciplines) resulting in employee customer ratio of 1:84. The organisational structure places emphasis on clear accountabilities and responsibilities at the level of the business unit. The responsible manager's performances are measured against the set targets.

4.9.5 Financial Resources

ZESCO's financial resources are illustrated in Tables 4.8 to 4.11. It has total fixed assets valued at K 2.87 trillion. The above is a summation of ZESCO's key resources which are its generating stations, its transmission lines, its human resources and its financial resources.

4.9.6 Identification of ZESCO'S Organisational Capabilities

Having identified ZESCO's key resources, it is important to then analyse which of these resources have the capability to give ZESCO a sustainable competitive advantage.

ZESCO's ability to supply uninterrupted supply to the mining industry at 100% availability is its principal organisational capability. In Zambia, the mining industry consumes about 50% of ZESCO's total generating capacity. They require the electricity to be supplied at 100% reliability/availability and ZESCO has been able to do so.

The literature review in Chapter Two emphasised the organisational capabilities must lead to competitive advantage and strategic competitiveness. In the next section, using the RBV Analysis, it will be demonstrated whether or not the above organisational capability of ZESCO does indeed give it a sustainable competitive advantage.

4.9.7 Appraisal of ZESCO's Key Resources

Although ZESCO has a monopoly in the generation and transmission of power in Zambia, it can no longer have a 'business as usual' attitude as the Government has liberalised the market allowing for new entrants into the industry.

According to Crew (1987) the underlying approach to regulation has changed. Presumably, the overwhelming economies of scale and scope, that were assumed to arise from a single supplier, now take second place in the minds of policy-makers who extol the benefits of entry and competition.

In order for ZESCO to protect its market from potential competitors, it must develop competences from its resources that would allow it to perform activities better or at lower cost than its potential competitors.

From the identified resources, which of these has the potential to give ZESCO a sustainable competitive advantage? The generation and transmission system seems to be those resources. However, according to (Fleisher and Bensoussan, 2003) resources must pass through several tests to determine if they are capable of delivering competitive advantage.

We shall thus subject ZESCO's generation and transmission system to this test.

1. Competitive Superiority

ZESCO has been able to supply uninterrupted supply to the mining industry at 100% availability. Availability of supply is defined as;

Percentage availability of electricity supply at a customer's delivery point is the time in a defined period that a customer had electricity supply, expressed as a percentage of the total time in that period. The formula for availability of supply is:

$$\% \text{ AVAILABILITY} = \frac{(8760 - \text{Total Outage Time}) \times 100}{8760}$$

Where 8760 is the number of hours in a calendar year

This level of efficiency (100%) is 'world class', and ZESCO would be able to match or better any potential competitor on this key success factor. It thus 'passes' the competitive superiority test.

2. Inimitability

According to (Collis and Montgomery, 1995) economic deterrence occurs when a company pre-empts a competitor by making a sizeable investment in an asset. The competitor could replicate the resource, but because of limited market potential, chooses not to. This is most likely when strategies are built on large capital investments that are both scale sensitive and specific to a given market. The above statement applies to ZESCO. It has built up a highly capital intensive generation and transmission system worth several billion dollars in a relatively small market of only 300, 000 customers. Secondly it has signed a long term Bulk Supply Agreement (BSA) with the Copperbelt Energy Company (CEC), which distributes power to the huge mining industry.

The mining industry consumes approximately 50% of the generated power and accounts for 46.5% of ZESCO's revenue. Thirdly, the current forecast for demand of electricity is 1,240MW against ZESCO's generating capacity of 1,640MW leaving a surplus of 400MW.

Fourthly, not only is the market size small, low income levels, high poverty levels and underemployment have led to poor levels of payments from customers. The above illustrates that ZESCO has made a high capital investment in a relatively small and poor market and has a stranglehold on the lucrative supply of power to the mining industry. In this circumstance ZESCO's generating and transmission system can be described to be inimitable.

3. Resource Scarcity

According to Pearce and Robinson (2003), if a firm possess a resource and few if any others do, and it is central to fulfilling customers' needs, then it becomes a distinctive competence for the firm.

ZESCO is the monopoly generator and transmitter of power in Zambia. Although there is one Independent Power Producer (IPP) Lunsenfwa Hydropower Company, it produces only 40MW (against ZESCO's capacity of 1,640MW) and it sells all its power to ZESCO. CEC on the other hand buys all its power from ZESCO which it then distributes to the mining companies.

The generation and transmission system is further supplemented by ZESCO's vast national distribution system. This vertical integration means ZESCO is the only direct supplier of electricity to the Zambian market and on this basis its product electricity can be considered to be a scarce resource. ZESCO's large and highly developed electricity infrastructure in both generation and transmission creates a barrier to entry for other players.

4. Substitutability

Electricity is not the only source of energy. Other sources are oil, diesel, coal, charcoal and firewood. Although charcoal and firewood are extensively used in Zambia as energy sources, they do not directly compete with ZESCO as these customers are below the poverty datum line and may not afford to pay for electricity.

Secondly, the option of diesel and coal for home use are far more expensive than the cheap hydro based power ZESCO produces.

Thirdly, most commercial electricity users such as the mines have invested heavily in electricity based production systems and would face huge capital costs if they tried to switch to other energy sources.

Once again, ZESCO's vast generation, transmission and distribution system make it very difficult to 'substitute' it as an energy source. The above once again supports the view that ZESCO's generation and transmission system comes 'close' to being a non-substitutable product.

5. Appropriability

Who captures the value that the resource creates? According to Collis and Montgomery (1995), not all profits from a resource automatically flow to the company that "owns" the resource.

In ZESCO's case it has full ownership of its entire generation, transmission and distribution system and thus captures the profits that flow from this resource. Thus, the generation and transmission system 'pass' the appropriability test.

Having completed the five tests on ZESCO's generation and transmission test, it can be concluded that ZESCO's generation and transmission system is a resource that is capable of delivering a sustainable competitive advantage in the Zambian electricity market.

From the internal analysis, the strengths and weaknesses of ZESCO can be summed as per Table 4.15

Table 4.15 ZESCO's Strengths and Weaknesses

Strengths
<ol style="list-style-type: none">1. Efficient and robust generation and transmission infrastructure.2. Large pool of qualified and experienced technical staff especially in generation and transmission.3. Low cost hydro based power.4. Good regional strategic positioning for export expansion and wheeling.5. Ability to raise funds from external sources.6. Goodwill from its principle shareholder, the Zambian Government.
Weaknesses
<ol style="list-style-type: none">1. Poor cash flow and low collection rates.2. High cost of operations.3. Poor business cultural orientation by its employees.4. Inefficient distribution system.5. Low customer satisfaction levels.6. High cost of diesel generation stations.7. Ineffective operational and organisational structures.

4.8 Conclusion

One of the most important implications for ZESCO from its external environment is that the Government through its liberalisation and regulatory policies has set the stage for new entrants into the electricity market in Zambia, thereby beginning the process of ending ZESCO's monopoly in the electricity sector in Zambia.

What the Government is trying to achieve through these policies is illustrated by Newberry (2001 p. 171), "Competition is more effective than regulation at cutting costs to improve productive efficiency, and aligning prices with costs to improve efficiency. The ideal solution is for competition to provide both the incentive for efficiency and the means to transfer the gains to consumers."

The second implication, regards the revision of tariffs. ZESCO's strategy 5 is 'to maintain value of revenue in real terms through regular tariff reviews.'

Despite this strategy, ZESCO cannot arbitrary raise tariffs but has to follow strict ERB guidelines and take into account the interests of all other stakeholders.

Thirdly it must comply with performance standards regarding safety, quality and reliability of supply. Despite ZESCO's continuing monopoly, it now has to operate on strict acceptable business principles and move away from the 'old parastatal culture' when it could raise tariffs as it wished without regard to its own inbuilt inefficiencies and to the quality and reliability of the supply to its customers.

Fourthly, it was revealed that although the economy was experiencing growth, and inflation was being contained, there are very high levels of underemployment. The population have very low levels of income of with a high percentage (64%) spent on food items. These factors have far reaching implications as they directly affect ZESCO's ability to collect its outstanding electricity debts and also affects the customers' ability to afford ZESCO's proposed tariff increments.

In the second part of this chapter an analysis of ZESCO's internal environment is conducted. The Resource Based View (RBV) was applied for this purpose and it identified ZESCO's key resources to be its power generating stations, its transmission network, its human resources and its financial resources. From these key resources it was further identified that its ability to supply uninterruptible supply to the mining industry was its organisational capability. The generating and transmission system was found to have the capability of delivering a sustainable competitive advantage. This was after it was tested against a criterion of competitive superiority, inimitability, resource scarcity, substitutability and appropriability. ZESCO has invested heavily in the generating and transmission system in a relatively small and poor market. It has no real substitutes due to its cheap product and potentially high switching costs of industrial customers. It is also able to deliver uninterruptible power to its major customer the mines, which even a world class competitor would have difficulty beating. Its vast transmission and

distribution network becomes a barrier to potential entrants making its product 'scarce' in this context. It also owns the resource and thus gains from the profits that flow from it.

ZESCO should thus select strategies which best exploits this organisational resource and capability relative to the external opportunities. For its other resources, ZESCO should identify resources gaps which need to be filled. It should invest in replenishing, augmenting, and upgrading the resource base of the organisation (Feurer and Chaharbaghi, 1995).

The generation and transmission system of ZESCO is its most 'potent' resource of gaining a sustainable competitive advantage against potential entrants to the Zambian electricity market.

The data presented and the information gathered from this chapter will form the main background against which ZESCO's seven strategies in the Business Plan will be evaluated and analysed in the next chapter.

CHAPTER FIVE

PRESENTATION OF RESULTS AND DATA ANALYSIS

5.1 Introduction

The main purpose of this chapter will be to test the validity of each of the seven ZESCO strategies presented in chapter four. In order to test the validity of the strategies, a set criterion of suitability, acceptability, and feasibility as espoused in the literature review of chapter two. The concept of measurement will be introduced as a means to discover the extent of the validity of each of the seven strategies. In testing the validity of each strategy, the information obtained from the external and internal environmental analysis in chapter four, will provide the background information on which the analysis and evaluation will be based. Secondly, the information obtained from the questionnaire, unstructured interviews with key ZESCO and ERB personnel will also be utilised.

The results will be presented followed by a discussion on how they were determined. The methodology used to determine the results was detailed in the methodology in chapter three.

This chapter begins with the suitability analysis in which the impact analysis, illustrated in the literature review in chapter two will be applied to the strengths, weaknesses, opportunities and threats (SWOT) of ZESCO which were obtained in chapter four. The results from the impact analysis will form the background for testing the suitability of each of the selected strategies.

In the acceptability analysis of ZESCO's strategies, the views of ZESCO's two principal stakeholders; the Government of the Republic of Zambia and product market stakeholders will be analysed.

The feasibility analysis will be concerned with whether or not the strategies can be attempted within ZESCO's physical, human, and financial resources available.

The findings presented in this chapter shall form the main basis on which the hypothesis question will be answered and recommendations formulated in chapter six.

5.2 Results

The results presented have been determined by analysing ZESCO's seven strategies against a set criterion of suitability, acceptability and feasibility as discussed in the literature review in chapter two of this study. These strategies are analysed against the background of the external and internal analysis presented in chapter four. The methodology used is explained in chapter three.

Table 5.1 Impact Analysis of ZESCO

Environmental Change (Opportunities & Threats)	GDP Growth of 4.6%	Rising Copper & Cobalt Prices	Stable Macroeconomic Environment	Strict Regulations by ERB	Low Income Levels	High Usage of Other Energy Sources	+	-
Strengths								
1. Robust generation & transmission system	+3	+3	+3	0	0	0	+9	0
2. Qualified & skilled technical manpower	+1	+1	+1	-1	0	0	+3	-1
3. Low cost hydro based power	+1	+3	+1	0	+1	+1	+7	0
4. Credit worthiness	+1	+1	+1	0	+1	0	+4	0
Weaknesses								
1. Poor cashflow & low collection rates	+1	+3	+1	-2	-3	0	+5	-5
2. High cost of operations	+1	+1	+1	-2	-3	-1	+3	-6
3. Poor business cultural orientation	-1	-1	-1	-2	-2	-1	0	-8
4. Ineffective organizational structure	-1	-1	-1	-2	-2	-1	0	-8
Environmental impact scores	+8	+12	+8	0	+2	+1		
	-2	-2	-2	-9	-10	-3		
Net Effect	+6	+10	+6	-9	-8	-2		

Scale for the Impact Analysis

-3	-2	-1	0	+1	+2	+3
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Source: Adapted from Ambrossini *et al*, (1998)

Table 5.2 Suitability Measurement Scores

Strategy	Score
1	0
2	+2
3	+1
4	+2
5	-1
6	+3
7	+2
Total	+7
Aggregate	+1

Table 5.3 Acceptability Measurement Scores

	Government	Product Market Customer
Strategy	Score	Score
1	+1	0
2	+3	0
3	0	0
4	+3	0
5	-2	-3
6	+1	+2
7	+2	+3
Total	+8	+2
Average	+1.14	+0.28
Aggregate	+0.71	

Table 5.4 Feasibility Measurement Scores

	Human Resources	Financial	Aggregate
Strategies	-2	0	-1

5.3 Interpretation of Results

5.3.1 Suitability

5.3.1.1 Impact Analysis (SWOT)

The impact analysis (Table 5.1) draws upon information drawn from the internal analysis, the external environmental analysis of ZESCO in chapter four, the questionnaire and extensive unstructured interviews and e-mail correspondence with the key ZESCO and ERB personnel. The internal analysis revealed that ZESCO's organisational capability is its ability to supply uninterrupted power to the mining industry. It was also revealed that ZESCO has a well developed generation and transmission network. Its workforce is highly skilled. However, it was found to have a number of weaknesses such as high cost of operations, poor cash flows and low collection rates, poor business culture and an ineffective organisational structure. The strengths, weaknesses, opportunities and threats obtained from chapter four which are illustrated in Table 4.15 and 4.7 respectively form the background against which the impact analysis tests whether ZESCO's strategies address the circumstances in which it operates in.

The results from the impact analysis show that the company's existing strengths have remained as strengths and will help ZESCO react to the changes in the environment. In other words it can use these strengths to exploit the opportunities in the environment. Two of ZESCO's strengths are able to counteract some of the threats in the external environment. These are low cost based hydro based power which is able to counteract the threat of low income levels and high usage of other sources of energy. Credit worthiness is also able to counteract the threat of low income levels.

On the other hand the weaknesses would prevent ZESCO from overcoming the problems associated with an environmental change. This is illustrated by the high negative effect from the impact analysis.

A detailed explanation of the interpretation of the scores in the Impact Analysis (table 5.1) is presented in Appendix 4.

In order to add depth to the analysis, a broad assessment of whether ZESCO's seven strategies address the circumstances in which it operates in and whether its strategies seek to exploit its core strengths was undertaken.

5.3.1.2 Interpretation of Suitability Measurement Scores

For the suitability test the question to be asked is as follows:

'To what extent does a particular strategy address the circumstances (threats and opportunities) that ZESCO is operating in? Secondly, to what extent does the strategy exploit the core competence (strength) of the organisation?'

(a) Not suitable	-3	-2	-1
(b) Suitable	0	0	0
(c) Very	+1	+2	+3

The above measurement tool is an ordinal scale. According to Cooper and Schindler (2001), the use of an ordinal scale implies a statement of "greater than" or "less than."

In this case what we are trying to measure is the extent or degree to which a strategy is (a) not suitable, (b) suitable or (c) very suitable.

Table 5.5 Suitability Scores for Strategies 1 and 5.

	Domestic	Commercial	
Strategy	Score	Score	Aggregate
1	0	0	0
	-3	+2	-1
5			

Strategy 1. Score 0:

Table 4.1 in Chapter 4 illustrates that the national monthly average income in Zambia is K453,784 (exchange rate for SA Rand to Zambian Kwacha is 1:560) with rural areas averaging K283,796 and urban areas averaging R790,652. All these figures illustrate that incomes in Zambia are quite low. Table 4.3 illustrates that Zambians spend 64% of their income on food leaving small amounts to cover all their remaining expenses. This compares to 9.2% spent on food items in the United States (Czinkota and Ronkainen, 2004).

The question that must be asked is, 'with such high expenditures on food, does it leave customers with sufficient disposable income to sustain further tariff increases?' This requires further analysis. Table 4.3 illustrates that expenditure on rent (monthly, which includes electricity and water) averages K44,283 nationally, K14,330 in rural areas and K103,352 in urban areas. These figures should be compared to the average electricity consumption in a household. According to ZESCO the average consumer uses around 500 kW of power, which equates to K46,000 at the current tariffs. It must be noted that the average rental expenditure of K44,283 includes rent, water and electricity which already is lower than the average ZESCO electricity bill of K46,000.00. Even if we take the urban average expenditure on rent of K103,352 and divide it by 3 (assuming this figure is split equally between rent, water and electricity) we get K34,000 as the average amount customers have available to spend on electricity. This again is lower than the average electricity bill of K46,000.

This clearly shows that the domestic customers cannot afford the current tariffs and that further tariff increments will further increase customer debt and reduce collection rates. This is further supported by Table 5.1 in which the threat of 'low income levels' has a very low score (-8). The second aspect of strategy 1, involves the introduction of prepayment meters. This means that customers consume only what they can afford to pay for. This aspect of strategy 1 strongly addresses the issue of customers low income levels and thus is suitable. Since it addresses ZESCO's biggest threats by providing the

most workable solution in the circumstance, it scores +3. It also takes advantage of one of ZESCO's strengths which is qualified and skilled technical manpower. However the aspect of strategy 1 which proposes reducing debtor days from 120 to 30 days scores (-3), due to the low income levels of its customers. This gives an aggregate score of zero (0) for the domestic customers on strategy 1.

In terms of strategy 1, the commercial and industrial customers who consume 20% of ZESCO's power are in a far better position to reduce their outstanding debts. Table 5.1 illustrates that the GDP is growing at 4.6%, copper and cobalt prices are rising and there is a stable macroeconomic environment. All these imply the business community is experiencing growth and can settle their outstanding debts. However, in arriving at the final suitability score for strategy 1, the following has to be considered. Collectively the domestic, commercial and industrial customers account for 45% of ZESCO's revenues. Secondly the strategy does not exploit any of ZESCO's strengths. Lastly, since the domestic customers are unable to settle their outstanding bills whilst the commercial and industrial customers are able to do, the aggregate score for strategy 1 is 0.

Although the mining industry consumes 50% of ZESCO's power, and accounts for 50% of its revenue, the supply to the mining industry is subject to long term Bulk Supply Agreements (BSA) and for this reason it is not included in the analysis of this strategy.

Strategy 5: Score -1. The commercial and industrial customers are in a better position to sustain increased tariffs as compared to the domestic customers. Secondly, this strategy has to consider the issue of strict regulations by ERB which regulates tariff increments (refer to Table 5.1). Thus, in terms of suitability by the commercial and industrial, strategy 5 scores +2, as the threat of ERB not approving the tariffs has to be considered. In terms of the domestic customers it scores -3 due to their low income levels. It does not positively try to counteract a threat in the environment and does not utilise any of ZESCO's strengths and thus scores an aggregate score of -1. The scoring for these two strategies is summed in Table 5.5.

Strategy 2: Score +2

Strategy 4: Score +4

These two strategies are aimed at tackling all four of ZESCO's weaknesses (refer to Table 5.1). This implies that they address circumstances in the environment in which ZESCO operates. However the discussion shows that they do not exploit any of ZESCO's strengths.

Since ZESCO's domestic customers are generally poor with low incomes and most of them underemployed, ZESCO has to greatly reduce its operating costs to bring it more in line with its cash collections as the option of increasing tariffs to cover costs is unviable for the domestic customers.

Secondly, if it has to effectively implement its strategies, it needs to reorganise its organisational structure. According to Hitt *et al* (2003) modifications to the firm's current strategy or selection of a new strategy call for changes to its organisational structure. The commercialisation of ZESCO and the introduction of the seven strategies thus necessitate the implementation of a new organisational structure and also support the need to reengineer its business processes. Based on the above argument, strategy 2 and 4 are suitable and must be pursued.

This is further supported by the impact analysis from Table 5.1. These weaknesses show that they would prevent the organisation from overcoming the problems associated with an environmental change (in this instance this refers to, strict regulations by ERB, the low levels of income, and high usage of other energy sources).

Not only do these two strategies address the threats in the external environment, they also address all four of ZESCO's weaknesses (table 5.1). However they do not utilise any of ZESCO's strengths and thus score +2 and not the maximum possible score of +3.

Strategy 3: Score +1.

The 2001 – 2002 Zambia Demographic and Health Survey (ZDHS) data (Table 4.4) on HIV testing found that of the individuals tested, 16% were HIV positive. This is a relatively high proportion of the population.

ZESCO has not been spared from this scourge. According to information available, ZESCO is losing 360,000 man hours and 10 employees are dying every month due to HIV/AIDS related illnesses. This has adversely affected productivity.

Based on the above, strategy 3 is suitable as it addresses the circumstances in which the organisation is operating in. In this instance the 'circumstance' is the high levels of HIV in the population and ultimately in ZESCO itself.

The score is +1. Although the strategy is suitable it is 'non core' to ZESCO's operations and it does not exploit any of ZESCO's strengths.

Strategy 6: Score +3

The above is a market development strategy. Reference is made to Section 4.7 of chapter four in which it is explained that the region will experience a generation capacity shortfall as early as 2007/08 if no new sources of power are identified and developed. It is this opportunity that ZESCO recognises and intends to exploit. This strategy is also important to ZESCO in that it is embedded in the use of ZESCO's main source of sustainable competitive advantage, which is the supply of uninterrupted power supplies on its high voltage system. Secondly the Government policy on energy entails increasing access to electricity from the current 20% to 50% by 2010.

Thus this strategy is suitable because not only does it utilise ZESCO's organisational capability it also addresses the circumstance in which ZESCO operates. In this case the opportunity is the expected growth in demand for electricity.

It scores the maximum score of +3 because it exploits a market opportunity in the environment and it utilises ZESCO's organisational capability of supplying uninterrupted power on its high voltage network.

Strategy 7: Score +2.

This strategy entails reducing faults on the distribution network from 38,000 annually in 2003 to at least 19,000 annually by 2009 and increase availability of supply from 95% to 99% over the same period. This strategy is 'very suitable' as it addresses ZESCO's weakness of poor quality of supply to its domestic customers. It also exploits the use of ZESCO's strength of qualified and skilled workforce.

It fails to score the maximum score of +3 because although it solves a major problem of poor quality of service the strength it utilises (qualified and skilled technical manpower) is not actually an organisational capability but merely strength of ZESCO and thus its score of +2.

5.3.2 Interpretation of Acceptability Scores

In undertaking the acceptability test of ZESCO's strategies, principles of stakeholder attractiveness and analysis as presented in the literature review in chapter two will be applied. The main purpose is to analyse to what extent the strategies are in line with the expectation of its stakeholders.

The reason why stakeholders' views are important is summarised by (Hitt *et al*, 2003 p.24) "stakeholders are the individuals and groups who can affect, and are affected by, the strategic outcomes achieved and who have enforceable claims on a firm's performance."

In ZESCO's instance two groups of stakeholders who have the most influence on it are identified as follows:

and improved quality of service. For the Product Market Customers, this may imply that the particular strategy is detrimental to their businesses and they would not want the strategy implemented.

(b) **Acceptable:** In terms of the Government it implies a particular strategy meets its expectations such as the commercialisation objectives. For the Product Market Customers, it implies the particular strategy does have indirect benefits.

(c) **Very Acceptable:** In terms of the Government it implies a particular strategy meets and exceeds its expectations. For the Product Market Customers, it implies the particular strategy has direct benefits so they fully support it.

An aggregate acceptability score of zero (0) implies the strategy is acceptable but may require some improvements, greater than zero (0) implies it is very acceptable and should be implemented whilst less than zero (0) implies it is not acceptable and should be carefully analysed before being implemented.

5.3.2.1 Acceptability of ZESCO'S Strategies by the Government of the Republic of Zambia

In undertaking the acceptability of ZESCO's strategies by the Government, the information used is based on the Governments views on commercialisation of ZESCO which is presented in presented in Appendix 3 of this study. The following strategies will be analysed first. **Strategies 1, 2 , 4, 6 and 7.**

These strategies are 'acceptable' as they meet the Governments stated commercialisation goals as presented in Appendix 3.

Strategy 1: Score (+1).

Although acceptable, the Government is aware that domestic customers have limited disposable income to settle outstanding arrears, but it also accepts that ZESCO has to

improve its financial performance if it has to meet its long term commercialisation plans. It meets one of the Government's objectives of improved financial performance.

Strategies 2 and 4 Score (+3).

These strategies score highly as they meet all the Government's commercialisation objectives. These are to improve technical performance; improve financial performance and quality of service.

Strategy 6: Score (+1).

Supports Government's objective that ZESCO should be the custodian of the national energy security through the interconnections it has with its neighbouring countries. On the other hand, amongst Governments intentions of liberalising the electricity sector is to allow new investors to invest in new projects. This implies that ZESCO should not have the monopoly in the development of new hydropower stations and transmission interconnectors with neighbouring countries. The Government is keen to see other players in this sector and not have one major generator of electricity. For these reasons it does not score highly in terms of its acceptability to the Government and thus a score of +1.

Strategy 7: Score (+3):

It scores highly because it meets one of the major problems with ZESCO's service, which is the poor quality of supply. When the Government argued for ZESCO to be commercialised and not concessioned it was on the understanding that ZESCO should improve the quality of its service. Secondly, Government recognises that quality of supply is a major factor when large foreign investors are making their investment decisions as electricity is a major input to most industries, most notably the mining industry. The maximum score illustrates the degree with which the Government would consider this strategy to be important.

Strategy 3: Score 0

This strategy is acceptable to the Government as AIDS is not only a national but a global crisis. The Government has great budgetary constraints in providing basic medical services to the population let alone providing ARV's. ZESCO is one of the few remaining parastatals with the resources to roll out ARV's to its employees thus lifting a great burden off the Government. This strategy would thus be acceptable to the Government.

It does not score full marks as it is non-core to the operations of ZESCO. Secondly the Government and the ERB may fear that ZESCO may pass this cost to the customers who are already struggling to meet both their current and outstanding bills. Thirdly, it does not meet any of the Governments commercialisation objections.

Strategy 5:Score -2.

One of the Governments' intentions is to take advantage of the low cost of hydropower generation to attract investment in the country. Its tariffs are currently very competitive. Secondly, Government wants to increase access to electricity from the current 20% to 50% (refer to Appendix 3). This is against a background of low income levels, high poverty levels and high underemployment.

Using the above two objectives, it is unlikely that this strategy will be acceptable to the Government. Further increases in tariffs will render Zambia uncompetitive in attracting large scale investments in areas such as mining and agriculture, which rely heavily on cheap power. Domestic customers are already straining under the current tariffs. Government also intends taking power to rural areas as one of its poverty alleviation interventions. Table 4.1 illustrates the level of income in the rural areas and it is unlikely that this group the Government is targeting can be able to afford the tariff increases.

Although not acceptable, it does not score the minimum possible score (-3) as the Government on the other hand recognises that ZESCO is faced with rising costs emanating from its external environment which it cannot absorb and thus the necessity of this strategy to ZESCO.

5.3.2.2 Acceptability of ZESCO's Strategies by its Product Market Stakeholders

The breakdown of customers and their respective consumption is given below:

Table 5.6 Customer Segmentation and Consumption

Customer Segment	Number of Customers	Percentage of Total Consumption (%)
Residential	285,000	15
Commercial	15,000	5
Social Services	13,000	5
Industrial	8,000	20
Mining	02	50
Exports	06	5
Total	321,008	100

Source: ZESCO Business Plan 2004 – 2009

For the purpose of this study the three groups of customers who will be analysed are; domestic, and industrial, commercial customers.

In formulating its strategies, ZESCO should ensure that its strategies are acceptable to its customers. This is supported by several studies which have been influential in making the connection between profitability and firms with a market orientation which provides customer value. The analysis conducted is conducted against the background of the literature review presented in chapter two of this study. It can be inferred that some of the expectations from ZESCO's customers would be a high quality of service giving them value for their money and affordable tariffs.

Strategy 1: Score 0.

This strategy can be split into two. The first component entails dismantling outstanding customers' debts, which currently stands at 120 debtor days. As explained in detail earlier in this study, ZESCO's customers have very low levels of income, are underemployed and spend a substantial portion of their incomes (64%) on food items. This leaves little income not only to settle current electricity bills, but worse still to pay the outstanding bills which currently average 4 months worth of consumption. Thus, this strategy is unacceptable to them for the reasons explained above.

The second component of this strategy entails ZESCO installing prepaid meters. This means customers only consume what they can afford to pay for. This is acceptable to the customers as they do not run the risk of consuming way beyond their 'ability to pay' as is the case at the moment.

The component which entails installing prepayment metering scores (+3) as it addresses a major problem of low incomes, but the component dealing with reducing outstanding debts scores (-3). This gives an aggregate score of zero (0).

Strategy 2: Score 0.**Strategy 4: Score 0.**

In the customers' minds, these two strategies entail improving efficiencies, reducing waste and improving the level of service delivery to them. Their expectation from these strategies is that they must benefit from these efficiency improvements in the form of lower tariffs and better services, since ZESCO would have reduced its operating costs. The issue of lower tariffs from reduced operating cost contrasts ZESCO's objectives in as far as these strategies are concerned. These contrasting expectations from these groups' make them 'barely acceptable' to the customers, as they may feel the benefits are not being passed onto them.

Although acceptable, customers would be happy for ZESCO to reduce their operating costs and improve the level of service to them. The fact that they are not getting a direct benefit from the reduced operating cost in terms of lower tariffs, it means this strategy scores zero (0).

Strategy 3: Score 0.

This strategy is acceptable to this group of stakeholders. However, customers may see this as 'non core' to ZESCO's operations and may fear that the added cost would be passed to them in the form of higher tariffs. Although they accept the necessity for ZESCO to implement this strategy, they foresee no direct benefit and fear that this cost could be passed to them.

Strategy 5: Score -3

This is probably the most unacceptable of the strategies to this group of stakeholders. The issue of the low levels of income for the domestic households has been widely discussed in this study and that forms the main basis for the unacceptability of this strategy. Secondly, this strategy does not address their expectations of a better quality service and value for money for the service and affordability. ZESCO currently has very high levels of faults on its system and thus customers may not be happy to pay more for this service.

The commercial and industrial customers could argue that the relatively cheap electricity they enjoy gives them a competitive cost advantage in the region which they fear they could lose with continued tariff increments.

ZESCO's commercial and industrial customers are further constrained by:

- Small market size (Zambia has a population of only 11 million).
- Fierce competition due to the liberalisation of the economy. Hundreds of companies have closed down due to increased international competition and cheap imports. The remaining industrial and commercial customers are barely

surviving in this cut throat environment.

- Long distances to the ports as Zambia is landlocked. This is an added overhead to their operational costs.

They may feel that cheap hydro produced power can help them counter the above threats and improve their competitiveness. Based on the above arguments this strategy is unacceptable to domestic, commercial and industrial customers.

This strategy is most unacceptable of the strategies and the score demonstrates the degree to which this strategy is unacceptable. It does not address any of their expectations such as affordable tariffs and good quality of service.

Strategy 6: Score +2.

The current generation capacity of 1640MW is likely to run out of capacity by 2008/09. For commercial and industrial customers this constitutes a major threat if ZESCO or other private investors do not invest in new generating capacity. The option for the country would be to import power, which may not be as cheap as the current hydro based power.

Thus in terms of the long term viability of the large commercial and industrial customers this strategy is very important and thus acceptable.

Though acceptable, customers do not feel the benefits immediately and thus does not score maximum points. It does not address issues of affordability but does indirectly tackle quality of service though for the long term.

Strategy 7: Score +3.

Amongst ZESCO's weaknesses is the poor quality of supply, inefficient distribution system and poor operations and maintenance performance. This strategy is aimed at

addressing the above weaknesses and improving the availability and quality of supply to the customers.

A lot of commercial and industrial customers are highly dependent on a high quality of supply. Examples are:

- Exporters of horticultural products who need to keep their products at regulated temperatures in order to maintain prescribed quality standards.
- Manufacturing processes that cannot be stopped midway.
- Very expensive equipment which is highly sensitive to power fluctuations.
- Farmers who have to irrigate for prescribed amounts of time at certain times of the day.

The above illustrates the importance of a high quality of supply to this group of customers. This makes this strategy very acceptable.

Scores maximum points as the poor quality of service has long been a problem to these customers. The benefits will be immediate after implementation of the strategy.

5.3.3. Interpretation of Feasibility Measurement Scores of ZESCO's Strategies

ZESCO has formulated seven strategies, which it intends to undertake between 2004 – 2009. The next stage is to translate these into actions. In this section, feasibility will be concerned with whether the strategies can be attempted within the physical, human, and financial resources available to ZESCO.

In undertaking the feasibility test, the strategies will be tested collectively, as there is insufficient information to conduct a feasibility test of each strategy.

5.3.3.1 Financial Feasibility of ZESCO's Strategies

Score 0.

Over the planning period, ZESCO will invest a total of K6, 000 billion in recurrent operations and new projects. From this ZESCO will be required to raise K510 billion as its contribution to the projects. This is in line with the company's target debt-equity policy of 70:30. The details of the projects are presented in section 4.8 of chapter four.

It is important is to ascertain whether or not ZESCO is able to raise the K510 billion as its 30% contribution to these proposed investments. This would entail ZESCO being able to meet its cashflow projections illustrated in Table 4.9 of this study. This in turn is dependent on the success of strategies 1, 2, 4, and 5. Should these strategies succeed then ZESCO would be in a position to raise the required funds. Since the success or failure of these strategies cannot be conclusively determined in this study a neutral score of zero (0) is given.

5.3.3.2 Human Resources Feasibility of ZESCO'S Strategies

Score -2.

The majority of ZESCO workforce has been working for the company long before the liberalisation of the economy. These employees have been exposed to a working culture typical of a socialist environment where there individual needs were given prominence at the expenses of productivity. There is a significant challenge to educate and convince the critical mass that macro-economic environment has changed to a capitalistic one, and as such the only option for the company to survive is embrace changes for commercialisation.

The above is a constraint to ZESCO in its efforts to implement its stated strategies. From the internal analysis, it was established that ZESCO's organisational capability is its

ability to supply uninterrupted power supply to the mines. Only one of ZESCO's strategies (Strategy 6) takes advantage of this capability. According to Pearce and Robinson (2003) the firm's pursuit of market opportunities must be based not only on the existence of external opportunities but also on competitive advantages that arise from the firm's key resources.

As for human resources, a score of (-2) is given for the following reasons. Firstly the cultural problems discussed would act as a constraint to the successful implementation of the selected strategies. Secondly, only one of the strategies is embedded in the company's organisational capability. This gives an overall aggregate score of (-1) for the feasibility test.

5.4 Hypothesis Test

In chapter one, it was explained that the problem being investigated is whether ZESCO's Business Plan can be considered to be valid or not given the prevailing external environmental circumstances in which it operates and its own internal resources and capabilities. In order to undertake the evaluation a set criteria of suitability, acceptability and feasibility is applied. More specifically the problem being investigated is as follows;

“If a set criteria of strategy evaluation; suitability, acceptability and feasibility, were applied to ZESCO's 2004-2009 Business Plan, would it be considered to be valid or not?”

The above is the hypothesis which was being investigated in this study. From the above evaluation it can be finally concluded that though ZESCO's strategies are suitable and acceptable it may lack the human and financial resources to implement them.

5.5 Conclusion

This chapter undertook a strategic evaluation and analysis of ZESCO's Business Plan, taking into cognisance the information obtained from the internal and external environmental analysis. The evaluation criterion of suitability, acceptability and feasibility was applied. The methodology developed in chapter three was then applied to the seven strategies.

From the suitability analysis, some aspects of strategy 1 are suitable whilst others are not. Strategy 5 is unsuitable due to the low income levels, high expenditure on food items and underemployment in Zambia, which leaves the customers with little extra money to meet increased tariffs. Though the commercial and industrial customers are in a better position to meet the increments they are also constrained by competitive forces narrated in this chapter.

Strategy 2 and 4 are suitable because they indirectly address the issue of low income (which is the major cause of low collection rates in ZESCO) by trying to reduce operating costs to meet the expected lower revenues. Strategy 2 addresses the need to reorganise the organisational structure and improve processes, which are essential in both reducing costs and in the implementation of the seven stated strategies.

Strategy 3 is suitable as it address a serious threat in the environment (AIDS pandemic), which has not spared ZESCO and is leading to loss in productivity.

Both strategy 6 and 7 are deemed suitable as they both address factors in the internal and external environment.

The results show that although strategy 5 is unsuitable, on average ZESCO's strategies are suitable. Strategy 6 is the most suitable because the strategy makes use of ZESCO's organisational capability in taking advantage of the opportunities in the environment.

The acceptability analysis results were as follows; from the product market customer's perspective, although the strategies are acceptable (+0.71) there are some cardinal issues, which have been highlighted. The first one is the issue of tariffs. The score of (-3) illustrates the degree to which these customers do not accept this strategy and ZESCO must seriously take note of it. Although strategy 2 and 4 are beneficial to ZESCO, customers would like to benefit from these strategies as well and thus although they accept them the score is only (0) for the reasons stated. Strategies 6 and 7 score highly as the issues they address are cardinal especially to the industrial and commercial customers. The relatively low score 'hints' that ZESCO must improve in taking into account its stakeholders expectations in crafting its strategies.

The aggregate score from the feasibility analysis was (-1), which implied a likelihood that ZESCO may not be able to implement its strategies successfully.

The hypothesis test has shown that though ZESCO's strategies are suitable and acceptable it may lack the human and financial resources to implement them. In the next chapter, recommendations will be made which attempt to improve the suitability, acceptability and feasibility of ZESCO's Business Plan.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The conclusion forms part of the introduction in this chapter. This study began by reviewing the literature on the strategic management process. This process consists of three stages; strategy formulation, strategy implementation and strategy evaluation and control. The strategy evaluation criteria as originally espoused by Rumelt (in Glueck, 1980) were illustrated. In conducting the literature review it was ensured that no important variable was ignored that in the past was found to have had an important impact on the strategic management process.

In chapter two, the literature review covered the entire strategic management process. However, it was noted that not every aspect of this process can be applied in evaluating the ZESCO Business Plan. Against this background, a methodology was developed in chapter three to undertake the evaluation of the ZESCO Business Plan. The methodology ensured that a clear idea emerged as to what variables would be most important to consider, why they were considered to be important and how the model was to be applied. The strategy evaluation criteria established for this study were, suitability, acceptability, and feasibility. An ordinal measurement was introduced so that the extent to which the strategies were valid or not valid could be ascertained.

In chapter four the ZESCO 2004-2009 Business Plan was presented. This is the case being analysed in this study and the following were highlighted in the Business Plan; company background, mission statement and vision, the commercialisation objectives, past performance, strategic issues and the seven selected strategies.

An analysis of ZESCO's internal environment was then conducted. ZESCO's key resources were identified. These were its generation stations, transmission network, its financial resources and its human resources. The analysis revealed that its core

organisational capability was its ability to supply uninterrupted power to the mining industry. This organisational capability was tested using competitive superiority, inimitability, resource scarcity, substitutability and appropriability in order to ascertain whether or not it could deliver a sustained competitive advantage. The results revealed that it could deliver a sustainable competitive advantage. However, ZESCO was found to have a number of weaknesses which if not corrected could be a constraint in its endeavour to successfully implement its strategies.

In chapter five, ZESCO's external environment was analysed. The political environmental analysis revealed that the Government had great influence over ZESCO through its regulation and its policy direction. The cardinal point was the Government's view on privatisation. It was revealed that they are against the privatisation or concessioning of ZESCO, but advocated for its commercialisation and thus the current situation in which ZESCO has launched a five year Commercialisation Plan. Other highlights were that GDP and industrial output were growing, inflation was under control, very low income levels, high expenditures on food items, very high underemployment, high HIV prevalence, and high usage of other forms of energy for cooking and lighting.

Against this background the strategy evaluation of ZESCO was conducted using the strategy evaluation model developed in chapter three. In conducting the evaluation it was noted that according to Rumelt (in Glueck, 1980), although it is impossible to demonstrate conclusively that a particular business strategy is optimal or even guarantee that it will work, one can nevertheless test for critical flaws using set criteria.

The results from the strategy evaluation were as follows.

Suitability: The overall score was +1 which meant that overall they were suitable. Strategy 5 which aims at raising tariffs was found to be the least suitable due to the low levels of incomes, underemployment and high expenditures on food items. This does not leave enough disposable income for increased electricity tariffs.

It must be emphasised that the unsuitability of strategy 5 does not imply that ZESCO is wrong to propose raising tariffs to cover its increasing costs, caused by inflation and other factors. It illustrates the difficulty of ZESCO achieving its objectives in as far as this strategy is concerned due to the factors in its external environment as discussed in this study. Strategy 6 was found to be the most suitable as not only does it take advantage of opportunities in its external environment, but it is also embedded in the use of ZESCO's key resource, its organisational capability in supplying uninterrupted power supply on its high voltage network.

Acceptability: Against this criteria ZESCO's strategies overall were acceptable to its two principle stakeholders. However the low acceptability score of +0.9 illustrated the need for ZESCO to improve on the input from these stakeholders when formulating its strategies.

Feasibility: The financial feasibility and human resource feasibility were applied and the aggregate score was (-1) illustrating that ZESCO would struggle to implement its stated strategies. Once again it is emphasised that this does not imply that some of the investments that ZESCO intends undertaking are not viable. It was concluded that in this study could not conclusively ascertain whether or not ZESCO could raise the required funds.

6.2 Recommendations

The first recommendation is to use the value chain analysis (VCA) to 'disaggregate' ZESCO's activities and then allocate costs which are then benchmarked against the best in the industry. The purpose of benchmarking against the best in the industry is to identify the areas which are inefficient and incurring excess costs. These excess costs must be eliminated. This recommendation addresses ZESCO's weaknesses of high costs of operations, high labour costs, poor cash flows, and low collection rates. ZESCO on the other hand faces low income customers and thus the need to greatly reduce its costs to

bring them more in line with the expected revenues. Ideally the reduced operating costs and improved cash flows are meant to put ZESCO in a better position to meet its financial requirements for its intended investments. There is also a need for ZESCO to recapitalise its balance sheet by injecting fresh capital into the business. These recommendations address the findings from the financial feasibility of ZESCO's strategies which implied that it may not have the financial capacity to meet its intended investment plans.

The second recommendation of accelerating prepayment metering addresses ZESCO's number one threat which is the low income levels of its customers. It is recommended that ZESCO undertakes a cost benefit analysis so that it has a thorough understanding of the costs and expected benefits as the cost of K64bn it intends to spend on this project is large. It is also recommended that initially it targets the rural customers and the urban low income earners as these are the customers most likely to default on their electricity bills. The benefits from this recommendation is that it puts ZESCO in a better position to raise the billions it needs for its planned investments thus making its intended strategies more financially feasible. It also addresses the problem of high customer debts which currently average four months billing.

The third recommendation is that ZESCO should aggressively target the opportunities in the external environment. In this instance the opportunities are the electrification of farming blocks, and new developments such as in the mining sector. ZESCO should exploit its organisational capability of transmitting uninterrupted power supply on its high voltage network by bulk supplying to these targeted areas and allowing others to distribute the power.

Fourthly, ZESCO should also embark on new hydro project development to address the threat of Zambia running out of generating capacity within a decade by building new hydro power stations. However due to the enormous costs of building power stations it is recommended that ZESCO goes into partnerships with international investors who have the resources and know how in this field. Project finance is recommended as a means to address the expected funding difficulties of these projects. The main attraction of project

financing is that it 'ring fences' the risks to the project and debt payments are from the expected cash flows.

It is recommended that a tariff study be undertaken. It is directly aimed at improving ZESCO's understanding of the social and economic variables impacting on its main domestic and customers so that ZESCO makes better tariff adjustment decisions. In terms of the commercial and industrial customers the tariff study is meant to address their international competitiveness. The findings would ensure that ZESCO promotes and not impedes the international competitiveness of these customers. This would be by applying the appropriate tariffs.

The feasibility test revealed that ZESCO may lack the human resource capability to implement its strategies. In order to improve the human resource capability the following are recommended.

- In the first recommendation, it was recommended that the value chain analysis coupled with the benchmarking be implemented. This would identify the areas of excess costs. This would further identify the areas of human resource excess. This excess human resource must be eliminated in order to reduce costs, improve productivity and increase efficiencies.

In terms of human resources the second recommendation is to introduce a performance management system. According to LGMB, 1994 (cited in Wilkinson 2001, p. 61) performance management has been defined as 'systems and attitudes which help organisations to plan, delegate and assess the operation of their services. Bevan and Thomson 1991 (cited in Wilkinson 2001, p. 61) describes a 'textbook' performance management system thus;

- A shared vision of the organisation's objectives communicated via a mission statement to all employees.
- Individual performance targets which are related to operating unit and wider organisational objectives.

- Regular formal review targets of progress towards targets.
- A review process which identifies training and development needs and rewards outcomes.
- An evaluation of the effectiveness of the whole process and its contribution to overall organisational performance to allow changes and improvements to be made.

A principle feature of performance management is that it connects the objectives of the organisation to a system of work targets for individual employees. The above performance management process as espoused by Bevan and Thomson (1991) is recommended for ZESCO as a way to mitigate the human resource incapability to meet its stated objectives in the Business Plan.

In making the final concluding remarks it is important to remember that, a fundamental shift is occurring in the world economy. We are moving rapidly away from a world in which national economies were relatively self contained entities, isolated from each other by barriers to cross border trade and investment, by distance, by time zones, and language; and national differences in language in government regulation, culture, and business systems (Hill, 2003). This is leading to increased competition not just locally but internationally. In order to prosper in this environment, managers need to greatly enhance their decision making capabilities by applying a scientific thinking process which takes into consideration the complex set of factors in which they operate in. This process is known as business research. This study went out to do precisely as described above. It was aimed at analysing ZESCO's Business Plan by using a set strategy evaluation criteria of; suitability, acceptability and feasibility. By employing a scientific business approach it attempted to improve the validity of its findings. The importance of this is well summed up by Sekaran (2000 p. 4) "the difference between the manager who uses common sense alone to analyse and make a decision in a given situation, and the investigator who uses a scientific method, is that the latter does a systematic inquiry into

the matter and proceeds to describe, explain, or predict phenomena based on data carefully collected for the purpose.”

It is finally concluded that should the recommendations made in this study be implemented, ZESCO’s strategies would be suitable, acceptable and feasible.

REFERENCES

Books

1. Cooper R. Donald and Schindler, S. Pamela. (2001). *Business Research Methods*, 7th Edition. McGraw-Hill, New York.
2. Crew, A. Michael. (1987). *Regulating Utilities in an Era of Deregulation*. 1st Edition. St. Martins Press, New York.
3. Czinkota, R. Michael and Ronkainen, A Ilkva (2004). *International Marketing*. 7th Edition. Thomson-Southwestern, Mason Ohio.
4. David, F.R. (2003). *Strategic Management Concepts and Cases*. 9th Edition. Prentice Hall, New Jersey.
5. Fleisher, C.S. and Bensoussan B.E. (2003). *Strategic and Competitive Analysis*. Methods and Techniques for Analyzing Business Competition. 1st Edition. Prentice Hall, New Jersey.
6. Glueck, W.F. (1980). *Business Policy and Strategic Management*. 3rd Edition. McGraw-Hill Book Company, New York.
7. Hill, W.L.C. (2003). *International Business*. 4th Edition. McGraw-Hill Irwin, New York.
8. Hitt, Ireland and Hoskisson. (2003). *Strategic Management Competitiveness and Globalization*. 5th Edition. Thomson South-Western, Mason, Ohio.
9. Hussey, J and Hussey, R. (1997). *Business Research*. A Practical Guide for Undergraduate and Postgraduate Students. 1st Edition. Macmillan Press, London.
10. Johnson, G and Scholes, K. (2002). *Exploring Corporate Strategy Text and Cases*. 6th Edition. Prentice Hall, Harlow, Essex.
11. Locke, D. Karen (2001). *Grounded Theory in Management Research*. Sage Publications, Thousand Oaks, California.
12. Lynch, R. (2003). *Corporate Strategy*. 3rd Edition. Pearson Education, Essex.
13. Mertens D.M (2003). *Mixed Methods and the politics of Human Research*. Sage Publications, Thousand Oaks, California.
14. Newberry, M. David (2001). *Privatization, Restructuring and Regulation of Network Utilities*. The MIT Press, London, England.

15. Pearce, A.J. and Robinson, B.R. (2003). *Strategic Management Formulation, Implementation, and Control*. 8th Edition. McGraw-Hill Irwin, New York.
16. Redman, T and Wilkinson A. (2001). *Contemporary Human Resources Management*. Text and Cases. 1st Edition. Pearson Education, Essex.
17. Robbins S.P. and Decenzo D.A. (2001). *Fundamentals of Management*. 3rd Edition. Prentice Hall, New York.
18. Salvatore, D. (2004). *International Economics*. 8th Edition. John Wiley & Sons, New York.
19. Schiller B.R. (2000). *The Economy Today*. 8th Edition. McGraw-Hill Irwin, New York.
20. Saunders M, Lewis P. and Thornhill A. (2003). *Research Methods for Business Students*. 3rd Edition. Pearson Education, Essex.
21. Schiller B.R. (2000). *The Economy Today*. 8th Edition. McGraw-Hill Irwin, New York.
22. Sekaran V. (2000). *Research Methods for Business*. 3rd Edition. John Wiley & Sons, New York.
23. Welch and Byrne. (2001). *Jack. What I've Learnt Leading a Great Company and Great People*. HarperCollins, London.
24. Wolcott. F.H (1994). *Transforming qualitative Data: Description, Analysis, and Interpretation*. Sage Publications, Thousand Oaks, California.

Journals

- 1.Collis, D.J. and Montgomery, C. (1995). "How do you create and sustain a profitable strategy? Competing on Resources:" *Harvard Business Review*, Vol 73, No 4, pp. 118.
 - 2.Feurer, R and Chaharbargi, K. (1995). "Strategy Development: Past and Present?" *Management Decision*, Vol 33, No 6, pp. 11-21.
 - 3.Galvin, P. (2004). *Academy of Management Best Conference Paper 2004 BPS*.
 - 4.Javidan, M. (1998). "Core Competence: What does it mean in Practice?" *Long Range Planning*, Vol 31, No 1, pp. 60-71.
 - 5.Noy, E. (2001). "Is Your Strategic Plan Feasible? Here are the tests." *Managerial Auditing Journal*, Vol 16, No 1, pp. 10-16.
 - 6.Ulrich, D. and Smallwood, N. (2004). "Capitalizing on Capabilities" *Harvard Business Review*, Vol 82, No 6, pp.119.
- Vol 79, No 8, pp. 82.

Internet

1. Internet 1 : www.csuchico.edu/mgmt/strategy/module1/tsld003.htm
2. Internet 2 : [http://search.apnet.com/login.aspx?direct=true & dp =buh & an=12102057](http://search.apnet.com/login.aspx?direct=true&dp=buh&an=12102057)
3. Internet 3: [http://search.apnet.com/login.aspx?direct=true & dp=buh & an=12102072](http://search.apnet.com/login.aspx?direct=true&dp=buh&an=12102072)
4. Internet 4: www.planware.org/strategy.htm
5. Internet 5 : www.csuchico.edu/mgmt/strategy/module4/tsld009.htm
6. Internet 6 : www.csuchico.edu/mgmt/strategy/module4/tsld017.htm
7. Internet 7 : www.csuchico.edu/mgmt/strategy/module4/tsld011.htm

Reports

1. Central Statistics Office, 2004. Living Conditions Monitoring Survey Report 2002-2003, Central Statistical Office. Lusaka: Living Conditions Monitoring Branch.
2. ZESCO 2004-2009 Business Plan.

Newspaper

1. Times of Zambia, 2005. Budget Address. Times of Zambia, 29th January, p. 5- 7.

Legislation

1. Energy Regulation Board, Act Cap 436, 2002.

APPENDIX 1

QUESTIONNAIRE

INTRODUCTION

The following questionnaire is administered by Mr. Chitembo Simwanza for his Master of Business Administration (MBA) dissertation at the University of KwaZulu-Natal, Graduate School of Business. The title of the dissertation is '**A STRATEGIC EVALUATION OF ZESCO's 2004-2009 BUSINESS PLAN**'.

You have been specifically selected to answer the questionnaire as you were among the key personnel who formulated the ZESCO 2004-2009 Business Plan.

EXECUTIVE SUMMARY

The core of this study is to apply modern business research techniques in evaluating the ZESCO 2004-2009 Business Plan. In undertaking the evaluation it will take into consideration the complex set of factors in which ZESCO's operates. The evaluation criterion to be utilised is that espoused by Glueck (1980). A summary of the criterion to be applied to each of the seven strategies in the Business Plan is given below.

- Suitability: Is a broad assessment of whether the strategy addresses the circumstances in which the organisation is operating, the extent to which new strategies would fit with future trends and changes in the environment; or how the strategies might exploit the core competencies of the organisation (Johnson and Scholes, 2002).
- Acceptability: Is concerned with the expected performance outcomes such as return or risk if the strategy were implemented, and the extent to which these would be in line with the expectations of stakeholders (Johnson and Scholes, 2002).
- Feasibility: Is concerned with whether the strategy could be made to work in practice (Johnson and Scholes, 2002).

QUESTIONS

Find attached a copy of the Research Proposal entitled '**A Strategic Evaluation of ZESCO's 2004-2009**'. Please read the proposal before answering the questions.

1. What is your position in the company and what are your core functions?
2. Could you give a background on why ZESCO decided to formulate the Business Plan?
3. Detail the entire process that ZESCO went through in formulating the strategies.
4. Detail how the environment scanning (internal and external) was conducted. Include all your sources of data.
5. The cash flow projections in the Business Plan seem very optimistic given the current financial state of the company and the huge financial investments that are planned. Justify how you hope this can be achieved.
6. List ZESCO's four most important strengths. Provide justification.
7. List ZESCO's four main weaknesses. Provide explanation.
8. Explain how ZESCO hopes to take advantage of its strengths.
9. Explain how ZESCO hopes to counter its weaknesses.
10. List ZESCO's three most important opportunities in the external environment. Justify your answer.
11. List ZESCO's most serious threats in the external environment. Justify your answer.
12. Were any of your stakeholders consulted during the formulation of the Business Plan?
13. If the answer to the above is yes, list the stakeholders who were consulted.
14. Detail the expectations of each of your stakeholders.
15. Which of their expectations were included in the Business Plan?
16. Give your personal view of the overall quality of the Business Plan, and comment on ZESCO's ability to attain the objectives set out in each of the seven strategies.

APPENDIX 2

General Conditions of the Licenced Activity (ERB Act Cap 436, 2002).

- The Licencee shall not prevent other Licencees from participating in electricity supply activities through the Electricity Market.
- The Licencee shall ensure management of the Licenced Activity in a manner consistent with the principles of ensuring safety and reliability and of economic and technical expediency and the objective of achieving lowest costs and highest quality of electricity for consumers.
- The Licencee shall not engage in any form of "anti competitive trade practices" as defined in the Competition and Fair Trading Act, Cap 417 of the Laws of Zambia.
- Except as may expressly be permitted by law or by the ERB, the Licencee shall not collaborate in any way with other Licencees in preparing and in negotiating with the ERB matters related to determining tariffs for electricity. It shall not make decisions regarding the Licenced Activity to the detriment of the interests of existing or potential electricity customers.
- The Licencee shall respond to consumer complaints and requests promptly. Issues of disagreement between the Licencee and consumers shall in the first instance be resolved in accordance with the contract, failure to which the matter shall be referred to the ERB for resolution.
- Three (3) months after obtaining this Licence, the Licencee shall develop and submit to the ERB procedures for ensuring compliance with performance standards of the undertaking pertaining to safety, quality and reliability of supply. Every six (6) months thereafter, the Licencee shall provide the ERB with information concerning the Licencee's compliance.
- The Licencee shall cooperate with any applicable Consumer Council Association as may be constituted and relevant to the Licenced Activity and on request the Licencee shall take part in meetings of such Consumer Council Association on matters related to the Licenced Activity.

- It shall be the duty of the Licencee to establish and maintain an appropriate system to ensure the health and safety of persons in accordance with established safety regulations and standards.
- The Licencee shall at all times pay any fines or penalties imposed by the ERB for breaches of any condition of the Licence or non-compliance to any directive of the ERB. Such penalties or fines shall be paid to the ERB within twenty-one (21) days of being imposed.
- The Licencee shall be paid by its customers for the supply of electricity based on tariffs approved by the ERB.
- The Licencee shall apply to the ERB and notify consumers of any intention to revise electricity tariffs. Such application or notice shall be made at least sixty (60) days prior to the intended effective date during which any objections by the consumers will be submitted within the first 30 days and thereafter a decision by the Board prior to the effective date of the tariffs.
- The Licencee shall pay transmission and distribution service charges as agreed in the contracts of transmission and distribution with the transmission and distribution system operators.
- The Licencee shall give consumers at least seven (7) working days notification before lessening or discontinuing supply for non-payment of charges and such notification shall be served personally to the consumer or delivered to the premises at which electricity is consumed and at all times signed for by the recipient.
- The ERB and its authorized agents have the right of access to inspect the Licencee's premises, equipment and documents, and the Licencee shall render necessary assistance in the course of inspection of the Licenced Activity in accordance with the provisions of the Act.
- The ERB and its authorised agents shall have the right to:-
 - Take samples of any substance or equipment or articles manufactured,
 - produced or stored on the premises;
 - Make copies or take extracts from any such book, accounts or records kept on the premises.

- Inspect machinery, equipment, appliances, meters, fittings and apparatus.
- The ERB in accordance with the Electricity Act may suspend the Licence if the Licencee operates in such a manner as is, in the opinion of the ERB, detrimental to the public interest

- **Capital Market Stakeholders** – ZESCO is 100% owned by the **Zambian Government**. This gives the **Government** immense influence over ZESCO. In this group agencies such as the **World Bank** and the international donor community are included. This is due to the influence they exert on the **Government** as they are the prime movers of major **Government** policies such as **Structural Adjustment Program**, **Highly Indebted Poor Countries (HIPC)** and they fund a major portion of the national budget. The **ERB** is also included in this group as it is a **Government** agency mandated to regulate this sector.
- **Product Market Stakeholders** – this group includes all of ZESCO's domestic, commercial, agriculture and industrial customers (for this analysis the mining sector is excluded).

The expectations of ZESCO's two principal stakeholders: **Government** and **Product Market Customers**; will be analysed separately against each of the seven ZESCO strategies.

In analysing the acceptability of the strategies, the researcher will utilise his own extensive experiences as a **Customer Services Manager** at ZESCO, the data gathered in chapter four of this study, information gathered from the questionnaire in Appendix 1, unstructured interviews and e-mail correspondence with key ZESCO and ERB personnel and **Governments** views on the **Privatisation** of ZESCO (Appendix 3). Their expectations will be measured using an ordinal scale. The question to be asked is as follows:

'To what extent are ZESCO's strategies acceptable to each of its two principal stakeholders?'

a) Not Acceptable	-3	-2	-1
b) Acceptable	0	0	0
c) Not Acceptable	+1	+2	+3

(a) Not Acceptable: Implies the respective group feels its' interests are not being served. In the **Government's** case it would imply that the strategy **does not** address any of the commercialisation objectives. These are improved financial and technical performance

APPENDIX 3

Government's Views on the Commercialisation of ZESCO

The narration in this section (5.2.1.3) is based on an internal Government of the Republic of Zambia document entitled "Concessioning Versus Commercialisation of ZESCO."

The privatization of state enterprises gained momentum with the passing of the Zambia Privatization Act in 1992. The public sector which contributed over 80% of the economic activity in Zambia started being dismantled by way of sale of assets, liquidations, privatization of existing business and management buy outs among other methods. Over the years the influence of the public sector has drastically reduced, and now mainly remains in public utilities. It is only by introducing commercial aspects to the operations of these utilities that have led to improvements being achieved. Commercialisation of these operations is essentially targeted at achieving four goals:

- Improve financial performance and quality of service.
- Attract new investments.
- Increase access to the service.
- Introduce new technology to the enterprise/sector.

The Government contracted a company called Nexant in 2000 to carry out a study on the privatisation options of ZESCO. Nexant argued that the concessioning/privatization of ZESCO will introduce competition in the power market in the long term which will lead to improved performance levels and lower cost of electricity. Competition will follow from unbundled generation plants and distributors will buy from lowest cost provider. Transmission will provide common carrier facilities to all players in the market.

The view of Government is that a stage has not yet been reached where the Company can be privatized through concessioning in order to achieve the above objectives. The privatization/concessioning of ZESCO is unlikely to achieve the desired results for the reasons listed below:

- A relatively small size of the power system with dominance of two large generators and with distribution system too small to be broken up.
- Existence of bulk supply agreement between ZESCO and CEC for the next 15 years, which commits over 50% of power from ZESCO to one customer.
- Slow pace of power sector reforms in the regional market which would inhibit private power players to have a significant role in the region.
- ZESCO is investing close to US\$230.0 million in rehabilitation of the power system and expansion.
- Full economic level tariffs will take some time to attain in Zambia given current state of the economy, weak industrial base and high levels of poverty.
- Energy is the engine of growth, development and poverty reduction.
- The expanse of country, low population densities and low power demand makes distribution business costly and will not be attractive to private operators in most parts of the country.
- Unbundling will result in duplication of resources and expertise which will increase costs.
- ZESCO is a vehicle for rural electrification programme of Government with electricity access at 20%. This is very low and Governments target is to reach 50% by 2010.
- The company is a major foreign exchange earner through its electricity proceeds from exports and sales to the mining sector.
- ZESCO contributes to the national treasury an average of K15.0 billion per month through various taxes.

The above list highlights the issue of electricity tariffs; in this respect the Government has recognised the need to take advantage of low cost hydropower generation, which is in abundance to attract investments to the country. The tariffs in Zambia are very competitive compared to those obtaining in the region. In deciding where to invest foreign investors will consider the cost of electricity as of paramount importance. It is in this vein that Zambia would like to see that electricity tariffs are not a barrier to foreign investments.

Regional Electricity Tariffs in USCents per Unit

Country	Domestic-900kWh	Commercial-2500kWh	Industrial-2500kVA, LF
Botswana (BPC)	3.9	4.0	2.9
Namibia (NamPower)	3.3	2.9	2.3
South Africa (Eskom)	2.9	2.7	2.0
Tanzania (TANESCO)	6.3	8.1	8.7
Zimbabwe (ZESA)	6.2	8.7	10.0
Zambia (ZESCO)	2.3	4.9	2.6

Source: SADELEC “Electricity Prices in Southern and East Africa: February 2002” in “Concessioneering Versus Commercialisation of ZESCO”.

The above table shows that the retail tariffs in Zambia are competitive in the region bearing in mind that Zambia’s energy is from hydro power generation whilst in other countries the source of generation is a combination of thermal, hydro and in some cases nuclear.

A further issue hampering the likelihood of ZESCO’s commercialisation is the manner in which the state has used ZESCO to achieve a socio-political objective, being the electrification of rural areas. The Corporation, since its inception, has been carrying out the rural electrification programme on behalf of the Government. Each year the Government allocates funds in its budget to finance identified rural electrification projects. The Corporation is contracted as an execution agency of the Government. In some cases ZESCO has used its own resources in order to speed up the execution of these projects.

Finally it should be noted that ZESCO is the custodian of the national energy security through the interconnections that it has with neighbouring countries. This ensures that power can be imported from surplus countries in times of deficits into the country. Being dependent on hydropower for most of its generation, droughts that occur can cause major energy deficits due to constrained local power generation. It is therefore important that the role of national energy security resides in a national utility like ZESCO.

Summary on Governments Views

The objective is to establish ZESCO as an efficient, reliable, independent, national and regional utility operating on commercial principles as soon as possible. At the same time, maintaining key national participation and assuring strategic national energy interests.

The Government submits that ZESCO in its current structure and form should continue with the commercialisation process. It is in the medium and long-term interest of the country that ZESCO is commercialized and not concessioned to a private operator. The development of the electricity infrastructure in Zambia still requires a Corporation like ZESCO because most areas are unprofitable. The developments so far have been possible because ZESCO has been able to take power to remote areas and cross-subsidise customers. The Government will ensure that ZESCO adheres to governance provisions, which will enhance the commercialisation process of the company. These provisions will provide for a transparent and accountable Board of Directors and management. The Government is of the view that instead of allowing private investors to come and take over and operate the existing assets of ZESCO under a concession or privatization, it is preferable that such new investors are encouraged to invest in new projects, which will create wealth and employment for the long-term benefit of the country.

The above summarises the Government's view on ZESCO's commercialisation and its expectations from this sector in as far as national development is concerned.

APPENDIX 4

Interpretation of ZESCO's Impact Analysis in Table 5.1.

1.ZESCO'S Strength (1) Tested Against Environmental Opportunities and Threats

(a) Robust Generation and Transmission system tested against GDP growth of 4.6%.

Score +3: Growth in GDP will lead to increased demand for electricity, which ZESCO is fully capable of handling. Will also lead to growth of ZESCO's revenues.

(b) Robust Generation and Transmission system tested against rising copper and cobalt prices.

Score +3: This will lead to increased production by the mines, leading to increased demand for electricity. This is an opportunity that ZESCO can take advantage of especially that its organisational capability is supplying uninterrupted supply to the mining industry.

(c) Robust Generation and Transmission system tested against stable macroeconomic environment. This also provides opportunities as customers are faced with low inflation leading to low interest rates and cheaper access to credit. The spending boom from the population results in economic growth, which gives ZESCO's customers extra income for their electricity bills.

(d) Robust Generation and Transmission system tested against environmental threats

Scores (0) against all the threats namely, strict regulation by ERB, low income levels and high usage of other sources of energy. This indicates that the current strength is not affected by the threat.

2.ZESCO's Strength (2) tested against Environmental Opportunities and Threats

(a) Qualified and skilled technical manpower tested against GDP Growth of 4.6%, rising copper and cobalt prices and stable macroeconomic environment.

Score +1: All these three environmental opportunities will lead to increased demand for electricity. ZESCO has the technical skills to take advantage of this increased demand leading to grow in its revenues.

(b) Qualified skilled Technical Manpower tested against strict regulations by ERB.

Score –1: Despite its qualified and skilled staff ZESCO would struggle to meet the high quality standards set by ERB due to an aging infrastructure and the lack of strict internal work standards.

(c) Qualified skilled Technical Manpower tested against low income levels and high usage of other energy sources.

Score 0: Indicates that the current strength would not be affected by the environmental change.

3.ZESCO's Strength (3) tested against Environmental Opportunities and Threats

(a) Low Cost Hydro Based Power tested against GDP Growth of 4% and stable macroeconomic environment.

Score +1: Although the GDP growth and stable macroeconomic environment will result in increased demand for electricity it is not able to fully exploit this with its low cost power due to the low income levels of a large proportion of its customers.

(b) Low Cost Hydro Based Power tested against rising copper and cobalt prices.

Score +3: Supplying electricity to the mining industry is highly profitable as it is supplied in bulk to CEC which then distributes to the individual mines. The high copper and cobalt prices will lead to increased production and consumption of electricity which ZESCO can exploit with its organisational capability of supplying uninterruptible power supply to the mining industry. For this reason it scores +3 the maximum.

(c) Low Cost Hydro Based Power tested against strict regulations by ERB.

Score 0: Indicates that the current strength would not be affected by the threat.

(d) Low Cost Hydro Based Power tested against low income levels.

Score +1: ZESCO is able to offer relatively low tariffs to its low income customers thereby counteracting this potential problem. However, it still needs to increase tariffs to keep up with rising costs.

(e) Low Cost Hydro Based Power tested against high usage of other energy sources.

Score +1: It is able to counteract this threat by offering a cheaper energy source electricity.

4.ZESCO's Strength (4) tested against Environmental Opportunities and Threats

(a) Credit worthiness tested against GDP Growth of 4%, rising copper and cobalt prices and stable macroeconomic environment.

Score +1: These opportunities will lead to increased demand for electricity which means ZESCO will need to invest billions of Kwacha in its infrastructure to meet the demand. Its sound credit worthiness gives it a probable chance to raise these funds.

(b) Credit worthiness tested against strict regulations by ERB, and high usage of other energy sources.

Score 0: Indicates that the current strength would not be affected by the environmental change.

(c) Credit worthiness tested against low income levels.

Score +1: Low income levels have led to poor cashflow and low collection rates. It is able to counteract this by being able to borrow from the financial institutions. However, this is not sustainable in the long run.

5.Poor Cashflow and Low Collection Rates tested against :

6.

(a) GDP growth of 4%, and stable macroeconomic environment

Score +1: These two factors may result in increased employment levels, increased disposable income, cheaper credit and lower inflation. This may result in improved revenues for ZESCO, meaning the weakness has been offset by the opportunities in the environment.

(b) Rising Copper and Cobalt prices

Score +3: The above will lead to increased electricity consumption. Since the mining sector accounts for 50% of ZESCO's consumption the gain on its cashflows would be significant and thus the high score.

(c) Strict Regulations by ERB

Score -2: This entails adhering to strict quality standards, which requires large investment in its infrastructure. With poor cashflows it will struggle to do so. This means the weakness would prevent ZESCO overcoming this problem in the environment.

(d) Low Income Levels

Score -3: This is ZESCO's biggest threat and its weakness is further exacerbated by the threat of low income levels and thus the lowest possible score of -3.

(e) High usage of other energy sources

Score 0: Indicates that the current weakness would not be affected by this threat.

7.High Cost of Operations Tested Against :

(a) GDP Growth of 4%, rising copper and cobalt prices and stable macroeconomic environment.

Scores +1: These factors will lead to increased revenues for ZESCO, which could help it mitigate the high cost of its operations.

(b) Strict Regulations by ERB

Score -2: With its high cost of operations ZESCO will struggle to have the extra cashflows required for it to invest in its infrastructure in order to meet the strict ERB quality standards.

(c) Low Income Levels

Score -3: The high cost of operations means ZESCO will struggle to have a tariff low enough for its domestic customers to afford. This threat is very serious to ZESCO and thus the low score of -3.

(d) High Usage of Other Energy Sources

Score -1: The fact that ZESCO is unable to offer a low enough tariff means some customers will use other forms of energy despite their being more expensive. The reason

is that they can get these in the small quantities that they can afford. However, these are very poor customers who ZESCO does not necessarily target and thus not a major threat to its weakness.

8.Poor Business Cultural Orientation is Tested Against.

(a) GDP growth of 4%, rising copper and cobalt prices and stable macroeconomic environment

Scores –1: Despite the opportunities presented by these factors, ZESCO may not react fast enough to take advantage of them due to this weakness. However, with the commencement of the commercialisation plan. This weakness is slightly mitigated and thus the score not being too low.

(b) Strict Regulations by ERB

Score –2: ZESCO has a long history of being a monopoly with minimal regulations. Secondly, it did not have strict work and technical standards and for these reasons will struggle to adapt to a new regulated environment.

(c) Low Income Levels

Score –2: ZESCO may struggle to counter this threat as its poor business culture has led to a bloated workforce and high cost of operations which do not allow it to offer tariffs which are affordable to its low income domestic customers.

(d) High Usage of Other Energy Sources

Score –1: This weakness does not allow it to offer innovative cheap products to compete with the other energy sources. However, the score of –1 indicates that this is not a big threat as the domestic users of other energy sources are considered very poor and unattractive to ZESCO.

9.Ineffective Organisational Structure is tested against.

(a) GDP growth of 4%, rising copper and cobalt prices and stable macroeconomic environment.

Scores –1: Explanation similar to 7 (a).

(b) Strict Regulations by ERB

Score –2: Explanation similar to 7 (b).

(c) Low Income Levels

Score –2: Explanation similar to 7 (c).

(d) High usage of other energy sources

Score –1: Explanation similar to 7 (d).