

**A CASE STUDY ANALYSIS OF
UEC TECHNOLOGIES (PTY) LIMITED WITH A
FOCUS ON THE GROWTH STRATEGIES ADOPTED**

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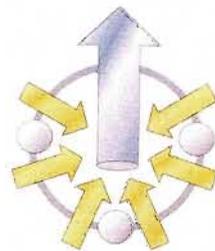
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1 September 2001

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This dissertation is dedicated to my parents for their never-ending support and motivation during my years of study.

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ABSTRACT

This dissertation is a focused qualitative case study analysis of UEC Technologies (Pty) Limited (UEC). UEC is a wholly owned subsidiary of the JSE listed telecommunications, multimedia and technology (TMT) group, Allied Technologies Limited (Altech). UEC is the only South African based TV set-top box (STB) developer and manufacturer. The focus of the case study analysis centres around UEC's strategies of growth and globalisation in the global set-top box industry. The research took the form of a qualitative case study based on in-depth personal interviews with key decision-makers at UEC.

The research was supported by a detailed study of secondary data relating to the STB industry as well as documentation prepared specifically for UEC relating to its business practice and business methodology.

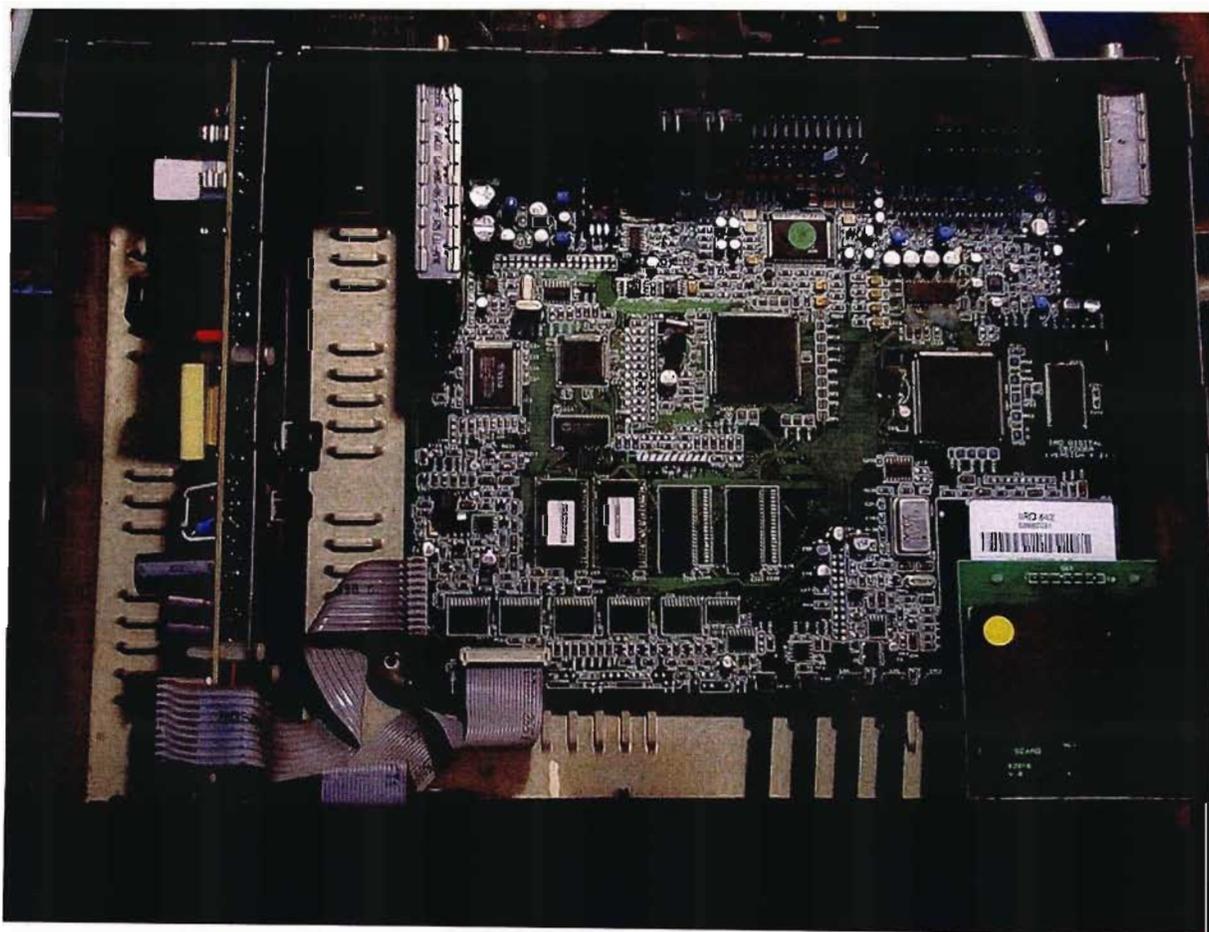
The case study focused particularly on the concentric diversification strategy adopted by UEC. This strategy was analysed with specific reference to the acquisition process followed by UEC during the negotiations with Zenith Network Systems (ZNS), a division of the American electronics giant, Zenith.

The research culminates in the formulation of a company-specific analysis model (figure 4.1) which is proposed to be used by UEC when analysing future potential acquisitions. This company specific analysis model takes into account the current academic theoretical stance on both growth and globalisation strategy while fine tuning the process by adopting the specific requirements for both the STB industry and UEC's current business position. The aim of this model is to analyse potential concentric diversification growth opportunities by analysing elements of the spheres of *industry environment*, *operating environment* and *internal environment*. The industry environment is influenced by the *barriers to entry* into the industry and the *size of the market and industry*. The operating environment is influenced by *globalisation* and the *need for growth*. The internal environment is influenced by *access to new markets and clients* as well as the *need for new technologies and products*.



The research dissertation culminates in a discussion of the model and the design, as well as an evaluation thereof. The discussion in regard to the model concludes that the model is in line with current academic as well as strategic thinking. Furthermore that the model is meticulously designed to cater for UEC's unique requirements and the specific requirements of the STB industry.

In conclusion to the dissertation, it is postulated that the model would be of considerable benefit to UEC when analysing future acquisition opportunities. The model is an ideal analytical tool as its elements are made up from corporate strategy, has been crafted to align with UEC's specific requirements. This model provides a formal framework for assessing acquisitions and thus enabling UEC to compare multiple potential acquisitions against a fixed criteria model.



AERIAL VIEW OF ONE OF UEC's STB's SHOWING THE ELECTRONIC COMPONENTARY



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CHAPTER ONE

1. GENERAL INTRODUCTION

1.1 INTRODUCTION

This dissertation is a focused case study analysis of UEC Technologies (Pty) Ltd (UEC) which is the only South African based TV set-top box (STB) developer and manufacturer. The focus of the dissertation is on UEC's globalisation and growth strategy which is positioned in the global STB industry and corresponding global market. The research takes the form of a qualitative case study based on in-depth personal interviews with key decision makers at UEC. The research culminates in the formulation of a company specific analysis model followed by the evaluation of both the model, the design and the application thereof. This analysis is followed by a discussion of the limitations of the design. The dissertation concludes with recommendations to UEC which flow from the case study analysis.

1.2 DEFINITIONS AND CONCEPTS

Although technical jargon of UEC's industry has been limited in this dissertation, an understanding of certain key terminology is required, failing which the analysis of UEC would be difficult to understand and thus reduced the value of the research. Although the most important terms are introduced and explained in this definitions section, to assist with understanding, certain further definitions are presented in context, within the main body of the text.

Set-top boxes (STB's) are integrated receiver decoders, typically known as **decoders**, being the "black box" connected to a television set so as to receive digital broadcasts. To place the STB in perspective, in South Africa, STB's are sold under the brand name "Multichoice" with a service known as



DSTV being the bouquet of approximately 60 pay TV channels and a similar number of music channels. (Sadharwal 2000)

Multichoice and other major international pay television operators will shortly be launching an increasing number of **data** channels. These are channels such as a banking channel, home shopping and soon to be launched **T-Mail**, being email, but delivered via a STB with the email presented on the viewer's TV screen (see **figure 1**).

Convergence of Internet (IP), telephony and video is contributing to this type of revolutionary technology. When sending email, viewing television or executing a banking transaction, the consumer will shortly have the choice of either using their cell phone, television or computer. (Sadharwal 2000)

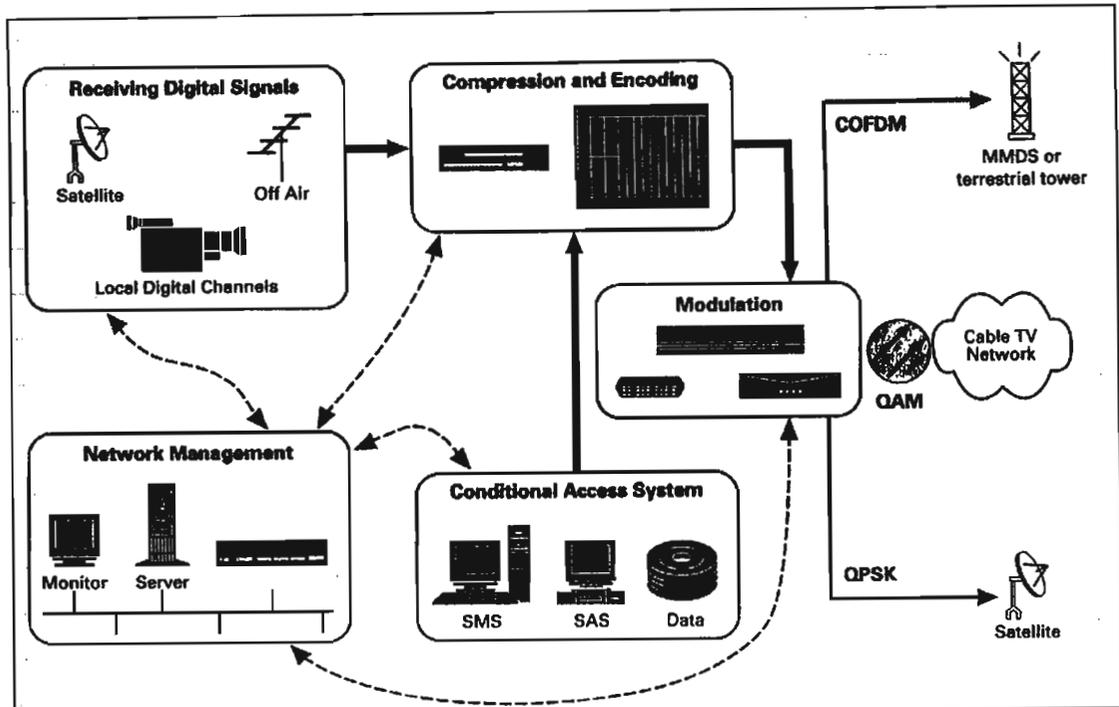
MPEG and **DVB** are international industry standards for STB's, being respectively the "Moving Pictures Expert Group" and the "Digital Video Broadcast" protocol standards. (Keyser 2001)

A **Conditional access system (CA)** is the specific electronic security and verifying system built into the software and hardware of the STB to enable broadcast networks and pay television channel operators to control their fleet of STB deployed in the field, (cumulatively all the STB in the subscribers homes). The CA system manages subscription payment and can prevent subscribers from viewing competitor satellite broadcasts. This competitive aspect of CA is of particularly importance in geographical areas such as Europe, where subscribers have a choice of services to view. Different broadcast network operators have different CA systems. (Keyser 2001).

Digital television can be transmitted and received by means of three platforms, being **terrestrial**, **cable** and **satellite**. The receiving of the digital signal, the network management, the compression and encoding of this digital signal and the modulation thereof is a highly sophisticated and technically interlinked software and hardware process. (Sadharwal 2000). This process is diagrammatically detailed in a simplified flow diagram which is marked as **figure 1.1**.



DIGITAL TELEVISION EXPLANATORY DIAGRAM



Source: Sadharwal 2000

Figure 1.1

1.3 PREAMBLE TO UEC

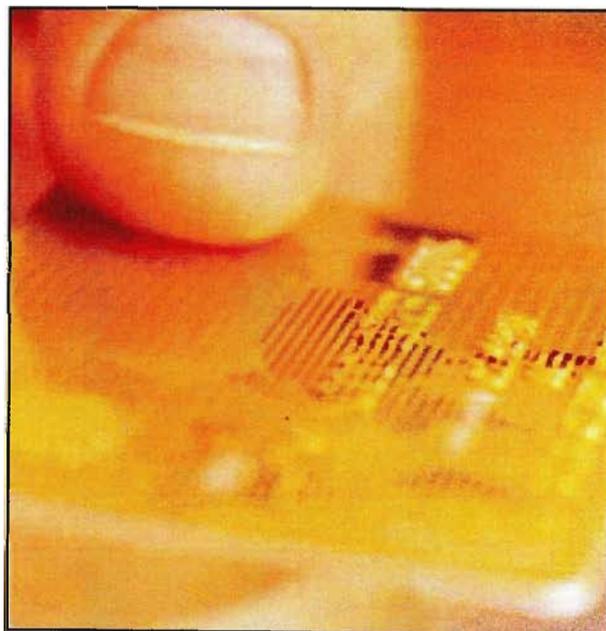
UEC Multimedia Limited is a wholly owned subsidiary of Altech, a leading South African, high technology group, involved in telecommunication equipment, electronic systems, components, IT solutions and cellular telephony (TMT).

UEC Multimedia Limited is the holding company of UEC Technologies (Pty) Limited and its related sister companies being MediaVerge Solutions and UEC Manufacturing. UEC is the only South African based TV Set-Top Box (STB) developer and manufacturer. The corporate structure and detail of the cross shareholding is diagrammatically represented in **figure 1.2**. (Altech 2000).



UEC is a technology driven electronics company with its main focus on the mass international consumer, selling high end STB's to institutions, being a business to business sales and marketing model. UEC's core expertise is in the area of hardware and software development within the MPEG and DVB domain, industrialisation and manufacturing, as well as CA systems, with both software and hardware integration. UEC is well positioned and technically enabled in the rapidly expanding digital TV STB market. UEC Management is pursuing a global strategy that has shown success so far. This has resulted in an increase in UEC's exposure to international markets and UEC's lower dependence on local South African based clients and partners. (Stols 2001).

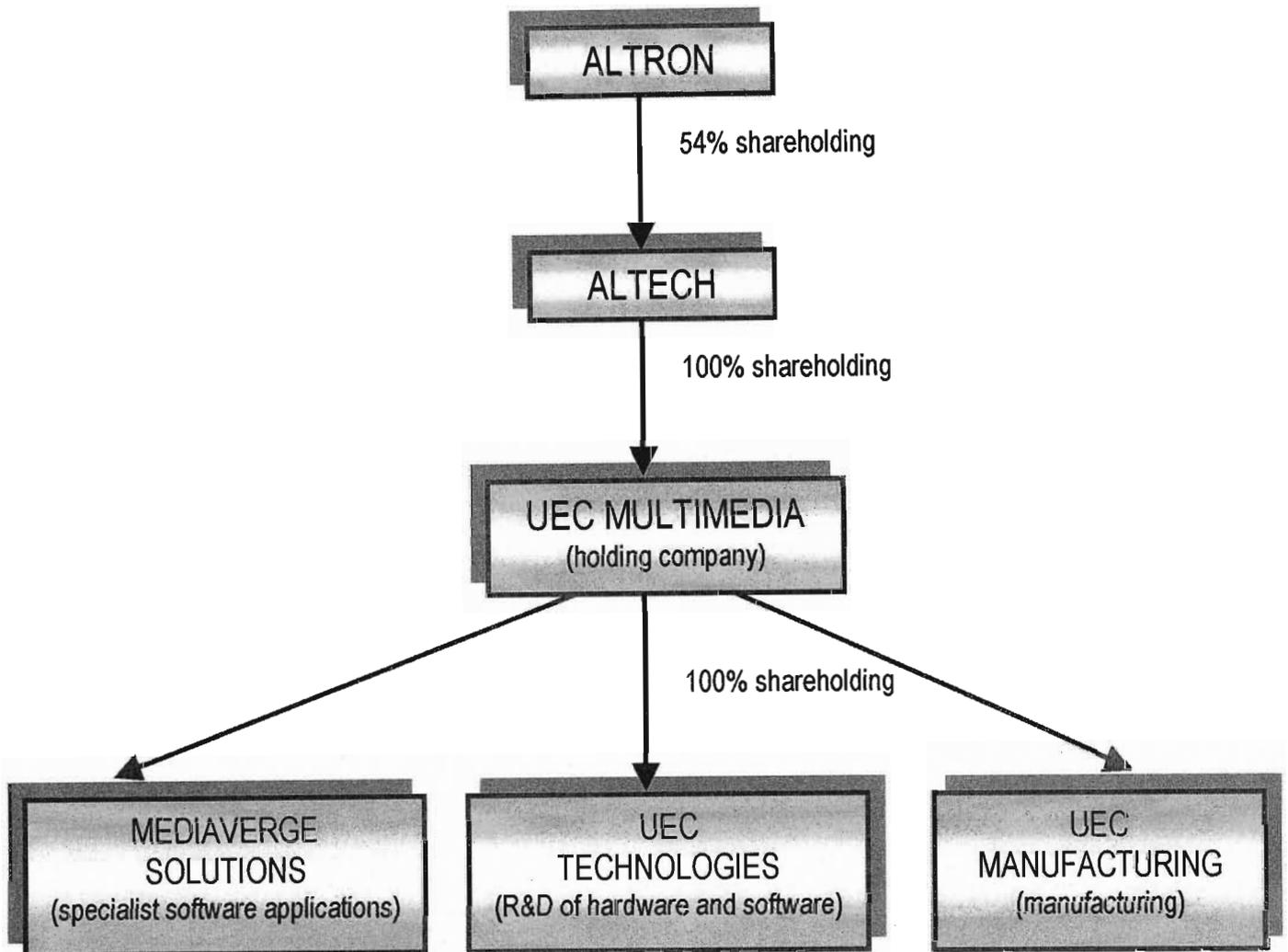
UEC's primary business is the development of STB technology and STB manufacturing. However, in addition, UEC has commenced developing inter-active TV applications through its sister company, MediaVerge Solutions. MediaVerge is positioning itself to take advantage of the anticipated take-off in demand for interactive applications. This increase is anticipated to occur as a result of the global roll-out of digital broadcasting and interactive platforms (such as home banking, home gaming, home shopping, T-mail). (Sobey 2001).



UEC is a focused niche participant in the STB market as UEC focuses predominantly on digital STB's. UEC is a smaller operation compared to its international industry peer group and UEC operates mainly in emerging markets. (Global Equity Research 2000).



CORPORATE STRUCTURE AND SHAREHOLDING OF UEC



Source: Altech 2000

Figure 1.2

1.4 UEC's POSITIONING IN THE STB INDUSTRY

It is forecast that globally, STB sales will grow by a compounded growth rate of 34% between 1999 and 2005. (Global Equity Research 2000).

Although UEC does not produce dedicated Internet TV boxes like certain of its industry peers do, UEC is in the process of launching its Internet functionality in its latest generation of STB's.

UEC is regarded as a niche company operating in the global market. UEC has built a 2% share of the global STB market since UEC began STB shipments in late 1997. UEC has been involved in the STB industry since



1993 when it commenced developing conditional access modules for Irdeco of Holland. (Global Equity Research 2000).

UEC is well positioned through its expertise of the OpenTV platform (a software management system in the STB) to develop a significant business in interactive TV applications. This is an area of the STB industry anticipated to experience substantial growth and for this reason, UEC formed MediaVerge during 2000. (Stols 2001).

1.5 MOTIVATION FOR THE STUDY

This case study analysis of UEC was motivated by the need to understand the inter-relationship between the requirement for growth, the effect of globalisation and the strategy of concentric diversification. Of particular importance was the interrelationship between the driving forces contributing to the factors of UEC's *internal company environment*, the *STB industry environment* and the UEC operating environment. This analysis consists of analysing how UEC makes use of international acquisitions to facilitate both growth of its total market share, access to new technologies, access to new products and to extend its client base whilst simultaneously pursuing globalisation through the establishment of off-shore facilities. The motivation for this case study was to understand the relationship between the above factors and their effect on UEC's growth. The intention was to combine these elements in such a way so as to formulate an industry specific analysis model. It was intended for this model to be specific to UEC's unique industry and company circumstances.

1.6 THE VALUE OF DOING THE STUDY

The value of undertaking this case study analysis of UEC was that it enables the thought process and issues of consideration which UEC have taken into account during their acquisition of CPS, to be considered in detail. This information, once extrapolated into the form of a company specific analysis model will provide UEC with a valuable strategic decision making tool. The



value of undertaking the study was that the model may then be applied to future acquisitions which UEC management may consider.

By applying the criteria which was set out in the model, it is intended to facilitate UEC's future management decisions. Furthermore, through the use of this model, the UEC potential acquisitions can all be measured according to the same criteria and thus provide the added value of providing UEC with uniform measurement tool when analysing potential future acquisitions.

1.7 OBJECTIVE OF THE STUDY

The objective of the case study analysis of UEC was to determine the criteria which UEC should consider when evaluating potential concentric diversification acquisitions. A comparison was thus made between the actual criteria considered by UEC when formulating their strategy, and what the research indicates was the preferable approach. An evaluation was made of any differences which appeared.

The objective was then extended further to include the formulation of a company specific analysis model which was intended to facilitate the future acquisition decision-making process at UEC.

1.8 RESEARCH METHODOLOGY

OVERALL METHODOLOGICAL APPROACH

UEC was used as the subject for this study. It was considered appropriate for the research to be undertaken by means of adopting a case study approach. The overall methodological approach adopted in this study was a qualitative approach, as opposed to a quantitative approach. Notwithstanding this approach, certain quantitative data was presented in the form of tables and graphs so as to corroborate and elaborate qualitative findings.

The qualitative approach was chosen as qualitative methods are typically flexible and are less structured than quantitative methods. As compared to



quantitative methods, qualitative methods employ a limited number of observations, but attempt to explain different aspects of the area under the study. Qualitative methods allow for detailed understanding of how and why decisions were made at UEC. (Ghuri, Gronhaug & Kristianslund 1995).

PERSONAL INTERVIEWS

For the study of UEC, primary data was collected through semi-structured, in-depth, personal interviews. The list of interviews undertaken at UEC is detailed on the interview register, being **table 1.1**.

REGISTER OF INTERVIEWS UNDERTAKEN AT UEC

B P F STOLS	CEO of UEC Multimedia and Managing Director of UEC Technologies
W KEYSER	Technology Director of UEC Technologies
W A LOMBARD	CFO of UEC Multimedia and Financial Director of UEC Technologies
R I SOBEY	Sales Director of UEC Technologies and Director in charge of UEC Australia
C WILLEY	Manufacturing Director of UEC Technologies

Table 1.1

Although during the interviews, the researcher was careful to ensure that the interview was controlled and that appropriate questions were asked, as part of the interview design, a set a pre-prepared questions was not used as the research was intended to secure semi-unsolicited responses and insight from the UEC executives interviewed. Notwithstanding this, a set of topics were introduced during the interview so as to ensure parameters to the discussion and furthermore, so as to facilitate focus. Interviews commenced with the researcher merely informally positioning the interview in the area of the case study focus. The interviewer explored the interviewee's responses



with questions aimed at focusing the discussion and eliciting detailed qualitative information.

The above questioning procedure produced effective results. The fact that the interviewees were part of senior and executive management at UEC was seen to contribute to the effectiveness of the informal questioning procedure. The interviewees possessed a detailed and working knowledge of both the business and the strategic thinking at UEC as well as the industry in which UEC operates.

Five interviews were undertaken at UEC. The relatively low numbers of observations and interviews undertaken at UEC was justified because of the in-depth nature of the study, which would not have been possible in the case of a high number of interviews being undertaken. The qualitative method used in this research, being a case study analysis supported by in-depth interviews was most suitable as the objectives of the study demanded in-depth insight into the concentric diversification strategy undertaken by UEC. The aim of the study would not have been met through quantitative research methods. (Cooper and Schindler 1998).

Different qualitative research methods are available and suitable for different types of studies. The case study methodology adopted in this research at UEC has been shown to be the most appropriate method for the research task undertaken.

The research undertaken at UEC was furthermore underpinned by aspects of historical review, particularly with regard to quantitative data. This data which was analysed was prepared by STB and digital industry specialists and industry specialist investment analysts. This secondary data which was relied upon was mainly in respect of the global industry positioning of UEC and aspects of the global STB industry. (Global Equity Research 2000).

CASE STUDY APPROACH

The researcher was mindful of limiting a potential bias during the in-depth interviews whereby the interviewee may attempt to structure their historic



actions at UEC and present thinking, into a typical business school text book approach to corporate strategic management, by manipulating their answer into generally accepted processes and procedures as opposed to describing what the actual thought process were or the actual actions were. It was particularly with this bias in mind that the researcher did not approach the interviews with a list of questions following a logical strategic thought or analysis process that may have unduly guided the interviewee. (Cooper and Schindler 1998).

The results and findings of this case study analysis was consistent with the research design.

Most case studies are undertaken through both a review of existing historical material and records, plus personal interviews. This was also the case with the UEC study. Accordingly, the case study method of research is quite similar to the historical review research method. However, the case study method is distinguished in the sense that the researcher has the ability to both directly observe, and interact with the research subjects. Typically, this process results in particularly detailed and focused findings. (Ghuri, Gronhaug, Kristianslund 1995).

Although the majority of this current research on UEC is qualitative, certain quantitative data has been secured and presented. The majority of the quantitative data relates to aspects of UEC's financial analysis and global market share.

The research design of undertaking a research on only one case is a well supported research design. Mintzberg (1979) argues that there is nothing wrong with a sample of one. He argues that it is the research problem and the research objective that influence the number and choice of cases to be studied. Campbell (1975) argues that with a single case study there can be richness of detail by looking for multiple indications and depth of understanding of the ideas under study. The researcher thus makes no apology for the sample in this research consisting of only one case study



being that of UEC. The findings confirm the appropriateness of the research design.

Case studies place more emphasis on full contextual analysis of fewer events or conditions, and emphasises their interrelation. Hypotheses are not often used in case studies, as the reliance on qualitative data makes the support or rejection of a hypotheses difficult. In any event, the support or rejection of a hypotheses is not appropriate in the case study analysis of UEC and would have added no value to the study. In the case study of UEC, an emphasis was placed on detail, which provides valuable insight for problem solving and evaluation of strategy. This detail in the UEC study was secured from multiple sources of information being the various personal interview, company records and secondary market intelligence. The benefit of the case study method is that it allows for evidence to be verified and substantiated. (Cooper and Schindler, 1998).

Qualitative techniques can be distinguished as they are concerned with the essential character or nature of the item being studied. While in-depth interviewing, which usually follows a conversational rather than structured approach, is a well recognized and respected qualitative research method, which method adapted well for the investigation at UEC, being particularly well suited to management questions. (Cooper and Schindler 1998)

SECONDARY DATA

It has been argued that because studies done by others for their own purpose represent secondary data, it is inefficient to discover a new, through the collection of primary data or original research that has already been done. In secondary data exploration, a researcher should ideally start with an organisation's owner data archive. This was done at UEC. The use of secondary sources provides an excellent background and will supplement the case study research. (Cooper & Schindler 1998).

The use of secondary data was particularly helpful in the UEC case study analysis as it provided a valuable source of detailed industry information. The benefit was compounded by the fact that the STB industry, being the



industry in which UEC operates, consists of a relatively closed shop of global competitors. Due to the substantial investment potential in these companies and the forced interrelationships between them due to co-operation in certain technologies, limited competitor statistics are available.

A search of secondary data was used in the UEC analysis, particularly so as to provide background information and to position UEC. In particular, industry specific secondary research data was used. A diagrammatic summary of the research process undertaken at UEC is presented in **figure 1.3**.

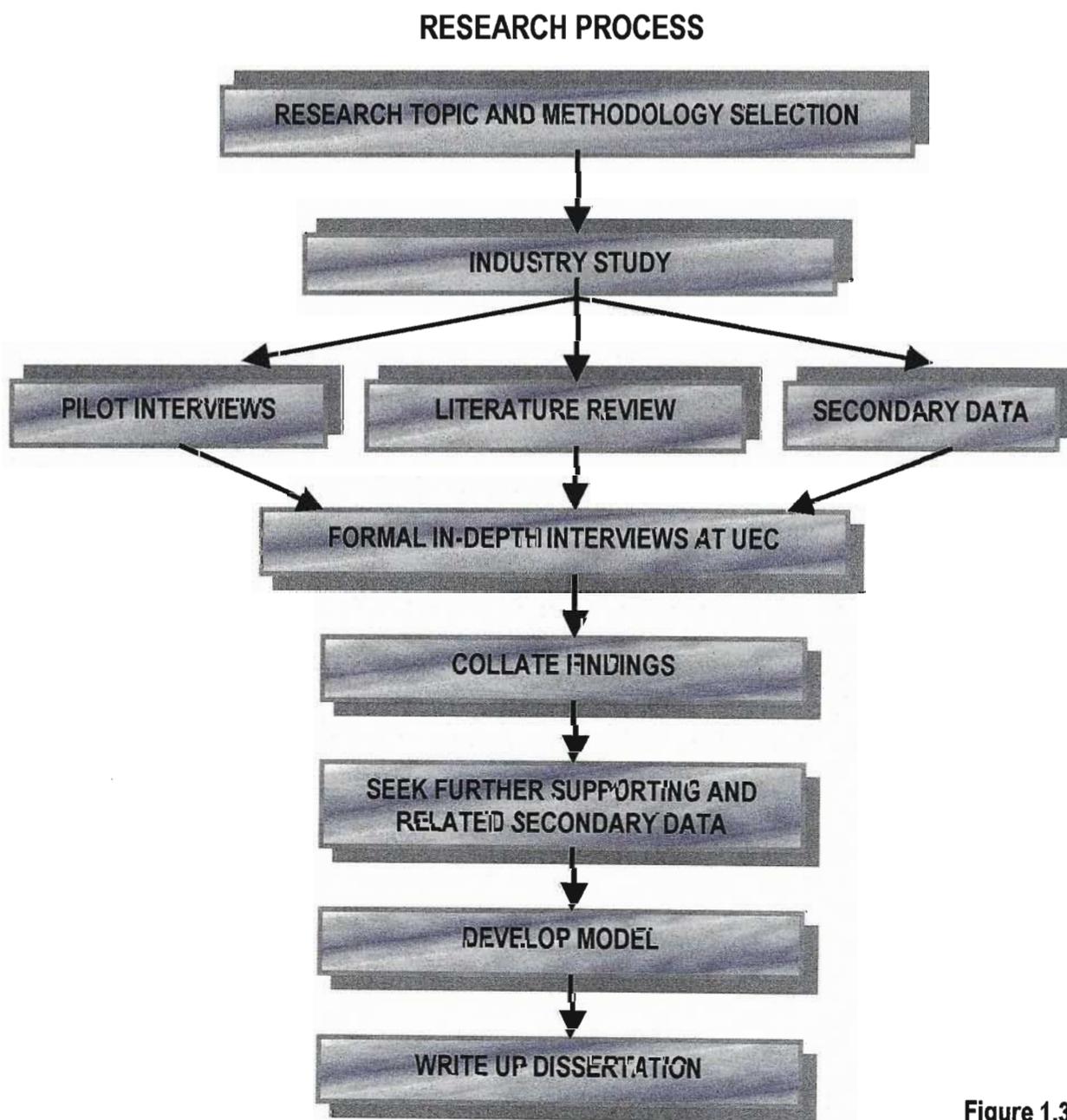


Figure 1.3



1.9 LIMITATIONS TO THE RESEARCH

RESEARCH DESIGN LIMITATIONS

The sample of one, being a recognised case study methodological approach has the limitation of being just that, being an analysis of only one company. Accordingly, although valuable in-depth information has been elicited from the study of UEC, generalisation of the findings of this study, industry or sector-wide, must be cautioned against. This is particularly so as the nature of the study focused on UEC's strategy and in specific circumstance.

A further limitation to the study is that the researcher is an employee of UEC. The proximity of the researcher to the subject may have caused some limited bias. However, the subject matter of the research, being strategy focused, substantially limits the effect of such bias as the subject matter and research data is primarily factually based, thus limiting the risk of an interpretation bias.

As the research focused on a recent event at UEC, the researchers findings are not able to assess long-term implications of the strategic plans and events.

LIMITATION OF RESEARCH FOCUS

As with any study, the researcher was obliged to place parameters on the focus of the study. This is particularly difficult in a study of this nature where the various aspects are particularly inter-dependent and all appear to contribute towards the whole.

In this case study analysis of UEC, the focus was on the strategic process followed by UEC in regard to UEC following pursuing its objective of growth. The focus was furthermore limited to UEC's the strategy of growth through acquisition, being a concentric diversification strategy. The study focused specifically on the proposed acquisition of an American STB developer and manufacturer. The in-depth interviews at UEC indicate that UEC is also pursuing alternative growth strategies, in particular organic growth. This study did not extend to this other growth strategy.



During the analysis of the proposed acquisition, the research, findings and discussions were by necessity further limited. In this regard, the marketing aspects of the acquisition, beyond the primary strategic relevance were not pursued. Furthermore, the financial analysis of the acquisition as well as the financial influence and effect on UEC, were not pursued in detail. The financial aspects were limited to their primary influence on the strategic decisions made by UEC.

Notwithstanding the limitations placed on the research, the research followed a detailed and meaningful analysis. It is argued that the limitations placed on the research have not negatively impacted on the outcome of the research. Quite the opposite is true, because, as a result of the researcher placing appropriate limitations on the focus, a more detailed and meaningful qualitative analysis was possible. This contributed positively to the formulation of the company specific analysis model, as presented in **figure 4.1**.

1.10 OVERVIEW OF CHAPTERS

An overview of the dissertation has been provided with the intention of presenting a brief discussion of the topics covered in each of the chapters included in this dissertation.

Chapter one commenced with an introduction to the case study company, UEC, by providing some essential background as well as clarity on industry unique definitions and terminology. As part of forming the background to the research the chapter goes on to position UEC in the global STB industry. This chapter also details the motivation for undertaking the case study analysis of UEC, which is supported by the discussion of the value of undertaking such case study. This section of the chapter concludes with the objectives of the case study.

The chapter thereafter discusses the research methodology undertaken with an emphasis on the methodological approach, personal interviews and a discussion of general approaches to case studies in qualitative research. Chapter one then continues to detail the limitations of the research being



both the research design limitations as well as the areas of study within the scope of the general area of study which were not dealt with.

Chapter two was a review of the current literature and analysis of the leading text book and journal articles relating to the area of study. The strategy review generally covers an introduction to corporate strategy, grand strategy selection and concentric diversification with an emphasis on acquisitions. Porters five forces model and general strategy relating to globalisation were also discussed, terminating with concluding comments.

Chapter three focused on the case study analysis of UEC. This included an introduction to the analysis of UEC, touching on the company, mission, vision, objectives, aim and goals, followed by a discussion of the research process undertaken at UEC. This chapter then focuses on UEC's growth and globalisation strategy followed by an analysis of the prospects of the STB industry which is analysed in conjunction with UEC's concentric diversification strategy which is thereafter also discussed. The material focus of the concentric diversification was a detailed analysis of an off-shore acquisition undertaken by UEC. The chapter was drawn together with concluding comments and findings.

Chapter four evaluated the strategic decisions undertaken by UEC as discovered during the in-depth case study analysis. The chapter then went on to discuss and evaluate the company-specific analysis model postulated in this dissertation.

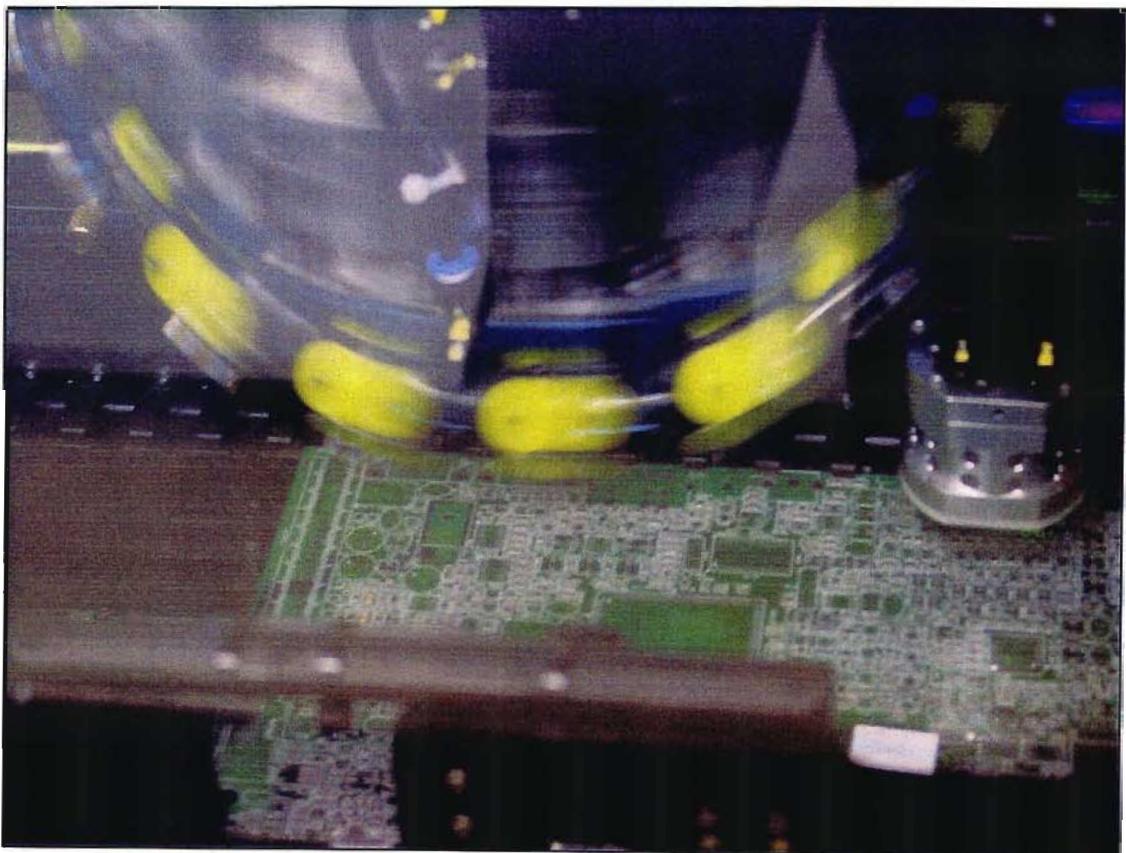
Chapter five focused on discussing and considering the decisions taken by UEC in light of the evaluation and company specific analysis model. A critical analysis of UEC's decisions was undertaken and preliminary concluding comments were postulated.

Chapter six focused on the specific recommendations and conclusions to the dissertation. This chapter aimed to answer the questions and to have settled the debates raised during the preceding chapters.



1.11 CONCLUDING FORWARD

Chapter one has introduced UEC and has detailed the framework of how the researcher has analysed the concentric diversification growth strategy undertaken by UEC. The motivation for this analysis as well as the value which it would add to UEC, supported by the objective of the study, has been discussed. The substance of the forthcoming chapters as well as the limitations thereof have been disclosed. Furthermore, the framework of the dissertation, including the formulation of a company specific analysis model was presented. It is now appropriate to proceed to the detailed strategy review which was presented in chapter two.



THE ABOVE PHOTO DEPICTS ONE OF THE UEC STB PC BOARDS BEING PROCESSED. THIS MACHINE SHOTS THE ELECTRICAL COMPONENTS ONTO THE PC BOARD AT HIGH SPEED, BEING UP TO 40 000 COMPONENTS PER HOUR.



CHAPTER TWO

2. STRATEGY REVIEW

As a precursor to the case study of UEC in chapter 3, it was important to undertake an analysis of the current academic position in regard to corporate strategy. This is the focus of chapter 2.

2.1 AN INTRODUCTION TO CORPORATE STRATEGY

This introduction to corporate strategy was intended as a general introduction to the field of study of corporate strategy. This literature review was not intended to deal with all the general aspects raised in the introduction, but will be focusing on the more specific areas of corporate strategy that were observed during the case study analysis of UEC.

Generally, corporate strategy is concerned with an organisation's basic direction for the future, being the organisation's purpose, its ambitions, its resources and how the organisation interacts with the world in which it operates. (Lynch 1997). In UEC's case, the focus is the global STB industry, with specific reference to the international markets in which UEC operates.

Every aspect of the organisation plays a role in the corporate strategy, this includes the organisation's people, its finances, its production methods and its business environment, which includes the organisation's customers.

Corporate strategy can be described as an organisation's sense of purpose. This particular sense of purpose that an organisation has is essential to the corporate strategy of that organisation. Academic commentators refer to this aspect of strategy as mapping out of the future direction that need to be adopted in relation to the resources possessed by the organisation. It must be stressed that purpose alone, however, is not strategy. Plans or actions need to be developed to put the purpose into practice. (Lynch 1997).



This sense of purpose and its associated actions can be seen in the following definition of corporate strategy:

Corporate Strategy is the pattern of major objectives, purposes or goals and essential policies or plans for achieving those goals, stated in such a way to define what business the company is in, or is to be in, and the kind of company it is, or is to be. (Abernathy, Wayne 1974).

Every organisation needs to manage its strategies in three main areas:

1. the organisation's *internal resources*,
2. the *external environment* within which the organisation operates, and
3. the organisation's *ability to add value* to what it does.

Corporate strategy can thus be seen as the linking process between the management of the organisation's internal resources and its external relationships with its customers, suppliers, competitors and the economic and social environment in which it exists. (Lynch 1997 Page 8)

One of the main purposes of corporate strategy is to bring about the conditions under which the organisation is able to create additional value and to pass this additional value on to its customers. Corporate strategy must also ensure that the organisation adapts to changing circumstances so that it can continue to add value in future. The way in which value can be added and enhanced is critical to corporate strategy. This added value will ultimately be distributed to the stakeholders in the organisation, being the shareholders who own the company and receive dividends on their shares, the employees who receive some of the added value through their remuneration, the management who receive added value through their salaries and privileges, and lastly, the government, which receives part of the added value in the form of taxes. (Lynch 1997 Page 10).

This concept of adding value and the organisation adapting to changing environmental circumstances is highlighted in the case study analysis of UEC. In this regard UEC's concentric diversification strategy was intended



to ensure that UEC remains aligned to the developing company and industry circumstances.

There are five key elements of strategic decisions that are related primarily to the organisation's ability to add value and compete in the market place. These elements are as follows:

1. **Sustainability** – the organisation's decisions must be able to be maintained over time. For the long-term survival of the organisation, it is important that the strategy is sustainable.
2. **Develop processes to delivery the strategy** – the strategy is partly about how to develop organisations or allow them to evolve towards their chosen purpose.
3. **Offer competitive advantage** – a sustainable strategy is more likely if the strategy delivers sustainable competitive advantage over its actual or potential competitors. Corporate strategy usually takes place in a competitive environment. The importance is thus that the competitive advantage created by the strategy must be sustainable. An example of this is the synergies achieved by UEC through the concentric diversification strategy adopted by it when it acquired ZNS.
4. **Exploit linkages between the organisation and its environment** – the strategy has to exploit the many linkages that exist between the organisation and its environment. The most important are links that cannot easily be duplicated and will therefore contribute to superior performance of the organisation in comparison to the performance of the organisation's competitors. Such linkages may be contractual and formal or they may be vague and informal. The most significant matches may in fact even be informal arrangements that add real and long-term benefits to both parties to the process. An example of this is the many co-operative, partnership and joint venture relationships that UEC has entered into with organisations within its environment being organisations both up and down the value chain as well as peers within the STB industry and market place.



5. **Vision** – this is the ability to move the organisation forward in a significant way beyond the current environment. This is likely to involve innovative solutions to the strategic problems facing the industry as a whole. An example is increasing demand for UEC's products through technical innovation. (Lynch 1997).

In the final analysis, corporate strategy is concerned with delivering long-term added value to the organisation. (Lynch 1997 Page 12)

2.2 SELECTING STRATEGIC OPTIONS

The process of analysing strategic choices facing a company involves matching that company's resources to the objectives which the company wishes to pursue. It is important to note that usually a mix of strategies is necessary to ensure that all elements of the company's value chain are both planned and co-ordinated.

It is of utmost importance that a common thread should run through all the company's activities. In the case study example of UEC, the common thread is UEC's growth drive coupled with UEC's objective of globalisation. This common thread could run through either the company's collection of similar factors or through the company's collection of dissimilar activities. The point is that even if the activities are superficially unrelated within the company, all these activities need to point in the line with the company's strategic objective. This common thread should result in synergies being created within the company. These synergies translate into optimisation of company resources and thus increase profitability. This aspect of synergy was central to UEC's evaluation process in regard to UEC's concentric diversification by means of the acquisition discussed in Chapter 3. Each strategic choice made by a company must aim to enhance the competitive advantage of the company, or neutralise a competitive weakness.

Based on a company's situation it chooses a generic strategy type being a growth strategy, stability strategy or retrenchment strategy. The choice of appropriate strategy is influenced by the company's strengths and



weaknesses plotted on the Y axis of **figure 2.1** and secondly on the company's specific opportunities and threats plotted on the X axis. (Pearce Robinson 1992)

STRATEGY SELECTION TABLE

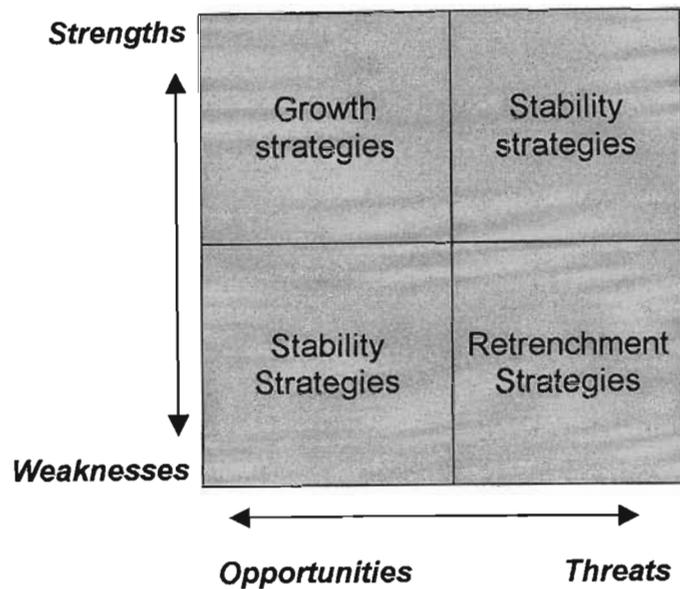


Figure 2.1

2.3 GRAND STRATEGIES

A company's grand strategies indicates how that company's long range objectives will be achieved. A grand strategy can be defined as a comprehensive general approach which guides the major actions designed to accomplish long term objectives of a business. (Pearce Robinson 1992)

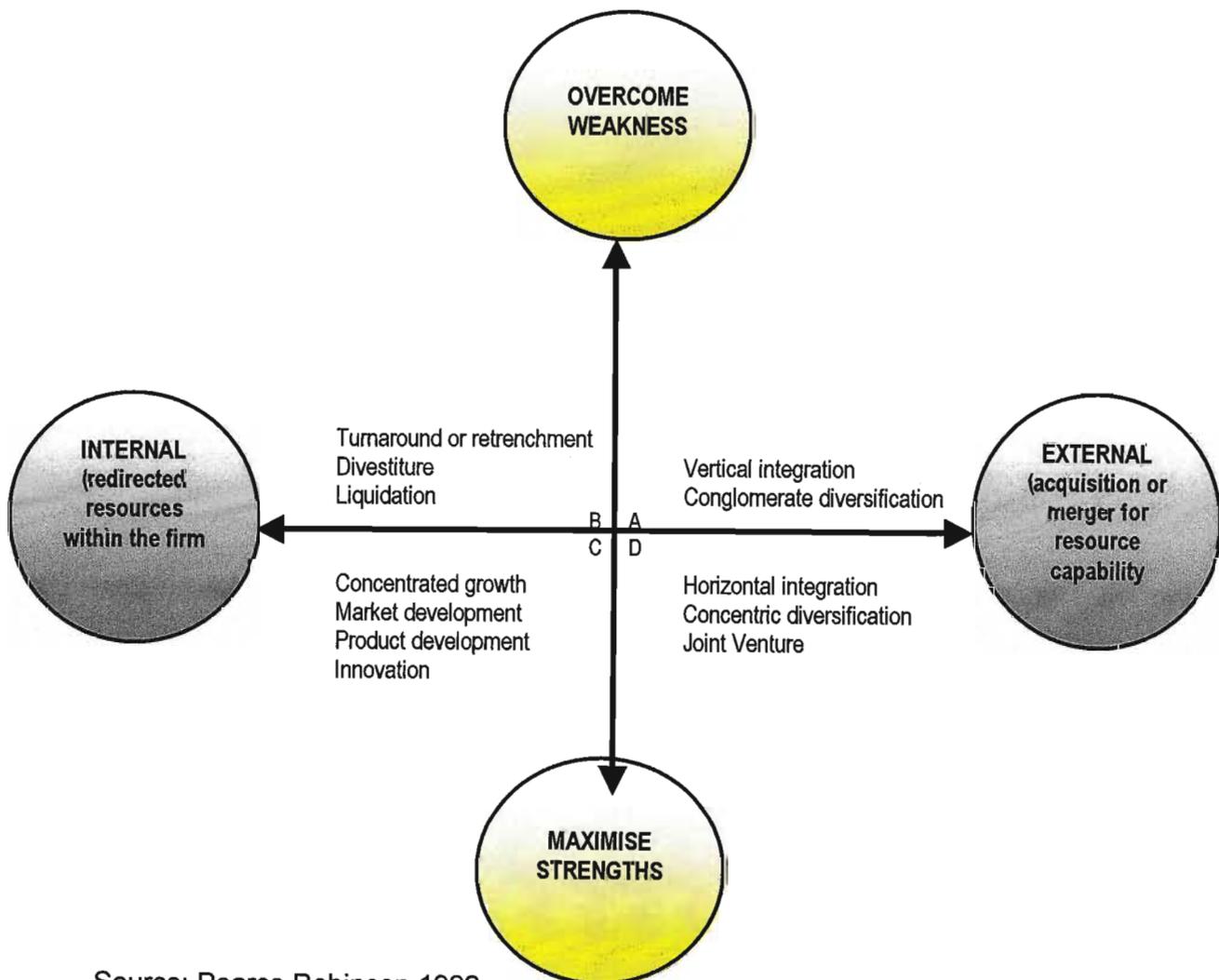
In principle, there are twelve grand strategies. Any one of which could serve to provide the basis for achieving the major long term objectives of a single business. The selection of the grand strategy depends on the company's long term objective or objectives. It is important to note that one strategy does not necessarily exclude the other, and that the selection of the strategy should not be undertaken mechanically. The selection should be undertaken with specific reference to the particular business, and with reference to that business's specific environment, the internal needs and its industry specific



strengths, weaknesses, opportunities and threats. When a company is involved in multiple businesses, multiple grand strategies are typically used in combination (Pearce Robinson 1992).

The twelve grand strategies can be combined into a grand strategy selection matrix. This matrix is detailed in **Figure 2.2**.

GRAND STRATEGY SELECTION MATRIX



Source: Pearce Robinson 1992

Figure 2.2

This grand strategy selection matrix is of particular importance to corporate strategy and relates directly to the case study analysis of UEC. In applying



the selection matrix, UEC would ask itself what its business needs to overcome and what aspect of its business would it want to maximise.

The grand strategy selection matrix consists of twelve grand or generic strategies grouped into the four quadrants marked A,B,C and D in **figure 2.2**. To provide meaning to the matrix these twelve strategies have been explained. This was to ensure a holistic view of the process was achieved.

CONCENTRATED GROWTH

When a company follows a strategy of concentrated growth, the company directs its resources to the profitable growth of a single product, in a single market and with a single technology. Concentrated growth or concentration as it is often referred to typically has the lowest risk and the lowest in additional resource requirements. A further benefit of concentrated growth is that it is based on known competencies of the company. One of the negative aspects of concentrated growth is that for most companies, a concentrated growth strategy tends to result in steady but only a slow increase in growth and profitability, combined with a more narrow range of investment options. It can be argued that technology companies are slightly different as they need to aggressively concentrate growth on a particular technology so as to reap the maximum returns before the technology becomes outdated. However, these companies often also exhibit other strategies aimed at expanding their business. This stance was highlighted by UEC who aggressively needed to achieve the maximum economies of scale in respect of R & D costs associated with each technology development undertaken. (Pearce Robinson 1992)

MARKET DEVELOPMENT AND PRODUCT DEVELOPMENT

Should a company's strategic manager forecast that a combination of the company's current products combined with the company's current markets, will not provide a basis from which the company can achieve the company mission, then the company has two options. Both options are moderate in cost and risk. These are market development and product development which can be implemented either individually or together. Market



development typically ranks second only to concentrated growth as the least costly and least risky of the twelve grand strategies. Market development consists of marketing present products often with only cosmetic modifications, to customers in related market areas. This is done by adding different channels of distribution or by changing the content of the company's advertising or promotional media. An example of this is when UEC secured the right to brand certain of its products with the Nokia brand. This enabled UEC to sell its existing product into the more brand-conscious China market.

Product development involves substantial modification to existing products or the creation of related products which can be marketed to current customers through established marketing and distribution channels. The adoption of the product development strategy is typically made by a company so as to either prolong the life-cycle of the company's current products or to take advantage of a favourable reputation and brand name. As an example, UEC has earned a reputation for electronic design excellence in its business-to-business marketing of STBs. UEC is now launching a high-speed modem, being a new but related product where UEC takes advantage of a particularly favourable reputation in its chosen market segment. (Pearce Robinson 1992)

INNOVATION

It has become increasingly risky for companies in many industries to merely rely on their existing products and systems without actively pursuing innovations. Consumers, as well as industrial markets, have come to expect periodic changes and improvements in the products which are offered. As a result, some companies find it profitable to base their grand strategy on innovation. These companies seek to reap the initial high profits associated with the acceptance by customers of a new or greatly improved product. This is particularly relevant in the technology arena where consumers, particularly institutional clients, are constantly demanding better, faster and cheaper electronic products. UEC attempts to achieve these goals through constant redefining and value engineering their existing products, both to



bring down their component costs and deliver the new improved products at lower costs.

Although UEC embraces innovation, it is acutely aware of the danger and risk of what is commonly known as the “bleeding edge” of technology as opposed to the “leading edge”. With state-of-the-art technological advancement, often the company at the forefront of technology development can incur enormous costs in pioneering new technologies. UEC typically adopts the attitude of positioning itself just behind the leading company, so as to be in a position to accelerate their development once the industry technological parameters have been refined. (Pearce Robinson 1992)

HORIZONTAL INTEGRATION AND VERTICAL INTEGRATION

When the long term strategy of a company is based on growth through the acquisition of one or more businesses operating at the same stage of the production value chain, then the grand strategy is termed horizontal integration. Such acquisitions not only provide access to new markets for the acquiring firm, but may also result in the elimination of competitors from the market place.

When the firm’s grand strategy involves the acquisition of businesses which either supply the firm with inputs such as raw materials, or which serves as a customer for the firm’s output, such as warehouses for finished products, the firm is engaged in vertical integration. An example of this is when UEC acquired the plastic moulding company which moulds the plastic front fascia of the decoder. This acquisition was undertaken to both secure a long term supply of the product, as well as to achieve cost savings. (Pearce Robinson 1992)

JOINT VENTURE

From time to time, two or more capable companies lack a necessary component for success in a particular competitive environment. This situation often results in the companies negotiating a co-operative joint venture which can take various formats. The rationale of these companies in



seeking such joint ventures is that such joint ventures minimise the threat of domination and enhance their skills, employment, growth and profits. The joint venture aims to harness the synergies between the two businesses. In this regard, the portfolio of the businesses add up to more than the parts. This can be equated with economies of scale, but in the corporate sense. As an example, UEC enters into various co-operative joint ventures where UEC may have a particular client and certain technology blocks while lacking certain other technology blocks. Through the mechanism of a joint venture, both companies benefit from the combined resources. (Pearce Robinson 1992)

CONCENTRIC DIVERSIFICATION

Concentric diversification typically involves the acquisition of a separate business which offers synergistic possibilities because of the counterbalancing possibility of the two businesses strengths and weaknesses. The case study of UEC analyses, in detail, UEC's concentric diversification by acquiring an industry peer, ZNS. The benefit to UEC was the substantial synergies between the two businesses which facilitated market development and product development. This concentric diversification enabled UEC to maximise its strengths and overcome its weaknesses. This is particularly important as UEC's industry is developing from the embryonic stage and rapidly entering the growth phase. UEC's acquisition strategy is based on UEC's intention to ensure that UEC has appropriate critical mass before the industry moves into the mature stage. (Pearce Robinson 1992)

CONGLOMERATE DIVERSIFICATION

Conglomerate diversification involves a distinctive departure by a company from its existing base of operations. With conglomerate diversification the company undertakes investments in unrelated companies. The overriding motivation for this form of diversification is cash generation due to the high profit potential of the company being acquired or diversified into. This is the acquisition of a "cash cow" so as to fund the cash requirements of the core business. (Pearce Robinson 1992)



RETRENCHMENT AND TURNAROUND STRATEGY

For a number of reasons, a company may find itself in a period of declining profits. In many such cases, strategic managers believe that the company can survive and eventually recover financially if a concerted effort is made by the company over a period of a few years. The intention of management is to fortify the basic distinctive competencies of the company. In effect, the management will focus on the company's core competencies and re-engineer the business back to profitability. This form of grand strategy is known as retrenchment and turnaround strategy. This strategy is typically accomplished through cost reduction or asset reduction, or a combination of both. (Pearce Robinson 1992)

DIVESTITURE

A strategy of divestiture is a last resort strategy. This is the marketing for sale of a company or a major component of a company. Typically when a retrenchment or turnaround strategy fails to accomplish the desired turnaround, then strategic managers are often faced with the obligation to seriously consider divestiture by selling the business or portion thereof. (Pearce Robinson 1992)

LIQUIDATION

The strategy of liquidation is a very last resort and often management is forced into the process of liquidation. Typically, management have very little control over the process once the company has declined to this stage. It is thus important for management to identify the necessity to liquidate and thus commence the proceedings. This enables management to control the process and the pace of the liquidation. The strategy of liquidation involves selling the company in part, very occasionally as a whole, but in any event, the company is sold for its tangible asset value only and not as a going concern.

In selecting liquidation, owners of the company and strategic managers of the company are in effect, admitting failure, and recognising that the



company as it stands has no prospect of future success. (Pearce Robinson 1992).

GENERAL

A company's strategy details the game plan for moving a company into an attractive business position or sustaining its existing positive position should it already exist. The company's strategy aims at building a sustainable competitive advantage for the company. A company's actual strategy often turns out to be a variation from the company's planned strategy as new strategic features are added and others are deleted in response to constantly emerging and changing conditions. This should not be seen as a failure on behalf of the company, but rather as the company successfully adapting to an ever changing business environment.

2.4 PORTERS FIVE-FORCES MODEL

Companies such as UEC operate in a competitive industry. Companies need to constantly be aware of and assessing the competition within the industry. Wayne Callaway, the former CEO of PepsiCo, captured the importance of this analysis by stating that "nothing focuses the mind better than the constant sight of a competitor who wants to wipe you off the map". Companies, in particularly managers and executives, are not prepared to decide on a long term direction or strategy for their company until they have a keen understanding of the company's strategic situation. Of importance is the exact nature of the industry and competitive conditions which both the company and the industry faces. Of importance is how these conditions match up with the company's resources and capabilities. An industry's economic features help frame the window of the strategic approaches a company can pursue. (Thompson & Strickland 1999).

Competitive jockeying among rival firms is a dynamic, ever changing process as firms initiate new offensive and defensive moves, and emphasis swings from one blend of competitive weapons and tactics to another.



Figure 2.3 is a diagrammatic explanation of the five-forces model of competition as formulated by Porter, (1979). The model divides competition into five interrelated forces. The model facilitates a company answering the question, *what is competition like and how strong are each of the competitive forces?* Each of the five forces are individually discussed.

The **first element** of the five forces is the rivalry among competing sellers in the industry. This is indicated in the centre of **figure 2.3**. This is the strongest of the five forces as companies jockey for position and buyer favour. The intensity of rivalry heats up when one or more competitors sees an opportunity to better meet the consumer's needs through lower prices, snazzier features, expanded customer service, promotions or new product introduction. Competitive jockeying is dynamic.

There are several common factors that seem to influence the tempo of rivalry among competing sellers. These are:

- Rivalry intensifies as the number of competitors increases and as competitors become more equal in size and capability.
- Rivalry is usually stronger when demand for the product is growing slowly.
- Rivalry is more intense when industry conditions tempt competitors to use price cuts or other competitive weapons to boost unit volume.
- Rivalry is stronger when customers' costs to switch brands are low.
- Rivalry is stronger when one or more competitors is dissatisfied with its market position and launches moves to bolster its standing at the expense of rivals.
- Rivalry increases in proportion to the size of payoff from a successful strategic move.
- Rivalry tends to be more vigorous when it costs more to get out of a business than to stay in and compete.



- Rivalry becomes more volatile and unpredictable and more diverse competitors are in terms of their visions, strategic intents, objectives, resources and countries of origin.
- Rivalry increases when strong companies outside the industry acquire firms in the industry and launch aggressive, well-funded moves to transform their newly acquired competitors into major market contenders.

(Thompson and Strickland 1999)

The **second element** to Porter's five-forces model is the competitive force of potential new entrants to the market.

Barriers to entry to a market or industry are:

- Economies of scale.
- Inability to gain access to technology and specialised know-how.
- The existence of learning and experience curve effects.
- Brand preference and customer loyalty.
- Resource requirements.
- Cost disadvantages independent of size.
- Access to distribution channels.
- Regulatory policies.
- Tariffs and international trade restrictions.

The threat of entry is stronger when entry barriers are low, when there's a sizable pool of entry candidates, when incumbent firms are unable or unwilling to vigorously contest a newcomer's efforts to gain a market foothold, and when a newcomer can expect to earn attractive profits.
(Thompson and Strickland 1999)

The **third element** in the five-forces model is competitive pressures from firms in other industries offering substitute products. Competitive pressures depend on:

- Whether attractively priced substitutes are available.



- How satisfactory the substitutes are in terms of quality and performance.
- The ease with which the buyer can switch to substitute products.

(Thompson and Strickland 1999)

The **fourth element** in the five-forces model is the power of suppliers of key inputs into the company's business or product. Industries have a strong competitive force when they have sufficient bargaining power through:

- The prices they can command.
- The quality and performance of the items they supply.
- The reliability of their deliveries and service.

(Thompson and Strickland 1999)

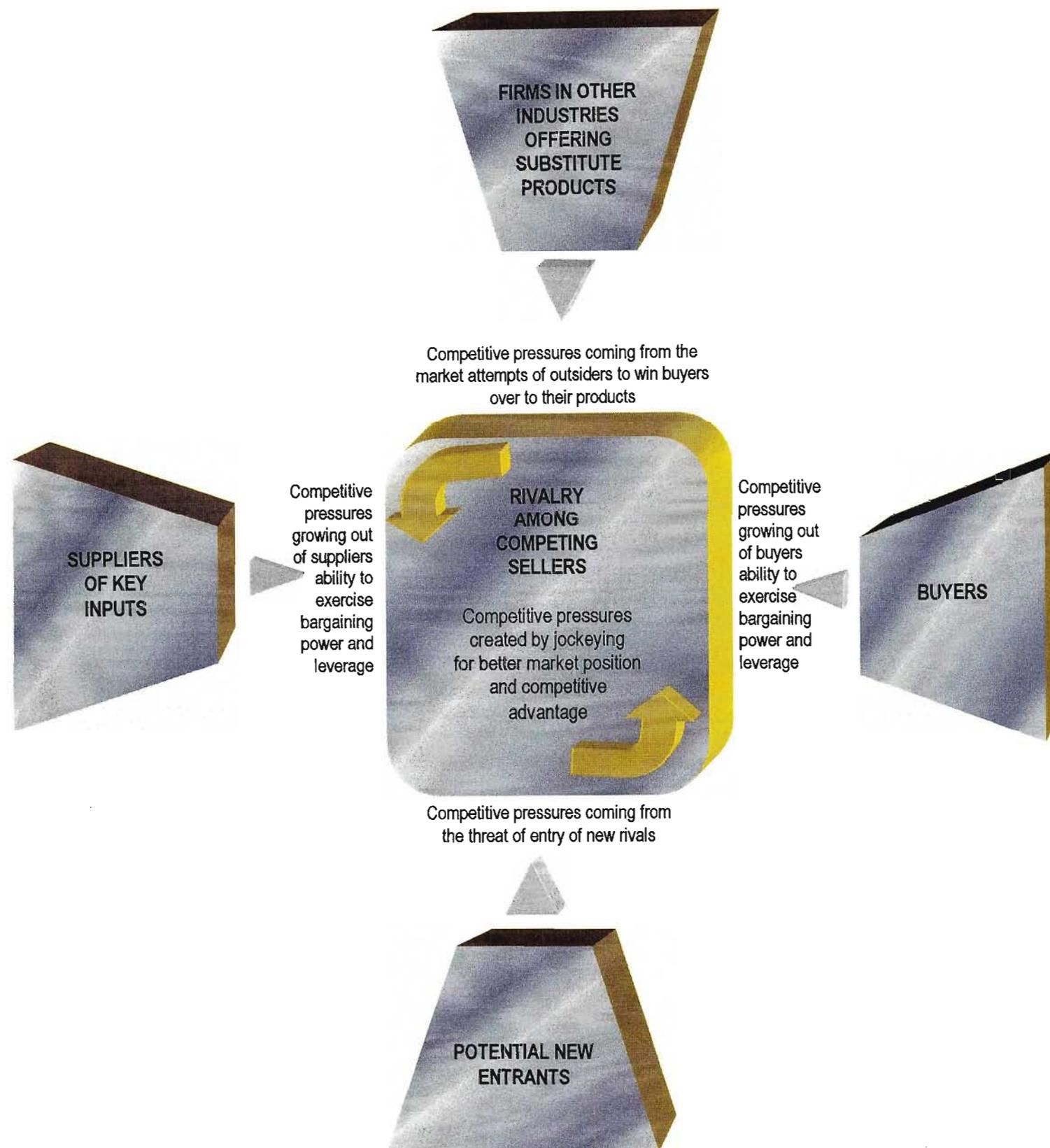
The **fifth element** of Porter's five-forces model is the influence of the power of the buyer of the company's products on the company. Competitive strength of buyers ranges from weak to strong. Buyers are strong if they regularly buy large quantities or offer a seller important market exposure or prestige. Other buyers have some degree of bargaining leverage in the following circumstances:

- Buyers cost of switching to other brands is relatively low, thus the buyer can easily move between suppliers.
- The number of buyers is small.
- Buyers are well informed about seller's products, prices and costs.
- Buyers pose credible threat of backward integrating into the business of sellers.
- Buyers have discretion whether they purchase the product or a competing product.

(Thompson and Strickland 1999)



PORTERS FIVE-FORCES MODEL OF COMPETITION



Source: Porter 1979

Figure 2.3



2.5 CONCENTRIC DIVERSIFICATION

INTRODUCTION

Diversification strategies can be made up of either related or concentric diversification strategies or unrelated or conglomerate diversification. UEC's strategy was following a related or concentric diversification strategic approach and accordingly, it is in this area that the discussions have focus. Related diversification strategies involve diversifying into businesses with competitively valuable strategic fits and matches in their value chains. Typically these include opportunities for technology sharing, sharing a common sales team, product and market synergies, transferring know-how and expertise and the transferring of management skills. What makes related diversification attractive, is the opportunity to turn a strategic fit between the two companies into competitive advantages. Good strategic management can then translate this competitive advantage into a sustainable competitive advantage. (Thompson & Strickland 1999).

GENERAL DISCUSSION

The competitive advantage potential flowing from concentric diversification includes lower costs through economies of scale, efficient transfer of key skills, technical expertise and management know-how, the potential ability to share common brand names and to enhance resource strengths and competitive capabilities. Of particular importance of concentric diversification to UEC is the ability to transfer expertise in core technology, to collaborate and strategically co-ordinate research and development as well as the use of combined distribution channels to secure more business. An added advantage to UEC could be to secure increased production volumes for their manufacturing plan. Increased production volume has dramatic effects on the production economies of scale.

It is of importance that the management identify and then capture the strategic fit benefits and value chain relationships between the companies so



as to translate these into competitive advantage, failing which the benefit of an acquisition would be substantially reduced.

At the time of selecting a suitable concentric diversification acquisition, it is important that the strategic fit of the two companies is analysed with the intention of ascertaining the potential competitive advantage that could be achieved through their combination. This strategic fit can be assessed from two primary angles. The **first** angle is whether either of the companies possess a vulnerable strategic fit with each other in regard to business which the firm is presently involved in. The emphasis of this angle is the current strategic fit. The **second** angle of analysis is whether either of the companies have business units which mesh well with the company's long term strategic direction. The emphasis here is taking a view of the long term direction in which the company is moving and ascertaining whether the concentric diversification acquisition would produce long term benefits for the acquiring company.

Ascertaining the competitive and managerial resource fits between the existing company and proposed acquisition involved determining various key elements. These include whether the companies *resource strengths* are well matched to the key success factors of the business it intends acquiring. It is furthermore important to assess whether the company has *adequate* managerial depth and expertise to assume responsibility for the company being acquired. Of importance is to assess whether the *competitive capabilities* of the existing company or the company to be acquired can in fact be transferred to the other. This question of resource fit was of particular importance to UEC when considering the ZNS acquisition. In this regard the market synergies were detailed in **table 3.6** and the combined R & D engineering strengths of both UEC and Zenith were analysed and detailed in **table 3.7**. A final area of resource fit consideration is whether the company would need to invest in upgrading its resources or capabilities so as to stay ahead of the efforts of their rivals by upgrading their joint resource base. (Thompson & Strickland 1999).



It is important to note that many diversification strategies never live up to their strategised potential, primarily because the transfer process between companies is not as easy as it may seem. Furthermore, a firm's success in one business, region or area of specialisation is often entangled with circumstances and the means of recreating this success, particularly in a combined entity, is often found to be impossible. A further contributing factor to failure is the misjudgement of the strengths and capabilities of industry rivals. Concentric diversifying companies are cautioned that diversifying into businesses with merely seemingly good resource fit, is by itself, not sufficient to produce commercial success. (Pearce Robinson 1992)

CONCLUSION

In conclusion to this initial discussion on concentric diversification, it is important to emphasise that although concentric diversification through acquisition of rivals within ones industry can have a positive effect on the acquiring business, there are no guarantees. The careful choice of business to acquire and analysis of this choice is of utmost importance and contributes substantially to the potential success of the post concentric diversified entity. It is for this reason that **chapter four** postulates a model to assist with this selection process in the form of the company specific analysis model designed specifically for UEC as detailed in **figure 4.1**.

2.6 GLOBALISATION STRATEGIES

GENERAL INTRODUCTION

One of UEC's objectives was to expand its business operations by establishing offices in various global locations.

Globalisation is referred to as the shift towards a more integrated and inter-dependent world economy. Globalisation has two aspects, being both the *globalisation of markets* and the *globalisation of production*. (Hill 2001). Although debates rage about whether globalisation results in prosperity or impoverishment, the reality is that globalisation exists, particular in industries



such as high-tech electronics, with specific reference to STB's. As globalisation is a given in these industries, it is of utmost importance for participants to adapt to this global environment and harness the benefits thereof.

For companies such as UEC to be successful in the global arena, they are obliged to formulate and manage global and international strategies.

FOUR GENERIC STRATEGIES

There are essentially four generic international business strategies. These are discussed hereunder:

When a company follows a **multi domestic strategy**, the company typically replicates the value chain in each region where it operates or sets up an office.

This can be distinguished from a **global strategy**. In this case a company would typically break up the value chain and locate each element of the value chain in the geographic location where the company can take advantage of location economies. These would be favourable taxes, high availability of labour, raw materials, close proximity to end users, and various other criteria dependent on the specific industry.

The third strategy is an **international strategy**. When a company adopts an international strategy typically they tend to centralise the company's *core* competencies in one geographical location and thereafter decentralise all other activities.

The fourth generic strategy is a **trans-national strategy**. In this regard a company would typically operate through an integrated network with special resources distributed geographically and a general flow of capital.

(Hill 2001).

UEC can be used as an example of a global strategy. UEC chose to locate certain of its research and development in Australia due to the location



advantage of the availability of well-trained electronic engineers, while not being obliged to pay the inflated costs associated with software development in the USA, which until very recently, suffered from the IT euphoria which artificially inflated salaries.

There are *two* primary macro-economic factors which are considered to be drivers of modern globalisation. The first is the decline in barriers to the free-flow of goods and services which barriers are constantly being reduced through regional and international trade agreements. The *second* factor is technological change. Changes in communications, information processing and transportation technologies have accelerated the globalisation drive.

People and companies communicate on a daily basis through Internet and the world-wide web. The location of ones business has become less relevant. There are specific globalisation drivers inherent in certain industries. These are items such as market factors, being the geographical areas where products are required, as well as cost factors. In this regard, the consumers of certain products are particularly cost conscious and due to common technology are in a position to easily compare the cost of one product with the cost of the competing product. This is the case with UEC's electronic products. Certain industries are particularly competitive. Accordingly, globalisation within those industries is of particular importance as supplies of products in the industries require the economies of scale so as to remain price competitive. Such industries also need to reap the benefit of location economies by performing each particular value added step in an environment where such steps can be undertaken at the lowest possible cost. As an example, UEC sells all its set-top boxes with the bill of materials costed in US Dollars. However, a substantial amount of the value added engineering on the product takes place in South Africa where the engineers are highly skills but paid South African Rand. UEC's Rand-based engineering is thus sold in US Dollars which represents a substantial location economy benefit. UEC's manufacturing also takes place in South Africa, although the value added is paid for in Rand which is a weak global currency, regrettably South African labour does not compare favourably with the unit



cost of labour achieved by international companies who have based their manufacturing in areas such as China, Mexico and India. The unit cost of labour is high in South Africa, being the cost of labour once the relationship between productivity levels and wages is factored into the calculation. (Hill 2001)

It is not uncommon for smaller companies to adopt a combination of strategies. In this regard, even certain of the world's largest multi-nationals do not conduct their business according to the parameters of any one particular strategy. As an example, UEC undertakes a multi-domestic strategy in regard to sales as their experience has shown that they need to duplicate the sales offices in the various regions so as to better service the client's needs. In particular, the large television networks to which UEC sells its products often require the assurance that a sales and support office is close-by. This process also facilitates the localisation of certain members of the sales team which results in reducing the potential cultural differences and misunderstandings. (Sobey 2001)

As barriers to trade between countries decrease and state of the art technological developments take place throughout the world, new opportunities and threats exist on a world-wide basis. The rise of the mini multi-nationals suggest that there are global opportunities for even small companies. However, staying attuned to international markets is not only important from the perspective of seeking profitable opportunities for small companies, it can also be critical for long term competitive survival of companies. Companies from other countries may be developing products that, if sold internationally, may wipe out small domestic competitors. Environmental scanning of international markets for the best suppliers is thus also important for small companies, for if a domestic competitor is able to tap into a superior supplier from a foreign country, it may be able to seriously erode a small company's competitive position before the small company understands the source of its competitors advantage and can take appropriate counter action. Technological changes have significantly contributed to the globalisation of products and markets and accelerated the



creation of a global village. Developments in information processing and communication have decreased the cost of managing a global production system, and improvements in transportation have made the shipment of goods more timely and less costly than at any time in the past. International companies can locate facilities wherever it is most advantageous. Companies can then co-ordinate the activities between facilities and ship the products to customers world-wide more cost effectively, than at any time in the past. The ability of companies and individuals to both market their products or services and to find out about interesting new products or services world-wide, is greatly enhanced by the World Wide Web.

While the fundamentals of business may not be different domestically or internationally, such as developing products that customers want at prices that permit profitable operation, achieving success internationally requires different skills and understanding than those necessary for strictly domestic business. In the first instance, countries are different, with different cultures, political systems, economic systems, legal systems and levels of economic development. These differences make it necessary for international firms to vary certain of these practices on a country-by-country basis. Because of the differences, and the dispersion of operations internationally, managing an international business is much more complex than simply managing a domestic company. Managing such a business also requires dealing with different governments, complying with regulations and undertaking transactions in multiple currencies.

It is of the utmost importance that UEC, while expanding internationally, ensures that its management and management structures are sufficiently developed and enabled to adapt and manage the globalisation strategy.

2.7 CONCLUDING COMMENTS

A discussion on the crafting of a company's strategy would not be complete without referring to the implementation of such strategy. It is not enough for a company to merely craft a strategy without producing a specific action plan for implementing the strategy. The strategy implementers task is to convert



the strategic plan into action by actively implementing the tasks which need to be undertaken so as to achieve the company's vision and targeted objectives as set out in their particular strategy. It is important that every manager should play an active role in the implementation of the company's strategy. It can be argued that implementation of strategy is more of an art than a science. One of the biggest problems which companies face is that management plan strategy indefinitely and never actually formally implement the strategy. (Thompson & Strickland 1999).

It is argued that a manager's approach to strategy implementation should be tailor made for the particular company or situation. Notwithstanding this, certain generic aspects need to be covered irrespective of the particular business or circumstances. A decision needs to be made as to which functions need to be undertaken in the short term and which functions can be undertaken in the longer term. Furthermore, which functions require substantial management time and personal attention and which items can be delegated to others. The policies relating to the strategy would be set by the executives which policies should then be implemented by management following set procedures. (Lynch 1997)

It is the task of the lower level managers to actively pursue the required implementation actions at the front line of the business and to ensure that the strategy is also well executed on a daily basis. It is generally accepted that these are particularly difficult tasks. According to Porter, a healthy strategy starts with the right goal being that of super profits. According to Porter, any other goal will create a problem. The company's long term objectives must be tied to the company's bottom line (finance) and the company would use their strategy as the vehicle to reach these long term objectives. (Porter, 1979).

Following this chapter's review of strategies, which had a specific emphasis on globalisation and concentric diversification, it is appropriate to now analyse the implementation and effects of this strategy by means of a detailed case study analysis of UEC which is presented in **chapter three**.



CHAPTER THREE

3. CASE STUDY ANALYSIS OF UEC

3.1 INTRODUCTION TO ANALYSIS OF UEC

UEC's Company mission is stated as follows:

"To be a world leading participant in the design, development, industrialisation and manufacture of compressed digital television and multimedia high speed transfer products to the high end mass consumer global satellite cable and terrestrial markets."

UEC's vision is to be number one or number two player in the markets in which it operates and to constantly extend these markets through globalisation and increase UEC's market share through both organic growth and growth step functions. UEC's growth in turnover has been phenomenal as indicated on **figure 3.1**.

UEC's GROWTH IN TURNOVER

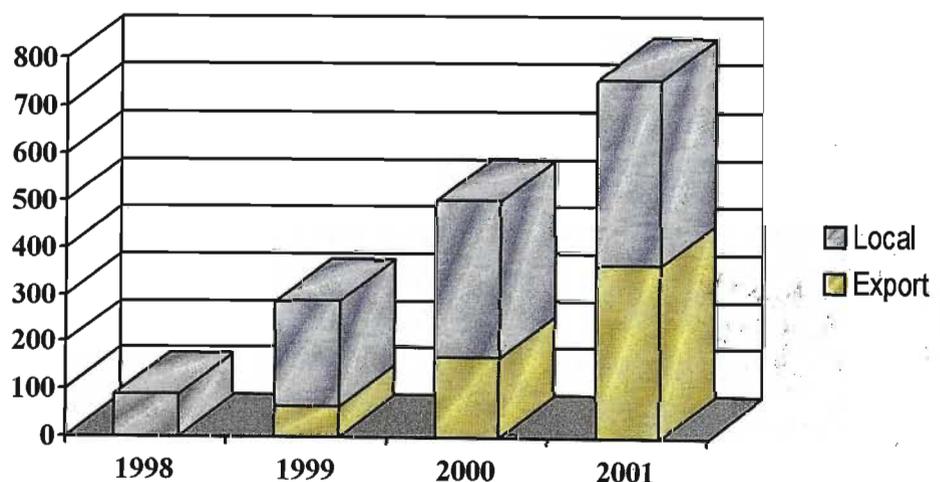
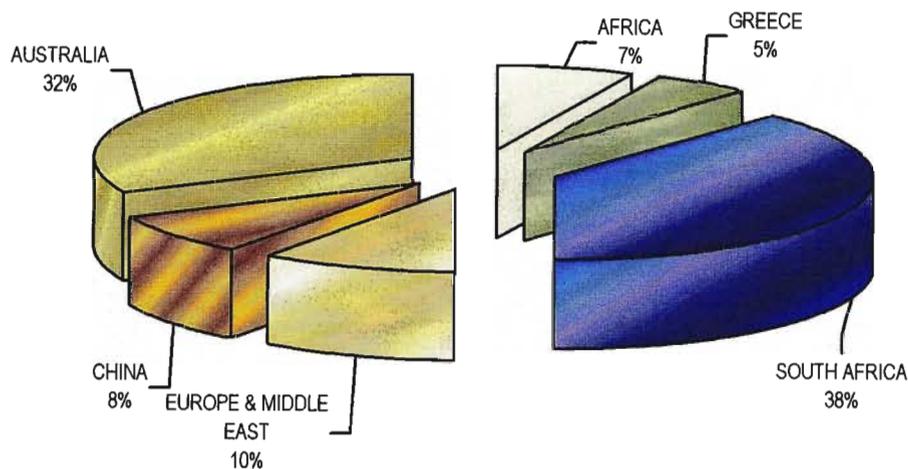


Figure 3.1



Globalisation is a central theme in UEC's strategy and export initiative. IEC export executives are trained in all aspects of marketing, export finance, purchasing and freight. UEC has also appointed geographic account managers for each of its markets. UEC has substantial sales in Australia, New Zealand, Greece, China, Jordan and the Middle East as well as South Africa and Africa. UEC is expanding its sales into the USA, Latin America and Europe. UEC has a research and development centre as well as a sales office in Sydney, Australia, as well as a business development office in California. UEC is in the process of setting up business bases in Hong Kong, Dubai and Athens. (Stols 2001) UEC's growth pattern is consistent with its global sales which are detailed in **figure 3.2**.

UEC's PRESENT MARKET DISTRIBUTION



Source: UEC financial reports

Figure 3.2

In pursuing growth through a combination of globalisation and technical excellence, UEC has enjoyed recognition for its achievements in the form of several recent South African awards, such as the President's Export Award for Electrical and Electronic Products, the President's Merit award certificate for product development and technical innovation, Engineering Week Top Product award, Standard Bank Top Manufacturing award, Department of Trade and Industry Innovation Award, and many more.

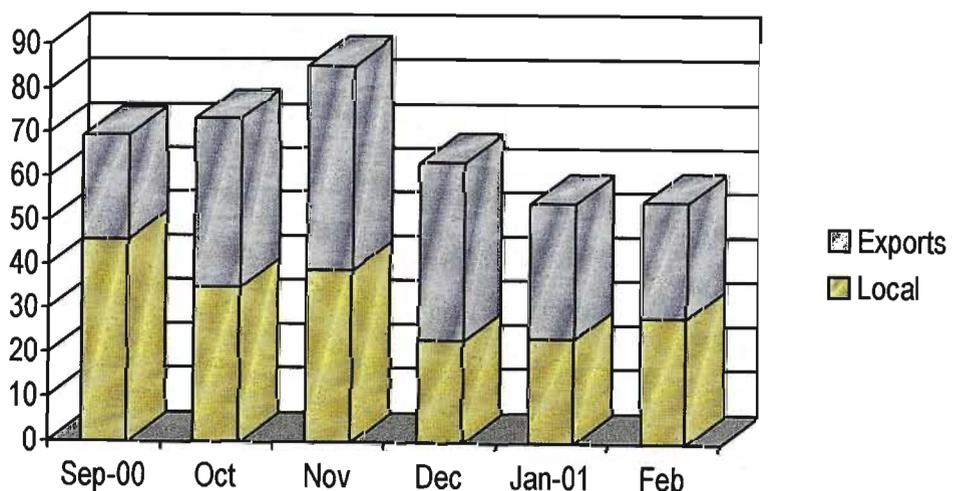


UEC's reputation as one of the world's leading Research and Development (R&D) facilities in UEC's chosen field, has led to several significant joint venture, technology transfers and collaborative projects with major international manufacturers and software houses such as Kenwood of Japan, Nokia of Finland and Irdeto of Holland. This is an example of UEC capitalising on its strengths. In regard to the technology transfer, this was a strategy to overcome a weakness by securing rights to certain technologies which UEC had not yet developed. (Sobey 2001)

The UEC factory in Mount Edgecombe is a state-of-the-art production facility that has capacity to produce up to 3500 STB decoders per day. In order to meet international demand for STBs, UEC has budgeted to invest a further R56 million in capital equipment, including an additional surface mount assembly line (the highly sophisticated machines that place the electronic components on a PC board).

UEC has exhibited strong organic growth since its inception, despite the downturn in the world economy. UEC has also grown the export value of the goods produced, generating welcome foreign currency and investment into the South African economy. **Figure 3.4** indicates the split between local production and export production.

LOCAL VERSUS EXPORT PRODUCTION



Source: UEC financial reports

Figure 3.4



UEC has adopted global standards consistent with world class manufacturing in regard to quality assurance. UEC's quality programme is compliant with the requirements of ISO 9001 and UEC is dedicated to the application and maintenance of quality assurance standards and procedures throughout all phases of product development, manufacture, administration and service. UEC has adopted a system of total quality management (TQM) whereby quality assurance is built into every step of the manufacture and business process. This is as opposed to early quality control that is a final check implemented at the end of the production process. Each UEC product is individually tested and inspected and each product batch is subjected to a quality assurance audit comprising a sample size of five out of every fifty units produced. As a result, UEC is able to ensure the timeous delivery of a consistently well-engineered and reliable product. (Willey 2001)

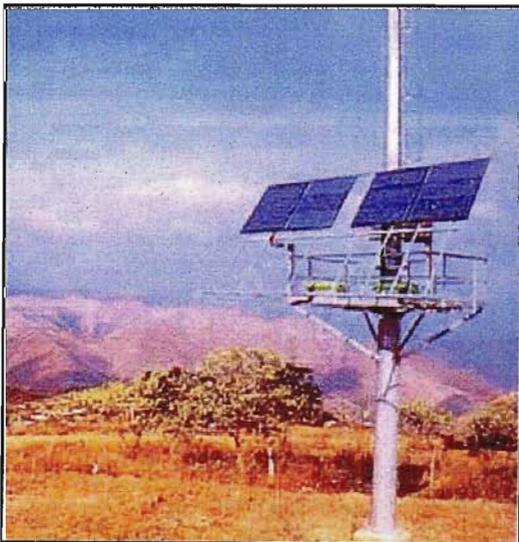
3.2 RESEARCH PROCESS UNDERTAKEN AT UEC

Special skills and some caution were required for the case study research undertaken at UEC. Data collection in a case study design is crucial as the integrity of the whole study depends on it. At times, data collection through case studies may be considered an easy method of data collection, however this is a misconception. In fact, data collection through case studies is much more demanding than through surveys or experiments. In the case study method, the researcher is typically required to collect the data personally. (Ghuri, Gronhaug, Kristianslund 1995). In this regard, the interviews undertaken at UEC were undertaken personally by the researcher.

For the research to have been meaningful, the researcher undertaking the interviews at UEC was fully aware of and comprehended the research objective and the focus of the case study. This enabled the researcher to not only ask relevant and probing questions, but also to have been capable of understanding and interpreting the answers given. For the researcher to understand the received information properly, the researcher employed careful observation and listening techniques.



It is important for the researcher to be able to read between the lines and understand not only what is said, but also what is meant. The researcher must also be careful not to let their biases influence their interpretation. This is particularly important in single case studies as the researcher has no other case with which to compare the findings. In the case study method, the researcher can seldom follow a pre-planned procedure or timetable, and often the number of interviews to be undertaken, the scope of the case and interviews and even the purpose and research questions are subject to modification and change. For each change, the researcher has to find new arguments and justification. At the same time, research questions and purpose are constantly modified or adapted to new conditions. The risk is that a new gap may arise between the original study planned and the study actually undertaken. (Ghuri, Gronhaug, Kristianslund 1995). Fortunately this difficulty was not experienced at UEC, they may have been avoided by the careful pre-planning of the study and knowledge of UEC's industry.



In the case study approach, the researcher needs to create a definite balance between rigor and flexibility in the research. (Ghuri, Gronhaug, Kristianslund 1995). The research process undertaken at UEC achieved this balance by having only one researcher undertake the interviews and analyse the historic and projected data. This allowed for a consistent approach to be applied throughout the research. The researcher had a good understanding of the purpose and scope of the research. Accordingly, although flexibility was encouraged during the personal interviews at UEC so as to elicit maximum richness of detail from each interviewee, this flexibility was managed so as to ensure that the outer parameters of the research design and question were not breached. This is particularly important in a dynamic and flourishing research subject such as UEC, who undertake complex and interdependent business processes.



It is particularly the interdependence and interrelated nature of the aspects of UEC's business which were, at times, difficult to separate out during interviews.

The strategies adopted by UEC could not always be isolated in a clinical text book approach but were at times a rich mix of formal strategic planning, seizing an opportunity, executive hunches, circumstantial eventualities, long term planning, and sheer good business sense. This wealth of rich information and insight was made possible due to the appropriate choice of the overall methodological approach, underpinned by the research design and executed through the meticulous research process.

3.3 UEC'S GROWTH & GLOBALISATION STRATEGY

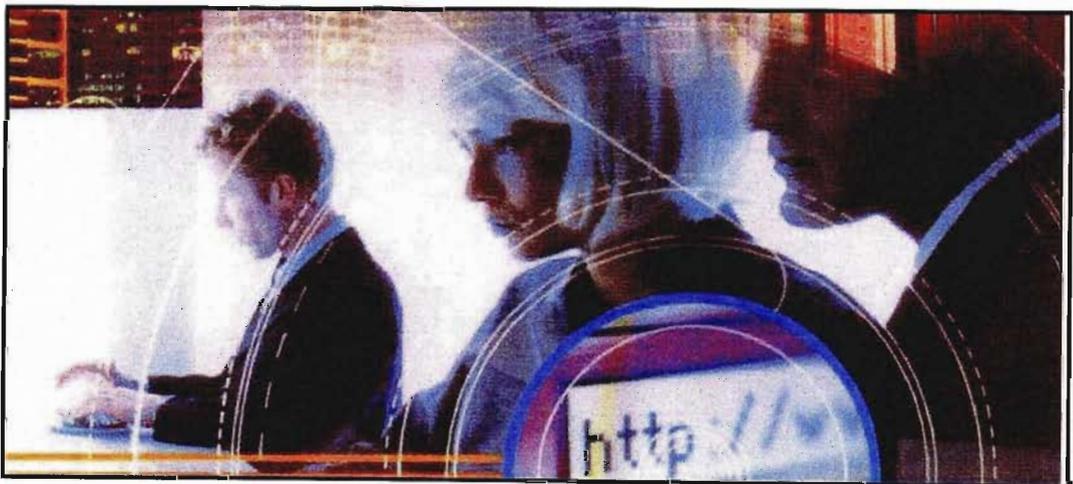
As part of UEC's vision of growth, UEC was aware that organic growth alone would not provide the required growth rate within the short term. The STB industry has moved out of the embryonic business phase and is entering a phase of industry consolidation whereby many of the small participants in the STB industry are either being consumed by the larger participants in the industry or are falling by the wayside.

It is internationally accepted that a key factor for success in electronics manufacturing and in particular, the STB industry, is to secure orders of large volumes. This is due to the small profit margin available to manufacturers. It is against this background that UEC continues to seek opportunities to grow by means of step functions by pursuing concentric diversification opportunities (*by acquiring other industry participants*). UEC's aim is to gain increased market share and synergies through combined technologies and cost savings through larger production volumes, thus benefiting from economies of scale. (Stols 2001)

UEC views globalisation of its operation as critical to its continued future business success. UEC acknowledges that its concept of globalisation is not as broad as the large multi-national global companies such as Microsoft or Nokia. UEC is aiming at developing a export orientated South African based



business to one which also has an increasing number of off-shore offices located close to existing and future clients. Elements of the value chain such as procurement and production need to be located so as to take advantage of factor economies. UEC's intention in this regard is to be in a position to provide clients with better service as well as for the UEC research and development team to be able to live and work in various regions of the world so as to ensure that future product development is kept in line with the most current trends. This is aimed at ensuring that UEC remains at the cutting edge of global technology whilst simultaneously ensuring that the products are developed in line with what consumers actually want. In this regard, UEC points to the example of technology development in regard to cell phones. WAP (wireless application protocol) has been a classic international example of technology companies developing technology and thus a technological solution for a problem which does not exist. WAP Technology has been hailed in the mobile telephone industry as a disappointing failure. The failure is not due to the technology. The failure is said to be because WAP is a service which the mobile telephone consumer market did not want, and consumers have accordingly not adopted the use of WAP technology.



UEC did, however, point out that their marketing aim is not to only follow where their clients lead, but to continue their trend of being proactive in technology developments. However, UEC wishes to undertake such development in close proximity to their global customer base so as to prevent technology development in isolation. (Sobey 2001)

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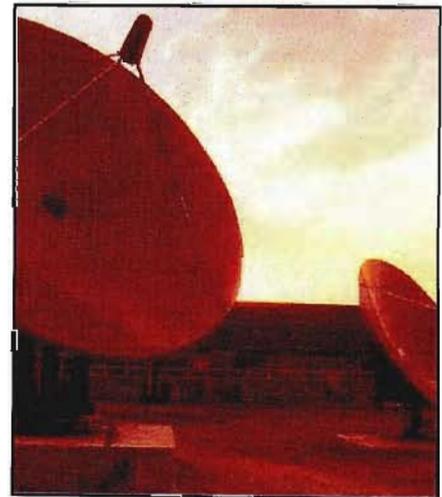


A further critical element in UEC's globalisation strategy is that although technologically, the global STB client has many similarities as they typically use variations of the same families of technologies, UEC believes that there is no such thing as a truly global customer from a marketing perspective. UEC's experience has shown marked differences between cultural, social, political, business methodology and approach to both technology and business. These vary from international region to region. UEC is of the opinion that these elements can be capitalised on by turning them from challenges into sustainable advantages. UEC achieves this by opening regional offices which are then staffed by both ex-patriot technical experts as well as local host-country sales and marketing personnel. (Stols 2001)

3.4 PROSPECTS OF THE STB INDUSTRY

INDUSTRY GROWTH

The STB industry is one of the industries that is accelerating into the digital age. Demand for STB's is mainly driven by the fundamental conversion from analogue to digital broadcasting over the cable TV and terrestrial broadcast platforms. In addition, digital satellite broadcasting has shown a phenomenal historic growth of 63% in 1999. Although the growth was from a low base, industry market research indicates that the strong growth is expected to continue. The conversion from analogue to digital is driven primarily by the need for bandwidth capacity. In this regard, it is interesting to note that digital technology allows for approximately 6 times as much content delivery over the same amount of bandwidth. (Sadharwal 2000).



The global and regional penetration rates of the three broadcast platforms, cable, satellite and terrestrial (as explained in **figure 1.1**) has been set out according to global regions in **table 3.1**.



GLOBAL AND REGIONAL PENETRATION RATES OF BROADCAST PLATFORMS, 1998-05E

Platform penetration rates (%)	1998	1999	2000	2001E	2002E	2003E	2004E	2005E
UNITED STATES								
cable penetration	70.3	69.2	68.1	67.0	66.2	65.7	65.1	64.6
Satellite penetration	9.0	11.6	14.1	16.5	18.6	20.1	21.7	23.0
terrestrial penetration	20.7	19.2	17.8	16.4	15.3	14.3	13.3	12.4
WESTERN EUROPE								
cable penetration	23.8	25.3	26.6	27.9	29.3	30.4	31.5	32.4
Satellite penetration	2.7	6.0	9.5	13.1	16.2	18.4	19.7	20.4
terrestrial penetration	73.5	68.7	63.9	59.0	54.5	51.2	48.8	47.2
REST OF WORLD								
cable penetration	34.1	35.5	36.8	38.3	39.8	41.3	42.9	44.6
Satellite penetration	0.6	0.9	1.4	2.1	3.0	4.1	5.2	6.1
terrestrial penetration	65.3	63.6	61.8	59.6	57.2	54.5	51.9	49.3
Global cable penetration	36.1	37.3	38.4	39.5	40.8	42.1	43.5	44.8
Global satellite penetration	1.7	2.7	3.9	5.1	6.5	7.7	8.9	9.7
Global RoW terrestrial penetration	62.1	60.0	57.7	55.3	52.7	50.1	47.7	45.5

Source: Global equity research 2000.

Table 3.1

DRIVERS OF GROWTH

Table 3.1 indicates the forecast trend in penetration rates by platform into total TV households by region. It is apparent from **Table 3.1** that industry experts expected that satellite TV platforms will rapidly gain share across all regions over the next five years. By 2005 it is expected that digital satellite penetration would be 23%, 20% and 6% in the United States, Western Europe and Rest of World, respectively. (Global Equity Research 2000)



UEC's technology supports all three platforms (digital, cable and satellite). UEC is, however, particularly well positioned for the digital satellite market due to UEC's historic focus on the satellite operators. UEC does have technology programs in place to take advantage of the new and emerging digital cable and digital terrestrial markets. (Keyser 2001).

It is considered that there are **three fundamental growth drivers** for digital STB's and these are:

- The continued strong roll out of digital satellite pay TV services. The satellite platform is expected to gain share not only from terrestrial broadcasters, but also from cable TV operators. This is mainly driven by satellite's ability to offer the widest downlink capacity for a multiple channel offering and the flexible roll out, without large upfront capital investments (such as laying cables to each home for cable television).
- Conversion from analogue to digital channels by cable operators. This will allow cable operators to carry more channels, introduce two-way interactive services and offer telephony services. This will bring new revenue streams and improve cable's competitive offering relative to Satellite broadcasters.
- Conversion from analogue to digital broadcasters by terrestrial TV broadcasters (*such as the traditional system with ground-based relay stations with the end user receiving the signal at their home with the use of a traditional TV aerial*). Digital terrestrial broadcasting (DTT) is driven primarily by governments defining a conversion period after which analogue broadcasting will terminate to free up spectrum for other services. Again, digital STB's are required to convert the digital signal to the analogue TV sets. (Global Equity Research 2000) (Stols 2001).

For broadcasters and network operators, it is potentially lucrative to invest in the conversion as the per subscriber revenue will be significantly higher. Firstly, the subscription fee for the premium digital service (more channels, better quality picture and sound) will be higher, and secondly, interactive services will introduce new revenue streams (such as T-commerce services



like home shopping, home banking, T-mail and gaming channels). These technology developments open up avenues to create T-commerce revenues for the broadcaster or network operator as well as for the industries which provide both the hardware and software facilitating technology. (Sobey 2001)

THE GLOBAL STB MARKET

The number of households capable of receiving a digital broadcast defines the potential market for digital STB's. Currently, satellite television broadcasters carry a digital broadcast and households that receive a digital satellite service require a

digital STB to convert the digital channels to the analogue TV sets. *(the majority of all TV sets sold worldwide are analogue and thus require some device to convert the digital signal).*



(Sadharwal 2001)

Only a small portion of cable TV households and a miniscule portion of the terrestrial broadcasters require digital STB because either their service is still completely analogue or they broadcast simultaneously in both analogue and digital format. (Sobey 2001).

Assessing the global TV market by region and by broadcasting platform, shows the forecast growth rate in TV households (TVHH) in the USA, Western Europe and the rest of the world by platform – being either cable, satellite or terrestrial platform. These platforms were explained diagrammatically in **figure 1.1**.

These projected regional and global growth rates are set out in **table 3.2**. (Global equity research 2000)



FORECAST GLOBAL AND REGIONAL GROWTH IN TELEVISION HOUSEHOLDS (TVHH) BY BROADCAST PLATFORM

Global TV market (million TV households)	1998	1999	2000	2001E	2002E	2003E	2004E	2005E	CAGR E99-05
UNITED STATES									
Cable TVHH	67.9	68.5	69.2	69.9	70.6	71.3	72.0	72.8	1.0%
Satellite TVHH	8.7	11.5	14.4	17.2	19.8	21.8	24.0	25.9	14.5%
Total TVHH – US	96.6	99.0	101.6	104.3	106.7	108.6	110.7	112.6	2.2%
WESTERN EUROPE									
Cable TVHH	35.7	38.2	40.9	43.3	45.9	48.2	50.6	52.7	5.5%
Satellite TVHH	4.0	9.1	14.5	20.4	25.5	29.3	31.6	33.2	24.1%
Terrestrial TVHH	110.0	103.8	98.1	91.6	85.6	81.3	78.5	76.9	-4.9%
Total TVHH – W Eur	149.7	151.1	153.5	155.3	157.0	158.8	160.7	162.7	1.2%
REST OF WORLD									
Cable TVHH	248.6	266.0	284.7	304.6	325.9	348.7	373.1	399.3	7.0%
Satellite TVHH	4.0	6.7	10.7	16.6	25.0	35.0	45.4	54.5	41.8%
Terrestrial TVHH	475.5	477.2	477.1	474.4	468.7	460.5	450.9	441.8	-1.3%
Total TVHH – RoW	728.2	750.0	772.5	795.7	819.5	844.1	869.5	895.5	3.0%
Total Global TVHH	974.4	1000.1	1027.6	1055.2	1083.3	1111.5	1140.9	1170.9	2.7%

Source: Global equity research 2000

Table 3.2

Globally, there are estimated to be approximately 1.4 billion TV sets in just over 1.0 billion households. It is forecasted that globally the growth in TV households will average 2.7% (2.6% in 1999). Over the next five years, with the strongest growth of 3% coming from the segment, “the rest of the world” across each of the regions detailed in **table 3.2**, it is expected that the TV satellite platform is to show the strongest growth with the compounded average growth rate of 14.5%, 24.1% and 41.8% in the US, Western Europe and the rest of the world respectively, over the next five years. (Global equity research 2000).

A clear understanding of the size and pattern of growth in the STB industry is of utmost importance to the UEC management. They need to understand both the global geographical growth patterns as well as which STB technologies will experience the most growth. The growth of digital satellite subscribers by country and platform is set out in **table 3.3**.



DIGITAL SATELLITE SUBSCRIBERS BY COUNTRY AND PLATFORM (000)

Country	Platform	1998	1999	% growth
US	DirecTV (incl USSB)	4458	6679	49.8
US	EchoStar (Dish)	1940	3410	75.8
US	Primestar	2295	1400	-39.0
Canada	BellExpressVu	180	370	105.6
Canada	Star Choice	175	320	82.9
UK	BskyB	244	2600	965.6
France	TPS	615	815	32.5
France, E Europe	Canal+	1212	1524	25.7
Germany	Premiere World(DF1)	145	1300	796.6
Italy	Stream	116	200	72.4
Italy	Tele+	502	962	91.6
Spain	Via Digital	300	450	50.0
Spain	Canal+	599	814	35.9
Portugal	TV Cabo	29	53	82.8
Belgium	LeBouquet	0	28	100.0
Belgium	Canaal Digitaal	12	25	108.3
Scandinavia	Canal Digital	230	311	35.2
Poland	Wizja TV	94	300	219.1
Poland	Cyfra Plus	60	295	391.7
Greece	Nova	0	8	100.0
Australia	Foxtel	40	132	230.0
Australia	Austar	289	380	31.5
New Zealand	Sky Television	0	95	100.0
Indonesia	Indovision	27	35	29.6
Thailand	UBC	116	153	31.9
Malaysia	Astro	285	300	5.3
China	CBSat	0	10	100.0
Japan	Sky Perfec TV	1012	1597	57.8
Japan	DirecTV Japan	231	386	67.1
Latin America	Sky Latin America	614	950	54.7
Latin America	Galaxy Latin America	484	804	66.1
Middle East	Showtime	100	140	40.0
South Africa	DStv	250	350	40.0
Sub Saharan Africa	DStv	77	95	23.4
Total		16731	27291	63.1

Notes:

- (1) UEC's software is rolled out across Canal+ platforms in Eastern Europe only through Kenwood (Co-operation Agreement with UEC)
- (2) UEC supplying in these areas
- (3) New Products being pursued by UEC

Source: Global Equity Research 2000

Table 3.3



Table 3.3 shows the 1999 subscriber growth rate of all the key satellite platforms by country. From 1998 to 1999, the global satellite subscriber base grew by an astounding 63% or 10.6 million net additional subscribers from 16.7 million subscribers to 27.3 million subscribers. (Global Equity Research 2000)

It is interesting to note that during 1999 UEC sold 238 000 STB's in the digital satellite market, providing UEC with a 2.3% share of the global market. (Sobey 2001)

UEC is expected to benefit from increasing satellite TV penetration across all geographic regions. (Sobey 2001)

3.5 UEC's CONCENTRIC DIVERSIFICATION STRATEGY

3.5.1 INTRODUCTION AND BACKGROUND

UEC proposed to acquire the network systems division (ZNS), a wholly owned division of the American Electronics giant Zenith Electronics Corporation (Zenith). The proposed acquisition will be shown to be highly compatible with UEC's strategic aim growth in respect of both markets and technology, as well as globalisation. ZNS conducts business primarily in the USA, and has a strong customer base which operates in certain STB technology domains that UEC had not yet developed.

UEC would acquire the STB division of Zenith, this division trades as Zenith Network Systems (ZNS) and is based in Chicago, USA. The parent company, Zenith Electronics Corporation (Zenith) is a wholly owned subsidiary of the Korean based LG Electronics Group which followed a recent "chapter two" bankruptcy process and a debt equity swap arrangement with major creditors.

The nature of the business being acquired is essentially a stand-alone business, however, merely being a wholly owned division of Zenith, it is not yet a separate legal entity. ZNS is involved in the design, development, marketing, sales and support of digital STB's. ZNS' manufacturing takes



place in Mexico. However this manufacturing plant was sold separately. ZNS currently have a contract manufacturing arrangement with the new owners of the Mexico factory. The acquisition of ZNS would include rights to this manufacturing agreement. (Stols 2001)

3.5.2 RATIONALE FOR THE ACQUISITION

To summarise, the acquisition of ZNS by UEC is based on the inclusions and exclusions set out in **table 3.4**.

INCLUSIONS AND EXCLUSIONS TO ACQUISITION

Included in the Sale	Excluded from the sale
<ul style="list-style-type: none">• Fixed and movable assets• Inventory (raw material and finished goods)• Intellectual property and certain trade marks• License and supply contracts (to be ceded)• Staff and staff accruals (to be transferred)• Goodwill and supported by a restraint of trade• Product warranty and accruals	<ul style="list-style-type: none">• Debtors and creditors of ZNS• Liabilities of ZNS prior to the acquisition of UEC• Buildings and land

Source: Stols 2001

Table 3.4

The strategic logic of the acquisition of ZNS by UEC was considered. The question of why Zenith is selling ZNS needed to be considered. Following very severe losses in all aspects of its operations resulting in a chapter two bankruptcy proceedings (a form of American company bankruptcy proceeding), Zenith has decided to refocus its business on its former core business being, Television. The ZNS division is regarded by Zenith as non-core and sub-critical in size and thus considered not able to effectively



compete in the world markets. Prior to the sale of the Mexican manufacturing plant in 1999, ZNS was also reporting huge financial losses. A contributory factor to their intension to dispose of ZNS could also be the Korean scepticism of their ability to succeed in the STB market place following huge losses in Korea by reputable companies such as Daewoo, Anam. (Stols 2001)

There were considered to be various and substantial benefits to UEC acquiring ZNS. The main reason for UEC's interest in the acquisition of ZNS was that it will provide a significant stepped function to growth to UEC. It was considered that such growth would be almost impossible for UEC to achieve through means of organic growth.

Table 3.5 postulates two scenarios, being Scenario A and B. Scenario B being UEC's financial position based on UEC's annual budget inclusive of the ZNS acquisition and Scenario A being based on UEC's budget inclusive of organic growth only. It is clear from **table 3.5** that Scenario B, the concentric diversification growth through the acquisition of ZNS is financially far more attractive to UEC.

ORGANIC VERSUS ACQUISITION GROWTH

2000/2001 Projections	Scenario A	Scenario B
Revenue	R702m	R1350m
COS	(R695m)	R1135m)
GM	R106m	R215m
Expenses	(R43m)	(R119m)
Operating Income	R63m	R96m
Scenario A	- UEC budget inclusive of organic growth	
Scenario B	- UEC budget inclusive of ZNS acquisition	

Source: Lombard 2001

Table 3.5



3.5.3 DISCUSSION OF STRATEGIC CONSIDERATIONS AND CAPABILITIES

Existing STB Products

Resulting from rapidly maturing technologies, the entry barrier to the STB industry for new participants is becoming lower on existing STB products. As pricing of STBs becomes more competitive, it follows logically that very high volumes become essential. UEC management was of the opinion that this process will lead to the demise of sub-critical participants in the STB industry and only the major participants will survive and potentially prosper economically. UEC management was of the opinion that their size was sub-critical and it was accordingly vital for UEC that growth be accelerated through a program of carefully accepted acquisition. The ZNS acquisition met UEC's requirement in this regard. (Stols 2001)

New STB Products

Insofar as new STB products and technologies are concerned, particularly in the Convergence arena ("Converging in the technologies and presentation of the technologies between telephone, internet and television"), substantially large amounts of R & D investment would be required to become a world leader in STB products. UEC management felt that it could not sustain such continuous substantial investment in R&D based on UEC's current volume of business. To compound UEC's difficulty, there was a substantial shortage of sufficiently trained software engineering staff in South Africa. Offshore R&D would be very expensive for UEC to conduct, particularly if funded out of South Africa and not out of a Dollar based operation.

The market place in which UEC operates, was the global market place. More than 73% of UEC's financial year-end income was anticipated to be generated offshore. UEC management was thus anxious to undertake a formal globalisation program, including establishing an offshore operation, either through acquisition or a green field development. This globalisation is considered essential for UEC's future success. The ZNS acquisition would be a significant step towards the globalisation of UEC.



Furthermore, UEC management was of the opinion that the ZNS acquisition would substantially assist and boost an international stock exchange or equity listing of UEC. UEC's management and its financial advisors estimated that the ZNS acquisition could boost the proposed listing of UEC by up to a four times higher market capitalisation. (Lombard 2001)

Combined Purchasing

UEC's management saw additional strategic benefits to the acquisition of ZNS. These benefits were the combined purchasing strengths of UEC and ZNS. In electronic component procurement, volume discounts play a substantial role as component manufacturers enjoy economies of scale which drastically decrease the manufacturing cost of components as the manufacturing volumes increase in a particular manufacturing run. A portion of these savings achieved through economies of scale are passed on to the STB manufacturer. The increased volumes would also afford UEC substantially increased negotiating power when negotiating with component suppliers. Due to the cyclical demand for components, particularly memory devices such as flash and Ram memory chips, world shortages do occur. UEC experienced this difficulty during 2000, when world mobile or cell phone manufacturing volumes and sales reached an all time and unpredicted high. As many electronic components are common between products such as computers, cell phones and STBs, component manufacturers merely reneged on confirmed orders placed by lower volume users such as UEC, thereby favouring large global producers by meeting their component order requirements. (Stols 2001)

An additional benefit to UEC would be the lowering of UEC's market entry risk into the USA, as UEC would not be starting a greenfield business, but taking over an existing business with its existing infrastructure and client base. UEC would also benefit from the increased negotiating power that UEC would secure by representing a much larger client base. This would provide UEC with increased negotiating power when dealing with joint venture partners such as Nokia, Kenwood and Irdeto. Of benefit to UEC is also that UEC would become less reliant on its small number of customers.



The risk lies in the fact that although UEC's customers were extremely large and purchase large volumes of STB's from UEC, the UEC customer base consisted primarily of two large clients making up two thirds of UEC's sales. (Stols 2001)

Compatibility and Synergies

UEC's management was of the opinion that the acquisition of ZNS was particularly attractive due to the compatibility and synergies between ZNS and UEC. The synergies are large and non-overlapping. For analysis purposes, these synergies have been set out in two tables, being **table 3.6** indicating synergies and **table 3.7** indicating combined engineering strengths. **Table 3.6** details the market synergies between UEC and ZNS by reference to the ZNS operating environment being the CA system, the internal environment, being the major clients of ZNS and the industry environment being the territories in which ZNS operates.

MARKET SYNERGIES

	Operating Environment	Internal Environment	Industry Environment
	CA System	Major Clients	Territories
UEC	Mindport	MIH Worldwide, Foxtel, Optus	Africa, Australia, Greece, China
	Media Guard	Canal Plus (Kenwood)	Poland, Italy
	Nagra	Sentech	South Africa
Zenith	NDS	Sky, Innova, Century, News	Brazil, Mexico, New Zealand
	Nagra	Bell South	USA
	ZTAC	Pacific Systems, LGE	Taiwan, Korea, China

Source: UEC proposal – Stols 2001

Table 3.6

Discussion of Table 3.6 - Conditional Access

Table 3.6 sets out the market synergies between UEC and ZNS. The market synergies are determined from the conditional access (CA). The CA system is the particular technology which UEC or ZNS are licensed with, and have accordingly developed compatible software relating to such licenses.



In the STB industry, the pay TV network operator chooses what CA system they intend to equip their services with. That particular CA system is then substantially integrated into the multi million dollar head end equipment, being the equipment which processes the programming to then be sent ultimately via satellite, cable or terrestrial (**figure 1**).

The strategic importance of the CA system was that the STB produced by UEC must match the CA system of the television network operator. If UEC is not licensed for a particular CA system and has not developed an STB for that particular CA system, they have no product to sell to that particular television network operator. To become enabled in a particular CA system, once securing the appropriate license from the CA technology developer which is not freely available and often limited to a set number of STB manufacturers, UEC would then still be obliged to invest 18 to possibly even 24 months and a few million dollars to develop a compatible STB. It was only at this stage that the particular product could be marketed to potential television network operators who operate their system on that particular CA system. This explanation was aimed at highlighting the potential huge advantage to UEC if it can bypass the licensing and development stage by acquiring Zenith who already holds three CA systems being NDS, Nagra and ZTAC, two of which UEC does not hold and for which UEC has not yet developed products. (Stols 2001)

This was an example of UEC acquiring new technologies and new products by means of a step function. For UEC to have organically grown these technologies and products it would have taken a long time and a substantial amount of R&D investment. The point is that UEC would have been investing these millions of US dollars during the R&D phase without reaping a financial return on the R&D investment until the end of the project. Even then, once the technologies are developed, due to the late entry into the market being 12 – 24 months after competitors such as Zenith are already in the market, there is no guarantee that the television network operator would purchase these newly developed UEC STBs which would be compatible with their particular CA system.



A further financial consideration to UEC would be that at the end of the initial phase of the R&D development, UEC's costing would be aimed at recuperating the substantial R&D investment. At that stage, competitors such as Zenith would have started to enjoy economies of scale with regard to their R&D development as their technology would have begun to mature and they may have sold appropriate volumes which would have positively effected their R&D cost amortization. While UEC's R&D cost amortization would only then be commencing.

Discussion of Table 3.6 – Major Clients and Territories

The second area of synergy lay in major clients. There would be limited interest in UEC acquiring a competitor who had the same existing client base as UEC. In that regard, UEC would not really have been acquiring market share, but perhaps only a temporary increase in sales. If the television network operator was already purchasing STB's from UEC, but also using an alternative supplier, by merely acquiring the alternative supplier would not necessarily guarantee that the television network operator would place all the future orders on UEC and its new acquisition. Typically, having multiple suppliers is a strategy to reduce risk, being the risk of failure of supplies or the failure of the product supplied, as well as for competitive pricing considerations.

The synergies between UEC and Zenith with regard to major clients was particularly attractive. As is seen in **table 3.6**, there was not even one common client between UEC and Zenith. Accordingly, by UEC's acquisition of Zenith, UEC secured immediate access into new market territory as well as new clients. There was a substantial benefit to UEC acquiring new markets and clients through this mechanism of acquisition. The marketing cost implications of actively pursuing and securing new clients can be particularly time consuming and expensive. Through the proposed concentric diversification, UEC gained instantaneous access to ZNS' well-established client base and market territories. This potentially results in increased turnover for UEC and superior returns in comparison to organic growth as detailed in **table 3.2**.



COMBINED ENGINEERING STRENGTHS (RATINGS OUT OF 10)

Domain	Technology	UEC	Zenith
Software Development	Firmware Integration	10	10
	Middleware Integration	8	6
	Applications Integration	7	9
Operating Systems	OpenTV	8	1
	NDS Proprietary	1	9
	Media Highway	9	0
	Disney	0	10
	Microware	0	8
	Windriver	6	0
STB Domains	Cable	6	10
	Satellite	10	9
	Terrestrial	4	6
	MMD's	2	8
	Telco/ATM	1	3
	Open Cable	3	4
Hardware Design	RF Design	7	9
	Power Supplies	8	9
	Digital Design	7	9
	Test & Qualification	8	9

Source: UEC proposal – Stols 2001

Table 3.7

Discussion of Table 3.7

The potential combined engineering strength of a post acquisition engineering team, being a combined UEC and Zenith engineers team is set out in **table 3.7**. The management of UEC used a **score from 1 to 10** to compare the rating between UEC and Zenith. The scoring took place in **four key domain areas** being software development, operating systems, STB domain and hardware design. The UEC management, in consultation with the various UEC engineering domain specialists, assessed the technology of



both UEC and Zenith, based on the four domains and allocated a score to each. By scoring the strength of the two companies based on the set criteria, UEC was able to compare the strengths of the two companies which highlighted both the synergies and potential benefit to UEC acquiring Zenith. (Stols 2001)

Explanation of Scoring

It was interesting to note that particularly in the domain of operating systems, the Zenith and UEC scores are almost all equal but opposite with Zenith scoring higher where UEC scores low and visa versa. This trend continues, although to a lesser degree, to the domains of software development and STB domains. The mirror image score pattern indicated the substantial synergies between the two companies. By combining the two companies' engineering strengths, they negate each others weakness by combining to create substantial synergies. In regard to the domain of hardware design, UEC and Zenith scores were similar. This score pattern was important as the hardware design of the products are relatively universal. The scoring in fact indicates that, although UEC was performing well in its hardware design, Zenith did produce slightly higher scores in the four technologies, indicating their slightly higher level of expertise in the hardware domain. This was clearly of advantage to UEC and UEC would reap the benefit of Zenith's advanced skills in hardware design, which skills could then be transferred across the entire range of UEC products.

3.5.4 COMMERCIAL, STRATEGIC AND FINANCIAL ANALYSIS OF THE ACQUISITION

General Preamble

ZNS has been in business for the past 15 years, during 1997 ZNS moved from analogue to digital STB's which resulted in sales in 1997 of US \$56,9million to sales in 1998 of US \$106,1million. This substantial growth was negatively effected by ZNS' loss making manufacturing facility in Mexico which had recently been sold. ZNS had 134 employees on its payroll, of which 89 consist of its R&D facility. The immediate advantages which

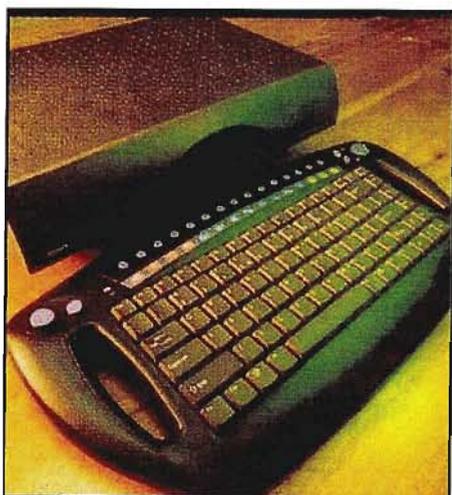


become apparent to UEC was that the Zenith acquisition offers UEC an immediate increase in R&D capability, as well as instantaneous access to an established off-shore base, fully staffed and equipped. A more detailed analysis of the proposed acquisition from both an internal and external perspective has been undertaken in the form of a SWOT analysis.

SWOT Analysis of the Combines UEC/ZNS entity

UEC intended to develop its business through sustainable growth and pursuing the goal of globalisation. UEC's acquisition of Zenith was accordingly assessed in light of this objective of UEC, with the intention of ascertaining whether the Zenith acquisition would contribute meaningfully towards this goal.

UEC undertook an analysis of the strengths, weaknesses, opportunities and threats of the proposed merged entity of UEC and Zenith by undertaking a traditional SWOT analysis. It was considered more appropriate to undertake a SWOT analysis of the combined companies rather than the two individual companies, as it was more important for UEC to understand the value of the combined entities. Strengths and weaknesses were analysed from an internal perspective while the opportunities and threats were viewed from an external perspective. For this investigation, the traditional SWOT analysis



was extended by including a fifth item of focus being risk and issues. Although this was a departure from the traditional SWOT analysis, in day-to-day business, it is not always possible or advisable to force business decisions into textbook formulas, but rather to manipulate textbook formulas to secure even greater benefit.

The UEC analysis of the strengths, weaknesses, opportunities, threats and risks and issues of the combined UEC/ZNS is presented in **table 3.8**.



SWOT ANALYSIS

1. STRENGTHS (<i>Internal perspective</i>)
<ul style="list-style-type: none">• Very strong engineering capability (excluding high level software development)• Strong product testing and certification capability• Enabled in a good spread of technologies, covering most major customers worldwide
2. WEAKNESSES (<i>Internal perspective</i>)
<ul style="list-style-type: none">• The joint ZNS/UEC entity would still be under resourced in high level software engineering• Poor financial discipline within ZNS would have to be corrected• International (decentralised) sales and support team would still have to be supplemented (ZNS has no off-shore support offices)
3. OPPORTUNITIES (<i>External Perspective</i>)
<ul style="list-style-type: none">• Will be perceived by the market place as a significant globalisation step for UEC with positive implications for Altron/Altech• The joint entity would rank amongst the 65 largest participants in the STB industry amongst GI, SA, Philips, Pace and Nokia)• Lowering of risk barriers to a USA market entry by UEC• Substantially increased foreign earnings for UEC• Strengthening of a UEC International stock exchange listing opportunity• UEC operations would be closer to the target markets and technology vendors
4. THREATS (<i>External Perspective</i>)
<ul style="list-style-type: none">• Drain on UEC and Altech cash resources• Effects of the weakening Rand• Losses in USA operation in dollar terms could have a severe impact on UEC and Altech's profitability• Failure to manage a brand name shift to the new entity
5. RISKS & ISSUES
<ul style="list-style-type: none">• Potential further dilution of an already overburdened UEC management team• Key staff at ZNS failing to accept transfer to the new UEC/ZNS company• Excessive warranty obligations or latent design flaws in ZNS products, which warranty obligations would shift to UEC

Source: UEC proposal – Stols 2001

Table 3.8



SWOT Analysis Findings

UEC's management were of the opinion that although certain negative issues were legitimately raised in the SWOT analysis set out in **Table 3.8**, the negative issues were manageable by UEC. UEC management were of the opinion that the negative aspects could be overcome through a combination of appropriate up-front contracting with Zenith during the acquisition process, as well as through the implementation of stringent management controls by UEC over the Zenith business subsequent to the acquisition. (Stols 2001)

Financial Analysis of the proposed acquisition of ZNS

The analysis of any situation or transaction in business would be incomplete without an analysis of the financial situation. UEC's objective of growth and globalisation in its most simple form is the objective of sustainable increase in shareholder profit. Notwithstanding this aspect, as the focus of this dissertation is not on finance, the financial analysis was limited.

ZNS had been accounted for as a division of Zenith not as a stand-alone entity. However, no financial divisional results were reported on by Zenith. UEC was thus obliged to create financial results using divisional management accounts supplied by ZNS. UEC applied adjustments to these figures to more accurately reflect the financial performance and standing of ZNS. This was also to ensure conformance of the financials with the Altron Group policy relating to financial accounts. This process was of particular importance, failing which, UEC's comparison between ZNS and UEC, as well as UEC's financial planning in regard to the proposed acquisition, would have been rendered meaningless as UEC's management would not have been comparing like with like. (Lombard 2001)

Methods of accounting in the technology companies can vary substantially with regard to how the substantial research and development costs are dealt with. Typically, the difference is whether these R & D costs are written off as expenses or recorded as intellectual property under the heading of "Intangible



Assets". Furthermore, the gaap (generally agreed accounting principles) differs from the South African version. (Lombard 2001)

UEC's task was made more difficult due to the fact that whilst the business of ZNS had been in existence for a number of years, there was no meaningful historical financial results of ZNS available. Consequently, the historical reconstructed accounts only related back one year as ZNS was not previously separately accounted for in the financial records of Zenith. (Lombard 2001)

Financial terms of the proposed acquisition of ZNS

The acquisition is of operating assets (ie. the business as a going concern), rather than shares in a corporation. This is because ZNS is currently an operating division of Zenith and is not separately incorporated. A local United States corporation would be incorporated by UEC to house the ZNS business, and this new corporation would be the acquiring party of ZNS.

The assets to be acquired by UEC were the fixed assets (including software), stock and the intellectual property relevant to ZNS (including, but not limited to source code, patents and trade marks). The transaction was also intended to involve the transfer of all relevant ZNS contracts to UEC such as license agreements, the ZNS order book and the employment contracts of the personnel of ZNS.

The total effective purchase price payable by UEC was estimated to be US \$17 170 000. In addition, UEC would be required to assume an escrow obligation of US \$2 000 000. However, a portion of the purchase price was deferred and was payable in the form of a product royalty of \$5 per STB sold by ZNS. Accordingly, the cash amount payable upfront was estimated at \$11 700 000.

The exact amount in respect of stock and fixed assets would be determined by the actual book value of the items concerned as at the effective date and as confirmed by the due diligence investigation/audit to be conducted for this purpose. Accordingly, the preliminary purchase price detailed above was to



be considered preliminary until finalisation of the acquisition. Of benefit is that the advanced royalty payment received for every set top box sold, was a guaranteed minimum amount, equivalent to \$5 per STB on the forecast sales of 1 030 000 STB's for the first 22 months. The subsequent royalty of \$5 per STB after the first 1 030 000 STB's actually sold, continues for the period from that date until the expiry of 36 months from the effective date. Thereafter, no additional royalty would be payable to Zenith.

The subsequent royalties detailed above and payable by UEC, are estimated at \$547 000 and this was based on the forecast sales for the 36-month period referred to above. This, added to the estimated initial payment of \$11 700 000, resulted in the total effective purchase price of \$17 170 000. However, the actual subsequent royalties payable by UEC to Zenith would be determined by the actual number of STB's sold above the initial 1 030 000 guaranteed STB sales. Accordingly, the final purchase price payable by UEC could either be higher than or lower than the estimated effective purchase price of \$17 170 000.

Contractually, UEC would have the right to repay the total estimated amount of the royalty payment for the three year period, that would be US \$10 620 000, within six months after the conclusion of the acquisition. UEC would thereby be avoiding any further payment in respect of royalties. Clearly, UEC would only do this if the STB sales start to substantially exceed the ZNS forecasted sales figures. (Lombard 2001)

Concluding Comments

The financial focus was limited to the financial mechanisms applied to the acquisition and in particular the purchase price calculating mechanisms. The purchase price mechanism was consistent with UEC's over-riding objective of growth. This was facilitated by a meaningful portion of the purchase price being dependent on the anticipated sales of STBs as forecast by ZNS.



3.6 SUMMARY OF FINDINGS

UEC's objective was to increase the value of shareholder wealth by seeking continued sustainable growth of the business of UEC. UEC's executive management had strategised that to achieve this growth, they would need to grow both the markets and client base which was served by UEC. This objective was directly linked by UEC's need to develop and become enabled in a larger variety of set top box technology domains.

The environment in which UEC operated was such that globalisation and the need for business to be substantially large enough to ensure critical mass, had been determined to be essential for future growth and prosperity of UEC's set top box business. (Stols 2001)

A further element which UEC was acutely aware of was the unique STB industry environment in which UEC operates. This industry environment had a material effect on UEC's growth strategies. As the STB technologies are maturing, and operating standards are becoming more harmonised as opposed to every television network operator using a different standard, the barriers to entry into the STB industry are being lowered. This enables an increasing number of small technology companies to attempt mounting an entry into the industry. This has a negative effect on the established STB specialists. This is partly due to the reason that the more established companies have invested millions of dollars in leading edge technology on which the industry's foundations have been built. (Sobey 2001)

One of the main defences which the preferred industry participants have is to rapidly increase the size of their market share so as to again raise the barriers to the industry from a price perspective. But as the technology barriers to entry begin to reduce, the large industry participants who enjoyed superior component procurement due to large volumes and long run manufacturing economies of scale savings, are again able to control the industry environment. (Stols 2001 and Sobey 2001)



Having analysed in detail the UEC specific strategic requirements of UEC in regard to UEC's objective of growth, a company specific analysis of model has been postulated. **Chapter 4** analyses this model by detailing the components thereof in relation to the case study analysis and thereafter evaluating the merits of using the model in future UEC's concentric growth strategy decision-making process.



THIS IS A PICTURE OF UEC DECODERS AWAITING THEIR OUTER CASING, WHICH DECODERS WILL THEREAFTER BE PACKAGED FOR EXPORT



CHAPTER FOUR

4. MODEL DESIGN AND EVALUATION

4.1 MODEL DESIGN

Having regard to UEC's objective in particular, the considerations in regard to UEC's unique circumstances, as well as the unique STB industry, a model has been postulated being a company specific analysis model which is intended to be used by UEC as a strategic tool when analysing the merits of a proposed future growth motivated concentric diversification acquisition. The model is presented in **figure 4.1**.

Following the details case study analysis of UEC, it became apparent that there were three UEC specific spheres that needed to be considered, being the ***Industry Environment***, being the global set-top box industry in which UEC operates. The second sphere was the ***Operating Environment*** being the specific environment in which UEC conducts its business being the threats and weaknesses of the particular environment in which UEC operates and which UEC needs to focus its efforts on of strategically overcoming. The Operating Environment also includes the opportunities and potential which exists within UEC's specific operating environment. The third sphere was the ***Internal Environment*** in which UEC operates. These are aspects which are specific and internal to UEC and its corporate structure. The models framework is thus made up of the following three spheres:

- ***Industry Environment***
- ***Operating Environment***
- ***Internal Environment***



To give effect to the application of these three spheres, specific model pointers have been included in the model. These pointers, whilst taking the spheres into account, are specifically intended to contribute positively to UEC's objective of growth and globalisation. The pointers give specific direction to the spheres. The most appropriate growth based on both the case study analysis of UEC and the industry analysis, has been postulated to be concentric diversification growth. This is the corporate growth strategy whereby a company such as UEC expands its business by acquiring out other participants in the industry, either operating them as separate business concerns or merely consuming their business activities into the acquiring company.

An example of this is UEC's acquisition of ZNS as discussed in **chapter three**. The sphere pointers for the industry environment in regard to this model are made up of the **barriers to entry** into the set top box industry as well as the **size of the set top box market and industry**. The pointers for the operating environment are UEC's drive to **globalisation** as well as the **need for growth** within UEC. This is the unique industry and company operating environment whereby UEC is required to grow rapidly so as to achieve critical mass thereby preventing UEC falling by the wayside. The pointers for the third sphere being the UEC internal environment are made up of UEC's **need for new technologies and products**. These are UEC's specific internal needs. This need is intended to overcome a UEC internal weakness. The second pointer in this third sphere is UEC's need for **access to new markets and clients**. Again, this pointer is a mechanism which UEC needs to use to overcome a UEC specific internal environment weakness.

Following the discussion of the reasoning and mechanics behind the UEC company specific analysis model, the model is diagrammatically presented in **figure 4.1** below.

COMPANY SPECIFIC ANALYSIS MODEL

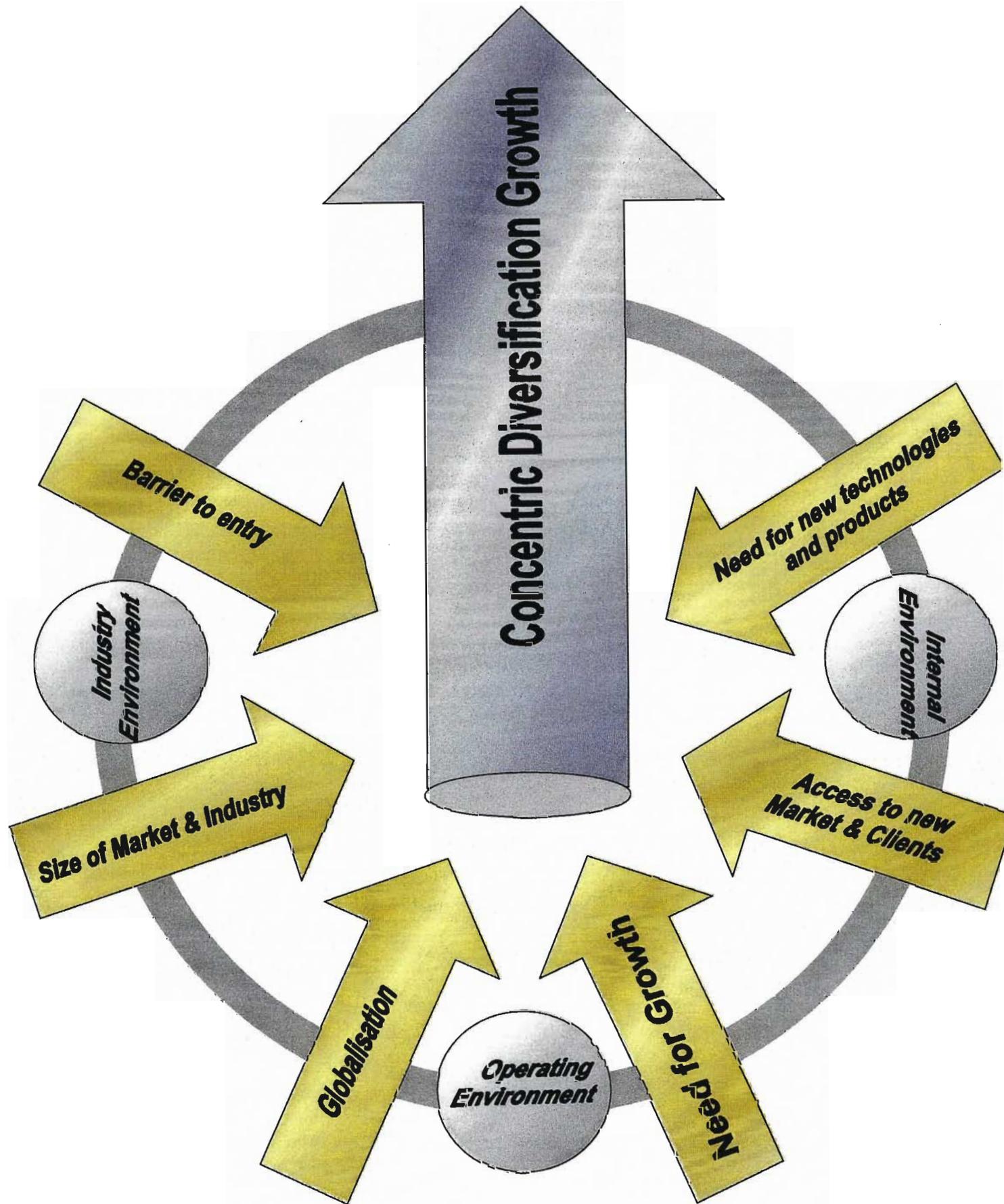


Figure 4.1



4.2 MODEL EVALUATION

The company specific analysis model as detailed in **figure 4.1** was developed both in light of current strategic academic writing as well as the requirements which UEC's specific business circumstances and business strategy required, as determined during the case study analysis in **chapter three**.

The model takes into account the five-forces model as postulated by Porter (1979) by making allowance for rivalry among competing sellers by means of the model's **size of market and industry** pointer. The model also caters for potential new entrants to the market by means of the **barriers to entry** pointer. Dealing with the suppliers of key inputs and firms in other industries offering substitute products, the model dealt with this by means of the **operating environment**, being a customised requirement of **globalisation** and the **need for growth**. Porters fifth force, being that of buyers, is accommodated in the model by way of the **internal environment** with the pointer of **access to new markets and clients**.

In summary, Porter's five-forces model of competition, which indicates how competitive forces shape strategy, has been accommodated in the company specific analysis model. However, it has been adjusted to UEC's company and industry specific requirements as well as being merged with factors which are intended to be able to contribute positively to UEC's concentric diversification growth. (Porter, 1979).

The design of the company specific analysis model has taken into account the grand strategy selection matrix. (Pearce Robinson 1982). It is argued that as UEC is in a strong position, its primary aim is to maximise its strengths as opposed to overcoming its weaknesses. UEC aims to achieve this by means of focusing externally, by using concentric diversification as a growth tool. UEC applied this by acquiring resource capability, such as markets and technology.



UEC's unique position, and particularly the unique position of the leading edge fast-growing STB industry, is represented in the company specific analysis model by means of a focus on the need to gain access new clients and markets as well as the need to secure the rights to new technology and products. This is the rationale behind the internal environment portion of the analysis model. It is this *internal environment*, when combined with the *operating environment* and *industry environment* that makes up the outer framework of the model.

In conclusion, it is argued that the model captures the elements which are key to UEC's aim of growth and globalisation. These elements are logically arranged around three generic environment spheres, thus providing both a macro and micro angle to the model.

The positive evaluation of the model indicates that it will be of great value to UEC when put to use in future acquisitions. The scope of such future use is discussed in the paragraphs that follow.

4.3 FUTURE USE OF THE MODEL

It is argued that the company specific analysis model will prove to be of great future value to UEC. The model has the standing of being spawned out of various current academic and critically acclaimed business strategy models. From this background, the model was specifically designed and crafted with UEC's specific growth and globalisation requirements having been taken into account as a result of an in-depth case study analysis. The model allows for the specific requirements of UEC and that of the global STB industry.

It is argued that the model will be used by UEC when analysing future potential concentric growth acquisitions. Through the application of the model to a proposed acquisition, UEC could ensure a uniform approach and analysis of these proposed acquisitions. This uniform analysis would enable a form of standardisation in the acquisition decision-making process. The model has specifically been designed with a bias towards the UEC specific requirements while simultaneously taking the industry requirements into



account. The model has appeal as it is industry and UEC specific. The model is simple to implement and not overly complicated. UEC is constantly undertaking STB industry environmental scanning with the intention of seeking potential acquisitions. This model provides the various branches of management and executives with an analytical tool. By applying the model to potential acquisitions, the degree of suitability of an acquisition immediately becomes apparent.

This process involves matching the attributes of the potential acquisition to the elements of the model. The model represents the ideal attributes of a potential acquisition. The higher the degree of the match between the potential acquisition and the model, the more attractive the acquisition. It is important to note that the model can be used as both a preliminary suitability analysis tool during industry environmental scanning and later in the acquisition process, as the basis of a detailed suitability analysis. Thus, initially the model can be used to include and exclude possible acquisition during preliminary industry scanning. Depending on the degree of matching between the potential acquisition and the model, a form of preliminary ranking of potential acquisition can take place before the lengthy and expensive formal analysis takes place.

The second level of application of the model is for the in-depth analysis of a potential acquisition. This would be undertaken by analysing the acquisition in accordance with the criterion of the model. The model will be of particular benefit to UEC when the management are faced with competing acquisition opportunities. The model can also be successfully used as a comparative tool.

Through the use of the model, UEC enjoys the benefit of comparing the competing potential acquisitions according to the same criteria, thus providing standardisation in the decision making process. This standardisation will prove particularly valuable to UEC as often they have more than one acquisition team at work. The model contributes significantly to eliminating group or team specific bias.



CHAPTER FIVE

5. CONSIDERATION OF DECISIONS

5.1 BACKGROUND

UEC is an active participant in the fast growing, technologically, leading edge STB industry.

5.2 DECISIONS

During the case study analysis of UEC, it was highlighted that the management of UEC had crafted a specific strategy for UEC. The elements of which were based on the need for *rapid growth*, so as to sustain and increase profitability and thus create shareholder value. Due to the unique STB industry circumstances and business operating environment within which UEC conducts its business, UEC management considered *growth* and *globalisation* to be key elements to UEC's strategy. Their growth strategy consisted of both accelerated organic growth and concentric diversification growth through acquisition of industry participants or peers. Such acquisitions needed to be based on positive synergy between UEC and the company being acquired.

UEC placed substantial focus on concentric diversification growth, primarily because organic growth is particularly slow and at times more expensive. This slow rate of organic growth was compounded by the acute skills shortage in South Africa in the domain of embedded software design. Furthermore, organic growth by means of expanding operations internationally, so as to give effect to a form of globalisation, is particularly expensive and presents substantial challenges. UEC thus typically preferred the option of acquiring an existing off-shore operation as opposed to setting up such operation.



5.3 CONSIDERATIONS

When considering the process being followed by UEC, the consideration is approached from three angles. The *first* is a comparison between the aims and goals which UEC has chosen for itself and then comparing these to the strategies implemented. The *second* angle is whether UEC's strategies that it is implementing are consistent with the industry strategies. *Thirdly* whether UEC's strategies are compliant with generally accepted academic thinking in regard to strategy.

Focusing on the *first* area of comparison, there was a direct correlation between UEC's aim, being growth and globalisation, and the strategy being implemented by UEC. This view is supported by the strategic actions being undertaken by UEC as indicated by the acquisition of ZNS discussed in **chapter three**.

The *second* area of consideration was the support for UEC's strategies as they were in line with the STB industry challenges. As discussed in **chapter three**, critical mass and superior positioning in the global STB industry is essential for long term sustainability and success. UEC's growth and globalisation strategy is in line with the STB industry thinking.

The *third* area of consideration confirmed that UEC's strategies of growth and globalisation are in line with current academic thinking. As discussed in chapter two, UEC was in a strong position which enabled it to maximise its strengths by focusing externally, through mechanisms such as mergers and acquisitions. (Pearce Robinson 1982).

These growth strategies being followed by UEC were consistent with Porter's thinking on how competitive forces shape strategy (Porter 1979). These competitive forces are particularly relevant to UEC's extremely competitive industry as discussed in chapter three.



5.4 SUMMARY

In conclusion, the decisions made by UEC are in line with UEC's objectives and are not inconsistent with current academic strategic thinking. The strategic decisions made by UEC and the execution thereof are considered appropriate to bring about UEC's objective of growth and globalisation. UEC's decisions appear to have been well thought out and in line with the STB industry norms and criteria. UEC's decision making criteria and processes in regard to its concentric diversification growth strategy was consistent with the company specific analysis model postulated in **chapter four** and diagrammatically presented in **figure 4.1**. The consideration of UEC's decision naturally lead into a discussion of the recommendations for UEC and conclusion to the dissertation which is dealt with in the chapter to follow, being **chapter 6**.



**THIS IS AN AERIAL VIEW OF A SOFTWARE TESTING BAY SITUATED IN THE UEC
FACTORY**



CHAPTER SIX

6. RECOMMENDATIONS AND CONCLUSIONS

In conclusion, it has become apparent from the research that UEC adopted a strategy of growth combined with global expansion. This strategic decision was consistent with the grand strategy selection matrix as UEC intended to maximise its strength through external mergers or acquisitions. This contributes to the global aspect of UEC's intended growth.

It is submitted that UEC correctly intended to pursue its expansion through off-shore acquisitions. This expansion off-shore is considered appropriate as UEC's growth potential needs to calibrate with the potential of UEC's off-shore clients, as well as calibrate with the potential of the global market segments identified by UEC.

UEC is based in South Africa and already has the vast majority of the South African STB market. In the future, UEC's South African market share growth will merely be in line with the growth in the STB market, but not growth in actual market share as UEC already hold the majority of the market share.

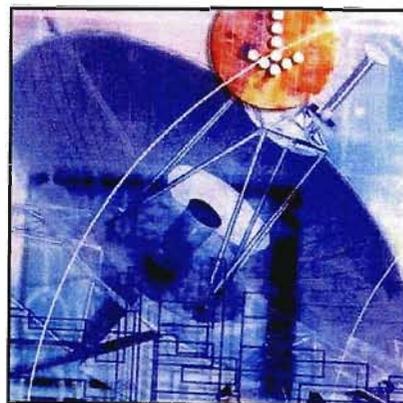
UEC's expansion off-shore is consistent with current international trade in economic thinking. In regard to UEC's international expansion, UEC is exhibiting a combined strategy with elements of a global strategy and elements of a multi-national strategy.

The criteria which UEC was considering at the time of the acquisition of ZNS was considered appropriate. These elements have now been combined into the company specific analysis model which coherently and distinctly organises the thought process and consideration framework for future acquisitions.



Although many companies operate branches and operations world wide, it is important for UEC not to underestimate the substantial management skill and time which such international operations demand. This was an issue raised in UEC's SWOT analysis of the ZNS acquisition. It is recommended that UEC considers a management portfolio to deal with not only potential merges and acquisitions, but a dedicated management portfolio to deal with overseeing international operations and ensuring appropriate communications and flow of information. It is the management of information and relationships that would determine multi-office success. Without well-planned, well-organised and managed international operations, the benefit of such operations may be reduced. In particular, UEC's ability to harness the synergies may be seriously effected.

UEC's corporate strategy is the mechanism through which it can achieve its goals and exceed its expectations. The company specific analysis model is expected to contribute positively to this anticipated success.





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4. SOBEY, R I (2001), *Personal Interview*. Sales Director of UEC Technologies and Director in charge of UEC Australia
5. WILLEY, C (2001), *Personal Interview*. Manufacturing Director of UEC Technologies

3. UEC DOCUMENTATION

Various UEC secondary data was considered in the form of minutes of meetings, internal memoranda, sales and marketing proposals, competition and industry reports, brochures and articles.



4. WEBSITES ACCESSED

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- www.altron.co.za
- www.uec.co.za
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- www.mpeg.org
- www.booksites.net
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