

**INTERNATIONAL LEARNING:
THE ROLE OF TRANSNATIONAL CORPORATIONS IN THE
DEVELOPMENT OF SMALL BUSINESSES' INTERNATIONAL
COMPETITIVENESS IN SOUTH AFRICA**

by

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Africa**

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LIST OF ABBREVIATIONS AND EXPLANATIONS

ASci	Automotive Safety Components International
BCI	Business Competitiveness Index
BCI	Business Confidence Index
BEE	Black Economic Empowerment
BITs	Bilateral Investment Treaties
BLCs	Business Linkage Centres
CBU	Completely Built Up
CENIS	Centre for Interdisciplinary Studies
CSDS	School of Development Studies
CSIR	Council for Scientific and Industrial Research
DCCI	Durban Chamber of Commerce and Industry
DUT	Durban University of Technology
DoL	Department of Labour
DST	Department of Science and Technology
DTI	Department of Trade and Industry
DTTs	Double Taxation Treaties
ERU	Entrepreneurship Research Unit
ESDAs	Employment and Skills Development Agencies
FDI	Foreign Direct Investment
GCI	Growth Competitiveness Index
GCR	Global Competitiveness Report
GDP	Gross Domestic Product
Gear	Growth, Employment and Redistribution
HDI	Historically Disadvantaged Individuals
HRD	Human Resource Development
HSRC	Human Science Research Council
ICT & E	Information, Communication Technology & Electronics
IMD	International Institute for Management Development
IRP	Industrial Restructuring Programme
JIT	Just-in-Time
LBSCs	Local Business Support Centres

LIUP	Local Industry Upgrading Programme
MAC	Manufacturing Advisory Centres
MD	Managing Director
MEI	Macroeconomic Environment Index
MIDP	Motor Industry Development Plan
MNC	Multinational Corporations
MTEF	Mid-term Expenditure Review Framework
NAMAC	National Manufacturing Advisory Council
NASRA	National Skills Research Agency
NGOs	Non-Governmental Organizations
NIPP	National Industrial Participation Programme
NRF	National Research Foundation
NSBC	National Small Business Council
NSDS	National Skills Development Strategy
NSI	National Systems of Innovation
NTTC	National Technology Transfer Centre
OECD	Organization for Economic Cooperation and Development
OEM	Original Equipment Manufacturer
PII	Public Institutions Index
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SACOB	South African Chamber of Business
SAQA	South African Qualifications Authority
SARB	South African Reserve Bank
SARS	South African Revenue Services
SBDC	Small Business Development Corporation
SBP	Small Business Project
SEDA	Small Enterprise Development Agency
SETA	Sector Education and Training Authority
SMMEs	Small, Medium, and Micro Enterprises
SPF	Sector Partnership Fund
SPII	Support Programme for Industrial Innovation
SSA	Statistics South Africa
TEA	Total Entrepreneurial Activity

THRIP	Technology and Human Resources for Industry Programme
TI	Technology Index
TIPS	Trade and Industrial Policy Strategy
TISA	Trade and Investment South Africa
TNCs	Transnational Corporations
UNCTA	United Nations Commission on Trade and Development
D	
USA	United States of America
USAID	United States Agency for International Development
USPTO	United States Patent and Trademark Office
VSMEs	Very Small and Micro Enterprises
WCY	World Competitiveness Yearbook
WEF	World Economic Forum

ABSTRACT

Introduction

The South African small business sector, particularly the manufacturing industries, such as textile, clothing, and automotive industries, are not considered internationally competitive. This shortcoming is seen in the context of liberalizing and transforming the South African economy, and the threat of foreign competition such as China. This study takes a systems view of the problems that are facing small businesses in South Africa, drawing on historical, theoretical and empirical sources within a proposed framework for small business international learning. The various elements in the framework include international competitiveness challenges facing small businesses, which, the author argues, create tension for survival within small businesses; the limited role of the small business support regime in South Africa; and the role of Foreign Direct Investment through Transnational Corporations (TNCs). Therefore, this study investigates the international learning processes of small businesses and develops a new theoretical model to illustrate and elucidate interventions to strengthen international learning processes of these small businesses.

Methodology

The manufacturing sector was chosen as the ideal sector for this study since it contributes significantly to the GDP and levels of employment of a country, and is at the receiving end of new production methodologies and technologies and other competition dynamics. This sector, at a small business level, is currently experiencing international competitiveness challenges in South Africa. The methodology followed an initial exploratory, qualitative approach followed by a formal, empirical, quantitative approach. The research questionnaire met the quality criteria as established through content validity, criterion related validity, and reliability criteria. This questionnaire was administered to a sample of 300

out of a population of 800 manufacturing small firms in Durban, using an unrestricted random probability sampling method. A total of 255 completed questionnaires were returned, and the results were expressed at the 95% confidence level with a confidence interval of 0.05.

Results and Discussions

From the correlation analysis of the level of importance and extent of implementation of international learning processes, four international learning processes, whose implementation can be enhanced by an improvement in the importance of international competitiveness challenges and support, were extracted. These international learning processes include increased learning activities on management, sales and marketing, finance, and also the image of small businesses.

Through the consolidation of the results of the correlation analysis, a theoretical model for the identification and development of international learning processes was created.

Conclusion

From the small business practice and policy point of view, this study's findings suggest that the international learning processes of small businesses confronted by international competitiveness challenges in transforming developing economies can be strengthened by applying the theoretical model developed in this study. From the government, TNCs, and small businesses' perspective, this study's findings also suggest that the establishment of linkage programmes and enhancement of learning activities, which revolve around the identified international learning processes as established in the theoretical model, will enable the attainment of international competitiveness of small businesses. This study, therefore, proposes the implementation, in the short-term, of information

and linkage support at sector level that addresses the enhancement of the identified international learning processes; and the implementation, in the long-term, of a grand-scale small businesses and TNCs linkage programme in line with the premise provided in the theoretical model.

Keywords: International Learning Processes, Small Businesses, International Competitiveness Challenges.

DEFINITION OF KEY TERMS

Foreign Direct Investment (FDI)

An investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor.

International Competitiveness

International Competitiveness refers to better or superior performance of a local business compared to other businesses from other countries in the same industry. It is limited to performance in domestic and international trade, and company strategies for productivity and international trade performance.

Learning

Learning is generally defined as the ability to cope with changes, mastering of new technologies, which enable an organization to compete within a volatile trade environment. Learning happens at individual and organizational levels.

Linkages

Linkages are any kind of a relationship between two or more institutions. For the purposes of this study, linkages refer to a relationship between small businesses and Transnational Corporations.

Small Businesses

The study is limited to small businesses as defined by the Small Business Act of 1996. It is also limited to dominant industries in the manufacturing sector within Durban, KwaZulu-Natal.

Technology

The term technology in this context is applied broadly to include cutting-edge machinery, innovations, management, markets and marketing, and any other system that contributes to organizational competitiveness.

Transnational Corporations (TNCs)

This is a form of Foreign Direct Investment (FDI). A TNC is defined as any company that has operations in more than one country.

Transforming Developing Economies

This term is used as a general classification for a group of countries that have a relatively low standard of living, undeveloped industrial base, and moderate to low Human Development Index (HDI), and not at a level of countries that are classified as developed countries in terms of economic growth and development measures. Countries in the South-East Asia (such as Malaysia, Singapore, China, and India), Latin American countries (such as Brazil and Mexico), and South Africa are classified as developing countries.

CHAPTER ONE

OVERVIEW

CHAPTER 1: OVERVIEW

1.1 INTRODUCTION

The aims of this chapter are to introduce the study, state the research problem, the research purpose, the significance of the study, the study implementation approach, demarcate and outline the scope of the study, define the research limitations, explain the research design and provide a chapter outline of the thesis.

This chapter commences with an introduction to the study and an explanation of a systems view of the international competitiveness and international learning challenges facing small businesses. A practical example of a small firm that evolved through challenges and learning processes is discussed.

In explaining the context of the study, viz. small businesses' international competitiveness challenges, the lack of appropriate small business support is emphasized.

From this small business and management problem emerged the research problem as "How can a small business strengthen its international competitiveness through a relationship with a TNC?" From this research problem, the purpose of the study and research objectives emerged.

This chapter also emphasizes the use of the systems approach and how it would enable a holistic approach in the understanding of the various stakeholders in small business international competitiveness. The utility of this approach in the theoretical modeling for reinforcing linkages between small business and TNCs was emphasized as a basis for small business international learning.

The chapter also demarcates, through the outlining of the scope of the study, aspects related to it that are not dealt with in this study, as well as its

limitations. Some of these aspects were linked to the recommendations for future research in Chapter 8.

This chapter also describes the research design, in different stages, and highlights the nature of the study in terms of its approaches. Finally, the chapter outlines the chapters in this thesis.

1.2 IMPORTANCE OF THE STUDY

The organizational learning approach of a small business might become a model for small firms facing international competitiveness challenges (Taylor and Panza, 2003; James, 2003; Lall, 2000) in developing economies and a strategic tool for small businesses and governments. Organizational learning for small businesses has been defined as individual and organizational behaviour that reacts or adapts to changes in the environment (Argyris and Schon, 1978; Pedler *et al.*, 1991).

The organizational learning model is a conceptual approach that is based on a systems view of an organization. The systems-based view of an organization suggests that an organization does not exist in a vacuum but has a network of individuals, institutions, rules, and systems that surrounds and constrains its behaviour (Schein, 1995; Hueuer and Ostrergren, 1999). For an organization to survive, therefore, it must continually adapt. In small firms within developing countries, this view alone may not be adequate. The pressures of open trade and globalization put extreme pressure on small businesses to survive (Taylor and Panza, 2003; James, 2003; Lall, 2000). Thus Roberts (2003:3) pointed out that the learning organization literature, during the period of globalization and high-technology advancement, cannot be separated from the technology transfer theories, particularly for small firms (Roberts, 2002:3). The literature in the economic development and industrialization areas indicates that Foreign Direct Investments (FDI) through TNCs are the most important of the channels through which developing

countries acquire technological capabilities (O'Connor, 1985; Dicken, 1992; Colman and Nixon, 1994; and Hewitt *et al.*, 1995).

As a result, since the study views international competitiveness as a critical aspect of a learning small firm, it is imperative to understand the content, conceptualization and operationalization of this learning process within the systems view and technology transfer perspective. To do this, the study begins with seeking the connection between organizational learning theory and technology transfer theory in the context of small businesses.

Given the gap that exists in the literature regarding small business learning and international competitiveness, this study explores practical examples of small business learning in the context of technology transfers within a small business relationship with a TNC. The literature is then synthesized to what is termed, in this study, small business international learning for international competitiveness. This idea of small business international learning for international competitiveness is supported by Lall (2000) in his discussion paper "Strengthening SMEs for International Competitiveness prepared for the Egyptian Centre for Economic Studies Workshop" on "What Makes your Firm Internationally Competitive". He said, "...SMEs learn most from each other and from larger enterprises....Market based learning mechanisms are often not enough to support technology development, particularly when competition intensifies and technical change becomes rapid" (Lall, 2000:2).

Since international competitiveness and coping with international challenges is a critical concern for small firms in liberalizing economies, particularly in the manufacturing sector, this study describes key elements that, through international learning, small firms could achieve international competitiveness. The study identifies and applies quantitative techniques to describe the international learning processes for small firms operating in a developing country environment. The study further makes some differentiation of the elements of the international learning processes and how these can be influenced. The differentiation of the international learning processes created a model that shows how effective utilization of relationships between small

businesses and TNCs could innovatively contribute to small business international competitiveness.

Within the small business sector, this particular study is very important given the intention of the South African government, employers, and unions to improve international competitiveness of small businesses as major employers and contributors to South Africa's economic activity (RSA, 1995b).

The study uses the manufacturing sector of small businesses within the Durban and surrounding Industrial areas since it represents a typical South African metropolis where small manufacturing firms are clustered because of geographical advantages and face international competitiveness challenges that are common to many small firms (Lall, 2000:30).

1.3 RESEARCH PROBLEM

The literature review in chapters 2, 3 and 4 describes the international learning that is required by small businesses in the context of challenges in their environment to enable them to successfully compete internationally. It also highlights the environmental characteristics within which the small firms operate i.e. international competitiveness challenges, small business support weaknesses, and examples of specific sectors, namely, clothing and textile, as well as the automotive sectors. The international competitiveness challenges' examples highlighted include the limited industry value add; low levels of high technology contribution and innovation (World Bank, 2005); and a stifling regulatory regime (SBP, 2005). From these challenges, it is expected that the government as well as small business sectors and other stakeholders would be constrained to act positively in order to alleviate some of the international competitiveness challenges which have serious repercussions for the economy and ultimate welfare of the population.

However, the South African small business sector is struggling, and according to the Minister of Trade in South Africa, Mandisi Mphahlela (Mphahlela, 2005),

in his address to the National Council of Provinces, “increasing underlying competitiveness, rather than dependence on a weak exchange rate, is critical for the survival and growth of our firms and sectors”. Furthermore, South Africa was ranked 42nd for several years until year 2000 when it improved to 39th position out of 47 countries (Pistorius, 2001:11). South Africa’s position deteriorated to position 49 out of 60 countries in 2004 (IMD, 2005:5). According to the Global Entrepreneurship Monitor, South Africa ranked 24th out of 34 countries (S.A., 2004:10). On the basis of this international competitiveness dilemma, particularly as it relates to how small businesses cope with turbulent environment, the business and management problem emerges as, “how to optimize the performance and competitiveness of small businesses during the period of trade liberalization and globalization”?

As the literature review points out, technology transfers through Foreign Direct Investments are a common mechanism through which developing countries acquired technological capabilities. It is, therefore, important to be able to create approaches and strategies that can enable small businesses to improve their performance and international competitiveness by taking advantage of the existence of Foreign Direct Investment. Thus, from the preliminary understanding of the literature came the research problem: How can a small business strengthen its international competitiveness through a relationship with a TNC?

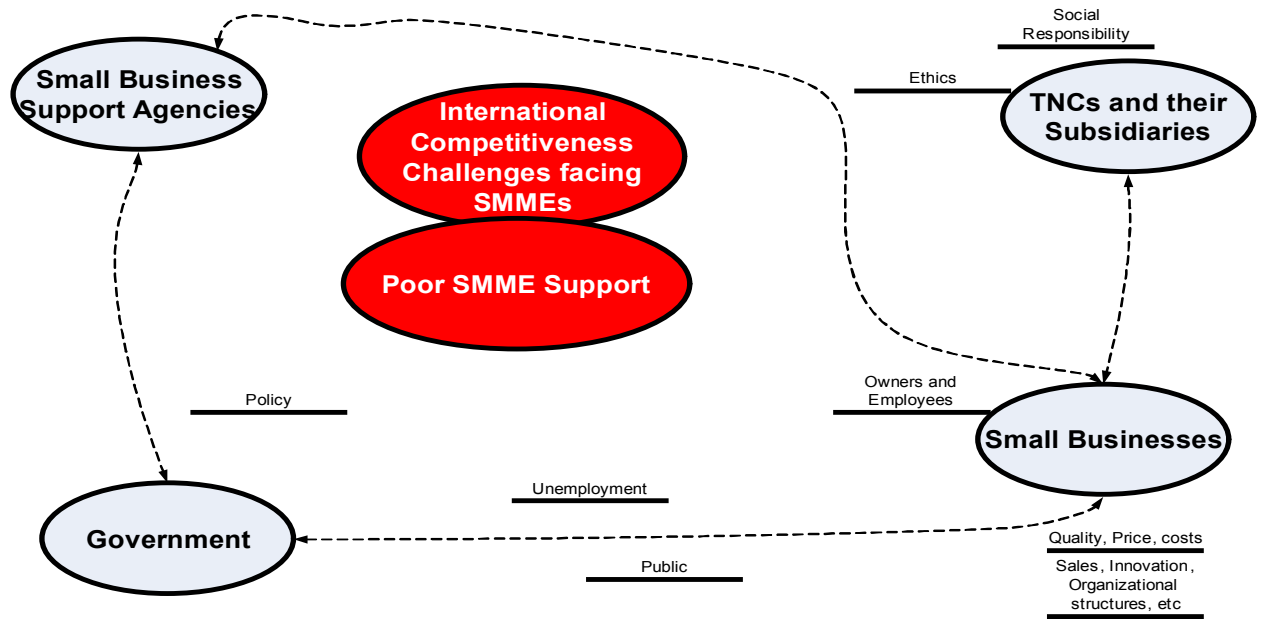


Figure 1.1 Problem Structure

A systems view (Anderson and Johnson, 1997) of the problem is illustrated in Figure 1.1 above.

The problem is derived from both the practical and theoretical literature as presented in Chapters 2, 3 and 4. Practically, the changes that have taken place in South Africa since 1994 had an adverse effect on the competitiveness of small businesses which affect their performance and survival.

Ross Allen (a research and development expert), in an interview with Sasha Planting of *Financial Mail* (Planting, 2004), noted what could be missing in South Africa's innovation and international competitiveness. Key among the missing elements is international relationships and partnerships that could facilitate what he terms "movement of ideas". He urges South Africans to study these relationships, establish mutuality and the extent to which they benefit local firms. However, these relationships need to be viewed within a broader national context of other role-players and stakeholders such as government and other local institutions.

One such relationship focal to this study is the relationship between small businesses and TNCs. For small business relationships with TNCs to be successful, immense demands are placed on owners, management, and employees to maintain required standards as per the nature of the relationship. Should the small businesses meet the standards, they are more likely to improve their international competitiveness in terms of various measures such as quality, innovativeness, efficiency, and customer responsiveness. As small business, performance in terms of variables such as international and domestic sales increase, involvement in international activities, and other competitiveness strategies can be evident.

As discussed in the literature review in Chapter 4, there is still no clear knowledge of the learning organizational and/or organizational learning processes and their impact within the small business context, particularly, in developing countries. The development of research work in organizational learning and learning organizational research in Western countries has fascinated organizational development practitioners since the early 1990s. However, the accumulated theoretical literature does not provide sufficient small business perspective within the systems view in developing countries.

There are a variety of studies that look at, broadly, the performance of key sectors in KwaZulu-Natal and in South Africa, generally. The Industrial Restructuring Project was initiated in 1996 under the School of Development Studies at the then University of Natal. The project initially focused on KwaZulu-Natal, but grew to support the industrial policy in South Africa. The resounding discoveries in these studies are the poor performance of local industries (with predominant components being small businesses) in the face of regime and policy changes and the impact of global competition. Also, the institutional communication breakdown is common in different industries in relation to Government support, industry cooperation, and business development support. This breakdown has resulted in increasing closure of firms and job losses.

The TNCs and their subsidiaries, on the other hand, have a social responsibility to the host country and local institutions. TNCs are required to adhere to the code of ethics that governs their relationships with local institutions and the environment to contribute to sustainable development. Promotion of transfer of technologies and capabilities through linkages with local institutions is one such contribution. The ethical conduct of TNCs has always been questioned as it relates to poor relationships with local institutions, and environmental degradation through TNC production activities. Also critical is the role played by small business support agencies to facilitate and promote FDI and linkages with small businesses. The growth and development of the SMME sector relies heavily on the quality of interventions of these institutions. Should the quality and quantity of deal flows be minimal, it will affect the SMME sector and its international competitiveness.

The government has an overall responsibility to SMME growth and development and the creation of jobs to contribute to the welfare of its citizens. It performs this responsibility by creating an enabling environment for the support of SMMEs. The lack of effectiveness of learning between SMMEs and TNCs will signify, among others, poor small business support systems.

Consequently, the study's proposed solution to the research problem is derived and hence the small business and management problem, a rational, and comprehensive programme that supports linkages between small businesses and TNCs and enhance small business learning. This study terms this process as international learning. This approach is amplified by the existence of several programmes that enhance linkages in developed and developing countries as discussed in the literature review in Chapter 2. Figure 1.2 below is a graphic representation of the business and management problem, research problem, and the proposed research solution.



Figure 1.2: The Business and Management Problem, Research Problem, and the Proposed Research Solution

The next section considers the context and international competitiveness challenges explored in this study by providing a case study of a company called Gelvenor (Pty) Ltd. This case study is referred to throughout this report.

1.4 SYSTEMS VIEW OF INTERNATIONAL LEARNING: A CASE STUDY OF GELVENOR (PTY) LTD

The GELVENOR (Pty) Ltd, a small textile company, exists within a context of drastic competitive changes which include, among others, increased volumes of import dumping, increasing unemployment and export decline. (See real example of GELVENOR in an article below (Planting, 2005). There is increasing pressure from industry to Government for support which is delayed (Government indifference). Support institutions such as the CSIR (Council for Scientific and Industrial Research) have offered research and development support, and other Business Development Service providers assist GELVENOR in its endeavors. One critical area of support evident in the article

is the joint venture with a TNC called Automotive Safety Components International (Asci) (the European Arm of the US-based giant automotive safety systems), where the MD emphasized its significance in penetrating the international market. The relationship presents skills or capacity, and technical demands to the GELVENOR. This could represent the desired international competitiveness standards in the framework of this study. Thereafter, there is an intricate process of learning which will make GELVENOR internationally competitive or sustain its competitive advantage.

A Material Difference by Sasha Planting (Financial Mail, 01 April 2005)

In the face of increasing job losses, sliding market share and profit, decreasing exports, increasing volumes of dumped imports, the closure of companies and seeming government indifference, one SA Textile Company is defying the odds.

Durban based producer GELVENOR is reaping the benefits of its investment in research, development, skills and hi-tech machinery.

The company is one of the world's leading producers of parachute fabrics and is among the best in the production of fire-resistant, bullet-proof and medical fabrics. Now it has two lines of business that it expects to propel sales into the future.

The first is a joint venture to make motor-vehicle airbags for the global market. The second uses new-generation "intelligent" fabrics in novel applications. "Electronic circuitry and intelligent polymer systems can be integrated into the fabric to think for itself and react appropriately under certain conditions," says MD Dicky Coetzee. "These intelligent fabrics are based on technologies that many hi-tech producers are researching, but most are having only limited success. We have something that will blow your mind – it's a world first." Without the protection of a patent, however, he is not prepared to elaborate.

Meanwhile, GELVENOR will focus on growing the joint venture it has with Automotive Safety Components International (Asci), The European arm of the US-based giant in automotive safety systems. The partnership, in which GELVENOR has a 25% stake, affords it an entrance into the competitive but booming business of airbags. "We will produce the fabric, the joint venture will sew the airbags and other suppliers in the chain will fit the electronic and modular components. These purpose-built products are then fitted to the vehicle by the original equipment manufacturers," says Coetzee.

It is a specialized game and GELVENOR has taken nearly seven years to penetrate this market. "It is impossible to get in without the right partner," says Coetzee. "It took time to convince Asci of our skill and technical ability. Eventually the time and capital resource investment paid dividends."

The company expects to produce up to 100 000m of the airbag fabric a month when the JV reaches full production capacity – that is, 2m airbags a year within three years. At this point the JV will need to invest a further R5m in a second laser cutting machine to expand production.

In the face of unprecedented global competition, mostly from China, the new business line will assist in maintaining revenues, rather than contributing new revenues or enhancing profitability. "Of the new business generated, 50% will replace orders lost because of cheap imports," says Coetzee.

For GELVENOR, the development of new product lines is strategic and defensive and this move into airbags is a continuation of a path the company ventured onto 10 years ago. "Our survival strategy is to move out of commodity products and into technical niches as fast as possible," says Coetzee. Over recent years its mix of industrial and apparel textiles has swung from 50:50 to 73:27 in favour of specialist industrial fabrics. One of its new products is a barrier gown for surgeons which will warn of any "strikethrough", or penetration of the fabric. For GELVENOR, innovation comes more easily than for some.

Since the company's inception in 1965, when the business made fabric linings using second-hand Dutch technology, it has introduced 17 new product lines. Six of those have been in the past six years. The company was acquired from Anglovaal by German entrepreneur Class Daun in 1998 – a move that Coetzee says has enhanced the company's ability to innovate. "We spend less time writing reports and are encouraged to run the business with entrepreneurial spirit.

"Our goal is to introduce a technically advanced product range every year and to hold the world number one position in at least one product," says Coetzee. Holding global leadership positions is rare in SA's beleaguered textile industry. GELVENOR is an anomaly in a sector characterized by an absence of innovation and a struggle for its survival. Since 2003, SA's import penetration of textiles has exceeded the 50% mark. "This means that we import more than we produce locally," says Textile Federation economist Helena Claassens.

SA exports more manufactured clothing than ever before, but its imports dwarf this amount. In the past 24 years textile companies have closed, partly closed or had large-scale retrenchments. And this comes after thousands of job losses and company closures in years gone by. Opinions differ on why SA textile industry is in such dire straits.

"For decades, SA lacked a competitive culture," says the CSIR's Rajesh Anandjiwala, speaking in his personal capacity. "Before 1994 the economy was protected from foreign competition and people became complacent." Product was easily and profitably sold in the local market, so there was little urge to expand capacity.

"Almost all existing plants are relatively small and lack world-class size for achieving economies of scale," Anandjiwala adds.

Comfortable margins meant that SA industries did not invest in research and development when they had the chance. With the exception of CSIR, SA has made little investment in textile R&D.

The industry also failed to demand a highly skilled and qualified workforce, Anandjiwala says. In today's hi-tech textile world, the industry finds itself ill-equipped to compete. And only one higher education institution in SA offers a core textile curriculum. The University of Stellenbosch, though, is now offering its electrical engineering and polymer chemists a final-year add-on in textiles.

Anandjiwala is critical of the lack of competitive instinct. "It is a harsh statement, but the truth is the industry moans about the 'China factor' without doing its homework. Most companies are working below expected operating efficiency, using technology that gives no competitive advantage. The momentum in developing the export culture is slow to build up."

Textile Federation president Igsaan Salie is more circumspect. "To say the industry has not innovated would be incorrect, but perhaps this has not happened at quite the rate at which the environment has changed."

Others in the textile industry blame China for their woes. We believe that clothing and textile exports will continue to decline in 2005 as a result of the increased competition with China on the export markets," says Claassens.

According to an article in the trade journal *Pursuit*, between the months of January and September last year 7 602t of knitted fabrics were imported from China at an average cost of

R7,83/kg. During the same period 3 771t of readymade curtains were imported at an average price of R3,14/kg. "The local industry cannot compete with prices that are so far below the average price of the fibres," she says.

China became a full member of the World Trade Organization this year and its quotas limiting textile exports have been abolished. The result is a rapid acceleration of Chinese exports around the world.

The US is all too familiar with the devastation Chinese manufacturers can leave in their wake. A *Business Week* article that appeared late last year observed that "makers of apparel, footwear, electric appliances and plastic products, which have been shutting US factories for decades, know well the futility of trying to match the China price. It has been a big factor in the loss of 2,7m manufacturing jobs since 2000. Meanwhile, America's deficit with China keeps soaring to new records. It is likely to pass US\$150bn this year."

"The size of China's investment in its textile industry makes the economics of our industry look uncompetitive. Compound this with the appreciation of the rand and the depreciation of the renminbi and it is a difficult situation," says Salie.

SA's textile producers are not completely inert, though. Over the past five years many have begun capital investment, debt reduction and rationalization exercises. They are also putting a new effort into export and training to turn their businesses around. But the uncomfortable reality is that for many, the China challenge is imposing an unbearable burden.

Frustration at Government's perceived lack of desire to come to the industry's defence has led to sour relations between government and the various textile industry bodies. No attempts are being made to mend bridges. "It is not a case of them and us," says Salie. "We all have a job to do. Government, labour, the manufacturers and retailers – we need to work together to ensure that the industry is competitive. There are no easy answers and the realities of China's economics are scary."

Many companies are taking measures to ensure they remain competitive without government intervention.

Port Elizabeth company BreatheTex is another innovative company that is holding its own in global markets. It was formed to commercialize lamination technology developed by the textiles division of the CSIR. The technology enables the lamination of lightweight, breathable films to fabrics to produce high-performance, waterproof materials that allow air to pass through.

Other niches that SA companies are exploring with the CSIR include environmentally friendly fabrics. "We believe there is a niche, in Europe particularly, for these," says the Clothing, Textile & Environmental Linkage Centre's Pat Faure.

The CSIR is working with wild silk produced by worms found on the camelthorn and mopane trees throughout the North West province and in Namibia, Botswana and Zimbabwe.

Other focus areas include the production of fabric from pineapple fibres; organic cotton; and blending cotton with flax to add strength and luster to the fabric. "New technologies are being combined with traditional fibres to create economically and morally attractive alternatives to the man-made and mass-produced fibres we have used for several generations," says Faure.

Not to be outdone on the innovation front, GELVENOR is set to launch the world's lightest and thinnest parachute fabric. The company has dominated the market in parachute fabrics, but feels it needs to tighten its grip. "Parachutes have been woven exclusively in the US, Europe and SA for the past 35 years," says Coetzee, "but it will soon be a commodity product."

The new, ultra-thin fabric will keep the company ahead for another five years or so, but Coetzee, whose survival instincts are finely honed, is pragmatic. "You can't manage what you

don't understand; you can't understand it if you don't have a good system. We measure everything and we thrive on information." Coetzee also has a novel view of his business: "We don't sell fabric," he says. "We sell technology. If someone wants a piece of fabric to do something, we will sell them a solution. Part of this solution will include fabric we produce."

The international learning framework represents a broad overview of the international competitiveness challenges and how the system reinforces itself in dealing with challenges. The networking abilities, as shown in the real life example of textile firm GELVENOR, contribute to the quality of relationships that contribute to improved international competitiveness. In particular, small business relationship with TNCs is important. Also, the role of government in creating an enabling and supporting environment is important, even though it may be delayed and of a poor quality at firm-specific level.

1.5 THE PURPOSE OF THE STUDY

In order to achieve the proposed solution to the research problem, the main purpose of the study is to investigate international learning of small businesses that have a relationship with TNCs and are confronted by international competitiveness challenges in a transforming developing economy. The fundamental elements of this purpose comprise:

- (i) The identification and understanding of international learning processes for small businesses in a relationship with TNCs;
- (ii) The analysis of international learning processes based on international "best practices" that reflect organizational learning evidence;
- (iii) The quantitative identification and description of international learning processes for small businesses in transforming economies; and
- (iv) The development of a model that enhances a case for a rational and comprehensive programme that supports linkages between small businesses and TNCs and enhances small business international learning. The model differentiates between the strategic processes that can be influenced and those that require broader and long-term interventions. By complying with an

international learning model, small businesses' international competitiveness will be optimized.

1.6 THE RESEARCH OBJECTIVES

The purpose of this study will be attained if the following objectives are achieved:

- (I) To quantitatively identify and describe the international learning processes for small businesses linked to TNCs operating in a transforming economic environment;
- (II) To establish the level of importance of the international learning processes on these small businesses;
- (III) To establish and quantify the extent of implementation of these international learning processes;
- (IV) To determine, from the identified international learning processes, the correlations between importance and the extent of implementation of international learning processes in small business;
- (V) To differentiate between international learning processes that can be influenced in the short-term and those that require broad and long-term interventions; and
- (VI) To use the outcomes of identification, description, and differentiation as the basis of a model that supports programmes that reinforce linkages between small businesses and TNCs and enhances small business international learning.

1.7 THE RESEACH PROPOSITIONS

The following research propositions are motivated in Chapters 2, 3 and 4. The methodology used to formulate the propositions is reported in Chapter 5.

1.7.1 Proposition 1:

When there is a positive correlation between the level of importance and extent of implementation of international learning processes in small businesses linked to TNCs, confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of these processes will increase with an increase in the level of importance of these processes in these small businesses.

1.7.2 Proposition 2:

When there is a positive correlation between the level of importance and extent of implementation of perceptions of TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of international learning processes will increase with an increase in the level of importance of these processes in these small businesses.

1.7.3 Proposition 3:

When there is a positive correlation between the level of importance and extent of implementation of learning activities from TNCs in small businesses linked to TNCs, confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of international learning processes will increase with an increase in the level of importance of these processes in these small businesses.

1.8 THE DEMARCATION AND SCOPE OF THE STUDY

As the literature review reveals some gaps in the research on organizational learning in relation to small businesses operating in developing and

transforming economies, this study begins with a qualitative, descriptive, and exploratory approach. The study progresses to quantitative analysis in order to achieve the research objectives and attain the research purpose. Consequently, it was necessary to delimit the scope of the research as follows:

- (i) The study is limited to the theory of organizational learning, technology transfers and foreign direct investment, and international competitiveness in relation to small businesses operating in developing and/or transforming economies as revealed in the literature review.
- (ii) Due to gaps in the research on small business organizational learning in developing economies, the study augments the theory on organizational learning of businesses operating in transforming developing economies to small businesses. The following assumptions were made:
 - The theory on organizational learning of businesses operating in transforming and developing economies is applicable to small businesses;
 - The technology transfer through FDI and international competitiveness theory is applicable to small businesses operating in transforming developing economies;
 - The organization learning processes and strategies of small businesses that operate in transforming economies are dynamic and influenced by the firms' environments.
- (iii) No attempt was made to establish detailed relationships between small businesses and other external institutions such as educational institutions, local firms, and research organizations. This decision was taken due to the desire to focus on TNCs as, according to the literature review, they have oligopolistic powers in international markets and are channels or major agencies for technology transfers.

- (iv) The focus of the study was limited to the SMME manufacturing sector in KwaZulu-Natal; and within that limitation it was decided to undertake the research in Durban. The decision was taken, firstly, because manufacturing was technologically intensive and the major contributor to the economy of the province and the country. Secondly, Durban was the major contributor to KwaZulu-Natal's economy and the majority of the manufacturing firms were located in this area. Thirdly, Durban is a dynamic metropolitan and industrial area that is close to an international harbour and airport which makes it attractive to both TNCs and small manufacturing firms. Finally, Durban was the home of the researcher and, therefore, accessible with greater insight into the dynamics.

In addition, the following assumptions are made but not tested in this study. They have been taken as points of departure and fall beyond the boundaries of this study.

- Selected small businesses will serve to explore some general trends among small businesses in KwaZulu-Natal.
- TNCs are channels of technology internationally due to their oligopolistic powers in international markets.
- Owners or managers of small businesses will be available and willing to spare some time in order to conduct research. Managers of small firms will be able to answer questions related to learning, their business environment and competitiveness.

1.9 THE RESEARCH DESIGN

The research purpose and objectives, scope and demarcation of the study and limitation of the study are stated in this chapter. The research design is also described in this chapter. The research propositions, on the other hand, are derived from the scientific literature in Chapters 2 and 3 and are stated in this chapter. The research methodology is described in Chapter 4. The

findings, results, and discussion of results are presented in Chapters 4, 5, and 6, respectively.

1.9.1 Type of Study

Research serves different purposes such as to describe, to explain, and to explore phenomena (Cooper and Schindler, 1998:10).

This study follows formal qualitative and quantitative approaches. The qualitative part of the study was carried out through a series of personal interviews while the quantitative aspects were based on survey data carried out from small businesses. Since the study is new, it begins with a qualitative exploratory approach. The study goes on to quantitatively identify and describe specific small business international learning processes, and how they are implemented. The study then attempts to be explanatory and inferential, in that it went beyond description in order to achieve the envisaged solution to the research problem.

1.9.2 The Primary Data Collection Methodology

There are several approaches to primary data collection methodology such as the observation approach or the communication approach. The communication approach questions or surveys people and records their responses for purposes of analysis (Cooper and Schindler, 1998:287).

This study used the communication approach to collect the primary data. The study used a questionnaire approach to business owners or managers to obtain the required data regarding the international learning processes. The data was dealt with qualitatively and quantitatively. The qualitative data was obtained through semi-structured interviews, while the quantitative data was obtained through a self-administered direct survey method.

Due to the exploratory nature of the research on organizational learning for small businesses in transforming developing economies, this study began with a qualitative approach using interviews, which provided important themes which were then explored in the literature and used as input into the final instrument.

1.9.3 The Research Plan

This study followed a research plan consisting of nine stages outlined below:

Stage 1: The formulation of the research problem

The research problem was formulated from practical and theoretical literature and is reported in Chapter 1.

Stage 2: The identification of the research purpose and the research objectives

Based on the research problem, the research purpose and objectives were identified and are reported in Chapter 1.

Stage 3: The literature review

A detailed literature review was performed on organizational learning, technology transfers, and international competitiveness in relation to small businesses in transforming developing economies. The literature review stage is reported in Chapters 2, 3 and 4.

Stage 4: The qualitative approach

Exploratory qualitative data was collected through semi-structured personal interviews with a representative of the Durban Manufacturing Advisory Council (DUMAC) and two owners of manufacturing firms (automotive

manufacturer and a clothing firm). Key themes that emerged from these interviews informed the questionnaire development. This stage is reported in Chapter 5.

Stage 5: The design of the instrument

Using the outcomes of the literature review and interviews, a draft questionnaire was developed that ensured that the purpose, objectives, and solution to the research problem are met. The questionnaire was evaluated by a panel of experts during a research colloquium at the Durban University of Technology as well as subjected to presentations at various national and international conferences. This stage is reported in Chapter 5.

Stage 6: The pilot study

The pilot questionnaire was distributed to ten randomly selected respondents that have a mixed profile in line with the final sample. The results of the pilot study were analysed to ensure reliability and validity and were reported in Chapter 5.

Stage 7: The development of the research propositions

Based on the literature review, interviews, expert panel evaluation outcomes, and the results of the pilot study, research propositions were developed. The methodology used in developing research propositions is reported in Chapter 5 and are motivated and reported in Chapters 2,3 and 4.

Stage 8: The refinement of the final questionnaire and its administration

The results of the pilot study were used to refine the questionnaire. The final questionnaire was then rolled out in random probability sample of respondents. This stage is reported in Chapter 5.

Stage 9: Data Analysis

A quantitative data analysis was performed using the Statistical Package for Social Sciences (SPSS 11.5). The stage is reported in Chapter 6.

1.10 THE OUTLINE OF THE THESIS CHAPTERS

The structure of this thesis follows a traditional approach in thesis writing, beginning with literature review, research methodology, analysis of results, discussion of results, and ending with conclusions and recommendations (Mouton, 2001:121-125). The chapters in this thesis are outlined as follows:

1.10.1 Chapter One:

This chapter introduces the study stating the research problem, purpose, objectives, and propositions. The chapter also outlines the study's demarcation and scope, and describes the research design. Finally, it provides an outline of chapters as provided in the final report.

1.10.2 Chapter Two:

This chapter presents some insights from the literature based on the practical systems perspective. The framework for the systems view of small business international competitiveness challenges adopted in this study is discussed. The chapter initially defines small businesses and their characteristics in South Africa. Furthermore, the definition of small business international competitiveness and challenges are discussed. Challenges that are facing small businesses are to do with their environment and the support available. Looked at broadly, the competitiveness of the South African economy is critically discussed.

1.10.3 Chapter Three:

The chapter looks at various international competitiveness challenges facing small businesses in the context of South Africa. Examples of key sectors

affected by international competitiveness challenges are discussed, namely, the textile and clothing, and the automotive sectors.

The role of government support initiatives is also critically discussed. Finally, the literature search was conducted for international best practice on linkage programmes. A gap was found in the South African literature regarding the small business organizational learning in the context of international competitiveness and is discussed.

1.10.4 Chapter Four:

The chapter aims to review theoretical literature on organizational learning from early work on the difference between organizational learning and learning organization, and single and double loop types of learning. The convergence of the literature is discussed and the nature of learning in the context of small businesses.

The literature on organizational learning cannot be separated from the literature on technology transfers and the role of foreign direct investment through TNCs in the context of developing countries. The FDI theory development from as early as 1960 until recently is outlined. The chapter finally explicates the emerging literature on the role of TNCs in small business organizational learning. This is done by exploring and synthesizing the literature on the role of entrepreneur in small businesses and the significance of networking abilities.

1.10.5 Chapter Five:

Chapter five describes the outcomes of the different elements in the research stages. The methodology used for theory building and proposition development is described and explained. The qualitative and quantitative data analysis methodologies are described. Furthermore, the design of the questionnaire, nature of measurement, and sampling methods are explained. The pilot study methodology and results are reported.

1.10.6 Chapter Six:

This chapter presents the data collected. Cronbach values and histograms are used to test reliability and validity of the data obtained from the final questionnaire. The chapter presents data in a systematic approach to all process clusters. The chapter finally uses aggregated data, summing up importance and implementation variables and ranks them according to percentage levels to describe how small businesses, linked to TNCs, internationally learn.

1.10.7 Chapter Seven:

The chapter discusses the results of the research. The chapter initially provides a quantitative description of the importance and extent of implementation of each process cluster using a comparative analysis of the means and through a trend analysis. The chapter further analyses the importance and the implementation of international learning processes amongst small businesses using correlation analysis.

1.10.8 Chapter Eight:

Major findings of the study are presented and conclusions and recommendations for future research are outlined. The chapter begins by showing how the research problem, purpose, objectives, and propositions have been satisfactorily addressed. The chapter, then, makes conclusions and outlines the theoretical model of international learning derived from the results of this study. The chapter finally makes recommendations for future research as well for small business practice.

1.10.9 Annexures:

The selected annexures serve to provide further insight into the research processes of this study. The annexures contain the pilot questionnaire, the final questionnaire, and all the relevant data obtained from the analysis of the responses.

1.11 CONCLUSION

This chapter introduced the study, stated the research problem, the research purpose and objectives, the research proposition, provided a case study to emphasize the system's view of international learning, and demarcated and outlined the scope of the study. The chapter also described the research design and provided the chapter outlines.

The next chapter consists of a detailed literature review, which provides a theoretical and practical background to the study in order to motivate and justify the research propositions developed.

CHAPTER TWO
SYSTEMS VIEW OF SMALL BUSINESS INTERNATIONAL
COMPETITIVENESS CHALLENGES IN SOUTH AFRICA:
INSIGHTS FROM THE LITERATURE

CHAPTER 2: SYSTEMS VIEW OF SMALL BUSINESSES' INTERNATIONAL COMPETITIVENESS CHALLENGES IN SOUTH AFRICA: INSIGHTS FROM THE LITERATURE

2.1 INTRODUCTION

The aim of this chapter is to review secondary literature on small businesses' international competitiveness challenges in South Africa using a systems approach.

The chapter commences with the definition and characterization of small businesses in South Africa. The literature indicates the vast international competitiveness challenges confronting small businesses in South Africa and pointed to the need for comprehensive small business support which was found to be inadequate. The literature also indicates the inadequacy of traditional organizational learning theories in the context of small businesses facing international competitiveness challenges that would enable small businesses to adapt and take advantage of international networks.

In general, the literature review reveals a gap in the literature and research on small businesses international learning in a developing country environment such as that of South Africa. Based on the literature review and practical experience, propositions are generated as described in Chapter 5.

The synthesized literature revealed the significance of the study in practice for small business international competitiveness and for small business theory.

The international competitiveness challenges confronting small businesses such as the rise of China and the impact it is having on South African industries such as textile and clothing, which is largely driven by small businesses, provided justification for the focus on small businesses particularly in the manufacturing sector's textile and clothing as well as the automotive sector in chapter 3.

2.2 SMALL BUSINESSES DEFINITION AND CHARACTERISATION

It is important to define and characterize small businesses in South Africa as a prelude to literature review. The definition and characterization of small businesses varies internationally, and in South Africa. There are a number of views regarding the size, nature, and contribution of small businesses in the national economy. In South Africa the debate is complicated by the population diversity and income inequalities as discussed below.

2.2.1 The Definition of a Small Business

A small business could be defined on the basis of the number of people employed, annual turnover, and asset value (Robinson and Pearce, 1984:80). The National Small Business Act of 1996 in South Africa provides a detailed definition of small businesses based on classification according to Small, Medium, and Micro Enterprises. These enterprises are classified according to sectors, number of people employed, annual turnover, and value of fixed assets (see table 2.1 below). For example, in the manufacturing sector, small businesses are classified as Medium, Small, Very Small, and Micro. They range from Medium companies with 500 employees, R25million annual turnover, and R7.5 million fixed assets to Micro companies with 5 employees, an annual turnover of R150 000, and fixed assets of about R100 000.

Viewed from the point of view of development agenda, the definition of small businesses has been limited to very small and micro enterprises. This sector has come to be known as Very Small and Micro Enterprises (VSMEs) or non-VAT registered businesses which employ less than 10 people.

Table 2.1: Criteria for Classifying Enterprises

Sector	Size-class	Total full-time equivalent employees	Total annual Turnover Rm	Total gross asset value (fixed property excluded) Rm
Agriculture	Medium	100	2.80	2.80
	Small	50	1.25	1.25
	Very Small	10	0.25	0.25
	Micro	5	0.15	0.10
Mining and quarrying	Medium	200	40.00	30.00
	Small	50	10.00	7.50
	Very Small	10	4.00	3.00
	Micro	5	0.15	0.10
Manufacturing	Medium	500	25.00	7.50
	Small	50	6.00	1.75
	Very Small	20	2.00	0.60
	Micro	5	0.15	0.10
Construction	Medium	200	18.00	3.50
	Small	50	4.00	0.80
	Very Small	20	0.50	0.20
	Micro	5	0.15	0.10
Retail and Motor Trade and Repair Services	Medium	100	25.00	3.00
	Small	50	12.50	1.50
	Very Small	10	2.50	0.25
	Micro	5	0.15	0.10
Wholesale Trade, Commercial Agents and Allied Services	Medium	100	70.00	12.00
	Small	50	35.00	6.00
	Very Small	10	6.00	1.00
	Micro	5	0.15	0.10
Catering, Accommodation and Other Trade	Medium	100	8.00	1.50
	Small	50	5.00	0.60
	Very Small	10	1.00	0.15
	Micro	5	0.15	0.10
Transport, Storage and Communications	Medium	100	12.00	3.00
	Small	50	6.00	1.20
	Very Small	10	1.20	0.25
	Micro	5	0.15	0.10
Finance and Business Services	Medium	100	10.00	2.00
	Small	50	3.00	0.60
	Very Small	10	0.50	0.20
	Micro	5	0.15	0.10
Community, Social and Personal Services	Medium	100	9.00	4.50
	Small	50	4.50	2.25
	Very Small	10	0.45	0.40
	Micro	5	0.15	0.10

Source: RSA (1996)

According to the study by Statistics South Africa, there are 2.284 million people who own VSMEs in South Africa (Lehohla, 2002:4). About 616 000 were living in Gauteng followed by 580 000 who were living in KwaZulu-Natal. More than two thirds were operating in wholesale and retail trade (69.4%) followed by manufacturing at 9.2%. Even though most government efforts are directed at the VSME sector, ironically little is known about this sector.

The statistics indicate the strong dominance of medium businesses. However, given the official definition, the SMME sector has consistently proved beyond reasonable doubt that it is a significant component of the economy both in terms of its contribution to national income and employment. Despite lack of consistent and credible data (Rogerson, 2004:768) on SMMEs, the Department of Trade and Industry (DTI), through Ntsika (now SEDA), compiles data presented in their *State of Small Business in South Africa*. Nevertheless, the credibility of the statistics on SMMEs still leaves much to be desired when compared to other national databases such as Statistics South

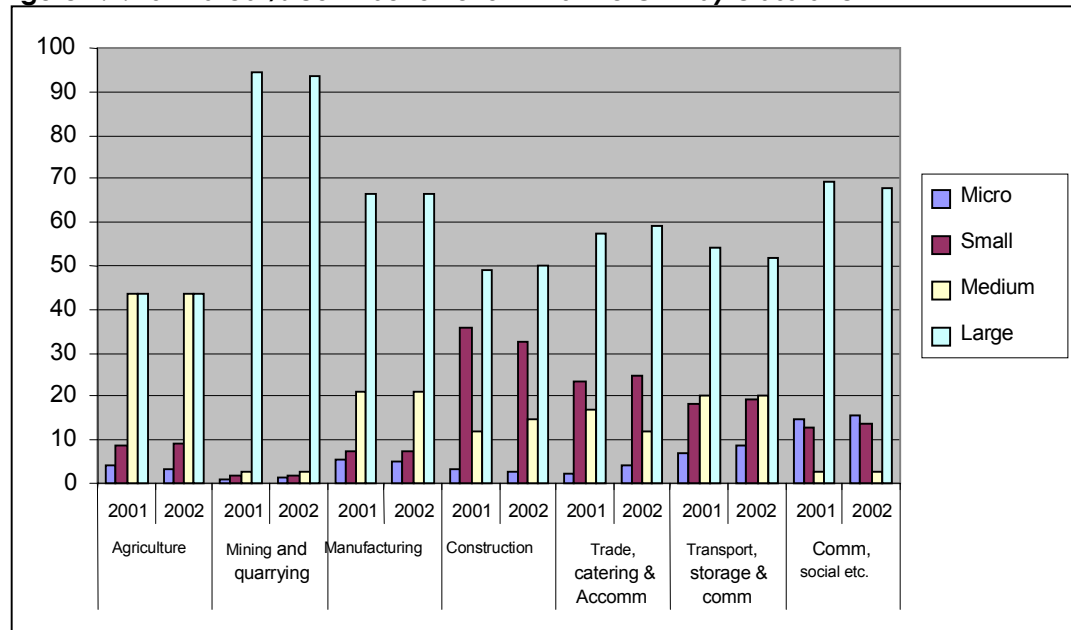
Africa, South African Reserve Bank, and the South African Receiver of Revenue (Berry, *et al.*, 2002:13).

For the purpose of this study, SMMEs and small businesses shall have one meaning as the study defines a small business in terms of the Small Business Act of 1996 as defined above.

2.2.2 The characteristics of a Small Business

The characteristics and attributes of small businesses reflect those of the entrepreneur or the business owner. In many respects, small businesses have their own identity and are not a replica or smaller version of big business (Curran and Blackburn, 2001:5; Jones and Tilley, 2003). It is pointed out that the differences between big business and small business emanate from unique issues that are related to size such as streamlined operations, entrepreneurial and risk oriented leadership orientation, social and entrepreneurial networking, flexible planning, innovativeness potential, direct and personalized management, niche markets, and resource limitations (Boone and Kurtz, 1996:125; Taylor and Panza, 2003).

The impact of size of the small businesses and their potential is reflected in their performance. The study focuses on small businesses in South Africa, with particular interest in manufacturing firms.

Figure 2.1: Estimated % contribution of SMMEs into GDP by class-size

Source: Ntsika 2002 and 2003

The contribution to GDP by SMMEs has been significant. Figure 2.1 indicates the strong contribution of the SMMEs in sectors such as agriculture where medium enterprises contribute equally with large enterprises between 40% and 50%. There is a strong contribution by small businesses in the construction, trade, catering and accommodation; transport, storage and communication; community and social development. In all these sectors, small businesses contribute between 10% and 40% to GDP. Notable in manufacturing, where there is significant value added, only medium enterprises contribute significantly to the GDP at $\pm 20\%$.

The contribution of SMMEs to the employment scenario provides a completely different picture indicating the nature of SMMEs as labour intensive operations (Table 2.2). In all sectors, SMMEs have a higher contribution to employment than large companies except in Mining and Quarrying. SMMEs contributed between 40% and 85% to employment in 2001 to 2003. The highest contribution to employment by SMMEs is observable in construction and wholesale trade. The construction sector is still expected to have an increased contribution from 2004 onwards with

the Government's implementation of the Expanded Public Works Programme.

Table 2.2: Estimated Contribution of SMMEs to Employment

	2002		2003		2004	
	SMMEs	LARGE	SMMEs	LARGE	SMMEs	LARGE
Agriculture	71	29	81	19	80	20
Mining and Quarrying	3	97	21	79	18	82
Manufacturing	43	57	57	43	55	45
Construction	63	37	16	84	85	15
Wholesale & Trade	41	59	72	28	85	15
Transport, Storage	60	40	65	35	63	37
Community, social etc.	65	35	63	37	64	36

Source: Ntsika, 2002, 2003, & DTI, 2004

The number of small businesses (formal and informal) is estimated at 2.7 million (formal: 426 000 and informal: 2.294 million). Gauteng has the highest proportion of formal small businesses compared to other provinces at 199 000, followed by Western Cape. Provinces that have a strong rural population component have a greater number of informal businesses such as in KwaZulu-Natal, Eastern Cape, North-West, Mpumalanga and Limpopo (DTI, 2004:45).

According to the DTI (2004:44), only 7% (that is 89,825 of 1,290,569) of the formal small businesses are involved in manufacturing. Most of the formal entities are owned by the white population group. It is estimated that 67% of the formal businesses are owned by whites. The manufacturing within the SMME sector is dominated by medium businesses, contributing between 20% and 25% to the GDP. The reason could be that the manufacturing sector is highly capital intensive and the demands of mass production require production activities to be carried out at a large scale. Also, the international competitive pressures have seen diminishing contribution of local small firms to the GDP.

2.3 SYSTEMS VIEW OF SMALL BUSINESSES' INTERNATIONAL COMPETITIVENESS CHALLENGES

The literature relating to small business international competitiveness points to a connection between size and performance of the small businesses and their contribution to the economy. On the other hand, a turbulent environment affects small businesses significantly because of their limited human and capital resources in relation to their counterpart in big businesses (Ahire and Golhar, 1996:1; and Wilkes and Dale, 1998:731). The literature on international competitiveness attributes the failure of small businesses to resource limitations (Buratti and Penco, 2001; Jones and Tilley, 2003; James, 2003; and Man and Chan, 2002; 1998).

The seriousness of the challenges faced by businesses, particularly in the manufacturing sector, is taken into account from the post 1994 period. The debate regarding the solutions to the international competitiveness challenges cannot be ignored. Hence, a framework that seeks to systematically identify the causal loops from a perspective of a small manufacturing firm is necessary. Given the likely further liberalization of the South African trade regime and the continued intensification of foreign competitions in different sectors of the economy, the relevance of this study is crucial.

South Africa has become part of the global community and needs to participate in bilateral and multilateral relationships with the rest of the world. Since 1994, South Africa has participated in various rounds of trade negotiations including her main trading blocks, America and Europe. South Africa is a signatory to the General Agreement on Tariffs and Trade (GATT) (now World Trade Organization (WTO)), which has seen the government relaxing a number of import restrictions imposed during the previous regime (World Bank, 2005). As a result, over a period from 1994 to 2004, South African businesses have witnessed the proliferation of various products that have challenged local markets in almost all main industries such as textile and clothing, leather, furniture, and pharmaceuticals. Small businesses, being at the periphery of industrial competition, have suffered significantly losing

market grip because of cheaper and better quality products from other countries. Proliferation of superior and innovative products has also meant the creation of new markets in South Africa substituting old products. Currently, there are no official statistics on the impact of trade liberalization (SARS, 1997-2003).

Numerous research studies (see TIPS and former University of Natal's Industrial Participation project research papers from 1994 to 2001) conducted at workplaces in various industries indicate the backwardness of production techniques, machinery, lack of capacity and innovativeness, more so in sectors such as clothing and textile, and automotive. Value chains in most industries are not internationally competitive in areas such as inventories (Just-in-Time); efficiencies, quality, and customer responsiveness. The small businesses are better placed to be more responsive to changes to production techniques because of the possible lower costs of reengineering a small business.

The competitive factors are critical within a manufacturing environment. Small businesses in South Africa have not been exposed to international standards of efficiency, quality, customer responsiveness and innovativeness in their respective industries. A number of studies have been conducted through the Department of Trade and Industry (DTI)'s Industrial Restructuring Programme and Trade and Industry Policy Strategy (TIPS).

Key to challenges of globalization facing the South African economy is technological advancement from Western and Asian economies. Advancement in Information, Communication, and Electronics Technology (ICT and E) has drastic implications in as far as the rules of international competition are concerned. No longer are countries relying mainly on natural resources and on the strength of mining, agriculture and manufacturing sectors but on the strength of innovation, the basis of the knowledge economy. For small businesses to exploit opportunities presented by relationships with TNCs, they need to develop technology-intensive capabilities (Lall, 2003:56).

In the South African context, the term international competitiveness is difficult to apply given the broad variety of views and angles at which various scholars analyze international competitiveness. Key indicators of South Africa's international competitiveness are discussed and South Africa's position in relation to a selected group of developing countries is presented.

Given the enormous international competitiveness challenges confronting small business in South Africa, a comprehensive approach at evaluating the impact of small business support in South Africa is required. Quality evaluation of the small business support impact has not received much attention in spite of the collapse of several initiatives.

It is observed that the small business development support is generally not well organized and weak in South Africa. Since the publication of the 1995 government white paper on small businesses and the subsequent enactment of the Small Business Act of 1996, the small business support landscape has been characterized by activism, intention, and leadership at the macro level. The intentions, at macro level, are slowly but positively expressed. However, the implementation is weak at an institutional level.

The sustainability and effectiveness of government interventions are questionable at operational levels, for example, the MIDP in the automotive sector. The micro or firm level is characterized by frustration. There has been overwhelming dissatisfaction among SMMEs and other stakeholders about the effectiveness of Government policy and implementation in the support of SMMEs. Most surveys show that most of these agencies are not known and their service quality leaves much to be desired (for example see, NASRA, 2004).

To identify some of the small business challenges related to international competitiveness, two manufacturing sector case studies are analyzed focusing on the overall performance, in general, and at firm-level, in particular.

Finally, the implications of the state of international competitiveness on small businesses are analyzed.

It is observed that international competitiveness challenges exist and affect small businesses adversely and also the challenges are generic at a firm-level.

Systems approach in viewing the problem as discussed in chapter 1 is used. The existence of international competitiveness challenges creates a causal loop circle and represents a reinforcing effect at small business support and TNC level within the systems perspective as illustrated in Figure 2.2.

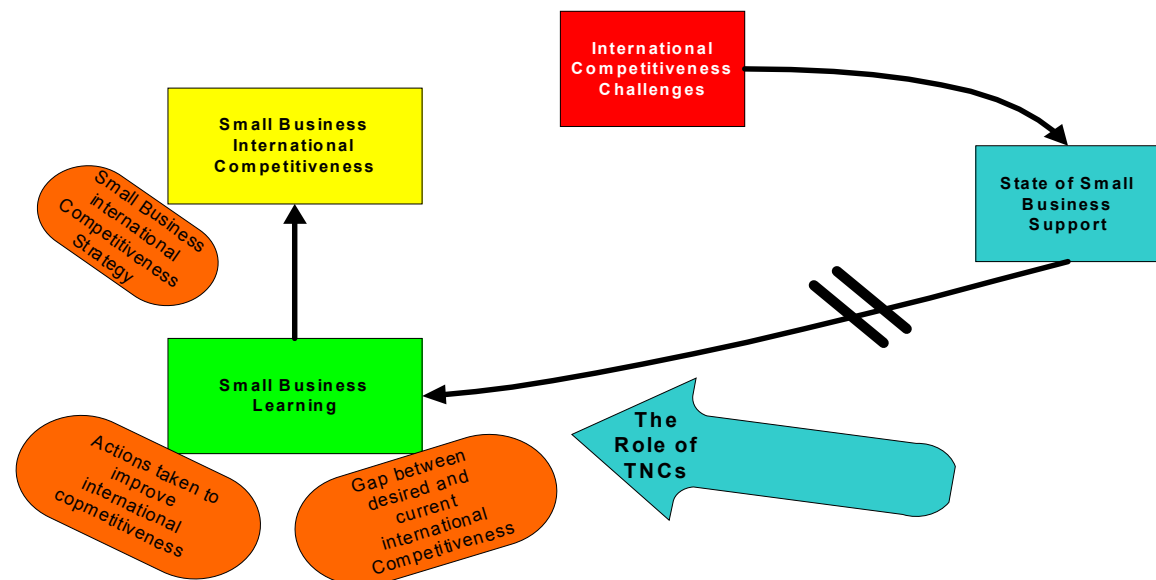


Figure 2.2 Systems Based International Learning Framework

The international competitiveness challenges facing small businesses result in increased support response by small business agencies and government, as observed in the problem scenario in chapter one and in this chapter. Due to the bureaucratic nature and other conditions under which government operates, the support it gives to both small business and its support agencies is normally delayed (see Section 3.4). In the context of small business international competitiveness, the support, among other things, would include facilitating and reinforcing linkages between small businesses and TNCs. The

increased influence of the TNCs on small business increases the Small Business Learning which improves international competitiveness.

It is observed in this chapter and in chapter three that small business learning, referred to above, is not an event or a simplistic process. Within a small business, there is a complex process which plays a balancing effect (see figure 2.2 above). The process of learning is guided by the desired small business international competitive standards which are informed by the international market demands as well as specific demands from TNCs through linkages. The TNCs could play a critical 'mentoring' or 'guardian' role and assist in expediting appropriate standards. The extent of learning within small business will be conditional to 'gaps' between the desired international competitiveness standard and the actual level of competitiveness. Critically important are actions that are taken by small businesses in closing the gaps. Should optimum learning be achieved, the impact could be observed through improved implementation of international competitiveness strategies, which reflect capacity and capabilities. Consequently, small businesses can improve international competitiveness. The improvement in small business international competitiveness will have a positive impact for stakeholders and role-players and results in a vicious circle should the industry or selected small businesses in their industry reach inertia.

2.4 INTERNATIONAL COMPETITIVENESS

Like small businesses themselves, international competition is defined differently according to various contexts. It is, therefore, important to define international competitiveness in the South African context of small businesses as well as in the context of this study.

2.4.1 Understanding International Competitiveness

South Africa is in a peculiar position as an economy. It has world class cities with modern infrastructure and industrial capabilities. On the other hand, the country is characterized by high levels of unemployment, highly skewed income distribution, high poverty levels, and the majority of the population living in rural and township underdeveloped areas. Furthermore, the country has high levels of illiteracy and unskilled labour. The existing dichotomy has come to be characterized as, the former “first economy”, and the latter “second economy”. Similar features have characterized the small business sector. For example, the largely black owned retail and informal sector has been underdeveloped, while the white owned businesses are in the formal sector, particularly manufacturing, and high technology production. Given this scenario, an attempt to understand the concept of international competitiveness is needed.

Understanding competitiveness as a country phenomenon has always been a grey area, yet it is a commonly brandished terminology in economics gaining dominance and significance as early as 18th and 19th century in the work of classical economists such as Adam Smith, and David Ricardo (Reiljan, Hinrikus, and Ivanov, 2000:6). There is no agreement of what competitiveness means. Others refer to economic growth, exchange rate, costs, entrepreneurial levels, and others to a country’s technological leadership (Frohlich, 1989:22; Boltho, 1996:2, Golub, 2000:8-9). During the 1980s, a ‘modern brand’ of competitiveness was pioneered by Michael Porter in his famous “Competitive Advantage of Nations” (Porter, 1985, 1990). Porter’s work on competitiveness informed much thinking about firm and industry level competitiveness in the context of internationalization behaviour of multinational enterprises. As a result, thinking of competitiveness at a firm-level is, nevertheless, well understood although it differs from industry to industry value chains and size of the firm. Defining competitiveness at small firm level is a recent phenomenon (Lall, 2000).

However, an all encompassing generic definition is the one that reflects characteristics of competition and its range. Reiljan et al. (2000:10–12) look at competition as an ability to co-exist in the conditions of ‘conflict of interest’ characterized by three levels. First, the ability to survive is the lowest level of competitiveness where a firm or a country passively reacts to its environment without changing or developing itself. Secondly, the ability to develop is regarded as a medium level of competitiveness where a firm or a country actively reacts to its environment and in the process changes itself and improves. Finally, the superiority level is regarded as the highest form of competitiveness where a firm or a country is able to perform better than its competitors; and influence the competitive environment through quality and efficient development.

Furthermore, Reiljan *et al.* (2000:12) define competitiveness at three ranges as; local or regional competition, internal or national, and international or global competition. Local competition refers to the supply of services or products limited to the closest surroundings (village, city, or province). Normally, in the local competition, the products or services are related to the local needs of the market, whereas the internal or national competition is restricted by the foreign trade requirements, in other words, supply of products or services by domestic companies within the borders of a country. Finally, international competition means suppliers of products or services might come from all over the world. The term, international competitiveness means, according to Garelli (1997:1), “the stage of competitiveness is tested only in the world market”.

Organization for Economic Cooperation and Development (OECD) defines a country’s international competitiveness to be the degree to which a country can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously expanding the real incomes of its people over the longer term (Pistorius, 2001:9).

Competitiveness consists of economic entities and role-players that are able to be aware of their position in order to improve or maintain it. Economic

entities are organizations, industry, sector, institutions, regions, country, and the continent, among others. Small businesses, as economic entities, are indispensable to competition at different levels, particularly, in the context of globalization, which poses a challenge to all economic entities in the advancements in trade, logistics, and information, communication and electronics (ICT&E); to which all entities must respond.

Clearly from this discussion, countries and entities need to be aware of their positions within the competitiveness terrain compared to other players in order to be able to improve or maintain them. It, therefore, makes sense to understand competitive matters at a country level initially as it provides an appropriate context for industry and firm level players.

2.5 SOUTH AFRICA'S INTERNATIONAL COMPETITIVENESS CHALLENGES

South Africa's performance during the period 1995 to 2003 compared to other developing countries shows a mixed picture of poor performance and yet a huge potential. It is the period of poor performance because of the current apartheid inherited state of affairs in terms of existing underperformance in various sectors of the South African economy. On the other hand, a huge potential exists in terms of transformation and 'piloting' of policies for economic development and growth. These policies include, among others, Growth, Employment, and Redistribution (Gear) strategy, Reconstruction and Development Programme (RDP), as well as various pieces of legislation that aim at advancing the majority of the population in terms of skills, technology, and infrastructure. The subject of critically analyzing and evaluating various policies implemented thus far is not the focus of this study.

In spite of the various measures that are being put in place, the current state of South Africa's international competitiveness is weak as measured by various authorities such as International Institute for Management Development (IMD)'s World Competitiveness Yearbook (WCY) and World Economic Forum (WEF)'s Global Competitiveness Report (GCR). The WCY

measures such variables as vitality of entrepreneurship, abundance of technology, size of the capital markets, mobility of the workforce, and quality of the infrastructure. South Africa was ranked 42nd for several years until year 2000 when it improved to 39th position out of 47 countries (Pistorius, 2001:11). South Africa's position has deteriorated to position 49 in 2004; and a slight improvement to position 46 in 2005 out of 60 countries (IMD, 2005:5).

A similar picture of weak international competitiveness is observable when looking at South Africa's performance as recorded in the WEF's Global Competitiveness Report. The World Economic Forum defines competitiveness as "that collection of factors, policies and institutions which determine the level of productivity of a country and that, therefore, determine the level of prosperity that can be attained by an economy" (WEF, 2005, page xiii). It is argued that the GCR measures the level of attractiveness of a country and can be used by investors and policy makers (Pistorius, 2001:11). This definition augurs well for South Africa's aim of achieving goals of economic prosperity and improved quality of life (RSA R&D Strategy, 1995). The GCR ranking results have critical components, the Growth Competitive Index (GCI); Technology Index (TI); Public Institutions Index (PII); Macroeconomic Environment Index (MEI); and Business Competitive Index (BCI). South Africa is ranked 42, 46, 47, 31, and 28, respectively, in these indicators. In a comparison with a mixture of 8 developing countries, South Africa can be ranked number 4. South Africa lags behind Malaysia, Chile, and Thailand (see Table 2.3 below).

Table 2.3: Comparative international competitiveness indicators for selected countries

	<i>Position</i>	<i>GCI</i>	<i>TI</i>	<i>PII</i>	<i>MEI</i>	<i>BCI</i>
Brazil	9	65	50	70	79	49
Chile	2	23	35	22	15	29
China	6	49	64	56	33	57
India	5	50	55	52	50	31
Malaysia	1	24	25	29	19	23
Mauritius	7	52	47	55	59	52
Mexico	8	55	57	71	43	60
South Africa	4	42	46	47	31	28
Thailand	3	36	43	41	26	37

GCI Growth Competitiveness Index

TI Technology Index

PII Public Institutions Index

MEI Macroeconomic Environment Index

BCI Business Competitive Index

Source: Selection from WEF's Global Competitiveness Report (World Economic Forum, 2005)

However, there is a need to evaluate South Africa's competitiveness internationally in terms of key globalization variables. South Africa's standing amongst developed and developing countries is of critical importance because it enables policy makers to have an appropriate comparative view of policy and its impact in competitive economies. These country international competitive variables include, among others, GDP growth rate, manufacturing value add, high technology contribution, export growth, and levels of entrepreneurships (World Economic Forum, 2005).

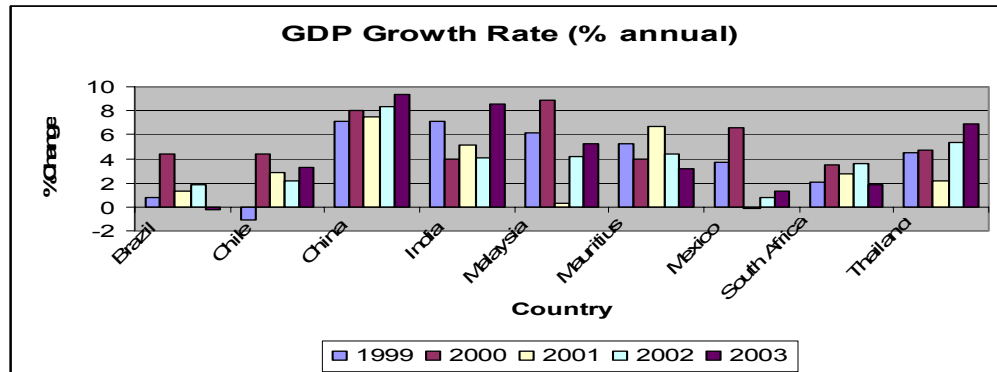
Some of the factors contributing to the performance of South Africa are identified. These factors include, among others, GDP growth rate, industry value add, high technology contribution, and export growth.

2.5.1 GDP Growth Rate

South Africa experienced fluctuating annual GDP growth rates between 2% and 3.5% over the period 1999 to 2003. China has consistently experienced an annual GDP growth rate of more than 6% from 1999 (figure 2.3). India has

consistently performed above 4% and exceeding 8% in 2003, a phenomenal growth rate.

Figure: 2.3 Comparative GDP growth rate among selected countries

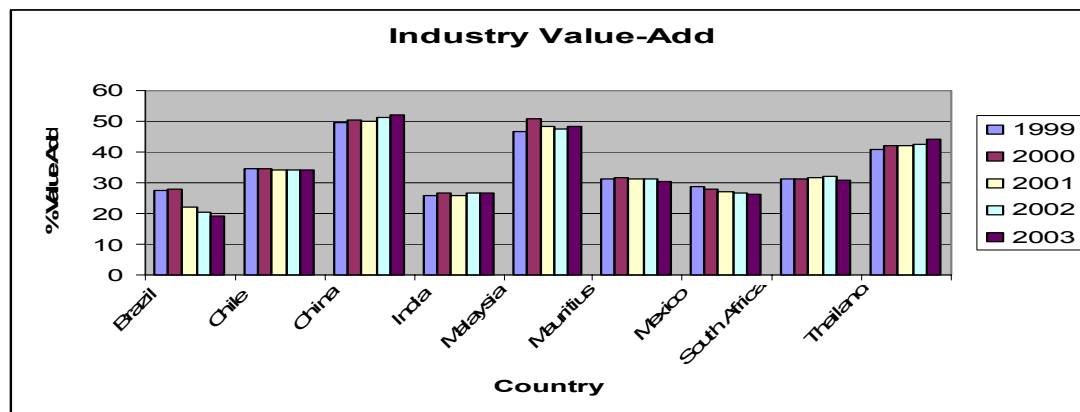


Source: Created through World Bank's World Development Indicators database online (World Bank, 2005)

South Africa's economic indicators from late 2003 to 2005 are showing increasing possibilities for a 4% and above GDP growth rate (World Bank, 2005). The drastic decrease in the interest rate until very recently and proportionate strengthening of the Rand compared to major currencies such as the US dollar, and the British pound, provides some indication at the confidence and investor sentiments about the South African economy.

Industry Value-Add

The role of industry in the economy is critical as it adds value to production of a country through activities such as beneficiation. Countries in Africa are known to produce and export primary raw materials.

Figure 2.4 Comparative Industry value among selected countries

Source: Created through World Bank's World Development Indicators database online (World Bank, 2005)

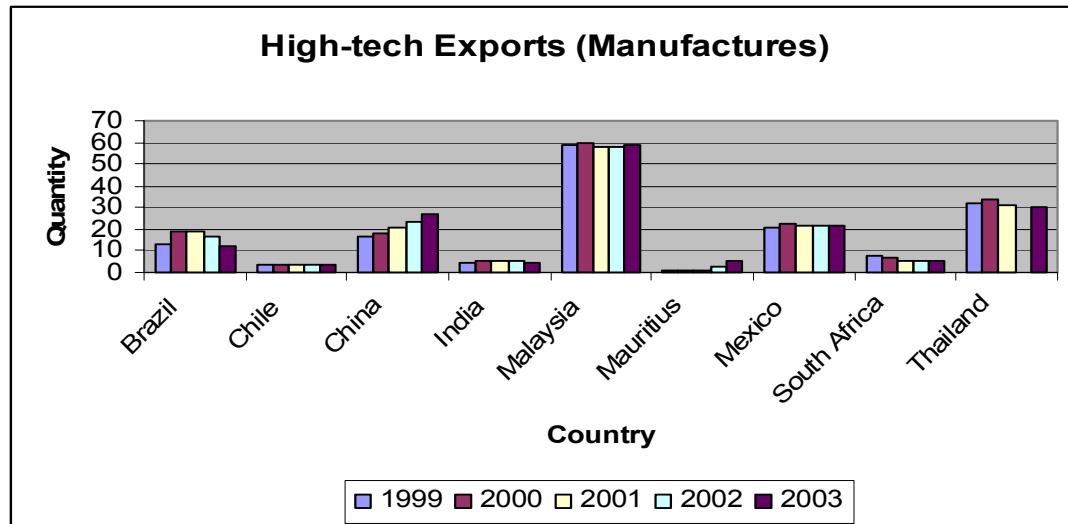
The ability to track a country's industrial progress and competitiveness in terms of industry value add is important. Compared to countries that can be regarded as equivalent to South Africa in terms of development, the industry value add for South Africa is quite competitive given its consistent performance at about 30% from 1999 to 2003 (see figure 2.4 above). The status of the economy is a strong reflection of South Africa's industry, particularly its contribution of the "first economy's" manufacturing sector. However, the industry value-add performance is not sufficient compared to Asian major competitors; China, Malaysia, and Thailand all perform above 40%. It is interesting to note India's lower, yet consistent, industry value-add (below 30%) which is a contrast of their annual GDP growth rate (World Bank, 2005). The intricacies and demands of the knowledge economy through globalization require countries to capitalize on high technology products and innovations.

High Technology Contribution

High-technology contribution is linked to outcomes such as sustainable income, job creation and international competitiveness in the global economies. The success with which Asian countries have been able to adapt and adjust to frontiers of high technology has enabled those countries to leapfrog growth and development in what came to be known as the "Asian miracle". The contribution of high technology into exports is strongly linked to industry value-add in today's knowledge and technology intensive economies.

The contribution of high technology is a strong indication of the quality and competitiveness of the economy (World Bank, 2005).

Figure 2.5: Comparative hi-tech export (manufactures) in selected countries



Source: Created through World Bank's World Development Indicators database online (World Bank, 2005)

The leading countries in terms of high technology export manufactures in the developing world are Malaysia, Thailand, China, Mexico, and Brazil (see figure 2.5). These countries have exported 60%, 30%, 25%, 20%, and 15% on average, respectively, from 1999 to 2003. South Africa performs below 10% in comparison with countries such as Chile, India, and Mauritius (World Bank, 2005).

Export growth

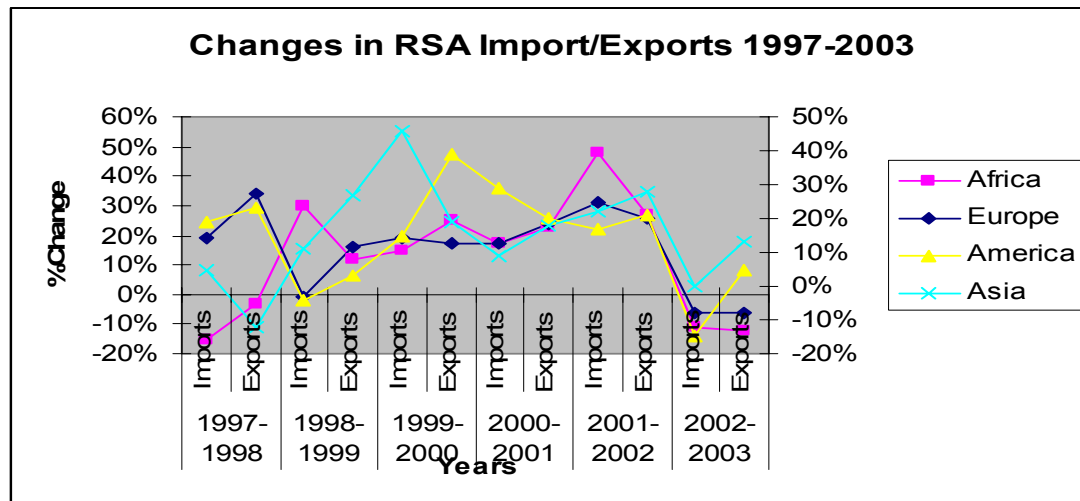
The instability in South Africa's export performance could be linked to various factors including exchange rate volatility, the global oil crises, and financial market collapses in Asia during the late 1990s. Moreover, the ongoing disputes over trade liberalization around primary products such as agriculture have meant that countries like South Africa are not able to advance their products in heavily subsidized agricultural societies in Europe and America (South African Revenue Services, 2005).

Table 2.4: South Africa Exports and Imports to four continents

		Africa	Europe	America	Asia
1997-1998	Imports	(15%)	19%	19%	5%
	Exports	(3%)	34%	23%	(12%)
1998-1999	Imports	30%	(0.7%)	(4%)	11%
	Exports	12%	16%	3%	27%
1999-2000	Imports	15%	19%	15%	46%
	Exports	25%	17%	39%	19%
2000-2001	Imports	17%	17%	29%	9%
	Exports	23%	24%	20%	18%
2001-2002	Imports	48%	31%	17%	22%
	Exports	27%	26%	21%	28%
2002-2003	Imports	(11%)	(6%)	(15%)	0%
	Exports	(12%)	(6%)	5%	13%

Source: %Change in RSA Imports & Exports from and to Africa, Europe, America, and Asia

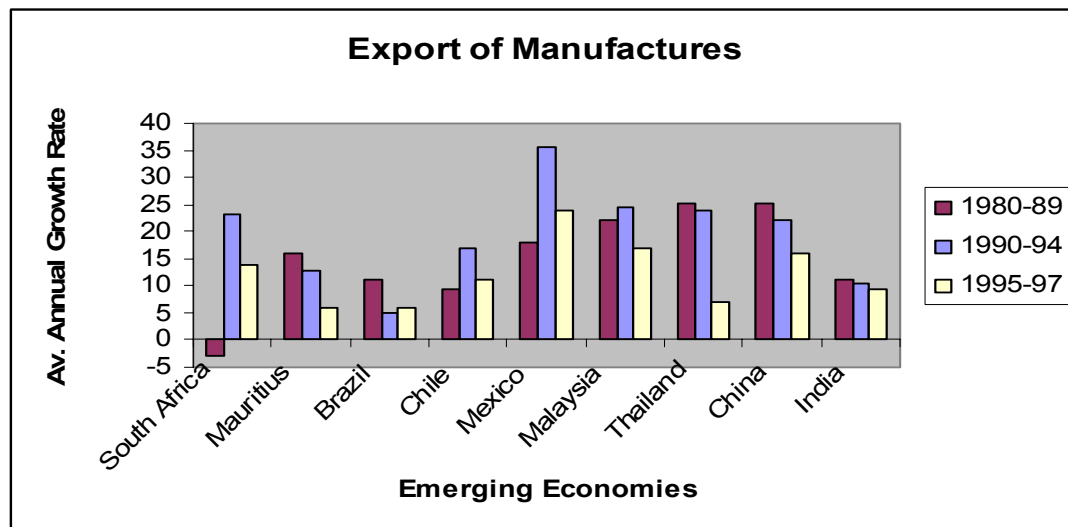
South African Revenue Services (SARS, 1997-2003). (www.sars.gov.za)

Figure 2.6: Changes in RSA Import/Exports 1997-2003

Source: South African Revenue Services (SARS, 1997-2003). (www.sars.gov.za)

Economic instability could explain fluctuations as illustrated in table 2.4 and figure 2.6 above. Major fluctuations are observable during 1997-1998 where South Africa's imports and exports to Asia dropped by between 15% to -18%. Also, a similar decline in imports and exports during 2002-2003 was evident against all trading destinations (South African Revenue Services, 2005).

Stephen Golub, in his overview of South African trade performance (Golub, 2000:3), notes that while South Africa's exports increased by 1 to 2% during early 1990s, the world's trade grew by 5%. However, South Africa's exports increased by 9% during the period 1995 to 1997, exceeding the world average (see Figure 2.7 below).

Figure 2.7: Export of Manufactures – Average Annual growth rate

Source: Golub (2000:3-6)

South Africa's international competitiveness as a country is not at satisfactory levels if challenges of unemployment and poverty are to be overcome. It is important to outline some key challenges that affect South Africa's international competitiveness as discussed in this section.

In most competitiveness reports mentioned above, there are two key challenges facing South Africa internationally: low levels of innovation in high technologies; and a stifling regulatory regime.

2.5.2 Low levels of innovation in high technologies

Technology and liberalization are the prime forces driving globalization. Technology innovation rather than capital accumulation is seen as the main source of long-term sustainable growth and it is argued that in order to overcome the threat of marginalization, developing countries be enabled to mobilize the ingredients of productivity-based growth, namely, information, knowledge, skills and technology, by drawing on international trade, capital/investment and technology flows (Dhungana, 2003:3). As a result, there is a strong link between competitiveness and innovation (Pistorius, 2001:9).

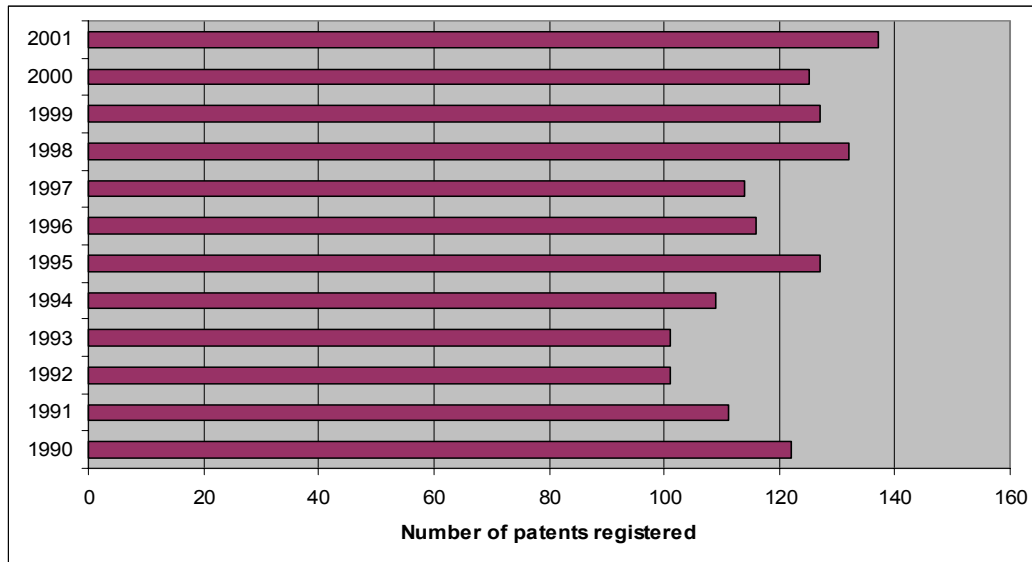
South Africa has created a framework for improving R&D and technological innovations for the country through policies such as the R&D strategy and the establishment of institutions such as the National Research Foundation (NRF); Innovation Fund; Technology and Human Resources for Industry Programme (THRIP); Support Programme for Industrial Innovation (SPII); Godisa, and Tshumisano (RSA, 1995a). The emphasis on the National Systems of Innovations (NSI) is important. Although it is argued that there is no common thread and framework that emphasizes international competitiveness across different sectors and departmental policies (Pistorius 2001:14), a number of lessons are being learnt in the process.

Firstly, there are serious capacity limitations in innovation initiatives within the NSI. For example, the effectiveness of DST and DTI's Godisa technology incubation programme is affected by the lack of relevant and highly experienced mentors with relevant industry experiences. The Godisa programme supports technology-based small businesses through the creation of technology business incubators, technology demonstration centres, and innovation support centres. Over the period of four years, since the Godisa programme started, less than 10% of the small businesses have graduated in all its sponsored centres (Godisa Trust Reports, 2004 and 2005). In most instances, innovation centres complain about lack of suitable supply of candidates for support, particularly in relation to national imperatives of supporting predominantly historically disadvantaged individuals and communities, whereas beneficiaries of the technology innovation support programmes often complain about the quality of input from centre staff.

Secondly, there is lack of a suitable supply of innovations from educational institutions and research centres. The quality and relevance of South African tertiary education research to industrial needs has always been in question. The numbers of patents that come through the university systems are extremely low. South Africa registered an average of 118.5 patents per year with USPTO (see Figure 2.8). The bulk of the patents are recorded on drugs,

bio-effecting and body-treating compositions; liquid purification or separation; and electrical communications (Boshoff and Mouton, 2003:217)

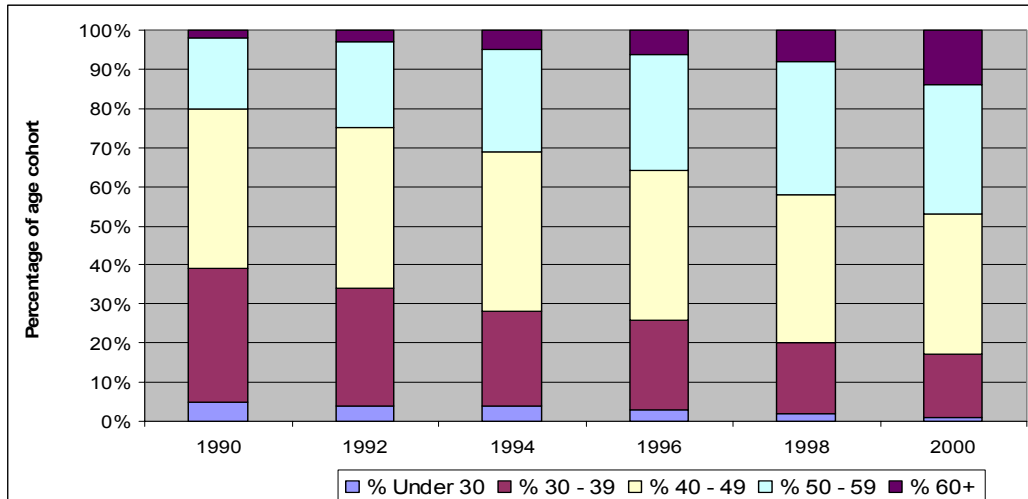
Figure 2.8 South African patents registered with the United States Patent and Trademark Office (USPTO), all types, 1990 - 2001



Source: United States Patent and Trademark Office (USPTO) (2002) Patent Counts by Country/State and Year: All Patents, All Types, January 1, 1977 - December 31, 2001. (http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_all.pdf)

One main cause of the supply of poor innovations is a lack of relevant skills. People who possess high skills are ageing within the age cohort of 50 and above in fields such as science and engineering research.

South Africa has also seen a number of highly skilled professionals migrating to countries abroad. Migration has left serious gaps in terms of provision of mentorship and leadership to new graduates. There is a decline, for example, in the number of scientific articles produced by authors in the 30 to 39, and 40 to 49 age cohorts, while there is an increase in the output of authors aged 50-59 and above (see Figure 2.9).

Figure 2.9 Scientific publications by age cohort, 1990-2000

Source: University of Stellenbosch: Centre for Interdisciplinary Studies (CENIS) SA Knowledgebase Database (in HRD Review 2003:220)

Quite often, the reason cited by young talented graduates for not pursuing research is unattractive remuneration. Most black graduates are taken by attractive packages available in the private and the public sectors.

Critical for economic growth, particularly, the creation of new enterprises is the level of entrepreneurial skills and activity in a country. The Total Entrepreneurial Activity (TEA) index (measures the proportion of adults involved in starting or running businesses) in South Africa was 5.4% compared to 9.4% average in all 34 countries surveyed in 2004. South Africa is ranked number 20 out of 34 countries (Orford et al., 2004:3).

There is a shortage of skills in many technical fields that are relevant to small businesses particularly high skills relevant to advance manufacturing for international competitiveness. South Africa has been excluded to participate effectively in the global trade stage; as a result, levels of skills have not been adjusted to international demands. Moreover, the apartheid system of education ensured exclusion of the majority of people from critical skills sets that are required in the knowledge economy in the fields of natural sciences and engineering and economic management.

The skills shortages in the small business sector, particularly the manufacturing small businesses, mean a serious lack of competitiveness in

adjusting and adapting to new production and management methods and techniques.

In 1998, the Government, in addressing shortages of appropriate skills among the workforce and in South Africa, in general, developed and implemented the National Skills Development Strategy (NSDS). The NSDS was to be implemented through the promulgation of the Skills Development Act of 1998 and Skills Levies Act of 1999 (RSA, 1998, 1999). The implementation process of the new skills development strategy in South Africa started at a very slow pace because of the complex nature of both the South African Qualifications Authority (SAQA) framework and requirements. The establishment of Sector Education and Training Authorities (SETAs), to undertake the implementation of the NSDS, encountered major problems in terms of methodologies applied and efficiencies of various SETAs, leading to many SETAs not meeting the 2004 targets forming part of the 75 000 learners who must be on Learnerships.

Some of the difficulties being encountered are lack of readiness on the part of the private sector to implement the NSDS. This is more so because the majority of the memberships of SETAs are SMMEs, for example, about 60% of Services SETA members are SMMEs. The bureaucratic nature of SETAs and the complex paperwork and turnaround period after submissions are identified as key challenges by SMMEs in effectively participating in the skills development process. Various measures are being put in place to support SMMEs through Skills Development Facilitation, and the establishment and management of Learnerships such as the recently established Employment and Skills Development Agencies (ESDAs)(DoL, 2005). Also, in 2003/2004, the Department of Labour undertook a review of SETAs and came up with major recommendations that have seen the amalgamation of some of the SETAs.

The challenges facing the SMMEs and VSMEs differ significantly regarding skills development. HSRC's Simon McGrath provides an extensive analysis of the skills in the VSME sector extrapolating on the National Skills Survey

commissioned by the Department of Labour. It is widely accepted, through various studies, that South Africa is weak in skills development and most owners of business see little value in investing in skills development (McGrath, 2005).

There is a need to increase funding to address some of the above-mentioned challenges towards creating incentives to attract researchers and providing necessary infrastructure and personnel to support innovation. South Africa still spends far less on R&D than countries such as China, South Korea, and Russia who all spend above 1% of GDP. The South African expenditure on R&D is estimated at 0.81% of GDP which is about R10.1billion. About 55% of expenditure comes from the private sector, with the Government only contributing about 29% (RSA, 2005:3).

2.5.3 Stifling regulatory regime

The cost of doing business in South Africa remains comparatively high in relation to other developing countries. Regulation is broadly defined as rules and standards imposed by public authorities to control human and entity behavior (SBP, 2005). Regulations vary by their purpose. Some are meant to control market failure such as competition laws, others are meant to protect human rights such as the Promotion of Access to Information Act, and consumer protection laws; and others are meant to promote responsible citizenship such as taxation. It is important to note that regulations are highly significant and often create major benefits for the society. However, the costs associated with regulations are enormous and impose a heavy burden on small businesses with no economies of scale.

The effect of regulatory costs on small businesses serves as a buffer to entrepreneurship and start-up as it creates entry barriers, and the final burden of regulation costs goes to the consumer.

Compliance costs are associated with expert assistance such as lawyers' fees, for example, in compiling information and submission of relevant forms.

This is normally the case in compliance regulations with complex laws requiring interpretation and relevant expertise. Small businesses are normally disadvantaged in terms of having sufficient cash flow to deal with the high costs involved. In a recent study published by the Small Business Project (SBP, 2005), the recurring regulatory compliance cost for companies with a turnover of less than R25million is high (see Table 2.5).

Table 2.5: Recurring regulatory compliance costs by type of regulation and enterprise over turnover band

	<R1m	R1-5m	R5-10m	R10-25m	R25-100m	R100-500m	R500-R1bn	>R1bn
Annual licences	16.1	11.9	7.9	12.1	5.5	9.8	1.2	6.7
Tax Compliance	34.7	45.6	34.9	32.8	31.6	12.1	22.8	11.5
Labour/Personnel	14.7	9.1	15.2	23.7	14.1	24.3	16.2	19.5
Employment equity/empower	7.1	7.4	12.6	10.3	22.1	14.9	9.7	14.6
Additional Regulations	6.1	6.5	9.1	5.8	11	22.4	10.8	38.2
Statistical Returns	9.2	9.7	8.5	11.4	9.5	12.2	17.2	6.6
Local Government Requirem	12	9.8	11.8	3.9	6.3	4.3	22.2	2.9
Total	100	100	100	100	100	100	100	100
MEAN								
RECURRING								
COSTS	R 32,482	R 54,766	R 66,311	R 159,913	R 286,109	R 675,286	R 891,854	R 231,427,272

Source: (SBP, 2005)

Also, the regulatory costs of companies with a turnover less than R5 million, which could be regarded as small businesses, is quite high considering lower economies of scale at this level of turnover; particularly on annual licenses, tax compliance, and labour. Labour seems to be consistently a high regulatory cost irrespective of the size of the business.

In the context of transformation, where there are different interest groups and imperatives, the process of monitoring the costs associated with regulations is tedious and cluttered with 'political bottlenecks'. A call, for example, to ease labour legislation to reinforce 'hiring and firing' has increased tensions between unions, employers, and government representing conflicting interests. The unions are comfortable with the current laws, which are perceived by employers to be stringent and a deterrent to employment.

2.6 CONCLUSION

As a result of opening up to international trade, South Africa is facing new realities about international competition. The competitive culture as defined at local, national, regional, and international levels requires certain new rules of the game for different role players at a government, industry, and firm level. It is critical for South Africa to deal with lack of innovation and high technology investment, which is a key ingredient of a knowledge and internationally competitive economy. The increasing skills gap and poor innovation support mechanisms require close attention as it has a bearing on the quality of our institutions, particularly the industrial sector.

Also key to South Africa's international competitiveness challenges is the regulatory regime. This factor has been mentioned more often by stakeholders, particularly as it has negative impacts on the small business sector performance. The evidence, as produced through SBP, indicates the extent to which businesses with a turnover of less than R5 million are affected by compliance costs. The costs related to licences, labour, and tax are pervasive and affect business, irrespective of the size.

The next chapter discusses, in detail, the state of South African small businesses and their international competitiveness within two sectors as examples of key drivers of the small business economy that is textile and clothing and the automotive sector. Also, various small business support mechanisms and their viability are discussed.

CHAPTER THREE
INTERNATIONAL COMPETITIVENESS CHALLENGES:
SECTOR CASE STUDIES AND SMME SUPPORT
MECHANISMS

CHAPTER 3: INTERNATIONAL COMPETITIVENESS CHALLENGES: SECTOR CASE STUDIES AND SMME SUPPORT MECHANISMS

3.1 INTRODUCTION

Small business international competitiveness has sounded like a cliché; as such concept seems to be the domain of big business. However, as the increasing reliance of big business and TNCs on small suppliers began to make economic sense, small business international competition has intensified. Also the increasing internationalization of SMMEs and liberalization of trade regimes has meant that small businesses are not immune from international competition. As much as countries cannot choose whether they want to participate in international competition, so are businesses, small or large. Everybody is involved in international competition in one way or the other (Pistorius, 2001:10)

From the observations made at industry and firm-level case studies, key international competitiveness challenges facing small businesses impact on small business competitiveness in terms of factors such as price, quality, efficiency, innovation and customer responsiveness as illustrated in Figure 3.1. Several studies have been done in South Africa indicating the low levels of competitiveness of major industries. Although there are several studies that tackle the nature and performance of different industrial sectors, most of these studies do not focus on the dynamics of firm sizes. However, most of these sectors are dominated by SMMEs and, by default; most studies constitute a large portion of SMMEs in their sample. In the next section, the discussion focuses on international competitiveness challenges facing small businesses in two sectors, that is, textile and clothing, and automotive. These two sectors were selected because one is labour intensive and the later is capital intensive and represents a balance in small manufacturing sectors. Some of the challenges that confront small businesses include, among others, high

input costs, regulatory costs, shifting buyer needs, new advanced technologies, skills shortages, lack of capital, new industry segments, unstable economic conditions, lack of export orientation, and poor relationships in the value chain.

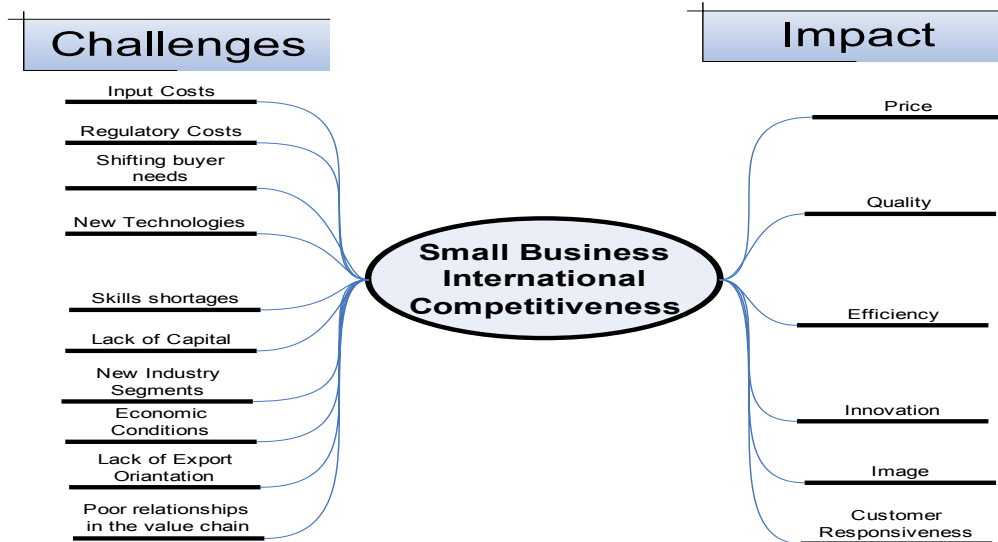


Figure 3.1: Small Business International Competitiveness

To obtain clarity about the gap on small business international learning, the literature on the role of government support and on linkage programmes that involve small businesses and Transnational Corporations was found to extract practical examples that would be the basis to enable the conceptual understanding of small business international learning. The literature on the role of government small business support is analysed at three levels, that is macro, institutional, and micro levels.

The literature on linkages internationally, on the other hand, identified four types of programming that exist in accordance with programme promoters whose intent is based on the desire for small businesses to be internationally competitive. Implied in those programmes is an intricate process of learning. The four types of linkage programmes are “TNC-initiated”, “Non-governmental Organization initiatives”, “Government initiatives” and “private-sector initiatives”.

Based on identified gaps in the literature on small business international learning in developing countries, practical examples of linkage programmes, and themes that were revealed during personal interviews, this chapter synthesizes a set of evolutionary strategic processes for small businesses operating in developing countries. These strategic processes were used to formulate questions that were distributed to the target study respondents.

3.2 THE TEXTILE AND CLOTHING SECTOR

The South African Textile and Clothing industry has been struggling to assert itself into the global economy since 1994 (Salinger, 2003:20). The industry has encountered numerous challenges relating to its ability to compete internationally. Challenges include, among others, labour market, international trade regime, R&D capital investment, economic conditions, export orientation and relationship in the value chain. These challenges are well documented in a USAID funded study on “promoting the competitiveness of textile and clothing manufacture in South Africa”.

The profile of textile firms’ ownership patterns in the industry show that the industry is domestically owned and controlled. According to the survey results, only 15% are subsidiaries of foreign firms, 40% are privately owned by South Africans, 18% are owner managed, and 23% are subsidiaries of South African companies (Reid, 1999b:6). The majority of firms are involved in the formal wear apparel market (20%), and woven textiles (23%). Other products include knitted and household textiles (13%), and clothing and textile accessories (15%) (Reid, 1999b:8-9).

Notable again in Reid (1999b), is the focus of the industry middle to lower-end of the market where the emphasis is on quantity not on quality but, research and development capability, delivery reliability, product variety, and reasonable pricing.

Salinger et al. (1999), based on a survey of firms in the Western Cape and KwaZulu-Natal, identify a number of factors that affect competitiveness of South Africa's textile and clothing industry. The biggest underlying challenge facing textile and clothing industry is the advent of cheaper legal and illegal import substitutes.

Key competitiveness challenges facing textile and clothing manufacturing firms can be divided into seven areas, that is, the labour market; skills development; R&D and capital investment; performance; economic conditions, relationships in the value chain; and export orientation.

The Labour Market

Common among issues raised by textile and clothing firms is labour market flexibility as a result of the new laws that govern employment, payment, and welfare of labour in the workplace. Issues raised include, among others, the Labour Relations Act, the Employment Equity Act, and the Skills Development Act. These laws are perceived to be discouraging employment of labour and are bureaucratic and complex in implementation, particularly for SMMEs.

Among other issues related to the labour market raised are the lack of work category flexibility in the sector; the increasing price of labour in South Africa; lack of incentive schemes; poor working conditions; and high rates of absenteeism (Salinger et al., 1999).

Skills Development

Skills development in the textile and clothing sector is characterized by poor technical and management skills as well as fear of investment in skills development.

R&D and Capital Investment

The survey also indicated that international competitiveness puts pressure on the South African textile and clothing firms for advancement – a problem in a labour intensive industry. Lack of capital, on the other hand, is a deterrent in acquiring machinery which is expensive. The survey also discovered that very

few firms use sophisticated ICT&E (Information, Communication Technology and Electronics).

Performance

The survey also established that smaller firms perform poorly while bigger firms have moderate growth in terms of sales turnover and profits.

Economic conditions

Compared to other economies, the real rate of interest is still high in South Africa, a deterrent to accessing capital by firms. Liberalization of the economy has put pressure on South Africa's textile and clothing industries which have all along enjoyed protection. Most labour unions blame government for poor trade legislation which create an unpredictable future for the textile and clothing industries. A rand – exchange rate instability has also had a negative impact on the ability of struggling South African firms to trade internationally. These problems have also been compounded by the rise of the informal sector and illegal imports and dumping at the lower-end of the market which distorts the market and puts cost and price pressure on formal firms (Salinger et al., 1999).

Export Orientation

The South African textile and clothing industries have not been export oriented due to the history of protection and domestic focus. Problems involved in mastering the export markets include issues of quality, efficiency, and innovativeness. Even those textile and clothing firms that are exporting to foreign markets do not represent a substantial proportion of their markets (Salinger, 2003:24).

Relationships in the value chain

The relationship between textile producers and textile mills is poor. Most customers prefer foreign fabric more than local fabric. Also, overseas suppliers perform better in terms of design, quality, price, and fabric performance. Local suppliers are known to be strong on delivery reliability.

The value chain is dominated by the retail sector which consists of a few retailers such as Edgars, Pep Stores, and Woolworths (Dunne, 2000).

From the above analysis, textile and clothing represents a typical example of a sector that has been extremely affected negatively by transformation and opening up of the South African economy and pressures of globalization. Contrary to the clothing and textile sector, the automotive sector has received priority from Government in terms of support. Yet the survival ability of automotive firms, operationally, is still highly questionable.

3.3 THE AUTOMOTIVE SECTOR

Since the inception of the Motor Industry Development Plan (MIDP) in 1995, the automotive sector has experienced phenomenal development and growth. The MIDP is hailed as the first successful intervention by government in industry development and could serve as a benchmark for other interventions in other industries (Flatters, 2002:1). The aim of the MIDP from inception was the development of an internationally competitive and growing automotive industry which would be able to:

- provide high-quality and affordable vehicles and components to the domestic market and international markets;
- provide sustainable employment through increased production;
- make a greater contribution to the economic growth of the country by increasing production and achieving an improved sectoral trade balance.

These national objectives were to be achieved by:

- encouraging a phased integration into the global automotive industry;
- increasing the volume and scale of production by the expansion of exports and gradual rationalization of models produced domestically;

- encouraging the modernization and upgrading of the automotive industry in order to promote higher productivity and facilitate the global integration process.

(TISA, 2004:16-17).

The major policy instruments to achieve these objectives have been:

- a gradual and continuous reduction in tariff protection so as to expose the industry to greater international competition;
- the encouragement of higher volumes and a greater degree of specialization by allowing exporting firms to earn rebates on automotive import duties; and
- the introduction of a range of incentives, which are designed to upgrade the capacity of the industry in all spheres.

Upon the MIDP review in 2002, the Minister of Trade and Industry announced the extension of the MIDP until 2012. The proposal framework included that import duties will continue to be phased down at a slower rate as follows (Table 3.1):

Table 3.1: Proposed MIDP rate of import duties for Automotive Industry

	Rate of CBU light vehicle import duty	Rate of Original Equipment Manufacturer (OEM) component import duty
1 January 2002	40%	30%
1 January 2003	38%	29%
1 January 2004	36%	28%
1 January 2005	34%	27%
1 January 2006	32%	26%
1 January 2007	30%	25%
1 January 2008	29%	24%
1 January 2009	28%	23%
1 January 2010	27%	22%
1 January 2011	26%	21%
1 January 2012	25%	20%

Source: (Tisa, 2004:17)

One aspect that distinguishes the automotive industry from other industries is the extent to which the government interventions or policies have steered automotive industry development. The impact of interventions has been

made evident by attractive overall performance of the industry, for example, vehicle production increased by 4.2% compared to global production increases of 2.9%. Total domestic new vehicle sales increased by 5.3% in 2002 (selling 382 600 units in 2003) (TISA, 2004). However, this increase can also be closely linked to a reduction in interest rates and the stabilizing South African economy, in general. The success of the MIDP is strongly justified in the industry's success in exports. A compounded annual growth rate of 33% for completely built up (CBUs) and automotive components exports has been achieved since 1995 (TISA, 2004).

However, the two surveys conducted by the Industrial Restructuring Project in 1998 and 2000 show consistency in mixed performance results of the automotive industry from 1994 until 2000 (Barnes, 2000). Accordingly, the survey results show how firms have reacted to competitive pressures that have intensified in the automotive industry with the introduction of the MIDP (Barnes, 2000:17).

Generally, the results show that the automotive industry has a strong domestic market at 68.1% and foreign market at 3.3%, with exports growing at 21% of turnover. Specifically, the results look at both the economic and operational trajectories. The economic trajectories include the turnover, employment, and profitability In terms of operational trajectories. The survey looked at cost control, quality; external flexibility, capacity to change, and innovation capacity (see Table 3.2 for measures).

Table 3.2: Automotive Market drivers and their related operational performance measures

Market Driversv(demands)	Operational performance measures
1. Cost control	<ul style="list-style-type: none"> • Inventory holding: <ol style="list-style-type: none"> 1. Raw materials stock holding, 2. Work in progress levels, 3. Finished goods stock holding.
2. Quality	<ul style="list-style-type: none"> • Customer return rates, • Internal reject, rework and scrap rates, • Supplier quality performance.
3. External Flexibility	<ul style="list-style-type: none"> • Time from customer order to delivery, • Delivery frequency and reliability to customers, • Delivery frequency and reliability of suppliers.
4. Internal flexibility	<ul style="list-style-type: none"> • Machine changeover times, • Batch and lot sizes, • Inventory levels, • Throughput time through factory, • Machine utilization levels.
5. Capacity to Change (Human Resource Development)	<ul style="list-style-type: none"> • Labour/Management turnover levels, • Absenteeism rates, • Training expenditure and types of training, • Employee development, • Suggestion schemes/continuous improvement
6. Innovation Capacity	<ul style="list-style-type: none"> • R&D expenditure • Proportion of sales from new products

Source: (Barnes, 2000:22)

Automotive component firms have experienced a decline in their turnover estimated at 9.7%; an employment decrease from 408 employees in 1995 to 334 in 1999; more than 50% of firms surveyed experienced profits during the same period. Also, profits increased by 3.8% to R4.3 billion from 2002 to 2003 (TISA, 2004). Few conclusions can be drawn from these economic indicators since the success of each firm is dependent on the entire value chain and economic conditions rather than economic performance of each firm (Barnes, 2000:17) and also the fact that the impact of interventions on economic performance of firms can be observed in a longer term period.

Internal operational performance does provide some indication of the ability of automotive firms to compete internationally through the opening up of trade and the introduction of the MIDP.

In terms of cost controls, the results indicate a decline in performance during the period 1995 to 1997 which contrasts with the 1998 survey which indicated

large improvements (Barnes, 2000:23). Improvement in operational performance was only reflected in the 2000 survey only occurred during the course of 1998. For example, on average, total inventory holding at sampled firms stood at 61.3 days which is below 1995 levels of 62.2 days. The reasons for the worsening situation in terms of cost controls are not known except the fact that automotive firms might have started grappling with these issues in 1998. This situation is also consistently evident in the results for average raw material levels; average work in progress levels, as well as average finished goods holding levels (1995 to 1998).

Secondly, quality controls are measured on internal and external quality performance. Internal quality performance relates to internal rejects, rework and scrap rates, and external quality performance as they relate to customer return rates and supplier quality performance. The automotive companies experienced improvements in internal quality (31% decrease for internal reject and rework rate, and 24% for scrap rates) while experiencing a decline in external performance from 1995 to 1998. The improvements in internal quality can be attributed to internal quality improvement initiatives such as obtaining QS 9000 and ISO14001 accreditation. On the other hand, the poor external quality performance could be related to significantly increased customer quality requirements, especially for OEM supply (Barnes, 2000:25-27).

Thirdly, external flexibility is measured by time from customer order to delivery, delivery frequency and reliability to customers, and delivery frequency and reliability of suppliers. Sampled automotive firms have shown considerable improvements. For example, average lead times (response times from the placing of a customer's order to the delivery of the product) for five major products has decreased from 33.7 days in 1998 to 31.1 days in 1999. Furthermore, a greater proportion of deliveries to major customers now take place at Just in Time (JIT) basis. However, it is disappointing to note that the delivery reliability of suppliers to sampled firms is extremely poor at 83.6% (Barnes, 2000:29).

Fourthly, internal flexibility is measured by machine changeover times, batch (quantity of manufacture of the product before machines are changed over to manufacture another product) and lot sizes (quantity of product transferred from one workstation to the next during the course of production), inventory levels, throughput time through factory, and machine utilization levels. Generally, according to the year 2000 survey, internal flexibility of sampled automotive firms slightly improved.

Fifthly, capacity to change (HRD) was measured in terms of employee development (training expenditure and types of training, employee development, suggestion schemes/continuous improvement) and employee commitment levels (labour/management turnover levels, absenteeism rates). The findings of the survey revealed poor levels of employee commitment to human resource development, whereas the employee commitment levels have slightly improved. The poor levels of commitment to HRD might reflect a severe negative impact of the automotive sector's ability to compete internationally in the long run. For example, training, as a percentage of the remuneration bill, decreased from 2.05% to 1.91% from 1997 to 1998 and as a percentage of turnover, it was reduced from 0.44% to 0.39% (Barnes, 2000:33-37).

Finally, innovation capacity was measured in terms of R&D expenditure and proportion of sales from new products. The R&D expenditure, contrary to expectations, increased between 1997 and 1998 from 1.35% to 1.65%. Also, the sampled automotive firms generated a large proportion of their sales on new products (about 49.3% of sales generated from products release over previous 5 years and 17% from products released over the previous year) (Barnes, 2000:37-38; and Barnes and Lorentzen, 2003).

The economic success in the form of increased sales and production, profitability, and exports in the automotive sector are related largely to the Government interventions through the MIDP. The sustainability of such support is highly questionable in future as more pressure will be put on South Africa to reduce protection, a common challenge that has been experienced

elsewhere internationally in countries like Thailand, Australia, and Malaysia (Flatters 2002:11-13). The observable operational deficiencies at a firm level present serious challenges to automotive firms. These operational deficiencies bring into attention sustainability and effectiveness of government interventions in the face of international competition.

As a result, it is important to analyze the nature and extent of the South African government interventions and the extent into which they contribute to small business sustainability and international competitiveness.

3.4 SMALL BUSINESS SUPPORT IN SOUTH AFRICA

The analysis of small business support in South Africa is done at three levels, that is macro, institutional, and micro levels as illustrated in Figure 3.2. The macro level is characterized by legislative, legal, policy environment at government. This level is where political leadership plays a critical role in creating an environment that supports creation of jobs, and eradication of poverty. On the other hand, the institutional level is characterized by small business support institutions from the public and private sector, the infrastructure, and various programmes that promote small businesses. The impact of interventions or lack of at macro and institutional level should be felt at the micro or firm level. The micro or firm level stakeholders are the intended beneficiaries of various interventions, whose survival and competitiveness is in the interest of all citizens.

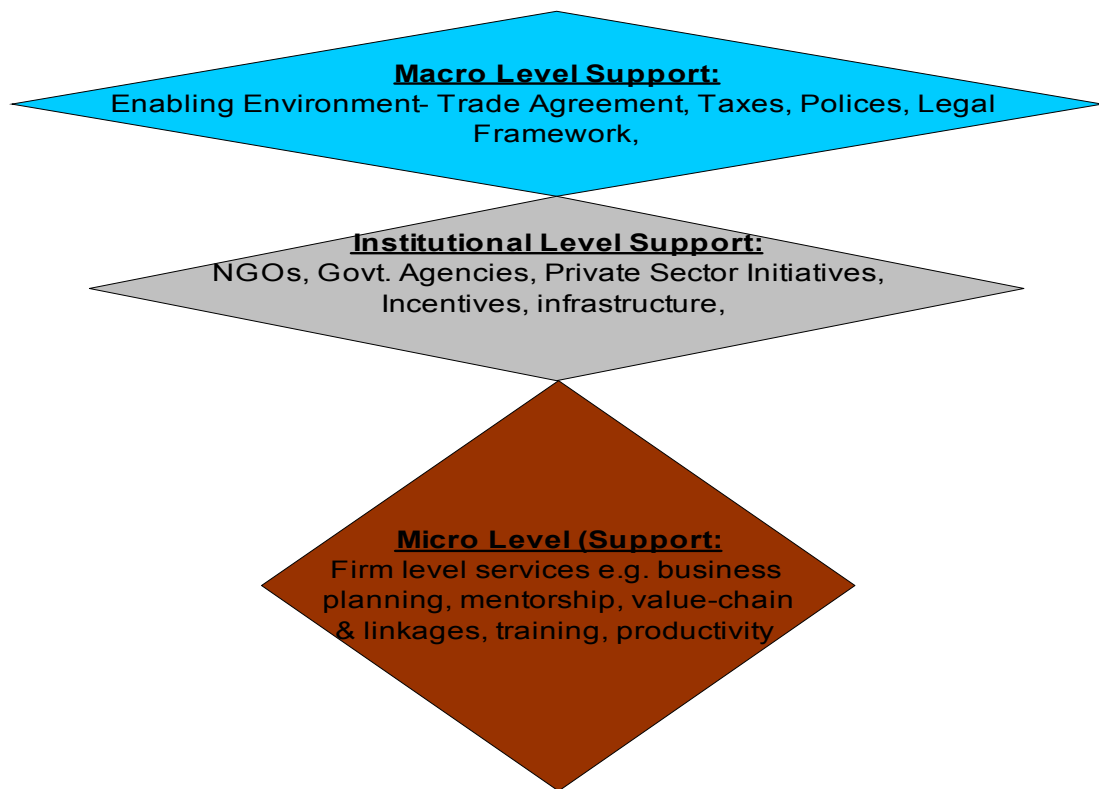


Figure 3.2 Small Business Support Contexts

Small business support is fairly new in the small business sector in South Africa. Several approaches at attempting to fast track the development of small business have been tested with limited success. The small business support industry can be divided according to the sponsor of the initiatives ranging from government, civil society, private sector, and public-private partnerships. Finding examples of these initiatives in some sectors is likely to be difficult since there is no existing coordination and mapping of these initiatives. It is more difficult to get these examples when it comes to the private sector and civil society whose initiatives are not effectively marketed and evaluated to enable an assessment of the impact and potential replicability in the country.

Small business support has increasingly gained attention in South Africa through several pieces of legislation. The Small Business Act of 1996 provides for the formation of non-financial and financial support institutions

which became Ntsika Enterprise Promotion Agency and Khula Enterprises, respectively, providing support to the small business sector. Also, the formation of the National Manufacturing Advisory Council (NAMAC), with its provincial structures, provided specialized support to the manufacturing SMMEs.

Also, the Government's Research and Development (R&D) Strategy provides for the formation of different institutions that support technology based SMMEs as part of the National Systems of Innovation (NSI). The strategy recognizes the role of SMMEs in delivering sustainable growth and quality of life for citizens. Amongst these support institutions, are the Tshumisano and Godisa SMME Technology Transfers Programmes, National Technology Transfer Centre (NTTC), the Innovation Fund, SPII, THRIP, and the Council for Scientific and Industrial Research (CSIR). Godisa and NTTC have since been merged into the newly formed Small Enterprise Development Agency (SEDA).

In addition, a number of industry support initiatives benefit the small business sector such as the Motor Industry Development Plan (MIDP) and the Sector Partnership Fund (SPF).

The changing small business environment necessitates a variety of initiatives aimed at supporting small businesses, particularly the Government-supported initiatives. How successful are these initiatives in assisting small businesses under pressure from international competition? This chapter attempts to outline the effectiveness of the existing key small business support programmes.

3.4.1 Macro Level Support

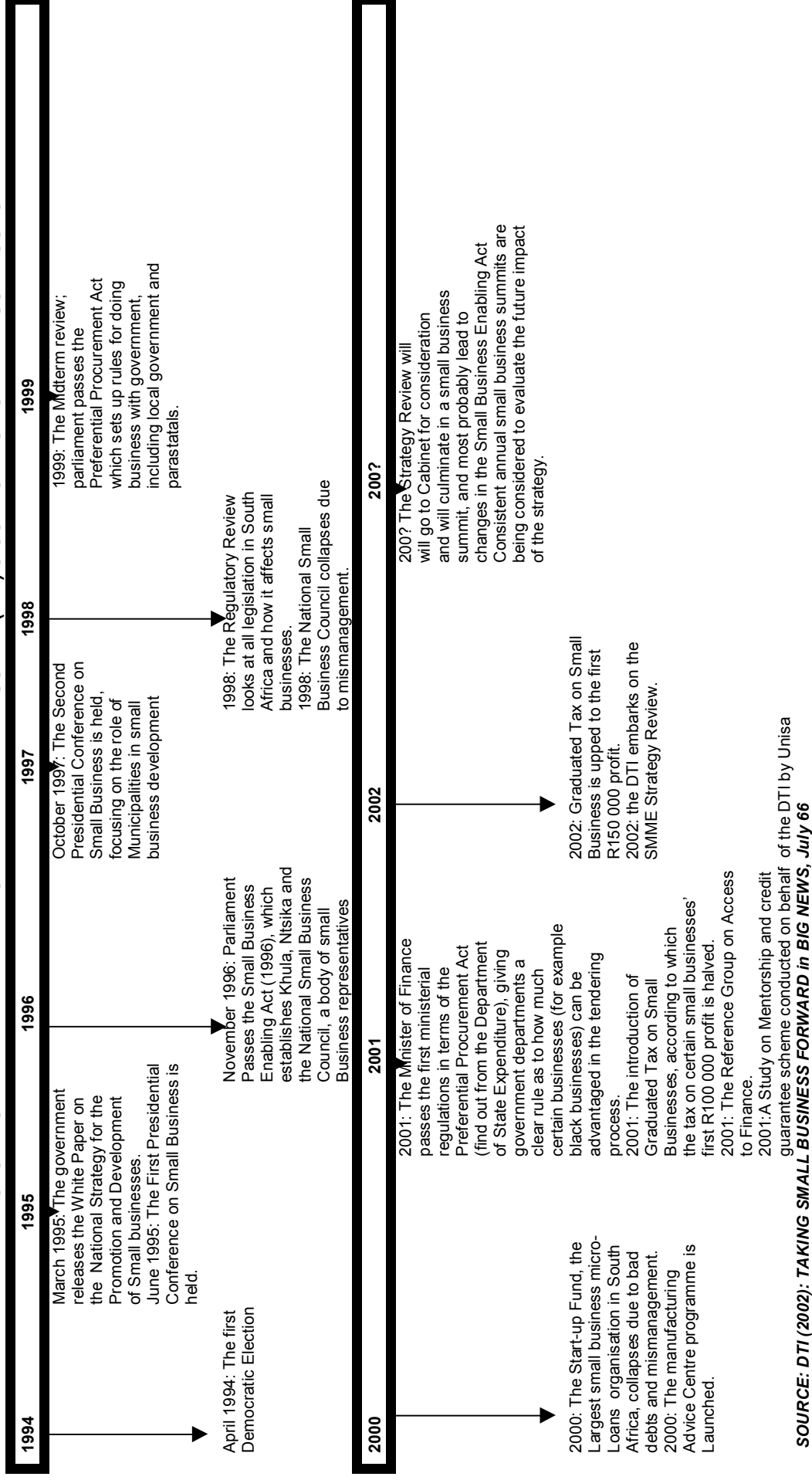
Prior to 1994, small businesses were not top of the development agenda in South Africa with the exception of the establishment of the private sector led Small Business Development Corporation (SBDC) (now known as Business Partners). Government planning around small businesses development

became intensified with the democratic Government's issuing of the small business promotion and development strategy (RSA, 1995b). The purpose of the white paper was to describe the state of small businesses, define small businesses, and put forward strategies for the development of this sector. Among others, the white paper proposed the formation of two small business promotion agencies. One was to be financial and the other a non-financial agency. At the promulgation of the Small Business Act in 1996, the two agencies were known as the Ntsika Enterprise Promotion Agency and the Khula Enterprise Finance. Furthermore, the National Small Business Council (NSBC) was established as a body that would represent stakeholders in the small business sector and drive strategic development of the sector.

Table 3.3 describes the unfolding of events since 1995 including the white paper; Presidential consultation processes; the issuing of relevant legislation such as the National Small Business Act of 1996, the Preferential Procurement Act of 1999 which set up the rules for doing business with government giving preference to small businesses and historically disadvantaged individuals; and regulatory review of all legislation in South Africa in relation to small businesses (DTI, 2002).

Clearly, from the events that unfolded as illustrated in Table 3.3, the government has provided leadership in terms of strategy and policy. The vision is outlined in the White Paper of 1995 where government seeks to create an enabling environment for growth and development of internationally competitive small businesses. The government's strategy focuses on SMMEs as agents of employment promotion, redistribution, and development of international competitiveness. The failure to implement policies at an institutional level has resulted in the constant review of government strategies. These reviews saw drastic recommendations and implementation of changes in the National Small Business Act in 2004 such as the formation of Small Enterprise Development Agency (SEDA) and the Apex Fund (micro-loan facility) (RSA, 2004).

Table 3.3:
THE HISTORY OF THE DEPARTMENT OF TRADE AND INDUSTRY (DTI)'S SUPPORT OF SMALL BUSINESSES



SOURCE: DTI (2002): TAKING SMALL BUSINESS FORWARD in BIG NEWS, July 66

3.4.2 Institutional Level Support

The majority of the small business support programmes are government-led initiatives under the Department of Trade and Industry (DTI). These, among others, include the newly established Small Enterprise Development Agency (SEDA), an amalgamation of Ntsika Enterprise Development Agency and Manufacturing Advisory Centres (MAC); Khula; Business Partners; Technology-focused small support services agency Godisa Programme; and CSIR.

Figure 3.3 shows a number of small business support agencies and programmes and the common services they offer. Among the agencies, mostly which are government initiated, is SEDA (Ntsika and Namac), Khula, and Godisa. Commonly offered services include training, incubation, advice and mentorship, innovation support, networks, and linkages. The key challenge is to evaluate the impact of these agencies and programmes.

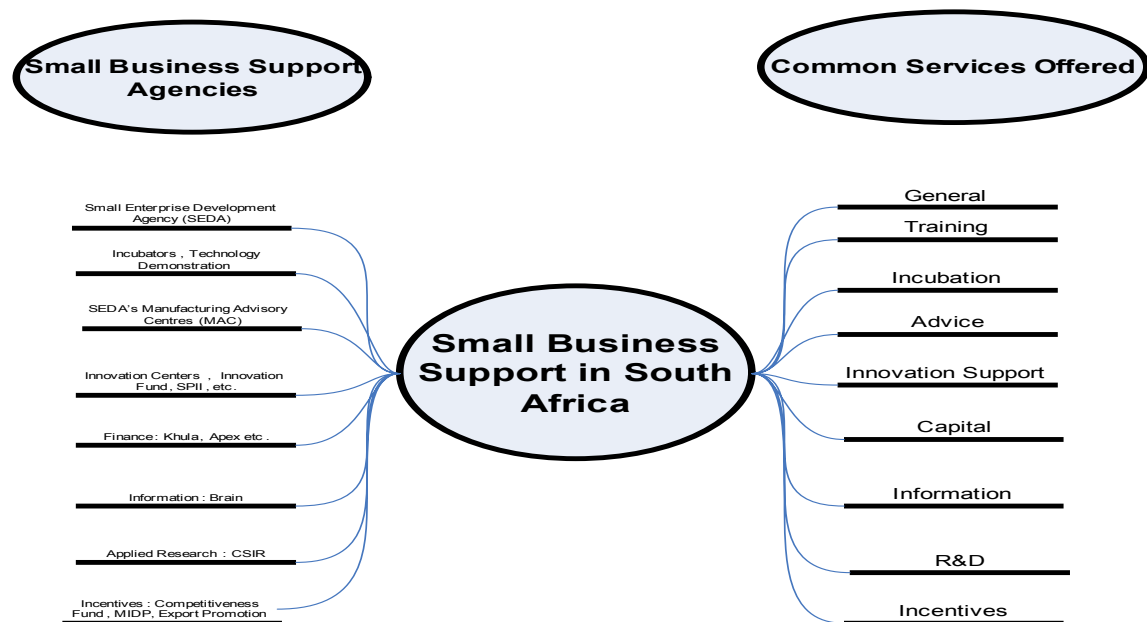


Figure 3.3: Small Business Support in South Africa

The collapse of the NSBC in 1998, due to mismanagement, was a blow to small business progress, particularly to stakeholders such as SMMEs and

industry associations. The collapse of NSBC meant the small businesses would not have a voice on matters pertaining to development and support.

The collapse of the NSBC was followed by the collapse of the Start-up Fund in 1998. The Start-up Fund was going to be the largest small business micro-loans organization in South Africa. The organization was going to play a significant role since there is a gap in the funding arena for small business start-up, a problem which still exists today.

Besides the collapse of the NSBC and the Start-up Fund, the existing institutions have been embroiled with controversy and poor delivery at the firm-level. Institutions such as Ntsika, Namac, and Khula have had limited success in addressing the challenges that are facing small businesses. The following are the key challenges facing these institutions (Rogerson, 2004:768):

- Corruption and mismanagement;
- Bureaucratic red tape;
- Lack of management and leadership capacity;
- Lack of industry knowledge and entrepreneurial experience amongst staff of small business support institutions;
- Limited scale and scope;
- Poor accessibility of small business support institutions; and
- General lack of effectiveness and impact.

Recently, the government has put in place a number of other initiatives that are targeted at sustainable small business development such as the DST and DTI's small business technology incubation programmes, local industrial parks, and sectoral cluster programmes (Rogerson, 2004).

Despite all these challenges facing small business support institutions, there is no doubt that progress has been made since the small business white

paper in 1995, mainly because there was no public small business infrastructure pre-1994 period (Rogerson, 2004:769).

3.4.3 Micro Level Support

A study commissioned by the Services SETA (Services Sector Education and Training Authority) conducted by the NASRA (National Skills Research Agency), is the first intensive broad survey of the small business support institutions in the country (NASRA, 2004). Key institutions created by government to support small business development support are the National Manufacturing Advisory Council (NAMAC); Ntsika Small Business Development Agency; and Khula Enterprise Agency. Two of the three institutions that is NAMAC and Ntsika were merged through an amendment of the Small Business Act in 2004 and formed the Small Enterprise Development Agency (SEDA).

The Small Enterprise Development Agency (SEDA)

The government's purpose in establishing SEDA was to address issues of inadequacies in service delivery to small businesses by 'disintegrated' services. The amalgamation of Ntsika and NAMAC Trust, non-financial support services providers, is one way of creating a 'one-stop-shop' for small businesses.

Ntsika provided non-financial support services to the SMME sector to address needs such as business marketing and management capacity. Ntsika services included Local Business Support Centres (LBSCs); counselling, advice and technical services; mentorship; development of networks of service providers; access to technology; tender advice; trade and investment development programme; business linkages; facilitation of access to markets; and incubation and cocooning.

On the other hand, NAMAC was the co-ordinating office for Manufacturing Advisory Centres (MACs) within the DTI. It was regarded as the most successful SMME development and support agency in South Africa. Namac

established delivery structures around the country which developed various tools, information, products and projects to assist manufacturing small businesses around the country. The focus of NAMAC was on Historically Disadvantaged Individual (HDI) businesses. NAMAC support services included, among others, Project Management, mentoring and evaluation programmes; design and implementation of technical training programmes; forming partnerships with other organizations; and creating national and international linkages (NASRA, 2004).

In a 2004 NASRA survey, both NAMAC and Ntsika were 38.4% and 34.4%, respectively, known by members of the Services Seta estimated at 76573 (with a sample of 469 respondents) during the time of survey (NASRA, 2004:14). In terms of satisfaction regarding the usage of support services, the survey results indicated the lowest levels of satisfaction amongst users in all services offered by both Nstika and NAMAC (see Tables 3.4 and 3.5).

Table 3.4 : Level of satisfaction regarding NAMAC Support Services

	% who have used services	Level of Satisfaction				
		Very Low		Very High		
		1	2	3	4	5
Project Management, mentoring and evaluation programmes	1.1 (n=5)	33.3	8.3	25.0	8.3	25.0
Design and implement technical training programmes	0.9 (n=4)	44.4	0	33.3	11.1	11.1
Form partnerships with other organizations	1.3 (n=6)	41.7	0	50.0	0	8.3
Create national and international linkages	0.9	38.5	7.7	30.8	0	23.1

Less than 2% of the 469 respondents used the NAMAC Support Agency Services.

Source: (NASRA, 2004:17)

Table 3.5: Level of satisfaction regarding Ntsika support services

	% who have used services	Level of Satisfaction				
		Very Low		Very High		
		1	2	3	4	5
Local Business Support Centres	2.9 (n=13)	40.9	27.3	13.6	4.5	13.6
Counselling, advice and technical services	2.4 (n=11)	52.4	14.3	19.0	4.8	9.5
Mentorship	2.0 (n=9)	68.4	5.3	10.5	0	15.8
Development of networks of service providers	1.6 (n=7)	68.8	0	18.8	6.3	6.3
Access to Technology	1.8 (n=8)	47.1	23.5	5.9	11.8	11.8
Tender Advice	2.0 (n=9)	44.1	16.7	22.2	5.6	11.1
Trade and Investment development programme	2.2 (n=10)	55.0	15.0	5.0	15.0	10.0
Business Linkages	2.0 (n=9)	55.6	11.1	16.7	5.6	11.1
Facilitation of access to markets	2.2 (n=10)	65.0	15.0	10.0	5.0	5.0
Research	1.6 (n=7)	75.0	12.5	12.5	0	0
Incubation and cocooning	1.6 (n=7)	81.8	9.1	9.1	0	0

Less than 3% of the total sample of 469 respondents indicated that they have used the Ntsika Service Agency.

Source: (NASRA, 2004:15)

A detailed study, conducted by Bloch & Daze (2000:19), on the impact of Ntsika's LBSCs programme, noted that "rather than the orderly grid envisaged by the 1995 White Paper, the LBSC network is spreading across the country in the form of uneven, colourful, sometimes even rather messy patchwork of loosely affiliated rather than tightly linked service providers of several types, who demonstrate varying capacities and capabilities". Despite the shortcomings of these institutions and given funding, improved capacity, and capabilities, these institutions have critical services to offer. The impact of services rendered by these institutions is reflected in the kinds of success stories that are published by these institutions (Namac, 2004; Ntsika 2002).

Khula Credit Guarantee Scheme

As part of the Small Business Act of 1995, Khula was established to offer financial support to small businesses. The financial products offered include loans, credit guarantee, grants, and institutional capacity building. Khula has an established micro-lending scheme, Khula Start, an entry-level programme that provides loans to the survivalist sector. In addition, a Khula Technology Transfer Fund was launched to facilitate access to local and international technologies by small businesses. The NASRA 2004 survey also indicates lower levels of satisfaction of Khula services among those who responded as having used the services. For example, on their core product, which is a credit guarantee scheme, 81.3% of the respondents indicate very low satisfaction levels (see Table 3.6) (NASRA, 2004).

Table 3.6: Level of usage and satisfaction regarding Khula support services

	% who have used services	Level of Satisfaction				
		Very Low		Very High		
		1 64.7	2 5.9	3 11.8	4 5.9	5 11.8
Micro credit Organization: group loans to first time borrowers	2.7 (n=12)					
Micro lending programme: group loans of R600,00 to individual loans to R500 000.00	3.6 (n=16)	66.7	11.1	5.6	5.6	11.1
Credit guarantee: security and collateral to established entrepreneurs.	2.2 (n=10)	81.3	6.3	12.5	0	0
Equity Funds to assist entrepreneurs in expanding their business	2.2 (n=10)	75.0	0	12.5	0	12.5
Grants	2.2 (n=10)	71.4	0	28.6	0	0

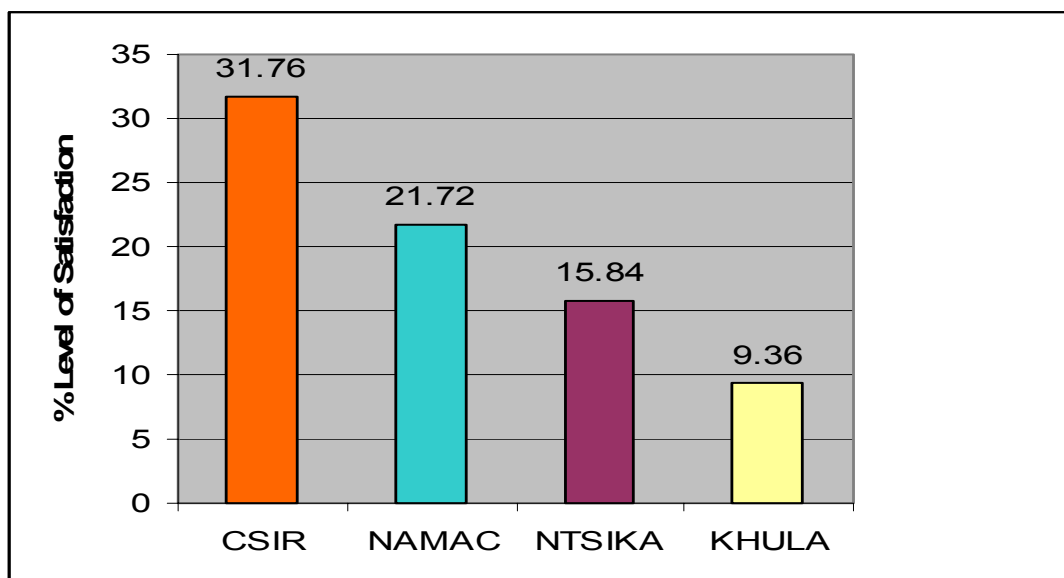
Source: (NASRA, 2004:16)

CSIR (Council for Scientific and Industrial Research)

It is interesting to note the role that is being played by CSIR in small business development in South Africa, especially technology based SMMs. The CSIR's mandate, as a statutory organization, is to support scientific and/or technological industrial applied research in South Africa. It has played a significant role in creating and supporting technology based SMMs in different sectors (see example of GELVENOR case story in Chapter 1). The CSIR offers research in technology innovation; promotes information society; and promotes competitiveness.

In comparing the different key government small business support satisfaction levels mentioned above, it is alarming to note that the CSIR provides better services compared to others in terms of satisfaction by users (see Figure 3.4).

Figure 3.4: Levels of Satisfaction regarding Governmental Support Services



Source: (NASRA, 2004:19)

From the above results, an inference on the quality of services can be made in terms of, for example, lack of effective coordination; lack of high-quality human and physical capital (highly skilled personnel are poached by private sector for competitive remuneration); lack of sustainable funding (dependent on Government's METF) and international funding is channeled to Government leaving the NGO desperate and reliant on Government.

The next sections consider the alternative approach for small business international competitiveness support in the context of delayed government small business support initiatives in South Africa. The section considers programmes that enhance relationship between TNCs and small businesses.

3.5 SUCCESSFUL SMALL BUSINESS AND TNCs LINKAGE PROGRAMMES

Several programmes have proven that small businesses learn from relationships with Transnational Corporations in terms of international competition. This learning takes place because TNCs possess advanced technologies, knowledge, skills, and machinery. TNCs also have control over international market networks which make barriers to entry and economies of scale extremely high for small businesses. Lall (2003:49) asserts that, as major innovators, TNCs are the main source of international technology transfer. Generally, they control the world economy and have which exceeds that of some governments. For a small business to have a relationship with TNCs, offers several advantages for international competitiveness, as shown in the GELVENOR case in chapter one.

Various initiatives that facilitate linkages between small business and TNCs are examined. It is important to look at Foreign Direct Investment through TNCs and the role of linkages and outline successful programmes that have been implemented over the years in different countries.

The term linkage, as pertaining to linkages between different firms, refers to all possible forms of economic relationships between firms operating within an economy. It is usually meant to imply a continual relationship with repeated transactions, as opposed to individual contacts (Wong, 1994). There are different forms of inter-firm linkages according to different forms of contractual arrangements and the degree of control one party has over another. They

range from complete internal organizational control to complete dependence on the market.

Wong (1994) identified five types of classification as common linkages between different firms:

- (i) Outright Equity Control (parent firm owns 100%);
- (ii) Joint Venture (Majority, or 50%-50%, or minority);
- (iii) Industrial Co-operation Agreement;
- (iv) Licensing and Franchising; and
- (v) 'Arms Length' market relationship ('spot' market transaction and 'longer term' recurrent contractual supplier-buyer relationships).

Changes in the international competitive environment have put pressure on big companies to unbundle and create lean organisational structures. Big companies in South Africa are not an exception to this phenomenon. Since 1994, South Africa has increasingly experienced more inter-firm linkages, especially in the manufacturing sector, in the form of subcontracting or 'outsourcing'. Subcontracting is defined by Wong (1994) as a back-end linkage relationship-involving arm's length market transaction between larger buyers and an SMME supplier.

The relationship between TNCs and small businesses has been narrowly defined according to the confines of subcontracting. However, advances in technology are moving small businesses beyond 'arms length' and labour intensive relationships towards more broadly encompassing the entire range of inter-firm linkages.

On the other hand, another form of linkage between firms that has been increasing is called Industrial Cooperation agreements. These agreements refer to contracts that are extending over a number of years between partners belonging to different economic systems which go beyond straight forward sales or purchase of goods and services to include operations (technology transfer, production, machinery, and marketing); broadly inclusive of licensing, training, and is long-term in nature (UNCTAD, 1987).

There are a number of examples of programmes that facilitate linkages between small businesses and TNCs.

There are different programmes locally and internationally that support the linkages between small businesses and TNCs. These programmes differ in their success according to the motives and the approach used. By their very nature, institutions proposing linkage programmes have different motives and interests, as stated in Table 3.7. There are four types of linkage programmes, namely, a small business championed linkage, government initiatives, TNCs initiatives, and non-government organizations initiatives.

LINKAGE CHAMPIONS		Small Business Initiated Linkages	Government initiated Linkages	TNC initiated Linkage	Non-Gov. initiated Linkage
MOTIVES		<u>Evolutionary</u> -seek opportunities -entrepreneurial -market penetration - survival	<u>Interventionist</u> - industry decay & unemployment. -lack of competitiveness -lack of capacity of local businesses	<u>Logical</u> -outsourcing -costs -benefits -strategies -perceptions	<u>Supportive</u> - Moral & Ethical Imperatives -Development Agenda
EXAMPLES	RSA	GELVENOR Case (Airbag textile manufacturer)	Investment Promotions e.g. TISA, TIKZN, DIPA	Anglo-American's Zimele Programme	Small Business Project (SBP)'s Business Linkages Centre
	INTERNATIONAL	ENGTEK in Malaysia	Ireland's National Linkage Programme Singapore's Local Industry Upgrading Programme (LIUP)	Saint Gobain in India	EMPRETEC
APPROACH		-own capacity & capability building with limited support -exposure -stimulation	-Financial support -provides databases of potential linkage partners -influence Gov. policy (part of the national/local and industry policy) -facilitate capacity building and skills transfer	-support technological capacity and skills transfer -ensures compliance -ensures growth -provides coaching	-provides programme start-up finance -facilitate linkages -provides entrepreneurship training -facilitate skills transfer

Table 3.7: Small Business & TNC Linkage Programmes

These initiatives differ slightly in their motive, scope, and success rate. The different programmes are illustrated in the table above.

Small Business Initiatives

These are evolutionary types of linkages that are solely reliant on the proactive nature and ability of the business owner, management, or entrepreneur. The entrepreneur will see opportunities presented by the existence of TNCs around the area and the benefits of developing relationships with them. The motive for such initiatives is as a result of increasing pressure from competition and the need to exploit new market opportunities. Taking advantage of the opportunities presented by TNCs backward and forward, an entrepreneur will align his/her business to that of the target TNC. Given the challenges involved in meeting the standards required by TNCs, the entrepreneur will seek relevant assistance to invest in his/her business. This will be important to entrepreneurs with an eye for international markets or entrepreneurs closely affected by international trade and competition.

In the case study of GELVENOR, an air bag fabric manufacturer in Durban, the ability and foresight in dealing with international competition necessitated GELVENOR to initiate a strategic partnership with a European TNC involved in airbag manufacturing.

One good example of an international company that started small and grew through linkages with TNCs is the Malaysian company now called Eng Teknologi Holdings Bhd (ENGTEK). ENGTEK was formed 25 years ago with a \$200 in seed capital as a tiny family-run business that produced jigs and fixtures in a makeshift backyard facility in Malaysia. Today, the company is one of the largest suppliers for the computer hard disk drive and semiconductor industries, with nine affiliates in four countries. In 2004, its

2000 employees generated total revenues of about \$63 million. Among the key factors to the internationalization of ENGTEK was an entrepreneurial drive and commitment by management, as well as an enabling policy environment created by the government of Malaysia. The management engaged ENGTEK into a number of well managed relationships with TNCs. For example, INTEL provided the financial and technical assistance needed by the company to produce semi-automated wire bonders in 1981. ENGTEK gradually gained reputation with TNCs in the area of designing products, bringing its specific experience in product development and gaining a competitive edge over competitors. ENGTEK partnered with TNCs such as Advanced Micro Devices (AMD), Bosch, Fujitsu, Hewlett Packard, Maxtor, Readrite and Seagate. ENGTEK became the first-tier supplier to major TNCs internationally moving-up the value chain, and internationalized and became a TNC on its own (UNCTAD Newsroom, 2005).

Government Initiatives

The government initiated linkage programmes are interventionist in nature. The aim of the government is normally to support local SMMEs; create employment opportunities, address problems of international competitiveness; and build local capacity. The governments normally provide financial support, information service to small businesses and TNCs, provide incentives to TNCs and small businesses, develop and influence implementation of policy, and facilitate capacity building among others.

The preliminary focus of the democratic government in South Africa regarding small business development was to create an enabling legislative environment for SMMEs. A number of initiatives have been piloted, as highlighted earlier. Some of these initiatives have been successful, others had limited success, and others have failed. Among programmes that have been tested, there has been no grand-scale programme that facilitates linkages between small businesses and TNCs, yet there is increasing penetration of TNCs in the country. Some of these TNCs have reinvested after they disinvested in the late 1970s and early 1980s.

Notable, however, are successful programmes that are aimed at attracting Foreign Direct Investment and joint ventures with local companies. These programmes are under the auspices of the Department of Trade and Industry (DTI). In particular, Trade and Investment South Africa (TISA) is largely credited for growth of the automotive industry through the Motor Industry Development Plan (MIDP).

Provinces have also created their own investment promotion agencies which facilitate inbound and outbound investment opportunities for provinces. For example, Trade and Investment KwaZulu-Natal (TIKZN), and Trade and Investment Limpopo (TIL) have been created in KwaZulu-Natal and Limpopo, respectively. Also, some local governments have established their own investment agencies such as the Johannesburg Investment Agency (JIA), and the Durban Investment Promotion Agency (DIPA). However, these agencies do not facilitate capacity building and linkages of small business to TNCs. Most cases dealt with in these investment agencies are investor related enquiries and interest in establishing operations in that particular province or municipality.

South Africa's investment promotion agencies are related to the Irish National Linkage Programme (NLP) during its early stages. The NLP started in 1985 by Enterprise Ireland under the Ministry of Finance. Its aim was to assist foreign enterprise to 'integrate' into the Irish economy, that is, working in partnership with a foreign company to develop a sustainable competitive edge leading to profitability, exports, and employment. As it grew, the NLP improved its services to include the provision of capacity building support to local suppliers in such areas as operations, marketing, and create partnerships with TNCs. The NLP became a fully fledged linkage programme involving about 250 foreign affiliates. Between 1985 and 1997, TNCs operating in Ireland increased their local purchases of raw materials fourfold and doubled their purchases of services (UNCTAD Newsroom, 2005).

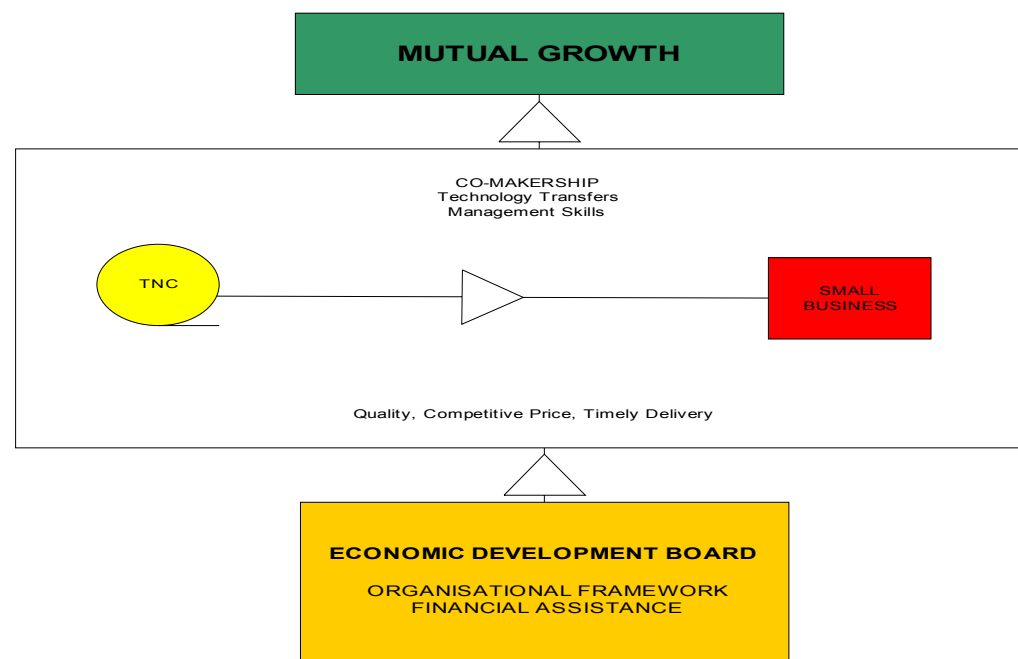
Another international success is Singapore's Local Industry Upgrading Programme, which is discussed below.

Singapore's Local Industry Upgrading Programme (LIUP)

A successful linkage programme between small businesses and TNCs is demonstrable in the case of Singapore; where the success of Singapore's industrialization process is largely driven by foreign direct investment from large Multinational Enterprises (MNEs). Singapore followed the Local Industry Upgrading Programme (LIUP), which is divided into three phases, namely:

- Phase 1 - improvement of overall operational efficiency of the SMEs (for example, production planning, inventory control, plant layout, and financial control)
- Phase 2 – introduction and transfer of new products or processes to the SMEs;
- Phase 3 – joint product or process research and development with MNE partners.

Figure 3.5: Singapore's Local Industry Upgrading Programme



Source: (Wong, 1994:83)

The LIUP was established by Singapore's Economic Development Board in 1986. The main aim was to build up the efficiency, reliability and international competitiveness of Singapore's supporting industry through forging close ties

between local SMEs and MNCs operating in the country. In 1990, already 27 TNCs had signed up as LIUP partners and 116 SMEs (EDB, 2005). The LIUP programme targets key industries in Singapore such as Electronics, Process and Marine Industries, and Information Industries. Noteworthy, is the criteria used to assess the suitability of small business participants. The criteria include, among others, performance, business plans, attitude and receptiveness of the management, and their capabilities in terms of the quality of their products or services, reliability, delivery and cost competitiveness. The emphasis is on linking TNCs and promising small business on a project that will engage both companies.

In a tentative conclusive summary of the results of the LIUP programme, Wong (1994:85) states that the programme is effective in capitalizing on the presence of a large number of world class Multinational Enterprises in Singapore, particularly in the electronics industry. These MNEs have brought with them their highly developed supplier management systems from their home nation environments. The stringent quality and delivery performance requirements of these MNEs have exposed the SME subcontractors to internationally competitive market environments. Thus, despite the short period of Singapore's industrialization, the supporting services industry in Singapore is more extensive than that of the Republic of Korea, where subcontracting is confined to large national firms. Programmes such as LIUP appear to be effective in helping Singapore SMEs attain the high level of technical competence required to eventually export their products and services.

This model or approach looks to complement many of the studies cited earlier by focusing on technology transfer between Small businesses and TNCs and emphasizes the protracted process of learning (and emphasis on *mutual growth*) that is taking place. Examples of outcomes are the transfer of management skills, quality, efficiency or time delivery, and customer responsiveness; and underlie the genesis of new high technologies in a specific geographic area (Wong, 1994).

TNCs Initiatives

There are very few instances where a TNC takes responsibility to create a suppliers-base using local small businesses and contribute both to its improved operations as well as to small business development and international competitiveness. TNCs would voluntarily endeavour to create linkages with small business if it achieves business benefits such as cost reduction, create perception of social responsibility, and is aligned to the strategic direction of the TNC. TNCs normally provide technological support, skills transfer; ensure technical compliance, and ongoing coaching.

One successful example in South Africa is the Anglo American's Zimele programme. The programme started in 1989 as Small Business Initiative (SBI) for development and empowerment initiatives of Anglo American. In May 2000, the initiative was formalized and given the name "Zimele", a Zulu and Xhosa name meaning "be independent". Zimele's founding aims were to facilitate black economic empowerment; provide finance to black-owned emerging companies through minority equity participation and the provision of loans; assist in the development of entrepreneurship; and facilitate procurement and outsourcing of non-core activities at Anglo American group companies. Through outsourcing to black-owned small and medium businesses, Anglo American companies have spent R1billion, R1.5 billion, and R2.4 billion in the years 2000, 2001, and 2002, respectively, on procurement. Generally, Anglo-American has been associated with R16.5 billion worth of BEE deals (Zimele, 2005).

A good international example of a TNC initiated linkage is the case of a French TNC called Saint Gobain. Saint Gobain set up a float glass plant in Chennai, India. The company ran into major technical problems with potential local suppliers. Local firms were disorganized and scattered, their technological capabilities were limited and they were unable to meet minimum standards without support. As a way of intervening, Saint Gobain set up specialized teams to support development of suppliers three years before starting operations. The teams consisted of experts in several disciplines from

India and abroad, provided assistance in raw material evaluation, engineering and technical services, information technology support, packaging materials development and logistics management. Each team worked with suppliers to develop cost and business models, train the labour force and educate management in management processes and concepts. The programme became a major success after four years of inception. In India, 80% of the company's raw materials were met locally, and several suppliers in India began to sell their products to other TNCs (UNCTAD Newsroom, 2005).

Non-Governmental Organizations' Initiatives

The NGO initiatives are generally informed by moral and ethical responsibilities and imperatives, as well as the development agenda of a particular community or society. In these programmes, NGOs normally provide start-up finance, facilitate linkages, provide training, and facilitate skills transfer in preparing small businesses for linkages with TNCs.

There are very few NGO-initiated linkage programmes that are well publicized and financially sustainable. The reason is that the NGOs have limited influence and resources to engage TNCs. On the other hand, TNCs do not have confidence in dealing with NGOs except at a level of social responsibility and corporate citizenship. One example in South Africa of an NGO-initiated linkages programme is SBP's (Small Business Project) Business Linkage programme (SBP, 2003).

SBP's Business Linkage Programme

The SBP's business linkage programme started in 1998. The programme established business linkage centres (BLCs) in various parts of South Africa. The main role of these centres is to forge links between large corporations and SMMEs within the same locality. The main aim of the programme is to help reduce poverty and unemployment among the previously disadvantaged individuals and communities (SBP, 2003).

Since 1998, about six BLCs (in places such as Phalaborwa, Middleburg, and Springs) have been established which provide linkage to more than 80 corporates. Activities in these centres have resulted to contracts worth more than R1 billion being awarded to small local black owned businesses and the creation of more than 3 000 sustainable jobs. For example, in Phalaborwa, the BLC was established with the support of Foskor, Sasol, and the Phalaborwa Mining Company. In 2002, the centre facilitated linkages worth R150 million.

The corporate companies involved perceive the benefits of the BLC more in terms of enabling them to contribute to the promotion of BEE and Local Economic Development. They also feel the BLC helps in identifying and screening of good small businesses. On the other hand, entrepreneurs see benefits in terms of introduction to a large company that can buy their products and facilitate access to useful information on tenders and other business opportunities.

According to SBP (SBP, 2003:6), in calculating the cost-benefit analysis of a BLC, the following factors, among others, need to be taken into account:

- The corporate financial contribution to the centre;
- The number of transactions facilitated by the centre;
- The value of the contracts facilitated;
- Additional time and resources used in mentoring small enterprises;
- Money saved via contracts facilitated by the centre;
- The costs and benefits of embedded services;
- Time and resources saved by the involvement of the BLC staff;
- The impact of increased competition on prices and products supplied;
- The value of meeting empowerment expectations; and
- The value of contributing to local economic development.

However, from the capacity and funding point of view, the challenge is to sustain BLCs beyond the support they receive from experienced personnel from SBP.

UNCTAD's EMPRETEC

In 1988, the UNCTAD (United National Commission on Trade and Development) established a programme called EMPRETEC. It is an integrated capacity-building programme that helps foster entrepreneurial capabilities and the growth of international competitive SMMEs. Generally, the programme identifies promising entrepreneurs, provide them with training aimed at strengthening their entrepreneurial behaviour, and business skills; assist them in accessing business services and financing for their business ventures; help to arrange mutually beneficial links with larger national and foreign companies; and put in place long-term support systems to facilitate the growth and internationalization of their ventures. Since establishment, the programme has been established in 27 countries assisting more than 80 000 entrepreneurs through local market-driven business support centres. The programme has 26 national centres in Brazil alone (UNCTAD, 2004:10).

In 2002, an evaluation study was conducted on EMPRETEC Brazil which has been operating for 10 years. The study showed that the level of entrepreneurship among Brazilian participants in the EMPRETEC programme is more than twice that of the overall population (40.4% compared to 14.2%). It also showed that enterprises in the EMPRETEC programme show better economic performance. For example, while labour productivity in the Brazilian service sector had a value of R\$13,000 between 1996 and 2000, the value of productivity among EMPRETEC companies, of which 87% are involved in the services sector, amounted to R\$17,000 in 2001. Also, employment in EMPRETEC companies rose by 29%, while the Brazilian service sector had an increase of 8.5% from 1996 to 2000 (UNCTAD, 2005:11).

3.6 CONCLUSION

The impact of international competitiveness is more evident at a small firm's level. The textile and clothing sector provides an example of an extreme case of a sector that is severely affected. This sector is affected by a variety of issues such as labour flexibility, skills shortages, shortage of capital, and lack of advanced technologies; which affect its performance in terms of all competitive factors such as efficiency, quality, innovation, customer responsiveness, price, and image.

Similarly with the automotive sector, an industry that has been hailed as a success story as a result of the MIDP is still plagued with challenges at an industry and firm-level. Successive studies conducted by Industrial Restructuring Project in 1997, 1998, and 1999 demonstrate that automotive firms, particularly small South African suppliers are still lagging behind in a number of areas in terms of international competitiveness such as quality and efficiency.

Given international competitiveness challenges and the poor firm performance in sectors such as textile and clothing, and the automotive industries, what kind of support is available for small businesses?

The early phase of the democratic era began with rigorous focusing on the development of the small business sector. The Government intention was clearly demonstrated with the issuing of the Small Business White Paper in 1995. The White Paper outlined in detail the Government strategy concerning the role and the interventions of Government towards small business development. Key to this strategy was the establishment of small business development institutions, namely, Nstika Enterprise Promotion Agency (non-financial support for small business), Khula Finance Enterprise (financial support for small businesses), and Small Business Council (small business stakeholder body). In 1996, the Small Business Act was promulgated and the institutions were set up. The Act provided for a detailed definition of a small business for the first time. The Department of Trade and Industry assumed

the role of the driver of small business development nationally. The alignment of government legislation to accommodate the interests of small business was done. The government enacted the Preferential Procurement Act; and the establishment of “small business desks” through provincial departments of Economic Development and Tourism, among others.

Poor governance and management of business support institutions have shed a negative light on the capacities and capabilities to implement policies and strategies. This negativity led to a serious review of strategies in the 2004. The formation of SEDA and APEX is a result of the frustrations with the slow pace of progress at institutional level. The level of impact at a firm-level has been minimal. The poor impact at a firm level is clearly evidenced in the Services Seta study where SMMEs were even better satisfied with the services of the CSIR compared to those of small business institutions.

Given the extent of international competitiveness challenges confronting small businesses, the current state of small business support needs urgent attention taking into account the following concerns:

- The government has provided strong leadership and political will within a vacuum of cooperation and partnership with stakeholders since the collapse of NSBC;
- The quality of small business support service provision is delayed for the majority of small businesses at the institutional and micro-levels;
- Current service provision is not effective for the majority of SMMEs; and
- The small business support institutions themselves need support in terms of services quality and better support methodologies.

Linkages programmes are significant in enabling local companies to build capacity for their growth and international competitiveness. There are various linkage programmes locally and internationally that are successful. The programmes differ in terms of proponents, motives, and approaches. There are evolutionary, interventionist, logical, and support type of programmes.

Evolutionary type of initiatives originates from small business's entrepreneurial strength based on the desire to grow business and learn from TNCs. There are several examples of these initiatives locally and internationally. On the other hand, the interventionist type is originated by government's intention to build local capacity and create job opportunities through industry and small business development support. The government's roles vary according to the extent of the programme and the cooperative role of the private sector in contributing to the success of the programme. A successful example is the Singapore's LIUP which started in 1986 and by 1988 it had 21 TNCs signed as partners into the programme.

There are few examples of TNCs initiated linkage programmes. With such a programme, there is a need to accrue benefits as they relate to, for example, production costs and social responsibility. A number of examples exist in South Africa and abroad. South African TNCs are under pressure to position themselves to national imperatives such as the Black Economic Empowerment, and other issues of redress as part of their corporate citizenship.

Finally, the NGO sector has played a significant supportive role for the development of SMMEs in collaboration with community stakeholders such as local TNCs, SMMEs, and associations. There are a number of NGO-led linkage programmes locally and abroad. Most of them happen at a small scale and have challenges that relate to capacity and financial support.

Different developing countries have been accelerating and reinforcing the development of linkage programmes of various kinds as discussed above. In countries like Singapore and India, the role of government has been that of facilitating the enabling environment through policy development and promotion of all types of linkage programmes in key sectors of their economies. This facilitation has seen the programmes being initiated by various institutions in different sectors following the guidelines and leadership provided by government.

Given the existence of these programmes at a grand-scale in other countries and at a small disintegrated scale in South Africa, there is a need to establish the role of TNCs linkages within the context of a transforming economy such as South Africa. This need is particularly relevant where small businesses are confronted by international competitiveness challenges as trade barriers are lifted and the potential to attract FDI is increasing. In chapters five and six, the significance of the linkages in the development of small business international competitiveness by investigating their role in a survey of small manufacturing firms in Durban is explored.

This chapter reviewed the literature to provide a practical background to the study and motivate and justify propositions developed. Using the systems view, from a practical point of view, this chapter reviewed literature that provides the basis for an international learning perspective on small businesses confronted by an international competitiveness challenge in transforming developing economies with a particular view on South Africa.

CHAPTER FOUR

THEORETICAL LITERATURE REVIEW

CHAPTER 4: THEORETICAL LITERATURE REVIEW

4.1 INTRODUCTION

The aim of this chapter is to review the literature thereby providing theoretical background to the study and justify the propositions developed.

The chapter commences by looking at the developments in the learning organization field and theory. The chapter further looks at learning organization theory in the context of small businesses paying particular attention to the role of technology transfers through TNCs. The synthesis of small business learning and technology transfer theory makes a case for the possibility of the international learning model proposed in this study.

4.2 LITERATURE SOURCES

Literature review is an important part of an empirical research. Through the review of literature, an understanding and exposure to recent and authoritative theorizing and empirical findings relevant to the study are ascertained. Moreover, the literature review would ensure that the study does not duplicate previous studies. It is, therefore, possible to attribute any further research as contributions to new knowledge (Mouton, 2001:87).

In this study, the contribution to knowledge refers to:

- The identification and understanding of international learning processes for small businesses in a relationship with TNCs;
- The analysis of international learning processes based on international “best practices” that reflect organizational learning empirical connection;
- The quantitative identification and description of international learning processes for small businesses in transforming economies; and

- The development of a model that enhances a case for a rational and comprehensive programme that supports linkages between small businesses and TNCs and enhances small business international learning. The model differentiates between the strategic processes that can be influenced and those that require broader and long-term interventions. By complying with an international learning model, small businesses' international competitiveness will be optimized.

The review of literature, nationally and internationally, did not reveal any existing or previous study of this nature. A number of authorized and exhaustive literature databases were used. Validation through enquiries, peer reviews, and experts' opinions formed the basis for evaluation of the content of different sources for inclusion as credible data sources.

4.3 ORGANIZATIONAL LEARNING LITERATURE PAUCITY AND GAP ON SMALL BUSINESS LEARNING

The early organizational learning (OL) or learning organization (LO) literature is well orchestrated by Sadler-Smith et al. (1999:6) and reflect the emergence of a trend towards a divide between the two types of learning (see Table 4.1). This trend is what Fiol and Lyles (1985) refer to as lower level learning and higher level learning. This trend has evolved through various studies indicating similar patterns until recently. Recent studies have attempted to merge the divide between the two strands (Coutu, 2002; and Sun and Scott, 2003).

4.1: Typologies of Organizational Learning

Source	Lower Level	Higher Level	Comments
Argyris & Schon (1978)	Single-loop learning: solves a problem or reacts to a change in its environment without changing the underlying norms	Double-loop learning: occurs when more radical solutions are required. An organization modifies its underlying norms, rules, policies, objectives or procedures in response to external stimuli.	Single-loop learning reinforces established ways of working and problem solving and will not lead to significant changes in ways of working in the long-term. In double loop learning the organization questions and reframes the models which guide decision making and behaviour in response to a change in their external environment and consequently develops ways of working.
Fiol and Lyles (1985)	Lower level learning: short-term, superficial and temporary formation of associations	Higher level learning: response to changes in the environment requiring a change in action.	Lower level learning is relatively simple and may be no more than repetition of past behaviour. Higher level learning results in the development of new complex rules and associations which change behaviour.
Senge (1996)	Adaptive Learning: coping and dealing with the current environment in new and better ways, and equates well with single-loop learning.	Generative Learning: moves beyond adaptation, requiring individuals and organizations to develop new ways of looking at the world.	Adaptive learning can essentially be seen as representing organization and individuals' propensities to behave in 'conservative' manner. Generative learning can be characterized as the development of new skills and new ways of working. Essentially generative learning may also be thought of as a propensity to innovate.
DiBella (1998)	Incremental Learning: focusing knowledge on what is already known or being done.	Generative Learning: knowledge that challenges the assumptions about what is known or being done	Incremental and transformative modes seen as complementary rather than competing organizations may have a preference for one mode but 'a sound learning system can benefit from using both approaches'.
Pedler, Burgoyne and Boydell (1997)	Implementing: doing things well; conforming; dependent and passive.	Improving: doing things better; competing; independent and active.	They identify a third level of learning which they label 'integrating' which occurs through 'changing the context or relationships. A holistic approach – doing better things by seeing and creating new possibilities. Equivalent to Bateson's and Argyris and Schon's triple loop or deuteronomy learning.

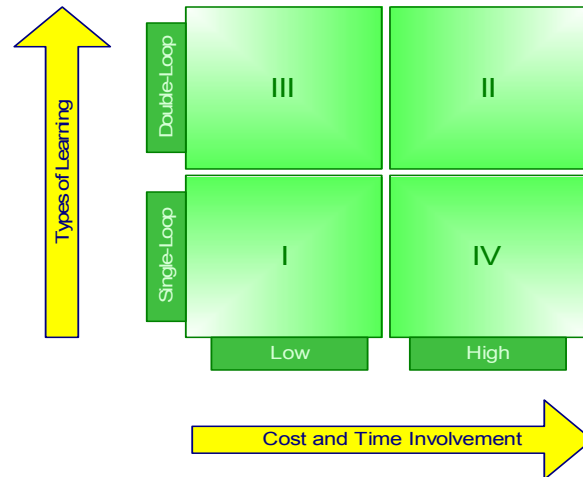
Source: (Sadler-Smith et al., 1999:6)

The literature indicates movement from simplistic “single-loop” learning toward more advanced transformational learning. Recently, a number of writers have noted the uniqueness of ‘learning’ within small business in the context of international competition or globalization. As small business contribution to economies, especially in developing countries, is getting recognized, the ‘customization’ of learning theories in a small business context has gained prominence amongst scholars, particularly in the context of globalization and international competition (Taylor and Panza, 2003; James, 2003; Lall, 2000). Also, the advancement in the theory of organizational learning results in the merging of various organization learning strands (Sun and Scott, 2003).

Consequently, big business is getting leaner and continuously adapting to the fast changing environment.

4.3.1 Lower-Level and Higher Level Learning

Figure 4.1: Combination of learning type with cost and time involvement in implementation



Source: (Sun and Scott, 2003:203)

Lower level types of learning are types that reinforce the status quo with no significant changes in the organizations' systems and mechanisms of doing business (Fiol and Lyles, 1985). The lower level type was observed as early as the late 1970s in the pioneering work of Sun and Scott (2003:203) illustrated in the matrix (see figure 4.1 above) in the lower left box as less expensive in terms of implementation costs and time involved. A number of studies have proven that this kind of learning does not bring about change required for companies to survive the fast changing environments compared to higher level learning. Higher level learning, on the other hand, brings about fundamental changes in the way the organization does its business in terms of behaviours, systems, and mechanisms. These kinds of learning have been termed differently in these studies. Senge (1996) refers to lower level learning as adaptive learning, and higher level learning as generative learning; DiBella (1998) refers to lower level learning as incremental learning; and Pedler, Burgoyne, and Boydel (1997) refer to lower level learning as implementing learning and higher level learning as improving learning.

In addition, Sun and Scott (2003:203) identify learning types III and IV. Type III is the type of learning that is of a double-loop level but less costly and has less time involvement. For example, changing the reporting structure from one department to another where a certain function will be effectively implemented within an organization could bring about significant change. On the other hand, learning type IV does not bring about major changes in the organization but is costly and time consuming. Type IV brings about significant incremental learning. An example is when an organization introduces a new and an important technology that improves its performance, and incremental benefits.

4.3.2 Merging of Lower Level and Higher Level Types of Learning

The fundamental question that challenges the essence of the divide between lower level and higher level learning is whether learning happens voluntarily or is a result of tensions, external or internal to the organization. The initial attempt at challenging the divide is the historical work of Schein (Coutu, 2002) from his early studies of the American prisoners of war in Korea where he observed that the American prisoners had to passively assimilate Chinese propaganda in order to survive. The assimilation process was a form of coercive learning. From this experience, over forty years of studies, Schein concluded that, including modern organizations, coercion changes its forms but remains a significant cause of learning. The observation by Schein has come to be known as survival *anxiety*. The lower level type of learning can be equated to Schein's learning anxiety. Schein contends that "learning anxiety comes from being afraid to try something new for fear that it will be too difficult, that we will look stupid in the attempt, or that we will have to part from old habits that have worked for us in the past" (Coutu, 2002:6). The learning anxiety could also be more evident in small businesses as there may be fear of being exposed to new knowledge and skills (Kilpatrick and Crowley, 1999:3). As a result, for learning to occur, survival anxiety must be greater than learning anxiety.

Sun and Scott (2003:211) view these anxieties as "tensions", at both individual and organizational levels. They argue that the learning must be transferred to a group or an organization for learning to be effective. They also

argue that there are physical tensions and psychological survival tensions. For example, physical survival tensions may be “our competitors are getting ahead of us”; and psychological survival tensions may be, “this is something new it will add knowledge base to me”.

4.3.3 Small Business International Competitiveness Anxiety and Learning

The increasing interest in small businesses, manufacturing firms, in particular, is new in South Africa and in developing countries, in general. The threats and opportunities of globalization, in particular, presents tensions at various levels, that is; government, industry associations, and small businesses themselves. Globalization and international competition are driven largely by factors such as liberalization and growth of international trade, foreign direct investment, and development of information technology (Dhungana, 2003, Lall, 2002; and Lall 2000).

The interest in SMMEs may also be a result of the recognition of the new trends in the ability of SMMEs to innovate and compete globally. This interest has been enhanced by factors such as:

- declining competitiveness of developed countries in mass production;
- technological progress favouring small firms that have an advantage in early stages;
- growing availability of venture capital to small businesses that are technology based;
- competitive pressures on larger firms to cut costs by subcontracting traditional ‘in-house’ activities to SMMEs;
- technological advancement in logistics and communication which enable efficient linkages; and
- liberalization of trade and investment inflows, opening up new opportunities for overseas investments by small businesses (Lall, 2000:4).

The interest in strengthening of small business international competitiveness necessitates a critical review of literature on small business learning and international competitiveness.

There is growing consensus that international competitiveness in a small firm is different from that of big firms (James, 2003) as espoused by writers such as Porter (1980, 1985). The assumption of a multi-divisional firm with several layers of management and competitive discrete activities of minimizing costs and differentiation at different stages of production is not relevant in small firms.

A survey of CEOs in 445 Quebec-based SMMEs (with 200 or fewer employees) was conducted by Lefebvre and Lefebvre, (1993:300) to investigate links between innovativeness and competitiveness. Although based on a developed country, the study is relevant here. Using principal components analysis (PCA), they identified three competitiveness factors: quality, diversity, and costs, which accounted for 72% of the total explained variance. They identified 3 groups of small firms - "worst", "niche", and "best" based on mean values for each of the competitiveness factors. The 'worst group' was those with no identifiable strategy as they lagged behind in all three competitive factors. The 'niche group' focused on two competitive factors, that is, quality and diversity; and the 'best group' performed well on all three competitive factors. These results were further confirmed by testing on innovativeness in these firms. For example, the 'worst group' was found to be making little effort in research and development while the best group scored higher.

Given Lefebvre and Lefebvre's findings, the contemporary question is how do niche and the best groups of small firms learn? In the context of small business, the emphasis should be focused on entrepreneurial behaviour and actions rather than management behaviour and actions (Man, Lau, and Chan, 1998; 2002). Man and Chan (2002) identified six entrepreneurial competency areas that trigger learning for competitiveness in small firms, namely; the opportunity, relationship, conceptual, organizing, strategic, and commitment

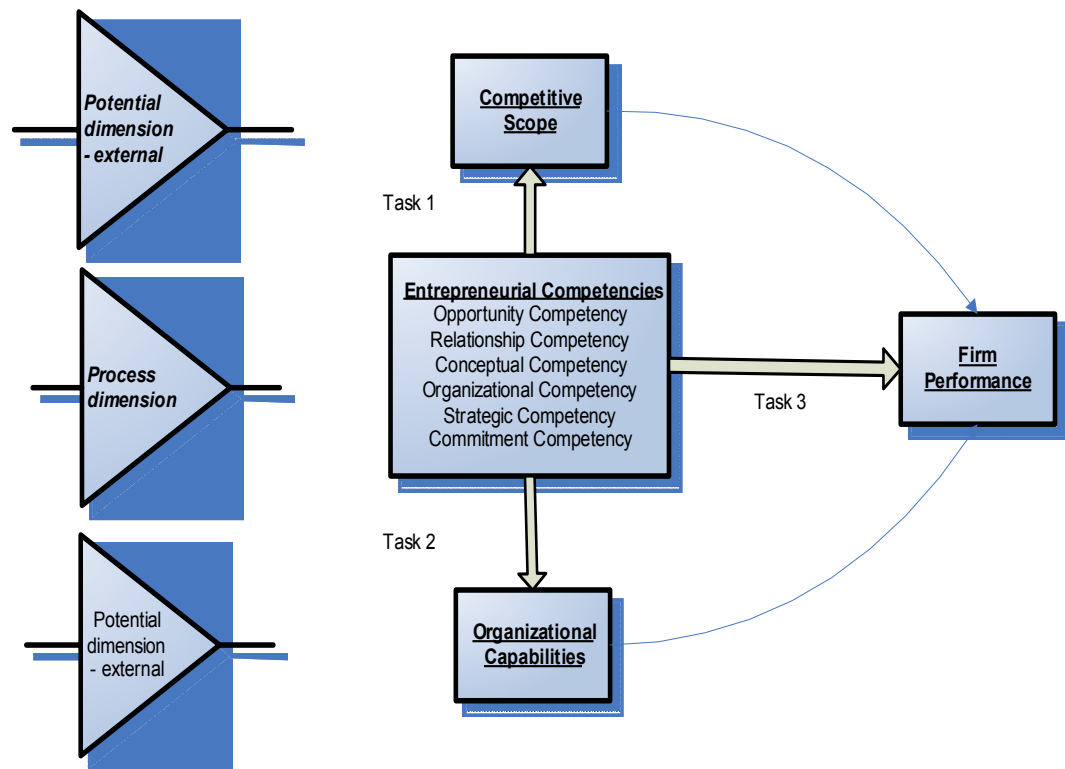
competencies. These competencies bring about fundamental behaviour change in a small firm. In the Table 4.2, various competencies and related behaviours are stated. For example, relationship competency relates to person-to-person, group to group interaction based on cooperation, commitment and trust.

Table 4.2: Competency and Behaviour

COMPETENCY AREA	BEHAVIOURAL AREA
Opportunity Competencies	Recognize and develop market opportunities
Relationship Competencies	Person-to-person, group to group interaction based on cooperation, commitment and trust.
Conceptual Competencies	Conceptual abilities related to decision-making, skills, information absorption, risk-taking and innovativeness
Organizing Competencies	Internal and external activities associated with human, physical, financial and technological areas.
Strategic Competencies	Setting, evaluating and implementing strategy
Commitment Competencies	Entrepreneurial drive to develop the business.

Source: (James, 2003:15-33)

All these competencies are equally important drivers of small firm competitiveness. These are shaped by experience, educational background, social networks, and the cultural disposition of an entrepreneur (Taylor and Panza, 2003). However, on their own, they cannot translate into organizational competitiveness.

Figure 4.2: Competence and Competitiveness of Small Firms

Source: (James, 2003:10-15)

James (2003:15-33) analyses the tasks that an entrepreneur needs to have executed for a firm to improve competitive performance. As illustrated in Figure 4.2, task 1 involves the entrepreneur establishing the firm's competitive scope by scanning the external environment looking at such factors as market attractiveness, technological sophistication, product and industry life cycles, market demand and competitiveness. For task 2, the entrepreneur works on the firm's internal capabilities which include innovativeness, quality, cost-effectiveness and creates flexible organization structures and systems. Finally, task 3 involves the entrepreneur setting goals and performance targets for the firm ensuring linkages between the external environment and the firm's internal competencies.

The critical competencies of a small crucial for this study is what is referred to as process dimension in the Figure 4.2. Process dimensions should be observable in the owner of a small business as evidenced in the GALVENOR case study. These competencies consist of six categories, that is, opportunity,

relationship, conceptual, organizational, strategic, and commitment competencies.

Noteworthy, in the entrepreneur's competencies and the ability to translate the external changes into organizational capabilities, is the extent to which an entrepreneur can identify opportunities, create relationships, conceptualize ideas, create strategies, and show commitment. These qualities enable a firm to adapt to the external environment.

According to James (2003), therefore, competitiveness in the context of a small firm rests on the entrepreneur's ability to facilitate the improvement in the firm's performance in terms of factors such as quality, market share and profits.

One of the key enablers of learning in small businesses is networks (Macpherson et al., 2002:9; Taylor and Pandza 2000; Taylor, 2000; Berry, 1997). The innovative ability of small firms comes from flexible managerial or entrepreneurial structures as identified by Man and Chan (2002) in dealing with external individuals and organizations. One of the key and critical networks for small business international competitiveness that is less explored is the relationship with Transnational Corporations (Yeung, 1998).

In this study, it is, therefore, argued that international competitiveness anxiety or tension is more apparent in the South African context and has an impact on small business learning. For small businesses to survive the threat of globalization and take advantage of opportunities, the linkages, networks, and support activities are necessary. Also, small businesses are, by their nature, network seeking and given the relevant skills they can use linkage opportunities presented by international institutions such as TNCs.

The international competitiveness tensions create an evolutionary type of learning organizations. This type of learning is well expressed by Lall (2002:45), who states that, "the learning curve is not known in advance. Learning is technology and firm specific, and often occurs in an uncertain

environment where skills, information, networks and credit needed are not available. Many enterprises do not even know how to go about learning, and have to learn to learn. They interact intensively with other agents, with extensive spillovers”.

4.4 SMALL BUSINESS LEARNING AND TECHNOLOGY TRANSFERS

The learning organization literature during the period of globalization and high-technology advancement cannot be separated from the technology transfer theories (Roberts, 2002:3). Technology transfer has been perceived to be the process of technology diffusion from the supplier of the technology to the buyer or user of the technology. Diffusion is defined as the process of communication and influence where potential users of technology become informed about its availability and are persuaded to adopt it through communication with prior users. The implication underlying this definition is that the communication flow will reflect the pattern of adoption or vice versa. The period between 1970s to early 1990s has seen the increasing number of ‘adopter theories’ (Tornatzky and Fleischer, 1990; and Kimberly and Evanisko, 1981; Abernathy and Utterback, 1978; and Aiken and Hage, 1971). These theorists considered the organization and environmental attributes; that is, intensity of competition, firm size, production, degree of centralization, and proportion of specialists as closely associated to the pattern of adoption and the pattern of communication flow.

Macro-Diffusion studies of innovation, on the other hand, have examined the diffusion of new technologies across entire populations of organizations following different approaches. For example, the ‘spatial approach’ referred to spread of innovations by what is called ‘gravity models’ – the population size of an area, and of the distance of that area from other centres of population (Rogers, 1983). Another approach is the ‘S-shaped Curve’. This approach refers to adoption over time: very few firms adopt during early stages of the technology, and then there is a sudden ‘take-off’ followed by a slowing down in the rate of adoption (Mahajan and Peterson, 1985). The S-shape of the

curve is explained in terms of the shifting balance of supply and demand, reflecting the function of investment required for adopting a technology and the time required for profitability of that technology to occur (Freeman, 1982; Mansfield, 1968, 1977; Von Hippel, 1988). Burt (1987) made a different analysis of the S-curve based on a sociological perspective. He argued that the distinctive mechanisms of diffusion and structural equivalence (structural equivalence versus cohesion) mean that those who adopt at one point in time are similarly situated as compared to other actors. Cohesion suggests that adoption results from direct communication between a potential user and prior users. Burt (1987) suggests that interpersonal communication is less important for diffusion than traditional theory suggests.

Brown (1981) criticized the view that adoption is the outcome of a learning or communication process. According to him, the learning and communication view suggests everyone has an opportunity to adopt, limited only by their innovativeness and places too much emphasis on the demand side institution of diffusion. Accordingly, he suggests that institutions that supply and actively market technology determine the spread of technology and, to a certain extent, who adopts it and when. Hence, he suggests that market structures that channel new technologies to users should also be thoroughly examined.

Eveland and Tornatzky (1990) have criticized the diffusion theory for its tendency to focus on adoption decisions by individuals based on relatively rationalistic adoption decisions; arguing that decisions are often too many and complex, technologies too big and sophisticated to be grasped by a single person's cognitive power or a any single organizational participant. Under the complex environmental circumstances, the classical diffusion models seem less applicable. They recommend a perspective that diffusion and adoption occurs within the context that constrains and mould choices considering five elements, that is, firstly, nature of technology itself; secondly, the potential user characteristics; thirdly, the characteristics of deployers; fourthly, the boundaries within and between deployers and users; and finally, the characteristics of communication and transaction mechanisms.

Learning and communicating the technical knowledge for complex innovation successfully places far greater demands on potential users and on supply-side organizations (Lall, 1987, 2000; Attewell, 1996). Attewell (1996) argues that most studies of supply-side institutions in innovation conceptualize the diffusion model, in so far as being transferred from the originating institution to user organization; treating the movement of complex technical knowledge under a model of communication most appropriate for signalling. There are numerous compelling empirical and theoretical reasons for avoiding the concept of knowledge transfer when applied to complex technologies. There is ample evidence that, although one can readily buy innovative machinery, the knowledge needed to use modern production innovations is acquired much more slowly and with considerable difficulty (Arrows, 1962).

Absorbing a new complex technology does not only require modification and mastery of technology, as may be viewed in a mechanical sense, but also required modifications in organizational practices and procedures, which is a complex learning process (Kaplinsky, 1993; Johnson and Rice, 1987; Bikson and Shipiro, 1986). Thus, it is argued by Attewell (1996) that implementing a complex new technology requires both individual and organizational learning. It is, therefore, difficult to separate the theories on organizational learning at small business level from theories of technology transfers, particularly through foreign direct investment. The following section explores, in detail, the theory and the state of foreign direct investments through TNCs.

4.4.1 Theory and State of FDI

John Dunning categorises the development of the FDI theory into 3 phases (Hood and Young, 2000) that is, first phase (half of the 1960s); second phase (the second half of the 70s); and finally, the third phase (during the 1990s). The latest thinking around FDI is known as the eclectic paradigm.

The First Phase (Half of the 1960s)

Before 1960, there was no theory or paradigm of the determinants of FDI in spite of the increasing outbound investments by United States Corporations,

predominantly in Europe. These activities began to be explored in theory by Dunning (1958), more so Hymer (1960) and Vernon (1962). Hymer (1960) argued that the theory of Foreign Portfolio Investment could not explain the geographical expansion of firms because this expansion was the transfer of the real assets, not financial assets, and the phenomena did not take place in perfect markets, but in imperfect markets. In the later stages, more rigorous internalisation approaches to explain why United States (US) firms engaged in FDI were adopted.

On the other hand, Vernon (1966) was vociferous in explaining the process rather than the determinants of internalisation of US firms. After realising the inefficiencies of the trade theory in explaining the FDI, because of its assumption of perfect markets, he used a marketing concept called “the product-cycle” to explain the FDI phenomenon. The assumption was that US firms possessed home country specific advantages compared to foreign competitors, which, according to him, explains the geographical movement of value-added activities as they move from innovation to maturation in the product cycle; in addition, the determinants of location-specific endowments were critical for efficient production. Both Hymer and Vernon represented a major breakthrough in theorizing about FDI. However, their theory was context-dependent and could not explain successive US FDI. The limitations of these theories were exposed as more countries and firms became outward investors and multinational.

Most later theories during this period, from finance scholars, were explanations from Rugman (1982) – the risk-diversification theory and Aliber’s (1970) ‘capital markets imperfections theory; Knickerbocker’s (1973) “follow my leader” theory, Graham’s (1978) ‘tit for tat’ theory, and later Vernon (1978) emphasised the firm-specific issues of firms engaged in oligopolistic competition.

Second Phase (the Second Half of the 1970s)

The contributions of McManus (1972), Buckley and Casson (1976), Hennart (1982), Rugman (1982) and Swedenborg (1979) led to the development of the

new dimension in scholarly thinking around FDI: the internalisation theory. The internalisation theory explains the reasons for foreign production and sales of TNCs, that these activities are in response to market imperfection (which most of the previous theories in trade and FDI have tried to identify, such as imperfections in knowledge and information, and capital markets). Firms exist because they are capable of coordinating and deploying complementary resources and capabilities at lower costs than the other foreign markets (Hood and Young, 2000). Firms expand to foreign territories where they can undertake the transactions of economic activities more efficiently than they can at an 'arms length'. However, the internalisation theorists have been criticized for not paying attention to cross-border market failures.

On the other hand, the eclectic paradigm, which was proposed by Dunning (1977), fully recognised that its contents were a combination of the theories of TNC activities of the previous 15 years. This paradigm examines the nature and content of advantages also taking into account the spatial factors; resting its foundations on three sets of economic theory foundations: firstly, the theory of industrial organisation (explaining how each group of firms acquire and sustain competitive advantage compared to the other firms); secondly, the theory of the firm (explaining the organizational paradigm in which firms establish, augment and sustain these advantages); lastly, the theory of location (explaining where and why firms choose to locate their value-adding activities to specific locations). The eclectic theory states that, at any given moment of time, the extent, ownership, and pattern of TNC activity depends upon the competitive or ownership (O) specific advantages; attractions of one country or region relative to others, exploiting the two sets of benefits by internalising the market for ownership or competitive advantages. Furthermore, evolutionary theorists of organisational management added new trajectory in the eclectic paradigm, that of a firm representing an accumulation of past assets.

The Third Phase (The 1990s)

The events leading to the 1990s such as the end of the Cold War, fall of the Berlin Wall, and the radical movement towards the liberalisation of trade challenged the extant thinking and theorizing about FDI. Three challenges are identified:

Firstly: the previous theories still explain a great deal of contemporary FDI, for example, the market seeking FDI theory is the same but the value of the determinants such as investment incentives, communication costs, and physical infrastructure may differ from country to country. The economic models of the 70s and 80s, as argued by Dunning in Hood and Young (2000), are broadly relevant to explain such investments in the 1990s.

Secondly, the increasing globalisation and diversity of FDI activities by firms are advancing the nature of the international division of labour; also the technological complexity of products, production processes, and dynamic consumer needs are creating new locational dynamics and preferences. The technological interdependency of production processes has made local technological capabilities the most significant pull factor for FDI (Dunning in Hood and Young, 2000).

Thirdly, the increasing location dispersion of knowledge and revitalisation of indigenous knowledge systems and the need for TNCs to tap into these knowledge networks, especially on complementary products and processes, has been an important determinant of FDI activity in certain industries such as the pharmaceutical industry. TNCs are engaged in FDI activities to add more value to their ownership-specific advantage and to seek out and harness complementary created assets. As a result, an increasing number of writers have begun theorising about the concept of asset-augmenting FDI, such as Dunning (1993) who calls it “Strategic-asset-seeking FDI”. Makino (1998) emphasises the need for firms to access latest technologies and organisational capabilities.

It is, therefore, implied in the current theorising about the expansion of the FDI of firms that their penetration in international location is motivated by ownership specific advantage, and, as a result they have no development responsibility and locational obligations to local stakeholders. The established code of conduct laid down by United Nations is the main mechanism that monitors the developmental and social responsibility of the TNCs in host countries. For example, Article 36: Technology Transfer (UNCTAD, 1990) - on the Draft United Nations Code of Conduct on Transnational Corporations and the OECD Guidelines for Multinational Enterprises states:

“Transnational corporations shall conform to the transfer of technology laws and regulations of the countries in which they operate. They shall co-operate with the competent authorities of those countries in assessing the impact of international transfers of technology in their economies and consult with them regarding the various technological options which might help those countries, particularly developing countries, to attain their economic and social development. Transnational corporations, in their transfer of technology transactions, including intra-corporate transactions, shall avoid practices, which adversely affect the international flow of technology, or otherwise hinder the economic and technological development of countries, particularly developing countries. Transnational corporations shall contribute to the strengthening of the scientific and technological capacities of developing countries, in accordance with the science and technology policies and priorities of those countries. Transnational corporations shall undertake substantial research and development activities in developing countries and make full use of local resources and personnel in this process.”

Economic indicators show that FDI by TNCs, and the TNCs systems of production and international economic transactions are now the most dominant element of the world economy. There were 244 changes in laws and regulations affecting FDI in 2003 alone, 220 of which were in the direction of more liberalization. About 86 bilateral investment treaties (BITs) and 60 double taxation treaties (DTTs) were concluded (World Investment Report, 2004:xvii).

FDIs inflows in Africa rose by 28%, to US\$58 billion. Overall, natural-resource-rich countries (Angola, Chad, Equitorial Guinea, Nigeria, and South Africa) continued to be the principal destination of FDI (World investment Report, 2004: xviii). South Africa received 0.8% of the FDI to Africa during the period 2002 and 2003. According to UNCTAD's Inward FDI Performance Index 2002-2004 (a measure of the attractiveness of a country to FDI), countries such as South Africa have yet to realize their full potential to attract FDI according to their ranking. South Africa is ranked number 126 out of 140 countries (UNCTAD, 2005).

Table 4.3 indicates the extent to which FDI, through TNCs, has dominated global trade in all major industries, virtually controlling the entire world economy. Companies are listed in terms of the global market share and the specific sector in which they operate. About 26% of these companies control more than 50% of their respective sectors such as Boeing (70%) in the aerospace, Intel (85%) in the micro-processors, Microsoft in the PC operating systems and 90% in the business desktop computer applications, and Coca-cola in carbonated soft drinks.

Table 4.3: Global Oligopoly in selected industries (1998-2000)

Company Name	Sector	Global Market Share (%)
Aerospace		
Boeing	Commercial aircraft orders over 100 seats	70
Airbus	Commercial aircraft orders over 200 seats	30
GE	Aero-engine orders	53
Rolls-Royce	Aero-engine orders	34
Pratt & Whitney	Aero-engine orders	13
ICT&E		
Lucent	Internet and telecoms equipment	17
Intel	Micro-processors	85
Microsoft	PC operating systems	85
Microsoft	Business desktop computer applications	90
Cisco	Computer routers	66
	High-end routers	80
Corning	Optical Fibres	50
Hyundai Electronics	DRAMS	21
Samsung Electronics	DRAMS	20
Sony	Electronic phones	67
Nintendo	Electronic games	29
Ericsson	Mobile phones	15
Nokia	Mobile phones	23
Motorola	Mobile phones	20

Pharmaceuticals

Glaxo Wellcome/SKB	Prescription drugs	7
	Central Nervous system drugs	12
	Anti-infection	17
	Respiratory	17
	Anti-asthma	31
Merck	Anti-herpes	49
	Prescription drugs	5
	Statin anti-cholesterol	40
	Angiotension converting enzyme inhibitors	30
Medtronic	Implantable/interventional therapy technologies	45
	Pacemakers	50+

Vehicles

Ford	Automobiles	16
GM	Automobiles	15
Daimler-Chrysler	Automobiles	10
VW	Automobiles	9
Toyota	Automobiles	9
Renault/Nissan	Automobiles	9

Vehicle Components

Siemens	Control/automation equipment	10
ABB	Control/automation equipment	9
Emerson	Control/automation equipment	8
Fanuc	Machine tool controls	45
Schindler	Lifts	25
Otis	Lifts	18
Mitsubishi	Lifts	13
Kone	Lifts	9

Fast-moving consumer goods

Coca-Cola	Carbonated soft drinks	51
Protector and Gamble	Tampons	48
Gillette	Razors	70
Fuji Film	Camera Films	35
Chupa Chups	Lollipops	34
Nike	Sneakers	36

Packaging

Toray	Polyster film	60
Sidel	PET plastic packaging machines	55
Alcoa/Reynolds	Aluminium	24

Power Equipment

GE	Gas turbines	34
Siemens/Westinghouse		32
ABB/Alstom		21

Source: (Zalk, 2004:20)

The dominant position of TNCs makes the study of their linkages with small business a significant one in developing countries with the potential to attract more TNCs. The next section looks at theories of organizational learning and their relevance in small business learning and international competitiveness.

4.4.2 Small Business Learning and Transnational Corporations

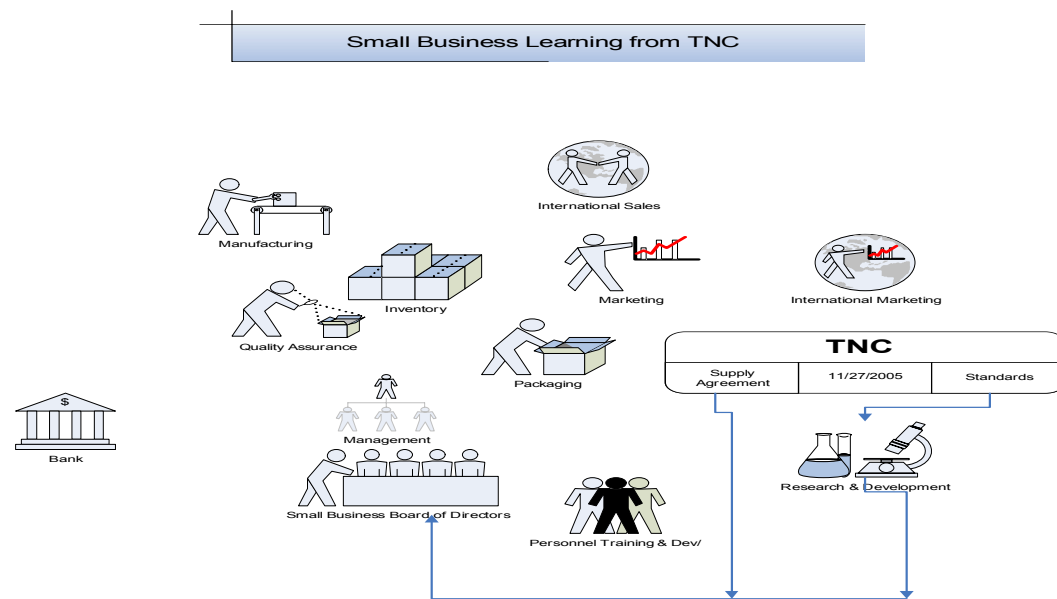


Figure 4.3 Small Business Learning

Figure 4.3 represents a simplistic illustration of the learning process based on the learning stimuli and an opportunity to a small business presented through a relationship with a TNC as argued in this study. Small business entrepreneurs identify an opportunity for a relationship with a TNC. The opportunities presented by TNCs may vary according to industry through vertical and horizontal linkages. Vertical linkages include buyer-supplier relationships, and horizontal linkages will include partnerships such as joint ventures and alliances. Although some small businesses may have a board of directors, most small firms are directed and owned by founders, the entrepreneurs themselves. The owner's abilities are displayed in the capabilities of the organization. The element of coercive learning is embedded in the nature of the small business and the scramble to survive.

According to Lall (2003:48), for local organizations in developing countries to access new technologies, there are two forms of access, that are, internalized and externalized. Internalized access happens from a TNC to foreign affiliates under its control, and externalized access occurs between independent firms. The access between a TNC and an independent organization, that is, the

small business, can take various forms such as a minority joint venture, franchising, turnkey projects, sale of equipment, licenses, technical assistance, and subcontracting arrangement. Lall (2003:48) contends that externalized transfers generally tend to call for greater learning effort by the receiving firm.

A number of support activities take place in a relationship between a small business and a TNC depending on the nature of the linkage. Support activities can range from training, research and development, marketing support, quality assurance, technological support, and technical or management mentorship and coaching. The perceived benefits from TNC by entrepreneurs and their organizations drive the enthusiasm and maximization of opportunities that are possible. In most instances, these relationships are based on win-win outcomes. The TNCs' benefits vary according to the international competition pressures. Moreover, there are numerous imperatives for big companies to reduce costs, outsource those activities that are better suited to small scale operations, and focus on knowledge intensive and mean operations. Also, other factors such as legislative requirements push big companies to outsource some aspects of their businesses. For example, the labour regulations are sometimes perceived to be costly.

A small firm, before and after it has entered into a relationship with a TNC, has to continually evolve its systems, structures, and performance to meet expected standards. In this instance, these standards are international as they relate to quality, pricing, efficiency, and responsiveness. This is not an easy process as the small business would invest in resources and product development. In most instances, this would mean obtaining additional funding from financial institutions. The implementation of quality standards is the biggest challenge and requires the support of the TNC itself to achieve those standards.

A small business would slowly evolve itself until it fully meets the requirements of the TNC and its market. From this point onward, a small business has a different perspective with an international outlook. The

entrepreneur has a greater exposure to international standards and markets. The small business is opened to international trade possibilities. In this case, it could be through sourcing of raw materials, international activities such as conferences, technical and market missions, and international marketing opportunities.

The small business that is linked to a TNC is more likely to begin to have an international orientation, that is, it could engage in international strategies and begin to service international markets.

4.5 CONCLUSION

One of the drivers of the balancing effects on negative or positive changes in the environment is learning in organizations. Given the gaps in small business support as outlined in previous chapters, the key element of support is the understanding of how small businesses learn and provide support mechanisms based on that understanding. Small businesses are largely managed by their owners, the entrepreneurs. A learning organization or organizational learning in the context of an entrepreneur or owner-managed business would, therefore, be different from that of a complex organization. Not all small businesses are growth oriented; most of them are more concerned about their survival (Jones and Tilley, 2003). “Survival anxiety”, in the form of international competitive pressures, triggers learning within a small business, particularly in the beginning of the 21st century (Coutu, 2002:6; Lall, 2000). Learning for the sake of learning is not common in small businesses because of time, and capacity limitations (Buratti and Penco, 2001). This chapter observed the changes in learning organization perspectives and the recent focus on small businesses for international competitiveness. The role of TNCs in relationships with small businesses was revisited.

The early literature on organizational learning presupposes Western organizations that are big and exist in relatively similar contexts (Tsang, 1997). These are organizations mostly in the Fortune Top 20 companies

based in America and Europe, such as Motorola, Procter and Gamble, and Fiat. These organizational learning studies were elevated by prominent business schools in the United States and Europe such as the MIT Sloan School Management's Organizational Learning Centre. Very little consideration was given to size and context of a business.

The increasing focus on the significance of SMMEs in different economies, both in developed and developing countries, has extended the organizational 'learning' perspective to focus on small businesses and support for international competitiveness (Lall, 2000).

The literature on learning organizations has long been based on a dichotomy between single loop and double loop types of learning. This dichotomy has created confusion and chasm in the understanding of the field of organization learning. Recent studies on the learning organization have attempted to merge the gap between the two learning strands in theory. Fundamentally, the critical factor that combines the two strands is originated from Schein's idea of learning and survival anxieties. On the other hand, an increasing literature supports the push factors of globalization and technological advancement as pressures for learning in organizations.

The internal dynamics of a learning small business points to a slightly different approach than is normally assumed in big organizations. The significance of entrepreneurial competencies, which include the ability to recognize opportunities, create and maintain relationships, conceptualization and decision-making, organizing, strategic, and commitment abilities are more relevant to a small firm and their international competitiveness.

For a small firm to have relevant competencies is not sufficient. The most important competency acknowledged is a relationship competency amongst five process competencies identified by James (2003) in small businesses. It is, therefore, critically important for a small firm to have relevant networks. In view of international competition, the key networks would include relevant

international institutions. One such powerful institution investigated in this thesis is the role of TNCs.

Literature in technology transfers has converged to acknowledge the role of learning in organizations for effective technology transfers. The liberalization of trade creates opportunities for inward movement of FDI, not only in traditionally attractive Asian countries, but also in the rest of Africa and South Africa, in particular. South Africa, has a strong potential to attract FDI, given the stabilizing economic and political conditions as ranked number 126 out of 140 countries in the UNCTAD's Inward FDI Potential Index. While TNCs do not have business motivation to transfer its technologies and build local capacity particularly to SMMEs, it is bound by various policies that govern the behaviour of TNCs to host economies. One such policy is the UNCTAD's code of conduct for Multinational Corporations which provides guidelines for TNCs and requires them to abide by the technology transfer laws of the host economy.

The next chapter focuses on the research methodology for this study.

CHAPTER FIVE

RESEARCH METHODOLOGY

CHAPTER 5: RESEARCH METHODOLOGY

5.1 INTRODUCTION

The aim of this chapter is to describe the research stages and the elements of the research process focusing on primary data collection, both qualitative and quantitative methodologies and the process of theory building and proposition development. The chapter also explains how the instrument was designed, the nature of measurement, the soundness of the measurement, the population and sampling methods, the data preparation and data analysis methods.

The chapter begins by clarifying a layout of the research stages that were followed in this study, from the research problem stage to the data analysis stage. The chapter also provides the details of the research process describing the initial qualitative, exploratory, quantitative, and empirical study methods. The issues around variables and their control are discussed.

The uses of Dubin's theory of theory building methodology and of Sowa's representation of knowledge theory are explained.

The discussion on the development of the study instrument indicates how the design process incorporated the elements of the literature review and the elements of the personal interviews with representatives of the Manufacturing Advisory Centre and two representatives of the manufacturing firms. The chapter also indicates the processes followed to validate the instrument prior to its piloting. The questionnaire was subjected to a pilot study and the recommendations and comments were incorporated into the final instrument.

The validity and reliability of the measurement are described in detail. The content validity criterion was accomplished by evaluation of the draft questionnaire by the panel of experts. Finally, the reliability criterion was accomplished by the histogram with normal curve values indicating the consistency among the different items in the questionnaire.

The chapter also deals with the pilot study process, participants, and the results. It also discusses the analytical procedures that were applied to prove the validity and reliability of the instrument, using the Statistical Package for Social Sciences (SPSS) package. The Histogram with Normal Curve indicated the average mean value of 24% showed the reliability of the analysis internal consistency of the instrument on factors like benefit perception, level of learning, industry changes, international strategies, competitiveness strategies, and performance outcome.

The chapter explains the limitations to the pilot study and concluded that the questionnaire had satisfactory reliability and validity for this particular study. In terms of the roll out and the administration of the final instrument to the study sample, the chapter highlighted the relevant population of this study consisting of 800 small manufacturing firms.

The chapter also indicates that, at a confidence level of 95% and confidence interval of 0.05, a sample of 300 firms was satisfactory. The random probability sampling approach was used directly from the directory of small firms of the Durban Chamber of Commerce and Industry. Out of the 300 questionnaires distributed, 255 were returned, and 5 were spoilt, presenting an 85% return rate.

The selected methods of data analysis, that is, the descriptive and inferential statistics, were justified in this chapter. The descriptive statistics that this study used were the standard deviations and the means. The standard deviations were used to strengthen interpretability by expressing deviations in their original units. Factor analysis, Cronbach Alpha, and t-tests were used since the study was concerned with the significance of the difference between two sets of variables based on responses by respondents.

5.2 THE RESEARCH PROCESS

Scientific business research is defined by Cooper and Schindler (1998:14-18) as a systematic investigation of an area of interest to business decision

makers. The results of well applied business research can contribute to effective decision making by businesses, practitioners, and policy makers. Hence, business research is becoming an important tool for businesses seeking competitive advantage.

The quality of the research methodology is key to a successful scientific business research. The quality of the research methodology is dependent on how well the purpose of the research is defined; quality of the research design and research process; honestly stated limitations; adequate analysis of data; clarity of the findings; and justified conclusions (Mouton 2001:56; Cooper and Schindler, 1998:14-18).

The research purpose and objective, and the research propositions for this study are stated in chapter 1, which includes the demarcation and scope of the study. The research design is described in this chapter. Propositions were also derived through literature review.

The research methodology is described in this chapter. According to Mouton (2001:56), research methodology is a process, with procedures and instruments through which research is conducted. This chapter, therefore, presents the details of the methodology that was applied in this study. This study follows a qualitative and quantitative approach. The qualitative area was conducted through a number of semi-structured interviews with key players in the manufacturing sector in Durban. The quantitative aspect was conducted using a survey instrument and ex post facto statistical design to enable the achievement of the research purpose. The research sets out to achieve the following:

- (i) The identification and understanding of international learning for small businesses in a relationship with TNCs;
- (ii) The analysis of international learning processes based on international “best practices” that reflect organizational learning evidence;

- (iii) The quantitative identification and description of international learning processes for small businesses in transforming economies; and
- (iv) The development of a model that enhances a case for a rational and comprehensive programme that supports linkages between small businesses and TNCs and enhances small business international learning. The model differentiates between the strategic processes that can be influenced and those that require broader and long-term interventions. By complying with an international learning model, small businesses international competitiveness will be optimized.

5.3 THE STAGES OF THE RESEARCH PROCESS

This study followed a research plan consisting of nine stages outlined below:

5.3.1 Stage 1: The formulation of the research problem

The research problem was formulated from practical and theoretical literature and is reported in Chapter 1.

5.3.2 Stage 2: The identification of the research purpose and the research objectives

Based on the research problem, the research purpose and objectives were identified and are reported in Chapter 1.

5.3.3 Stage 3: The literature review

A detailed literature review was performed on organizational learning, technology transfers, and international competitiveness in relation to small businesses in transforming developing economies. This is reported in Chapters 2, 3, and 4.

5.3.4 Stage 4: The qualitative approach

An exploratory qualitative data was collected through semi-structured personal interviews with a representative of the Durban Manufacturing Advisory Council (DUMAC) and two owners of manufacturing firms (bumper manufacturer and a clothing firm). Key themes that emerged from these interviews informed the questionnaire development. This stage is reported in Chapter 5.

5.3.5 Stage 5: The design of the instrument

Using the literature review and interviews, a draft questionnaire was developed that ensured that the purpose, objectives, and solution to the research problem are met. The questionnaire was evaluated by a panel of experts during a research colloquium at the Durban University of Technology as well as subjected to presentations at various national and international conferences. This stage is reported in Chapter 5.

5.3.6 Stage 6: The pilot study

The pilot questionnaire was distributed to ten randomly selected respondents that have a mixed profile in line with the final sample. The results of the pilot study were analyzed to ensure reliability and validity and reported in Chapter 5.

5.3.7 Stage 7: The development of the research propositions

Based on the literature review, interviews, expert panel evaluation outcomes, and the results of the pilot study, research propositions were developed. The methodology used in developing research propositions is reported in Chapter 5 and motivated for and reported in previous chapters.

5.3.8 Stage 8: The refinement of the final questionnaire and its administration

The results of the pilot study were used to refine the questionnaire. The final questionnaire was then rolled out in random probability sample of respondents. This stage is reported in chapter 5.

5.3.9 Stage 9: Data Analysis

A quantitative data analysis was performed using the Statistical Package for Social Sciences (SPSS 11.5). This stage is reported in this chapter.

5.4 THE MAIN ELEMENTS OF THE RESEARCH PROCESS

There are four main elements in the research process considered for this study that is, degree of problem crystallization, and control of variables, time dimension, and theory building and proposition development.

5.4.1 The Degree of Problem Crystallization

Research can be viewed as either exploratory or formal depending on the background and purpose of the study (Cooper and Emory, 1995:115). The literature review revealed paucity in the organizational learning and international competitiveness in relation to the literature of small businesses in developing countries. The paucity of literature has implications on the research design.

As a result, this study began with an exploratory perspective, using a qualitative approach. The reason for an exploratory perspective is a gap in the literature on organizational learning in the context of small businesses facing international competitiveness challenges in developing countries. The research went further to use a quantitative approach using a survey

instrument. The design of the survey instrument was based on qualitative research outputs and literature review. These aspects of the research are reported in sections 5.6 and 5.7 of this chapter.

5.4.2 Control of Variables

The onus is on the researcher to ensure reduction of bias by developing appropriate mechanisms that improve impartiality. During the qualitative stage, the researcher developed a data framework base to objectively record and populate responses.

On the other hand, during the quantitative research phase, an *ex post facto* design was used. The researcher, as a result, had no control over the variables, except in being able to select subjects based on random probability sampling.

These variable control elements are reported in section 5.6 of this chapter and in chapter 7.

5.4.3 The Time Dimension

This study used a cross-sectional method that involved observation of some subset of a population of items all at the same time or moment in time (Cooper and Schindler, 1998:132; Wikipedia, 2005). The time dimension is reflected in sections 5.6 and 5.7 of this chapter.

5.4.4 Theory Building and Proposition Development

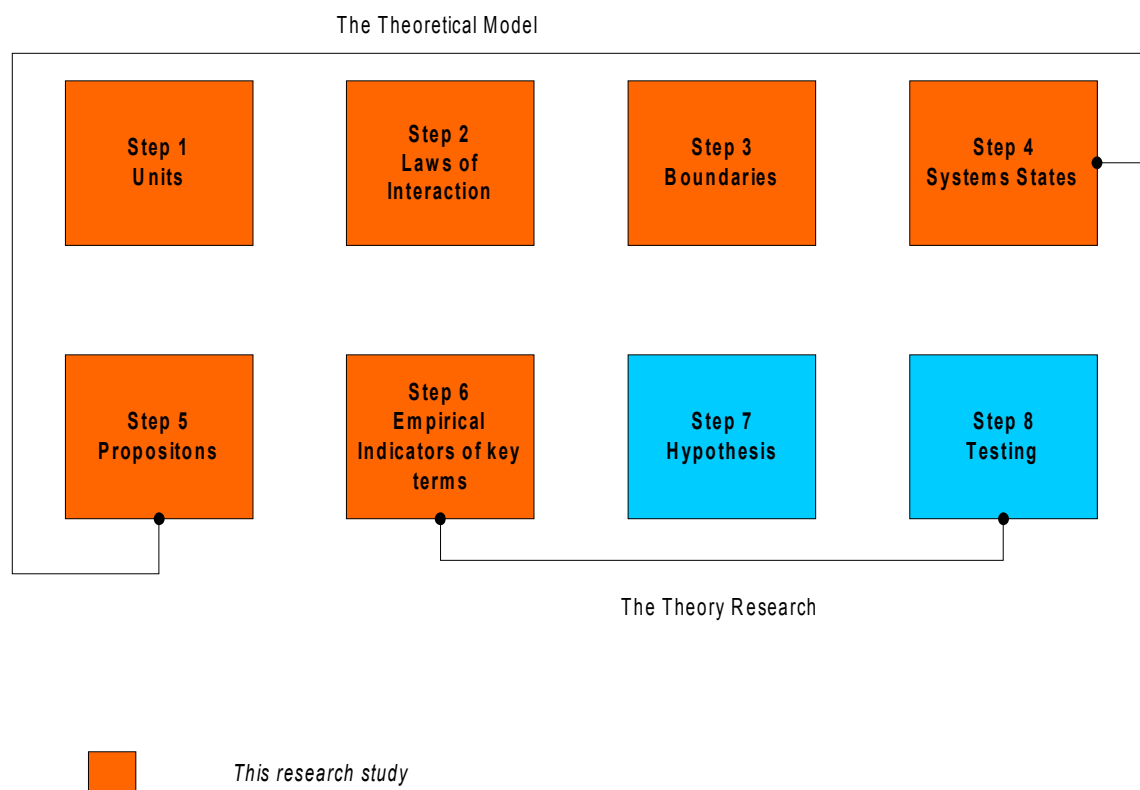
This research uses propositions to generate new theory. A proposition is defined by Cooper and Schindler (1998:43) as a statement that depicts concepts that may be judged to be either true or false. Through the process of proposition development and research, new theories can be generated. A theory is a logically self-consistent model or framework for describing the behaviour of a related set of natural or social phenomena. It originates from

and/or is supported by empirical evidence (Neuman, 2000; Sowa, 2000, Wikipedia, 2005). The theory building process is reported in section 5.5 of this chapter.

5.5 THEORY BUILDING AND PROPOSITION DEVELOPMENT

Dubin's eighth-step theory building method was deemed appropriate and was used (Chermack, 2005).

Figure 5.1 Dubin's eight-step theory building research methodology



Source: (Chermack, 2005:61)

This research study attempted to build a theoretical model - a process that begins with step 1 until step 6 of Dubin's eight-step theory building methodology as illustrated in figure 5.1 above. Because of the newness of the study, it does not seek to engage in steps 7 and 8. The propositions are developed in step 5 and empirical indicators of key terms are tested in order to support a theoretical model developed. The basis for future research is then created as a result.

5.5.1 Step 1: Developing Units of the Theory

The units of a theory that are developed are based on literature in chapters 2, 3, and 4; and experience through interviews as reported in this chapter. The units of a theory of international learning of small business confronting international competitiveness challenges are:

- (i) The level of importance of learning of small businesses from TNCs, in general and specifically, the perceptions towards TNCs, and the level of learning activities from TNCs by small businesses confronting international competitiveness challenges in transforming developing economies; and
- (ii) The extent of implementation of competitiveness strategies and strategic processes, in general, and specifically, the extent of implementation of international related strategies by small businesses confronting international competitiveness challenges operating in transforming developing economies.

The test of the appropriateness of these units is premised on Dubin's guidelines (Dubin, 1978:73) which are:

- (i) Relational units cannot be combined in the same theory with enumerative or associative units that are themselves properties of that relational unit;
- (ii) Where a statistical unit is employed, it is by definition a property of a collective. In the same theory, do not combine such a statistical unit with any kind of unit (enumerative, associative, or relational) describing a property of members of the same collective;
- (iii) Summative units are not employed in scientific models; and
- (iv) A unit type must be chosen, and a unit can be of only one type. Further, specification is at the discretion of the theorist. The initial distinctions are intended to help the theorist in considering the variables to include in the theory and to assess the maturity or development stage of the domains to be included.

The proposed theoretical units were found to be appropriate to Dubin's guidelines. The units combine only enumerative units. The units are part of the literature and have been reported in earlier chapters.

5.5.2 Step 2: Laws of Interaction

Laws of interaction are a description of the relationship between units. The proposed theoretical model of international learning of small businesses confronted by international competitiveness in transforming developing economies has five categorical laws and four sequential laws. The categorical law of interaction observes the association between values of one unit to the values of another unit while, on the other hand, the sequential laws relate to the observation of time dimension in a relationship between units (Dubin, 1978:98-101). The number of laws is established by all possible relationships and connection between units. Figure 5.2 illustrates the laws of interaction as they are applied in this study.

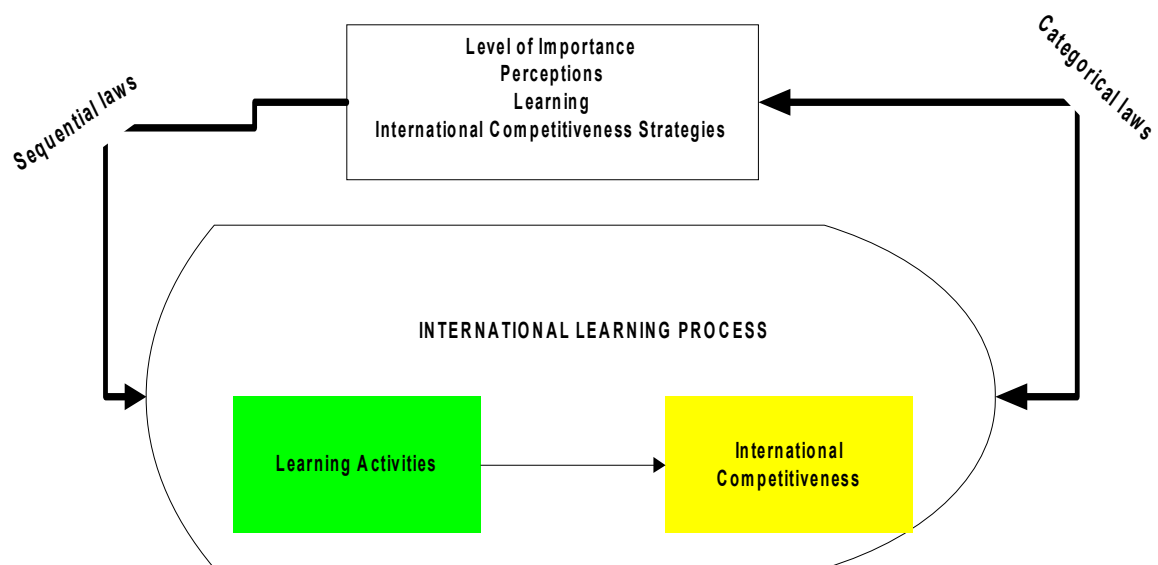


Figure 5.2: Categorical and Sequential Laws of Interaction for the Proposed Theoretical Model

The categorical laws consistent with the theory units for this study are as follows:

- (i) There is a greater probability that the level of importance of learning from TNCs' perceptions by small businesses confronted by international competitiveness challenges in transforming developing economies is associated with the extent of implementation of international competitive strategies in these small businesses;
- (ii) There is a greater probability that the level of importance of the perceptions of TNCs by small businesses confronted by international competitiveness challenges in transforming developing economies is associated with the extent of learning from TNCs in these small businesses;
- (iii) There is a greater probability that the extent of implementation of learning activities from TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies is associated with the implementation of international competitiveness strategies by these small businesses; and
- (iv) There is greater probability that the level of importance of learning activities from TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies is associated with the extent of international competitiveness of these small businesses.
- (v) All units are required for the theory to function.

The Sequential Laws consistent with the theory units for this study are as follows:

- (i) The level of importance of learning from TNCs perceptions by small businesses confronted by international competitiveness challenges in transforming developing economies precedes the implementation of international competitive strategies in these small businesses;
- (ii) The level of importance of the perceptions of TNCs by small businesses confronted by international competitiveness challenges

in transforming developing economies precedes learning from TNCs in these small businesses;

- (iii) The extent of implementation of learning activities from TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies precedes the implementation of international competitiveness strategies by these small businesses; and
- (iv) The level of importance of learning activities from TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies precedes international competitiveness of these small businesses.

5.5.3 Step 3: Boundaries

According to Dubin's theory of building methodology, boundaries locate the theory in its environment. Hence, the theorist has to identify domain(s) in which the theory is expected to operate.

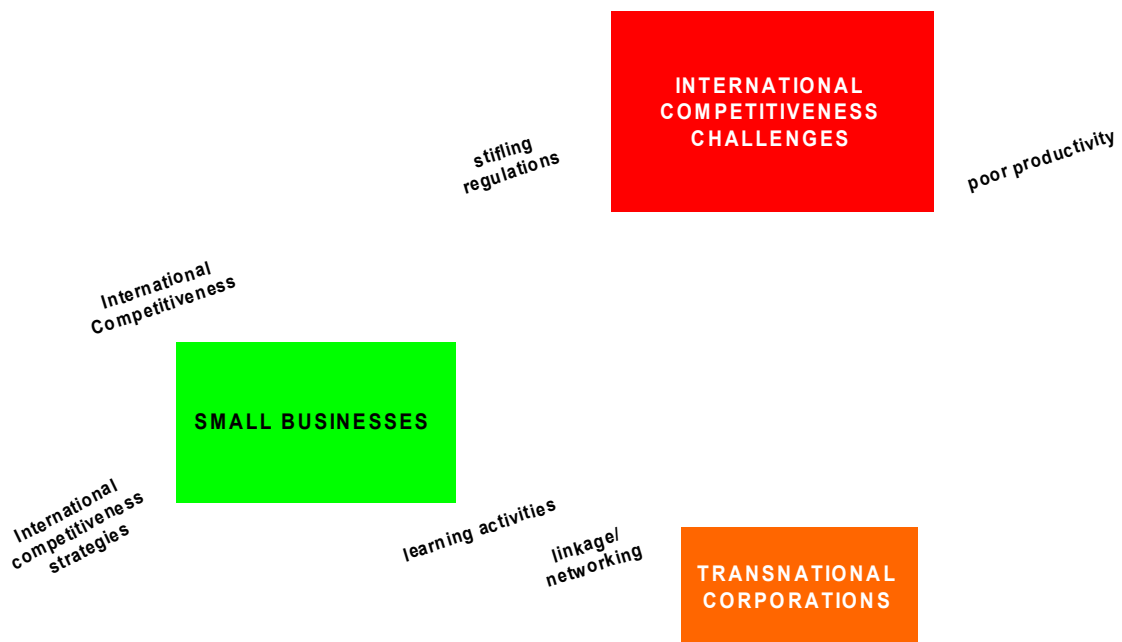


Figure 5.3 The Boundaries of a Theory on international learning of Small Businesses Confronting International Competitiveness in Transforming Developing Countries

There are three boundaries for this proposed theoretical model, namely, small businesses, Transnational Corporations, and international competitiveness challenges. These boundaries are illustrated in figure 5.3 above. The details of each boundary have been reported in previous chapters.

5.5.4 Step 4: Systems States

The state of a system is defined by three features (Dubin, 1978:144):

- (i) All units of a system have characteristics of values;
- (ii) The characteristics of all units are determinants; and
- (iii) This constellation of unit values persists through time.

The values of all units enable the determination of the state of a system.

The proposed theory will adopt a 0 – absence of the characteristics being examined, and 1- the presence of the characteristics being examined code. For example, if the level of importance of learning from TNCs perception was coded as 0, this would indicate an absence of importance.

There are five system states in this proposed theory:

- (i) **System state 1:** Absence (unit value = 0);
- (ii) **System state 2:** Level of importance of learning from TNCs, perceptions of TNCs, and level of learning activities (unit value 0 to 1 depending on the level of importance);
- (iii) **System state 3:** The extent of implementation of learning activities (unit value 0 to 1 depending on the extent of implementation);
- (iv) **System state 4:** The extent of implementation of international competitiveness strategies (unit value 0 to 1 depending on the extent of implementation); and
- (v) **System state 5:** The extent of international competitiveness (unit value 0 to 1 depending on the extent of implementation).

5.5.5 Step 5: Propositions

A proposition is defined as a truth statement about a model when it is specified according to its units, laws of interaction, boundaries and systems state (Dubin, 1978:160). Hence, propositions follow logically from previous steps 1 to 4. The propositions on the theory of international learning for small businesses confronted by international competitiveness challenges in transforming developing economies are as follows:

Proposition 1:

If there is a positive correlation between the level of importance of learning perceptions and extent of implementation of learning activities from TNCs by small businesses confronted by international competitiveness challenges in transforming developing economies, then the extent of implementation of learning activities will increase with an increase in the level of importance of these activities in these small businesses.

Proposition 2:

If there is a positive correlation between the level of importance of perceptions of TNCs and the extent of implementation of international competitiveness strategies in small businesses confronted by international competitiveness challenges in transforming developing economies, then the extent of implementation of international competitiveness strategies will increase with an increase in the level of importance of these strategies in these small businesses.

Proposition 3:

If there is a positive correlation between the level of importance of perceptions and the extent of implementation of learning activities from TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies, then the extent of implementation of international strategies will increase with an increase in the level of importance of these strategies in these small businesses.

5.5.6 Step 6: Empirical Indicators of Key Terms

From the above propositions, empirical indicators are derived. Empirical indicators are necessary to be able to identify values and measures for the units of the theory, which are verifiable through empirical research (Chermack, 2006:82). The following empirical indicators for the proposed theory are developed in order to refine and support the proposed model:

(i) First Empirical Indicator for the Unit: Extent of implementation of learning activities from TNC

The value of the unit will increase as a result of an increase in the level of importance of learning from TNCs perceptions as measured by any instrument that measures perceptions and the number of learning processes towards these learning activities.

(ii) Second Empirical Indicator for the Unit: Extent of implementation of international competitiveness strategies

The value of the unit will increase as a result of an increase in the level of importance of international competitiveness challenges and perceptions of TNCs as measured by any instrument that measures the implementation of these strategies.

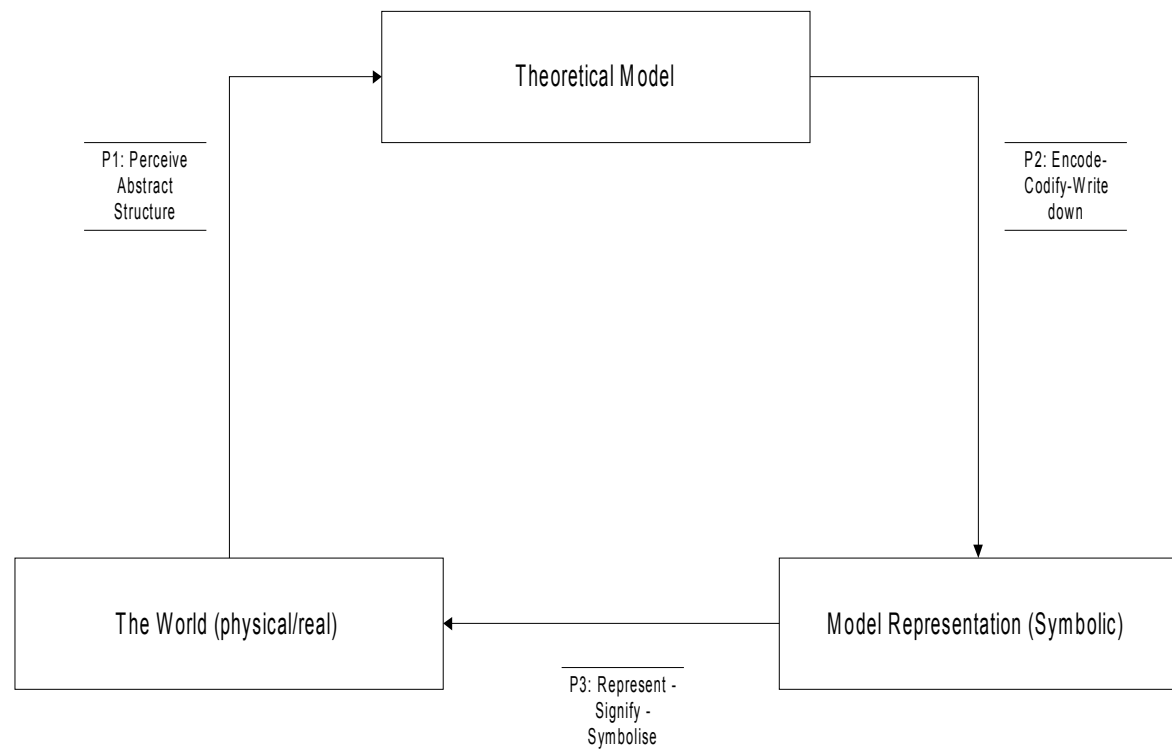
(iii) Third Empirical Indicator for the Unit: Extent of international competitiveness of small businesses

The value of the unit will increase as a result of an increase in the level of importance of perceptions of TNCs and learning activities from TNCs as measured by any instrument that measures international trade performance.

Steps 1 to 5 of Dubin's theory building methodology complete the theoretical model of international learning of small business confronting international competitiveness challenges in transforming developing economies. In addition to five steps of theoretical model building, this study went on to step 6 by

developing empirical indicators of key terms. Chapter 4 reports on the empirical testing of these key terms in order to refine and support the theoretical model on international learning of small businesses confronted by international competitiveness challenges in transforming developing economies. The theoretical model forms the foundation for future studies to formulate and test hypotheses that can predict values and relationships in this model.

Figure 5.4: The Meaning Triangle



Source: (Sowa, 2000)

The development of the theoretical model of international learning of small businesses reflects a process of abstracting the world thereby helping to create meaning as illustrated by Sowa (2000). P1, in figure 5.4, represents the initial level of perceiving the world or reality. P2 represents the writing down of what is perceived in reality. Finally, P3 is the representation, signifying, or verification of the symbolic in the real world. In practice, the framework is a combination of conceptualisation and representation.

In developing the theoretical model of international learning for small businesses framework, a systems thinking approach was used. Heylighen and Joslyn (1992:1) describe systems theory as:

“the transdisciplinary study of the abstract organization of phenomena, independent of their substance, type, or spatial or temporal scale of existence. It investigates both the principles common to all complex entities, and the (usually mathematical) model which can be used to describe them”.

This section has thus provided a logical model with empirical indicators that will enable further testing in the real world. The literature in chapter 4 has indicated that this is the first model of its kind pertaining to the phenomena known as the international learning of small businesses confronted by international competitiveness challenges in transforming developing economies.

5.6 THE QUALITATIVE APPROACH: PERSONAL INTERVIEWS

The qualitative approach used semi-structured personal interviews with three respondents from the manufacturing sector in Durban. Due to the exploratory nature of the study this method was recommended. The choice of the respondents was based on their relevancy and impact they would have on this study, their availability and willingness to be interviewed. In order to be effective, the interviews were limited to three respondents. One of the respondents was a manufacturing advisory agency consultant working with small manufacturing firms in Durban, and the two others were owners of small manufacturing firms (automotive and clothing industries).

The atmosphere for interviews was relaxed and semi-formal, enabling a two-way interaction under interviewer control and direction. The benefits of the methodology were the flexibility and the ability to get more and in-depth information as required and get the “feel” of the real world.

The qualitative research aspect enabled the creation of themes, ideas, and topics that might not have been covered during the early literature review stages as a result of the inadequacy of the literature around organizational learning and small businesses in South Africa and other developing countries.

All respondents were aware of the international competitiveness challenges facing their businesses and the existence of the presence and the importance of relationships with multinational companies was acknowledged. The respondents were made aware that the research is part of the work of the Centre for Technology Transfers and Skills Development (CTTSD) of the Durban University of Technology. The respondents were also made aware that the results of the study would be made available.

The data from interviews were recorded in a database created for qualitative answers; the answers to interview questions were objectively recorded and uploaded on the database. This research aspect is reported in section 5.7.1 below.

5.7 THE QUANTITATIVE APPROACH: THE SELF-ADMINISTERED DIRECT SURVEY

The quantitative research phase was formal, structured, and conducted with the aid of a self-administered direct questionnaire. A draft questionnaire was developed to establish and quantify the level of importance of learning perceptions and activities in small businesses. A combination of the results of personal interviews and literature review was used to construct the instrument.

The draft instrument was refined after a critique by a panel of experts during the research colloquium at the DUT. The colloquium consisted of academics with interest in the manufacturing sector, small business owners, as well as fellow researchers at DUT. The draft instrument was then administered in a pilot study. The results obtained in the pilot study formed the basis for review

and finalisation of the questionnaire. The final instrument was then administered to the sample population. The sample population was calculated to obtain significant results.

Gathering permission to conduct research in any organization is often a problem. The use of the DUT's name enabled the researcher to have access to organizations (see Annexure 1). Furthermore, the respondents needed to know the purpose and relevance of the study clearly as an entry requirement into the organization. Respondents also need assurance on issues such as confidentiality and security of information, benefits of the study to the firm, and the level of quality and professionalism of the research.

The services of professional fieldworkers from an organisation called Inyathelo Training and Development was used. Five fieldworkers employed for the study were people who have extensive experience from management and union backgrounds. The ground rules of research and interviewing were clearly inculcated in a two-day workshop organized in May 2003 at eThekweni Business Development Centre in Durban.

The data collection was completed within three weeks. The first week was used to distribute the self-completion questionnaire to firms, and the second and third weeks were used for collection.

The data were then captured using SPSS (Statistical Package for Social Sciences) computer software package under the guidance of an expert user of the software and quantitative techniques at DUT. The process of data capturing and management took a period of two months.

The quantitative aspects of this study are reported in sections 5.8 and 5.9.

5.7.1 The Design of the Instrument

An instrument is a key device that is used to collect and measure data. In the development of an instrument, concepts and variables, measurements to

measure responses or data are determined (Mouton 2001:102). The instrument design process commences and is derived from the research problem, research purpose and objectives, the literature review, as well as exploratory research outcomes.

Key questions regarding the instrument design include the nature of the questionnaire that is appropriate for the type of data required to address the research problem. The appropriate approach, which will be used to access data, is also critical (Cooper and Schindler, 1998:324).

A draft instrument was designed, after taking into consideration common errors in instrument design relating to grammar, type of questions, and order of questions, taking into account the results of qualitative research (Mouton, 2001:103).

5.7.1.1 Thematic Areas that Emerged from the Personal interviews

The themes that emerged from personal interviews were summed into thematic areas and described by the use of keywords obtained from interviewees as follows:

THEMATIC AREA	KEYWORDS
Environment/Challenges	Foreign goods and dumping, relaxation of trade and China, production costs and prices, government regulations, taxation, labour relations, black economic empowerment, unstable exchange rate, lack of capital – banks are risk averse.
Government Support	Bureaucracy, paperwork, takes years, when it comes you are already under, government people have no idea about our business, industrial strategy, support for our industry from “foreign invasion”, Sector Partnership Fund,
Relationships and Perceptions	Cannot survive without big business, have a tender with Multinational company, reason we still exist, to increase revenue, build capacity, new technologies, strict on quality and efficiency, need more of

THEMATIC AREA	KEYWORDS
	business from Government and big companies, tight tender procedures, joint ventures, turnkey projects, industrial cooperation.
International Markets	Have contacts overseas, cost challenges, capital to improve capacity to meet requirements, difficult when you are too small. Export affected by strengthening of the Rand,
Skills Development	National Skills Development Strategy, compliance costly, Paper work, SETAs, SAQA terminology, internal training programmes,
Competition	Innovation, new technology, research and development, new markets locally and abroad, competitive alliances and joint ventures.

Table 5.1 Thematic Areas that Emerged from Personal interviews

The data obtained from personal interviews were then used to design an instrument.

5.7.1.2 Development of Questions

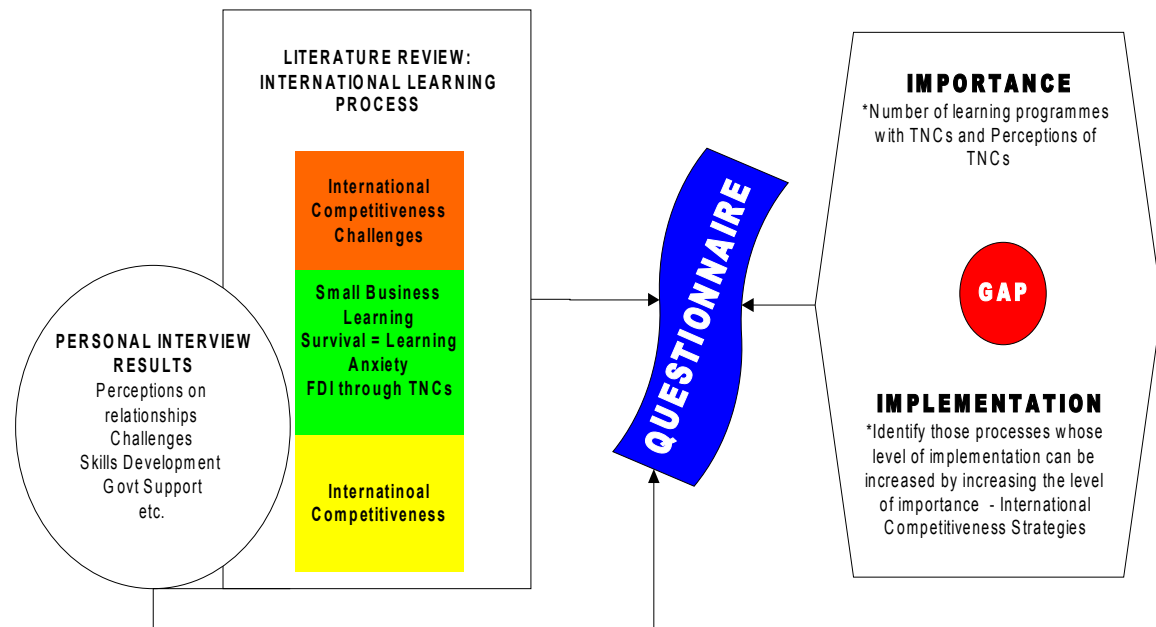


Figure 5.5 Questionnaire Design flow

The outcomes of both the literature review and personal interviews were combined to develop appropriate questions. From the literature review, in chapters 2, 3 and 4, emerged themes such as small business international competitiveness challenges and resultant survival and learning anxieties, international competitiveness and performance, and Foreign Direct investments through TNCs potential role. From personal interviews, reported in this chapter, emerged key themes of challenges, government support, relationships, international markets, skills development, and competition strategies. The connection between separate themes from literature review and personal interviews created the foundation for instrument design as reflected in figure 5.5 above.

5.7.1.3 Questions in the Questionnaire

(i) International Competitiveness Challenges as Questions

Respondents were required to indicate the impact of changes in their industry. The following Table 5.2 summarizes questions themes developed for the questionnaire on international competitiveness challenges:

International Competitiveness Challenge 1.	New Technologies
International Competitiveness Challenge 2.	New or Shifting Buyer Needs
International Competitiveness Challenge 3.	Emergence of New industry Segments
International Competitiveness Challenge 4	Shifting Input Costs or Availability
International Competitiveness Challenge 5	Change in Government Regulations

Table 5.2: International Competitiveness Challenges Questions

(ii) Perceptions of TNCs as Questions

Using Burpitt and Rondinelli's (1998) approach in relation to small firms, learning and perception of exporting, the question that was asked was about perceived benefits of a small firm's relationship with TNCs. In personal interviews, the perceptions about relationships were categorised into economic versus learning benefits; hence such distinction was necessary in

the questions on perceptions. The following Table 5.3 summarises the questions themes developed for the questionnaire that was evaluated by the panel of experts and went through pilot testing:

Question	Nature of Benefit Perception
Perception 1: It gives us a chance to acquire new skills	Learning
Perception 2: It gives us a chance to increase revenue	Economic
Perception 3: Gives us a chance to broaden organizational skills	Learning
Perception 4: Allows us to stabilize fluctuations	Economic
Perception 5: It gives us a chance to increase our products	Economic
Perception 6: It gives us a chance to learn new technologies	Learning
Perception 7: It is a situation that creates new demand for our products	Economic
Perception 8: Gives us a chance to increase organizational capabilities	Learning

Table 5.3 Perceptions of TNCs as Questions

(iii) Learning Activities with TNCs as Questions in the Questionnaire

The intention of asking the question was to ascertain the level of implementation of learning activities that happen between a small firm and a TNC in its various forms. As a result, the questions required the respondent to estimate the level of activity or programmes in various areas of the business.

Table 5.4 summarises the questions' themes developed:

Learning Activity 1	Computers/Information Technology
Learning Activity 2	Products/Production/Machinery
Learning Activity 3	Business Skills/Entrepreneurship
Learning Activity 4	Management
Learning Activity 5	Exports and Imports/International Trade
Learning Activity 6	Sales and Marketing
Learning Activity 7	Finance
Learning Activity 8	Purchasing and Logistics

Table 5.4 Learning Activities with TNCs as Questions

(iv) International Competitiveness Strategies as Questions

Firms were required to indicate their level of activity in terms of different international competitiveness strategies. The following Table 5.5 summarizes the questions themes developed:

Strategy 1	Trial of new equipment, machinery, and technology.
Strategy 2	Development of new products
Strategy 3	Involvement of domestic and foreign alliances
Strategy 4	Entrance to new markets (domestic or foreign)
Strategy 5	Development of new international marketing strategies
Strategy 6	Development of new organization structures and systems
Strategy 7	Development of new investments (domestic or foreign)
Strategy 8	Development of new organizational strategy

Table 5.5 International Competitiveness Strategies as Questions

(v) International Competitiveness as Questions

There were two parts to this set of questions. The first part required respondents to indicate the extent of sales growth and the second part required respondents to indicate the extent of effectiveness of their competitiveness strategies. Table 5.6 summarizes the questions themes developed:

International Competitiveness 1	Domestic Sales
International Competitiveness 2	International Sales
International Competitiveness 3	Image
International Competitiveness 4	Price
International Competitiveness 5	Quality
International Competitiveness 6	Efficiency
International Competitiveness 7	Customer Responsiveness
International Competitiveness 8	Innovation

Table 5.6: International Competitiveness as Questions

5.7.2 The Nature of the Measurement

Measurement is about assigning a number to an empirical phenomenon (Cooper and Schindler, 1998:159) and ensuring compliance with standard rules. There are, therefore, three elements in applying measurements, that is, the empirical phenomenon, numbers representing the occurrence of the phenomenon (scaling), as well as the rule to connect the observation of the numbers (Cooper and Schindler, 1998:184).

The instrument developed for this study used the Likert scaling method. On each statement the respondent is given a numerical scale and asked to agree or disagree with each statement. Each response has a numerical score that reflects the degree of attitude. The scores can be totalled to measure the respondent's answer (Cooper and Schindler, 1998:189).

The nature of the instrument is attached as a final instrument in Annexure 1.

5.7.3 The quality of the Measurement

In the social sciences, the quality of scientific enquiry is tempered by a number of intervening factors which weaken the strength of the results and of the study. These factors include, among others, exogenous and endogenous factors, progressive time factors, cultural factors contributing to subjectivity of results, reliability of instruments, and data collection errors. The credibility of a study or any research lies in the quality of the measurements. According to Cooper and Schindler (1998:166), the two important characteristics of a quality measurement are 'reliability' and 'validity'. The methodology used to ensure quality measurement is reported below.

5.7.3.1 Reliability

Reliability refers to the degree to which measurements are free from error; as a result they provide consistent results. The Cronbach Alpha test is regarded as a useful test in indicating the reliability of a measurement and testing its internal consistency (Cooper and Schindler, 1998:171). The high Cronbach

Alpha values obtained during the pilot stage indicate that there will be consistency among items in the final instrument.

5.7.3.2 Validity

To ensure validity of the measurement, this study applied content and criterion-related validity.

(i) Content Validity

Content validity refers to the extent to which the content of the instruments or measurements cover the topic under study (Cooper and Schindler, 1998:167). To ensure content validity, the literature was consulted; personal interviews were conducted in order to identify elements that are relevant to small business confronted by international competitiveness challenges. Moreover, a panel of experts, during a research colloquium organized by the University, evaluated the instrument. The comments from the panel were used to refine the instrument. The wording of the questions was adjusted accordingly and the final wording is shown in Annexure 1.

(ii) Criterion-Related Validity

Criterion-related validity is the degree to which a measure is related to some other standard that is known to indicate the construct accurately. The construction used in this study is derived from a number of organizational learning and related studies instruments such as Burpitt and Rondinelli (1998), and Wong (1994); and comparison with other organizational study methods commonly used was based on Podsakoff and Datton (1991). The other components of the instruments were based on the literature review as discussed in previous chapters.

5.8 THE PILOT STUDY

The purpose of the pilot study was to enable the evaluation of the basic readability of the content of the instrument, and to test its reliability in terms of its internal consistency.

5.8.1 The Respondents

The respondents were small business owners who run manufacturing firms in the Durban South Industrial basin, uMngeni, Bluff, and Clairwood. A total of 10 individuals responded positively to the pilot study.

5.8.2 The Pilot Instrument

A draft instrument developed in section 5.7.1 was refined after the inclusion of comments made by a panel of experts. The pilot questionnaire is similar to the final instrument attached as Annexure 1. The instrument had 3 sections. Section A, solicited demographic information; section B, consisted of 2 sets of questions on perception of benefits of linkages with TNCs; and section C with 4 sets of questions on strategic orientation and competitiveness. A combination of 3 to 7 point Linkert scales was used.

5.8.3 Administration of the Instrument

The participants were requested to complete the questionnaire and include comments on each question. During the collection of the questionnaire, the researcher had a brief face-to-face interview with respondents on the instrument.

5.8.4 Analytical Procedures

The purpose of the pilot study was to determine the validity and reliability of the measuring instrument. Content validity was scrutinised by a panel of experts while criterion-related validity was already a component of the initial

draft through literature review. To measure the reliability of measurement for internal consistency, the Cronbach Alpha test was used (Cooper and Schindler, 1998:171).

Cronbach Alpha

The Cronbach Alpha computes the mean reliability coefficient estimates for all the possible ways of splitting a set of items in half. The closer the alpha is to 1, greater is the internal consistency. The SPSS 11.5 statistical package was used to compute Cronbach alpha values.

5.8.5 The Results of the Pilot Study

Alpha Coefficients

The instrument was reliable with a high internal consistency level as measured by alpha coefficient of 0.6 to 0.9. Summary descriptive statistics and alpha coefficients are reported in Annexure 2.

5.8.6 Results and Limitation of the Study

The content validity of the instrument was found to be of a good quality by experts. The respondents of the pilot study were satisfied with the content. Minor suggestions were made on some of the questions which were ambiguous to the readers.

Although the instrument items were derived from the literature and personal interviews and the content validity tested successfully, the construct validity was not subjected to factor analysis to test how well the instrument measures fit the theories around which the test was designed (Cooper and Schindler, 1998:167). Further, studies on theoretical research based on this initial theoretical model would need to vigorously test the construct validity of the instruments.

5.9 THE FINAL QUESTIONNAIRE

This section analyses the specific methodology use in the collection of data and the study setting by focusing on the population and sampling, sampling methodology, size of the sample, data preparations, data analysis, and the questions for the final instrument.

5.9.1 Population and Sampling

A sample has to be determined in accordance with some key guidelines such as the classification of the relevant population, parameters of interest, the type of sample, and the size of the sample needed (Cooper and Schindler, 1998:219).

5.9.1.1 The Population for the study

The population for the study consists of all small businesses that are confronted by international competitiveness challenges in South Africa as a transforming developing economy. This population is generally apparent from the business and management problem as described in chapter 1 (Cooper and Schindler, 1998:219).

Durban as a Study Setting for a Survey

Because of the nature of the study that is focusing on relationships with TNCs, a highly industrialized metropolitan area had to be selected. Durban was a better choice according to expert opinion when respondents were interviewed during the exploratory phase. Durban is situated in the South East coast of Africa. Durban has a population of 3,09m people, and a Gross Geographic Product of R93.4 billion (Statistics South Africa, 2001).

Durban is one of the three big cities of South Africa boasting the biggest port in the country in terms of volumes of cargo and a huge potential for industrial and tourism spin-offs that are well observed by Morris et al. (1999), as

underpinning the Durban's manufacturing sector, structure, and spatial development.

Durban's commercial development can largely be traced to the activities of the port and its location advantages. The port is said to be linked to the development of the manufacturing sector in Durban giving rise to the establishment of industries such as chemical, textile, clothing, automotive, food and beverage, and printing and stationery industries. The spatial development of industries displays a T-pattern from the port and expands to Jacobs, Mobeni, and later Prospecton which, over years, has become the industrial core of the Durban South Basin (Morris et al., 1999:5). The characteristics of Durban, therefore, provide a good location for TNCs.

The increasing shortage of industrial land within the Durban port vicinity necessitated the expansion or decentralization of industry during the 1960s to Pinetown, New Germany, and Westmead (Morris et al., 1999:5). It is in these areas that increasing clusters of small firms increased in the textile, chemicals, paints, pharmaceuticals, machinery and engineering, and automotive components.

In terms of output, the largest economic sector in Durban is manufacturing, which accounts for about 30.9% of the gross geographic product. Other important sectors include trade and catering (20.8%), and finance and real estate (14%). The largest sub-sectors within manufacturing are food, beverages, textiles, clothing, paper, printing, chemicals, fabricated metals and motor vehicles and components. Chemicals comprise the largest portion of manufacture output. The manufacturing sub-sectors have seen significant growth and foreign investments since the middle 1990's (Durban, 2005).

Durban's unemployment rate is estimated at 30-40%; and only 1 in 3 of economically active people are employed in the formal sector. Of those who are formally employed, 50% are employed in the declining industries in the manufacturing sector. Durban's output has been affected by international competition and has been growing by only about 1.8% over the past 10 to 14

years. To achieve its vision, Durban requires growth of about 7.5% per annum (Monitor Company, 2000: 1-10).

International competitiveness challenges in Durban are around core areas of economic activity such as competition from global companies in cost-based industries such as textiles, clothing, and automotive industries; lags in the infrastructure such harbour and airport, weak clustering of industries, and under representation in the world's fastest growing sectors (Monitor Company, 2000:19).

Sampling Frame

The Durban Chamber of Commerce and Industry (DCCI) is one of the largest chambers in South Africa with a membership that exceeds 5 000 large and small companies. This figure constitutes a significant number of formal businesses operating in Durban and surrounding areas. DCCI's mission is to contribute towards creating a conducive economic and business environment in eThekweni/Durban and provide services relevant to the needs of the business community.

Sampling Population

Manufacturing enterprises represent 20.7% of the membership of the Durban Chamber of Commerce and Industry. On the other hand, about 97.0% of the membership is small and medium enterprises. In the year 2003, 800 of these companies in the membership database were classifiable as manufacturing SMMEs.

5.9.1.2 The Sampling Method

According to Cooper and Schindler (1998:219), the basic idea behind sampling is that by selecting some of the elements of a population, conclusions can be drawn about the entire population. Therefore, the ultimate test for a sample design is how well it represents the entire population being studied. Validity of a sample depends on the accuracy, that is the extent to which bias is absent from the sample. The sample also depends on the precision, that is, the degree to which it fully represents the population in all

respects. Hence, this study used the probability sampling method based on random selection of the sample population. The selection was manually selected using a randomized calculation of numbers representing odd numbers on the list of manufacturing small firms appearing in the directory. The challenge was to separate 800 small manufacturing firms from the rest of the membership of about 5 000 companies.

5.9.1.3 Size of the Sample

The size of the sample is dependent on the requirements of the researcher, the population parameters, and the subject being studied (Cooper and Schindler, 1998:223). Using a confidence level of 95% and a confidence interval of of 5, the sample size was determined according to the following formula:

$$\text{SAMPLE SIZE} = \frac{Z^2 \cdot (p) \cdot (-p)}{C^2}$$

Where:

Z = Z value (e.g. 1.96 for 95% confidence level)

P = percentage picking a choice, expressed as a decimal (0.5 used as worst case percentage for simple size needed)

C = confidence interval, expressed as a decimal (e.g. 0.05=±5)

Correction for a finite population:

$$\text{New ss} = \frac{\text{ss}}{1 + \frac{\text{ss}-1}{\text{Pop}}}$$

Where:

SS = sample size

Pop = population

The Sample size

Confidence level: 95%

Confidence Interval: 5 (or expressed as a decimal 0.05)

Population: 800

***Sample Size Needed:** 260

(used a sample size calculator available at
www.surveysystem.com/sscalc.htm)

*To counter for the possible non-responses, 300 questionnaires were distributed.

5.9.2 The Preparation of the Data

Over recent years, numerous research studies and “investigations” have been conducted in companies which create a sense of fatigue and “fear” among different organizations in South Africa. These investigations are more prevalent in major metropolitan areas such as Durban, Johannesburg, and Cape Town. These include, particularly among small businesses, “unwanted” visitations by tax officials from South African Revenue Services, labour inspectors from the Department of Labour (DoL), unions, and researchers from all backgrounds.

The fieldworkers, initially, encountered some minor levels of resistance. The fact that the instrument was a self-completion questionnaire and was left for respondents to fill at their own time was advantageous. Also, the professional approach used by fieldworkers, who have experience and backgrounds in management and labour unions, contributed to the satisfactory return rate.

Editing the Data

When editing, the researcher detects errors and omissions, corrects them where possible and ensures that data quality is achieved (Cooper and Schindler, 1998:411). In this study, the incomplete questionnaires returned were not considered since it was not possible to identify the source of the questionnaire since questionnaires were anonymous. In this study, 20 questionnaires were incomplete and 30 were not returned.

Coding and Entering the Data

The questionnaire was initially coded into the SPSS. The data obtained from the questionnaires were then captured and analyzed statistically in the SPSS 11.5 statistical package.

5.9.4 The analysis of the Data

To convert data into information that can be used for decision making, two types of statistical tools are significant, namely, the descriptive and inferential statistical tools.

5.9.4.1 Descriptive Statistics

In this study, the descriptive statistics used were means and standard deviations in order to determine the average tendencies of responses towards a test. The standard deviation is the positive square root of a variance. It improves interpretability by removing the variance's square and expressing deviations in their original units (Cooper and Schindler, 1998:427).

5.9.4.2 Inferential Statistics

Inferential statistics allows for the drawing of conclusions about the population beyond what descriptive statistics could offer. In this study, the inferential statistics used included Cronbach Alpha, Histograms, Correlation Analysis, and Crosstabs.

The Cronbach Alpha

The Cronbach Alpha was used to test the internal consistency of the questionnaire. The closer the alpha value is to 1, the greater is the internal consistency. The SPSS package was used to compute the Cronbach Alpha values in this study.

Histograms with Normal Curve

Histograms were used to graphically summarize and display the distribution of data sets. Histograms help to ascertain the reliability of the instrument by answering some of the following questions:

- What is the most common system response?
- What distribution (centre, variation and shape) does the data have?
- Does the data look symmetric or is it skewed to the left or right?
- Does the data contain outliers?

Correlation Analysis

To achieve the research purpose, this study performed the correlation analysis. Correlations serve as empirical indications of possible relationships between variables. Multiple tests were conducted, and the error rate was 0.05, significance level for each test.

The correlation analyses were done on a number of variables to test the importance of perceptions of TNCs, learning activities, implementation of international competitiveness strategies, and international competitiveness between small firms that are linked to TNCs and those that are not linked to TNCs.

These research aspects are reported in Chapter 6.

5.9.5 The Questions for the Final Questionnaires

The items for questions to be incorporated as part of the final questionnaire are illustrated in Table 5.7.

INTERNATIONAL LEARNING PROCESS	ITEMS FOR QUESTIONS
International Competitiveness Challenge: PROCESS 1	New Technologies
International Competitiveness Challenge: PROCESS 2	New or Shifting Buyer Needs
International Competitiveness Challenge: PROCESS 3	Emergence of New industry Segments
International Competitiveness Challenge: PROCEESS 4	Shifting Input Costs or Availability
International Competitiveness Challenge: PROCESS 5	Change in Government Regulations
Perception: PROCESS 6	It gives us a chance to acquire new skills

INTERNATIONAL LEARNING PROCESS	ITEMS FOR QUESTIONS
Perception: PROCESS 7	It gives us a chance to increase revenue
Perception: PROCESS 8	Gives us a chance to broaden organizational skills
Perceptions: PROCESS 9	Allows us to stabilize fluctuations
Perception: PROCESS 10	It gives us a chance to increase our products
Perception: PROCESS 11	It gives us a chance to learn new technologies
Perception: PROCESS 12	It is a situation that creates new demand for our products
Perception: PROCESS 13	Gives us a chance to increase organizational capabilities
Learning Activity: PROCESS 14	Computers/Information Technology
Learning Activity: PROCESS 15	Products/Production/Machinery
Learning Activity: PROCESS 16	Business Skills/Entrepreneurship
Learning Activity: PROCESS 17	Management
Learning Activity: PROCESS 18	Exports and Imports/International Trade
Learning Activity: PROCESS 19	Sales and Marketing
Learning Activity: PROCESS 20	Finance
Learning Activity: PROCESS 21	Purchasing and Logistics
Strategy: PROCESS 22	Trial of new equipment, machinery, and technology.
Strategy: PROCESS 23	Development of new products
Strategy: PROCESS 24	Involvement of domestic and foreign alliances
Strategy: PROCESS 25	Entrance to new markets (domestic or foreign)
Strategy: PROCESS 26	Development of new international marketing strategies
Strategy: PROCESS 27	Development of new organization structures and systems
Strategy: PROCESS 28	Development of new investments (domestic or foreign)
Strategy: PROCESS 29	Development of new organizational strategy
International Competitiveness: PROCESS 30	Domestic Sales
International Competitiveness: PROCESS 31	International Sales
International Competitiveness: PROCESS 32	Image

INTERNATIONAL LEARNING PROCESS	ITEMS FOR QUESTIONS
International Competitiveness: PROCESS 33	Price
International Competitiveness: PROCESS 34	Quality
International Competitiveness: PROCESS 35	Efficiency
International Competitiveness: PROCESS 36	Customer Responsiveness
International Competitiveness: PROCESS 37	Innovation

Table 5.7 Items for Questions for the Final Questionnaire

5.10 CONCLUSION

This chapter described the research stages and the various aspects of the research process. The primary focus of the chapter was on the primary data collection, both qualitative and quantitative approaches. The chapter also described the theory building and propositions development process using Dubin's theory. The chapter further provided an explanation of how the instrument was developed, the quality of measurement, the pilot study, the population and sampling methodology, the sample profile, and the data preparation and analysis.

The next chapter focuses on quantitative data analysis and the results.

CHAPTER SIX

QUANTITATIVE DATA ANALYSIS AND RESULTS

CHAPTER 6: QUANTITATIVE DATA ANALYSIS AND RESULTS

6.1 INTRODUCTION

The aim of this chapter is to present the data and its quantitative analysis, and the results. The chapter begins with the analysis of the sample profile. The profile of the sample results are presented in terms of key demographics of the respondents. These demographics include types of industry, sizes of the firms, number of people employed, gross profit/turnover of firms, total gross asset value, experience of the firms, type of management education received by members of staff, age of firm, planning formality, and linkages with TNCs.

The chapter then presents reliability and validity testing of the data obtained from the final questionnaire, using the Cronbach Alpha values and histograms described in Chapter 5. The variables are categorized into five factors, namely international competitiveness challenges, benefits perceptions, learning activities, international competitiveness strategies, and international competitiveness. The chapter termed the factors as international learning process clusters or process clusters. The reliability estimates for each process cluster ranged from high to moderate internal consistency of the final questionnaire.

The chapter presents data analysis in a systematic approach starting with a general analysis of all process clusters. This presentation is followed by an analysis of the gaps in each cluster and finally an analysis of the gaps in all processes.

This chapter deals with the analysis and presentation of the empirical data. The chapter commences with performing reliability and validity tests for the data obtained from the final questionnaire, using the Cronbach Alpha values and histograms as described in chapter 5.

To analyze the data obtained, estimators of population means based on the simple random sample were developed in order to identify and describe international learning in small businesses confronted by international competitiveness challenges in transforming developing countries as well as to determine the level of importance of learning perceptions and activities to these small firms and the extent of their implementation. The data analysis further described the learning activities and international competitiveness strategies of small businesses confronted by international competitiveness strategies in transforming developing countries. The correlation analysis on combination of variables importance and implementation were performed to enable the identification of any significant differences between them.

Finally, the means of the aggregated data, where significant variables, importance and implementation, were summed up according to percentage levels to describe how small businesses linked to TNCs, confronted by international competitiveness challenges, internationally learn. The reason to rank variables according to their significance emerged from the discussion in chapter 4 about survival anxiety and learning anxiety. Therefore, the gap between the importance and implementation of learning activities from the TNCs is dependent on perceptions and existence of linkages with TNCs and the resultant learning activities. The bridging of this gap will determine the international competitiveness of small firms.

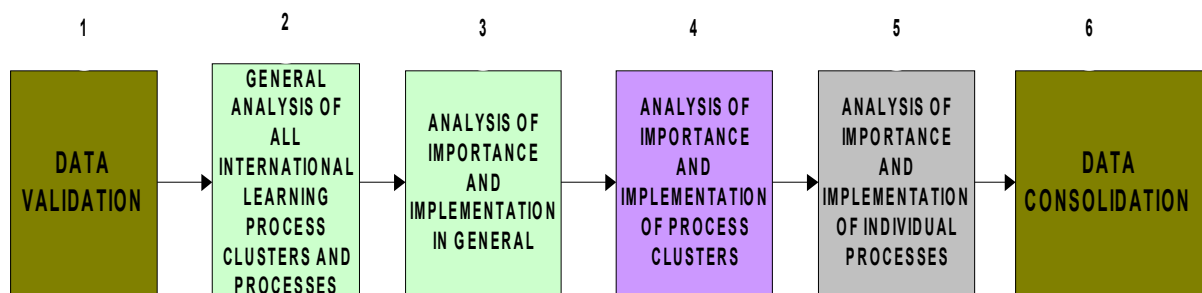


Figure 6.1 Data Analysis Stages

The analysis of data is, therefore, arranged into six steps, including the data validation and consolidation stages as illustrated in figure 6.1 above.

6.2 PROFILE OF THE SAMPLE RESULTS

6.2.1 Type of industry

The 250 respondent firms represented a total of ten manufacturing industries. These firms are located in the Durban and surrounding areas, that is, Durban South Basin (Umbilo, Clairwood, and Prospecton) and the Pinetown/Westmead area.

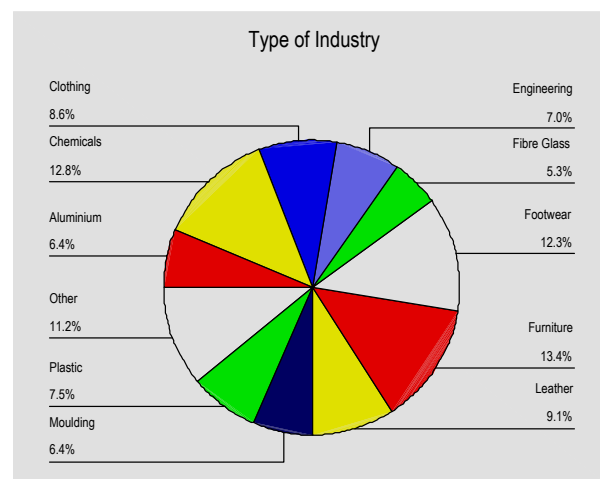


Figure 6.2 Type of industry

Figure 6.2 shows a balanced representation of different manufacturing industries in the sample. The biggest representation was 13.4% and the smallest was 5.3%. The dominant industries have a bigger representation as presented in Table 5.1 below. The furniture industry is leading by 13.4%, followed by chemicals and footwear at 12.8% and 12.3%, respectively. Notable is the absence of the automotive industry, which could have possibly been represented in the engineering, and clothing/textile industry. The explanation for this absence could be the requirements by the biggest TNC in the automotive industry in Durban, Toyota South Africa, of confidentiality and restrictions on its firms and suppliers to participate in any research.

The type of industry profile of the 250 firms represents balanced representation and absence of bias in the sample since the industries relatively represent the trends in Durban's manufacturing sector.

6.2.2 Size of the Firms

The National Small Business Act of 1996 (RSA, 1996) classifies small businesses according to the number of people employed, annual turnover, and total gross asset value of a business (see Table 6.1). Accordingly, there are five ranges of small manufacturing firms, that is, medium, small, very small, and micro enterprises. Under the number of employees, they range from a maximum 500 for medium firms to 5 for micro firms. On annual turnover, small firms turning over a maximum of R25 million per annum are classified as medium firms to R150 000 for micro firms. Finally, on total gross asset value, medium firms are classified as those with asset values of R7.5 million and micro firms have R100 000. These classifications were used to profile the 250 firms in this study's sample population.

Table 6.1 Standard Sizes of Small Manufacturing Firms

Sector	Size-class	Total full-time equivalent employees	Total annual Turnover Rm	Total gross asset value (fixed property excluded) Rm
Manufacturing	Medium	500	25.00	7.50
	Small	50	6.00	1.75
	Very Small	20	2.00	0.60
	Micro	5	0.15	0.10

Source: (RSA, 1996)

6.2.3 Number of People Employed

From the sample population of 250 manufacturing firms, 68% of them employ 6 to 20 people. These firms are classified under "Very Small" in terms of the table 5.2.; and form the majority in the sample population. There are 24% firms that employ between 21 and 50 people (small); 5.1% employ 1 to 5 people (micro); and 2.5% employ 51 and above people (medium) as indicated in Figure 6.3.

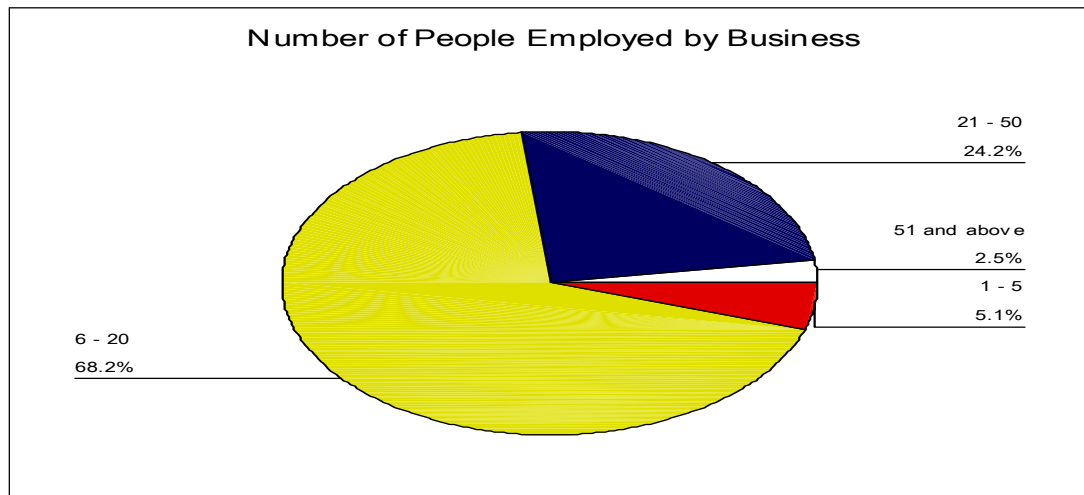


Figure 6.3 **Number of People Employed**

Contrary to the national indicators that the medium size small firms contribute more to dominate the manufacturing sector, this study sample shows a strong dominance of the very small and small sector in terms of employment. However, due to technological advancement and resultant capital intensity effect, employment size is not a sufficient indicator of the size of the firm. Hence, other indicators are prescribed by the Small Business Act.

6.2.4 Gross Profit/Turnover of Firms

Given the reluctance of owner managers of small firms to disclose their financial information, the instrument was designed to provide a choice of wide selections and brackets of profit and turnover levels. Understandably, the accuracy of the information provided might not be a true reflection of the actual turnover of firms. Nevertheless, the figures, as shown in Figure 6.4, are more or less consistent with employment sizes reported in section 6.2.3.

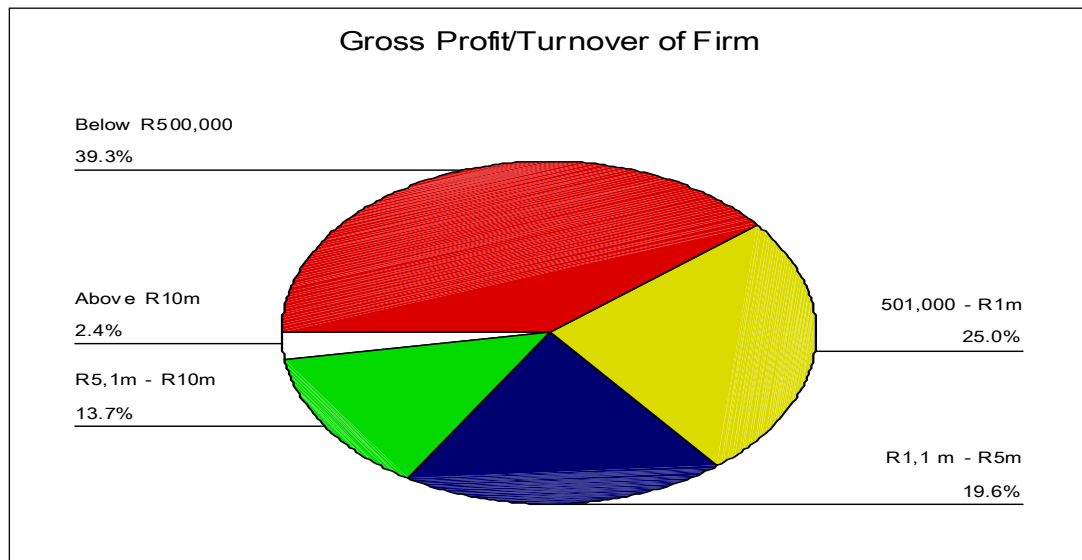


Figure 6.4: Gross profit/turnover of firms

Almost 96,6% of the sample firms have a turnover of not more than R10 million; meaning that most firms are classifiable under SMMEs in terms of turnover. However, the majority of firms (64.3%), as in employment levels, are classifiable under “very small” with gross turnover of not more than R1million. Only about 14% fall into the category of between small and medium.

6.2.5 Total Gross Asset Value

Similarly, with gross turnover of firms, most firms in the sample population are classifiable under “very small” (40% of firms have their asset valued below R500 000). A significant number of firms (34.8%) can be classified between “small and medium size firms” with assets valued between R1.1 million to R10 million (see Figure 6.5).

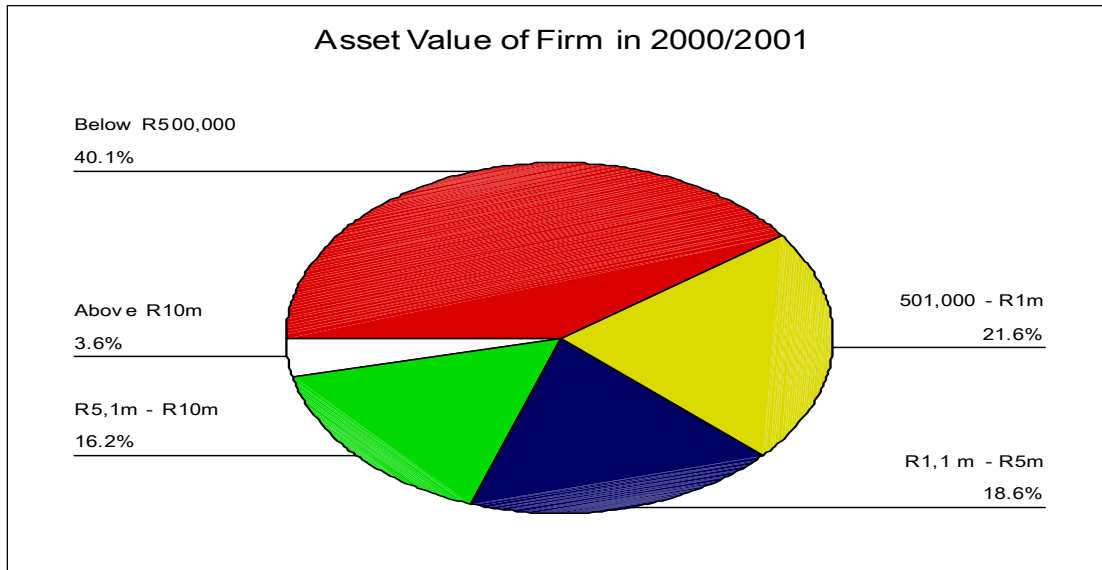


Figure 6.5: Total Gross Asset Value of Firms

The figures above indicate consistency in terms of the majority of firms within the sample population falling under “very small”. Generally, the sample population reflects the national standard classification of small businesses under the term SMMEs. Also, notable is the fact that medium-sized SMMEs are not reflective in terms of the number of people employed but appear under the gross turnover and asset values. This finding could be a trend as the manufacturing sector becomes more capital intensive.

6.2.6 Experience of the Firms

The experience of the firm is important in this study. The ability to network with big companies and excel in terms of management, marketing, technological capabilities, innovativeness, customer responsiveness, productivity, efficiency, and quality comes with experience at small business level. Experience constitutes factors such as management experience and education of firm managers, and the age of the firm, among others.

(i) Management Experience

In 250 firms in the sample population, 69% of firms have 6 to 21 and above years of management experience. 33.5% of the firms have 6-10 years

experience. Only 31% have between 1 to 5 years of management experience (see Figure 6.6).

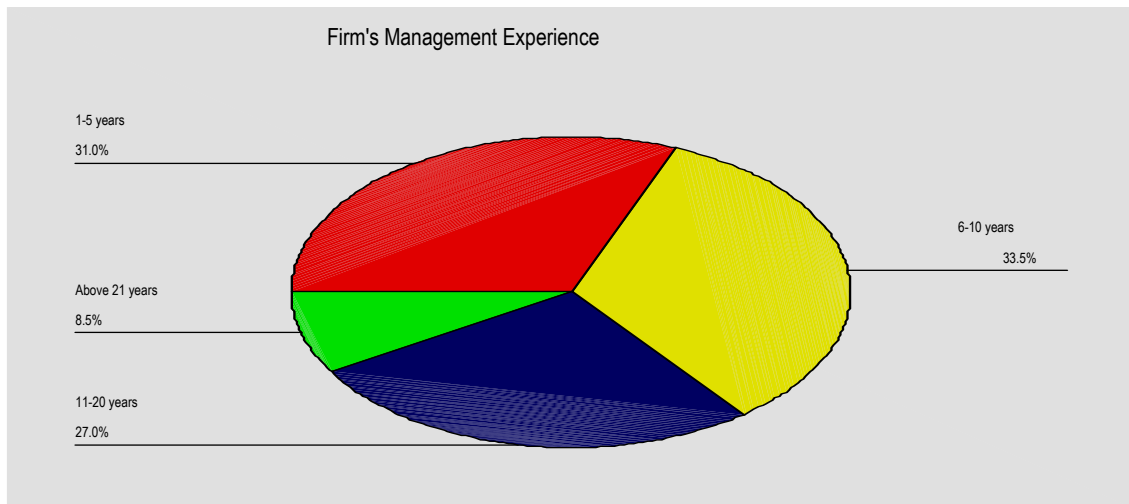


Figure 6.6: Firms' Management Experience

(ii) Management Education

In terms of management experience, the management education received by the staff of 250 firms in the sample population is more on-the-job training (47.5%), followed by other 'practical' or technical types of education offered by Technical colleges (17.7%) and former Technikons (22.2%) (see Figure 6.7). This finding is an indication of the generally held belief about poor contribution of our education system to industry. An alternative explanation, as established in the case studies of textile and clothing industry and the automotive industry in South Africa, is that most firms are not investing in skills training, preferring on-the-job training by experience.

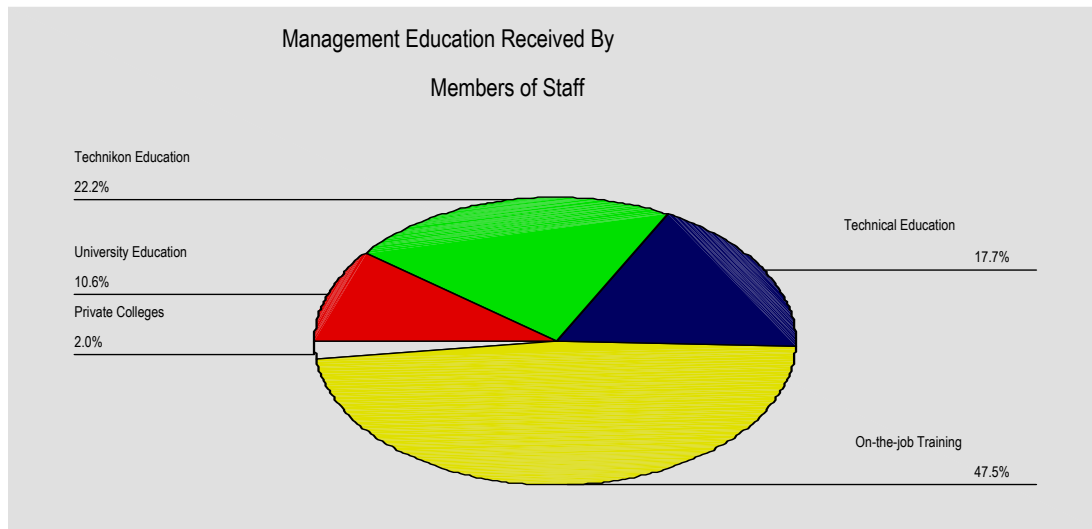


Figure 6.7 Management Education received by staff

(iii) Age of the Firms

The age of a firm determines the embedded organizational history that manifests in the culture, the shared generational experiences, and the learning curves over years.

The age, therefore, could provide an advantage to a firm. In the 250 sample population, in terms of management experience, 66.8% of firms have 6 to 21 and above years of age. Most firms were 6 to 10 years of age, followed by those with 11 to 20 years (25.6%), and those over 21 years at 7%. 33.2% of firms were between 1 to 5 years of age (see Figure 6.8).

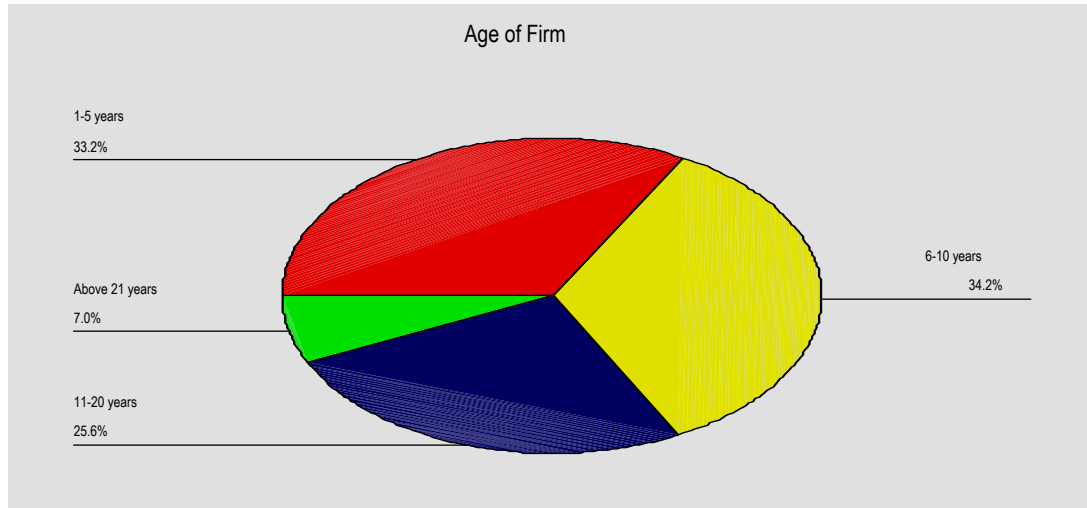


Figure 6.8 Years of Age of Firms

6.2.7 Planning Formality

The ability of a small firm to plan formally is important in the modern highly competitive and technologically advanced global business environment. The planning formality in the small business context refer to the degree to which a small business formalises its entire business plans, which include aspects such as financial, marketing, strategy, and operations. Consistent with management experience and age of firms in the sample population, 59% have formal planning, 39% have informal planning, and only 2% have no planning at all, as illustrated in Figure 6.9.

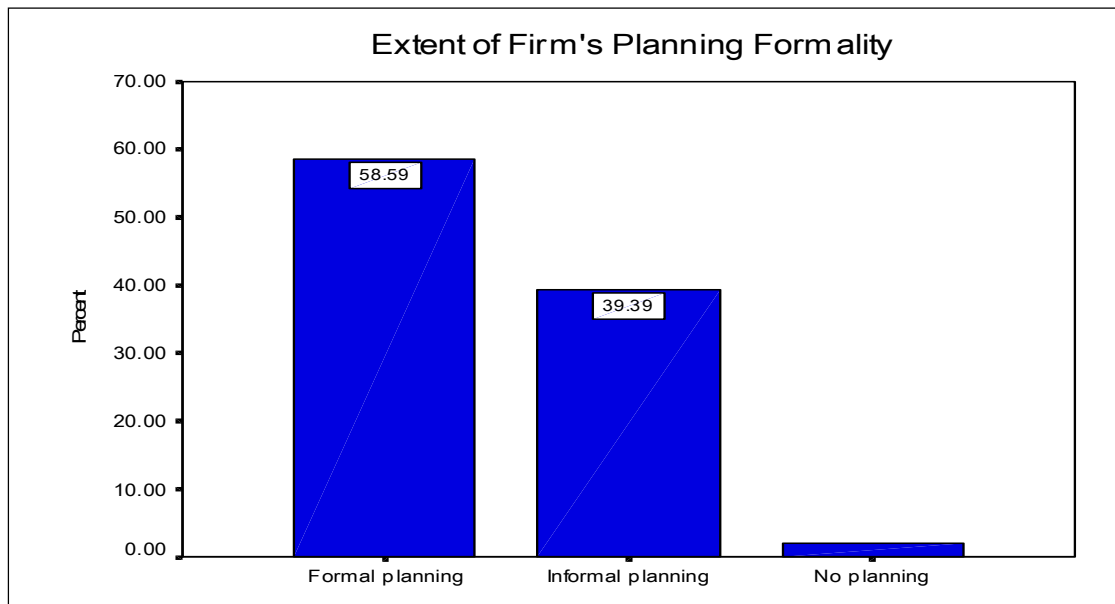


Figure 6.9: Planning Formality

The above figures of this study's sample population on their experience show that the majority of the firms represent well experienced firms in terms of management, the period of firms' existence, and planning formality. The exception is the lack of education beyond the workplace on-the-job training, which is a reflection of the manufacturing firms' general status in South Africa.

6.2.8 Linkages with TNCs

Critical to this study is the data on small business linkages with TNCs. The study investigated whether a small firm is linked to a TNC or not. Moreover, the nature of a linkage is an important profile criterion within the sample population of 250 firms.

(i) Existence of Linkages

The importance of linkages for small manufacturing firms is critical for a firm's competitiveness and a reflection on its networking capabilities and strengths. In the sample population of 250, only 20% of firms are linked to TNCs as opposed to 80% that are not linked (see Figure 6.10).

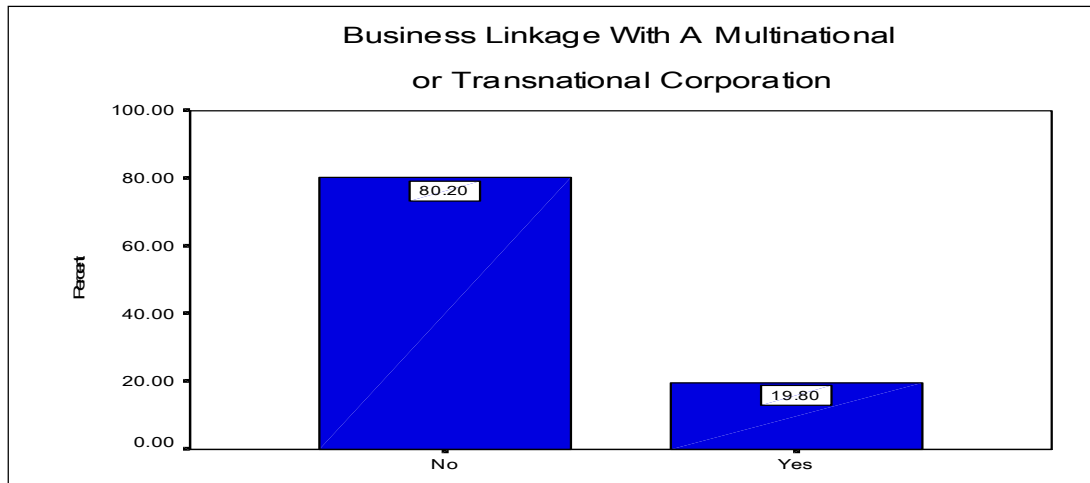


Figure 6.10: Small Business Linkages with TNCs

The current state of linkages between small businesses and TNCs, as indicated in the survey results, is not positive. However, the results, in figure 6.10, are positive for the study that seeks to understand the impact of linkages.

(ii) Nature of Linkages

The extent of linkages in terms of involvement of TNCs into a linkage relationship is important. Given the wide variety of possible relationships, five linkage types were investigated; namely, industrial cooperation agreements, licensing and franchising, “arms length” buyer-supplier relationships, joint ventures, as well as outright equity (owned 100% by parent company). These linkage types differ according to the extent of involvement of a TNC; for example, outright equity is the highest form of involvement, whereas industrial cooperation agreements would represent the middle form of involvement, and arms-length would represent the lowest form of involvement of a TNC.

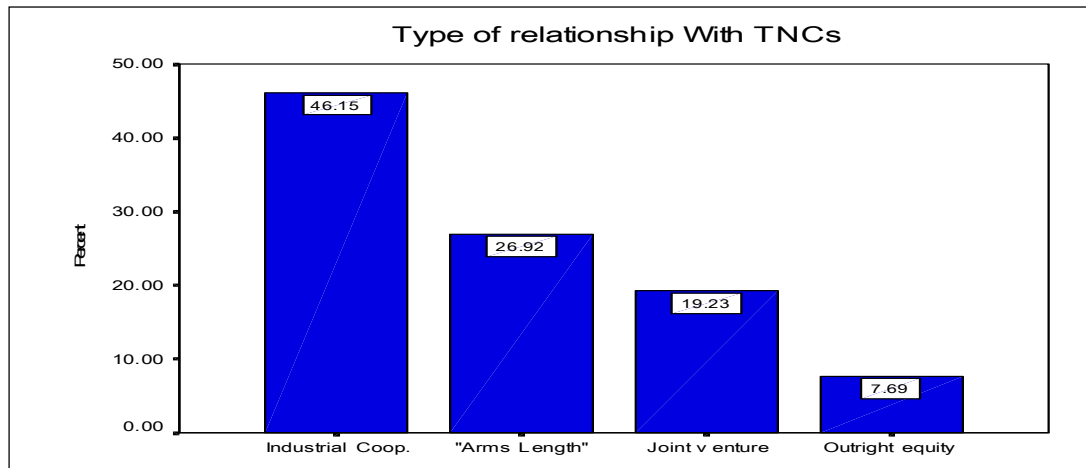


Figure 6.11: Natures of Linkages with TNCs

Prevalent in the sample are the industrial cooperation agreements (46%) followed by “arms length” (27%), joint ventures (19%), and outright equity (8%) as illustrated in figure 6.11. Because of the limited number of small firms having linkages with TNCs in the sample population, it is difficult to generalise these trends on types of linkages. However, the existence of the different types of linkages is sufficient in understanding the dynamics involved in linkages between small businesses and TNCs as required in this study.

6.2.9 Involvement in International trade and planning formality

Unsurprisingly, at a small business level, the level of involvement of small manufacturing firms in international trade within the sample population is extremely low. Of the 250 firms in the sample, only 28% are involved in international trade and 72% are not involved at all in international trade (see Figure 6.12).

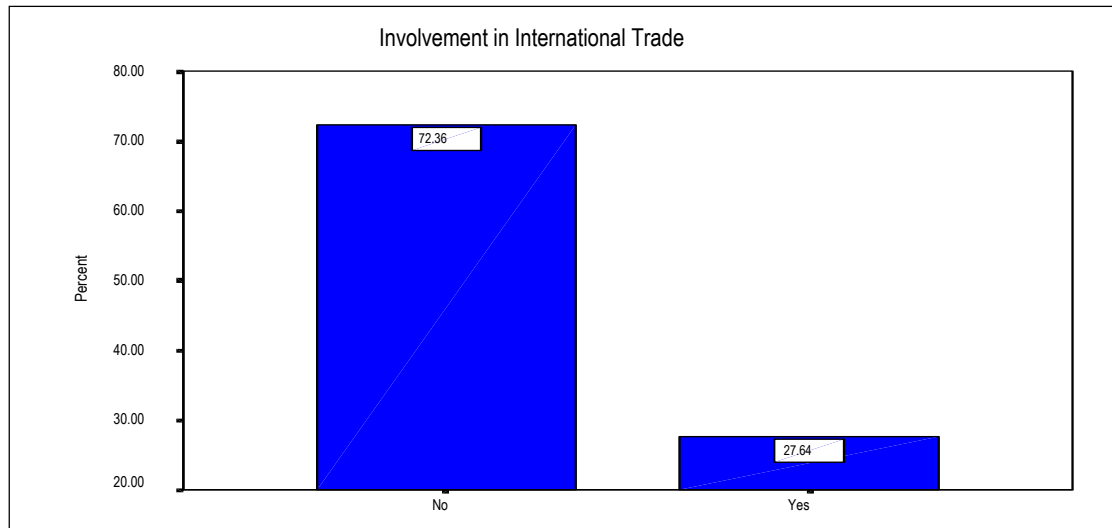


Figure 6.12: Involvement in international trade

In terms of exports and imports, of the 28% of firms involved in international trade, 47% are involved in exports, 19% in imports, and 34% are involved in both exports and imports (see Figure 6.13). The involvement in international trade represents an interesting scenario for small firms. The high level of exports indicates a certain level of competitiveness of these firms in the sample population.

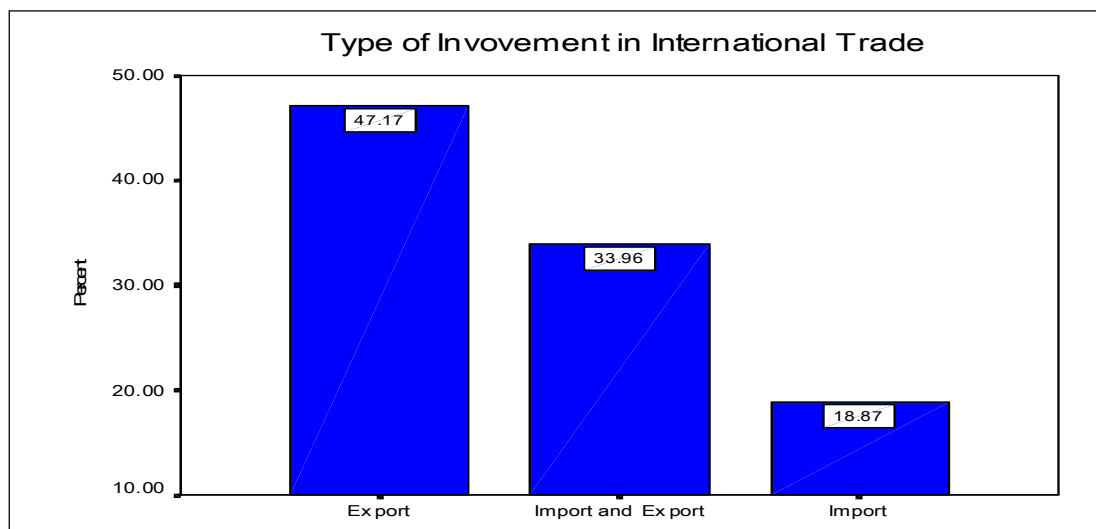


Figure 6.13: Nature of involvement in international trade

6.3 THE RELIABILITY AND VALIDITY OF THE FINAL QUESTIONNAIRE

Before the analysis of the data obtained from the final questionnaire, a determination of the Cronbach Alpha values and histograms was made using methods as described in chapter 4. In accordance with the questions in the questionnaire design, the international learning processes were clustered according to the nature of each question as illustrated in Table 6.2.

PROCESS CLUSTER	PROCESS/QUESTION
International Competitiveness Challenges Section C (2)	1,2,3,4,5
Perceptions of TNCs Section B (1)	6,7,8,9,10,11,12,13
Learning Activities Section B (2)	14,15,16,17,18,19,20,21
International Competitiveness Strategies Section C (3)	24,25,26,27,28,29
International Competitiveness Section C (1) and (4)	30,31,32,33,34,35,36

Table 6.2: Process Clusters and Questions in the Final Questionnaire

6.3.1 Alpha Values

The instrument was reliable with a high internal consistency level as measured by alpha coefficient of 0.6 to 0.9. The reliability estimates and common variance for each of the process clusters of the final measuring instrument are presented in Annexure 2B and are summarized in Table 6.3.

PROCESS CLUSTER	RELIABILITY ESTIMATE (ALPHA VALUE)	VARIANCE (%)
International Competitiveness Challenges Section C (2)	0.6872	64.107
Perceptions of TNCs Section B (1)	0.9201	4.671
Learning Activities Section B (2)	0.7254	22.231
International Competitiveness Strategies Section C (3)	0.8569	41.354
International Competitiveness Section C (1) and (4)	0.8407	43.483

Table 6.3: Reliability Estimates and Variability of the Final Questionnaire

6.3.2 Histograms with Normal Curves

The results of the histograms with normal curves are reported for all process clusters and are illustrated in figures 6.14, 6.15, 6.16, 6.17, and 6.18.

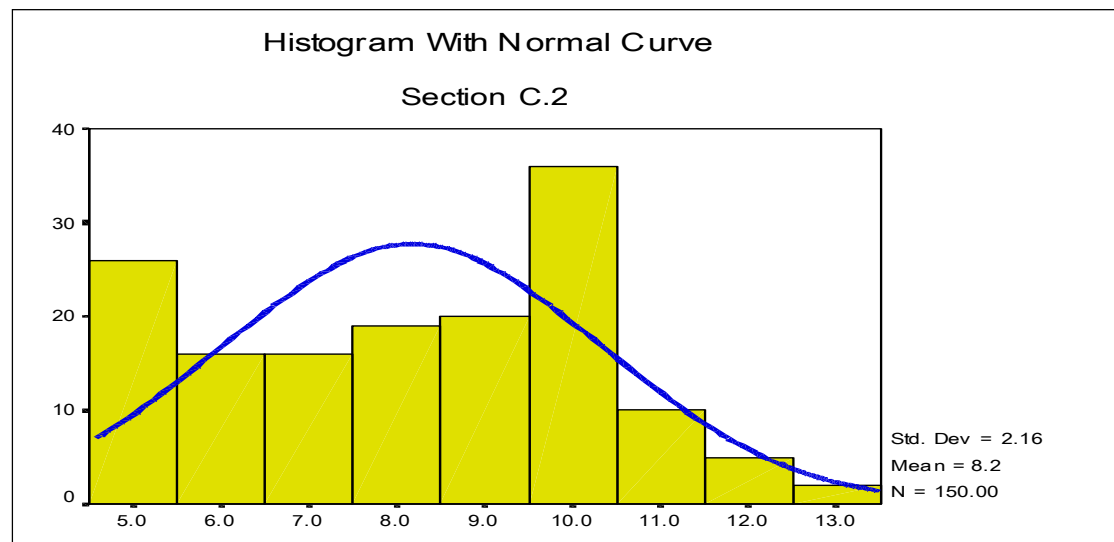


Figure 6.14: International Competitiveness Challenges

The data on international competitiveness challenges, illustrated in figure 5.14, depicts a fair distribution. The type of histogram is symmetrical with 36% of data at the lower limit, 52% at the middle limit, and 11% at the upper limit.

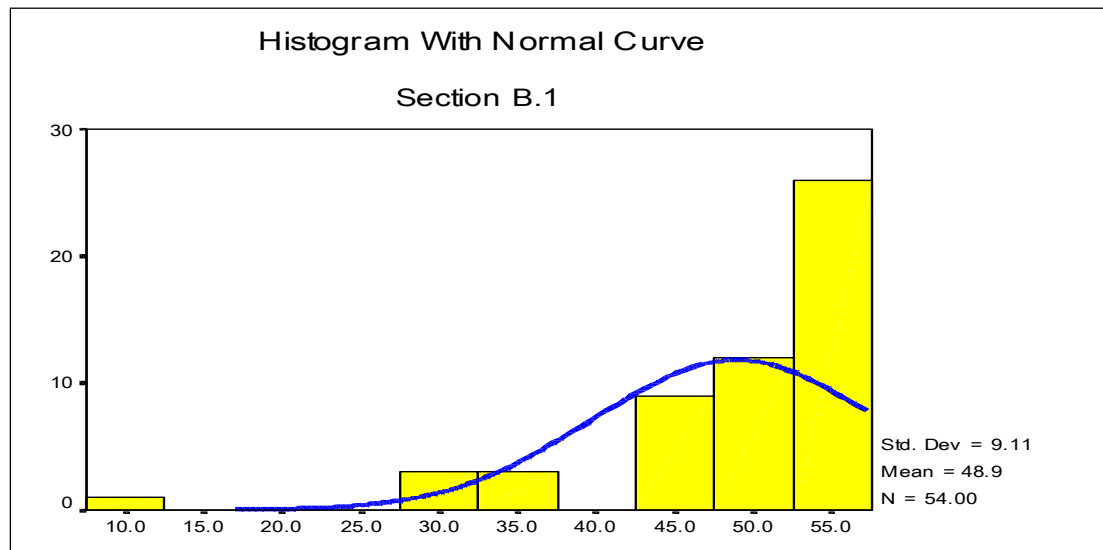


Figure 6.15: Perceptions of TNCs

The data on small business perceptions of TNCs are skewed towards the upper limits at 92%, 12% at middle range, and 8% at lower limits. The majority of firms that responded to perception related questions have strong perceptions of TNCs.

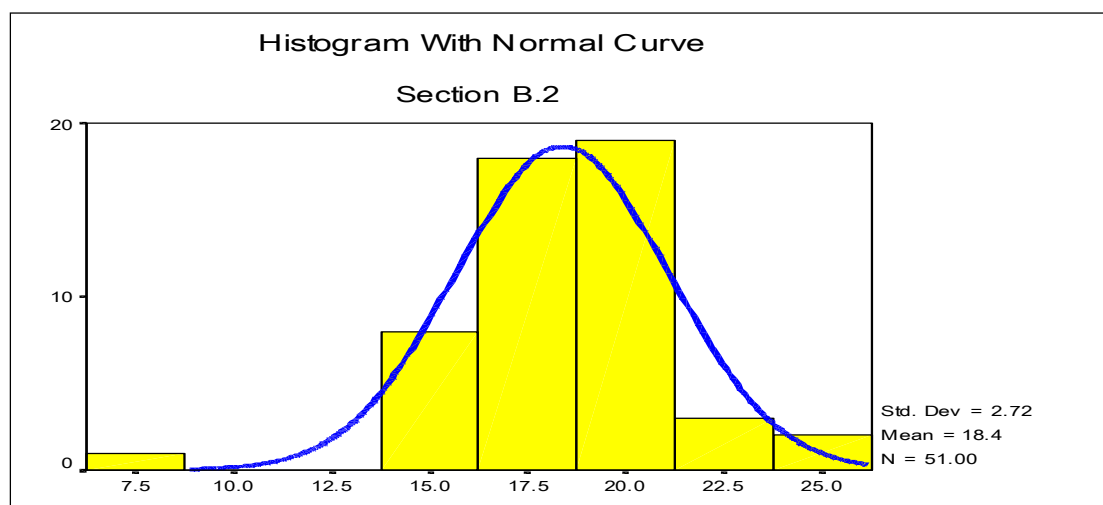


Figure 6.16: Learning Activities

The learning activities data histogram depicts a symmetrical distribution with 88% of data on the middle level, 13% at the upper limit, and 8% at the lower limit (see Figure 6.16).

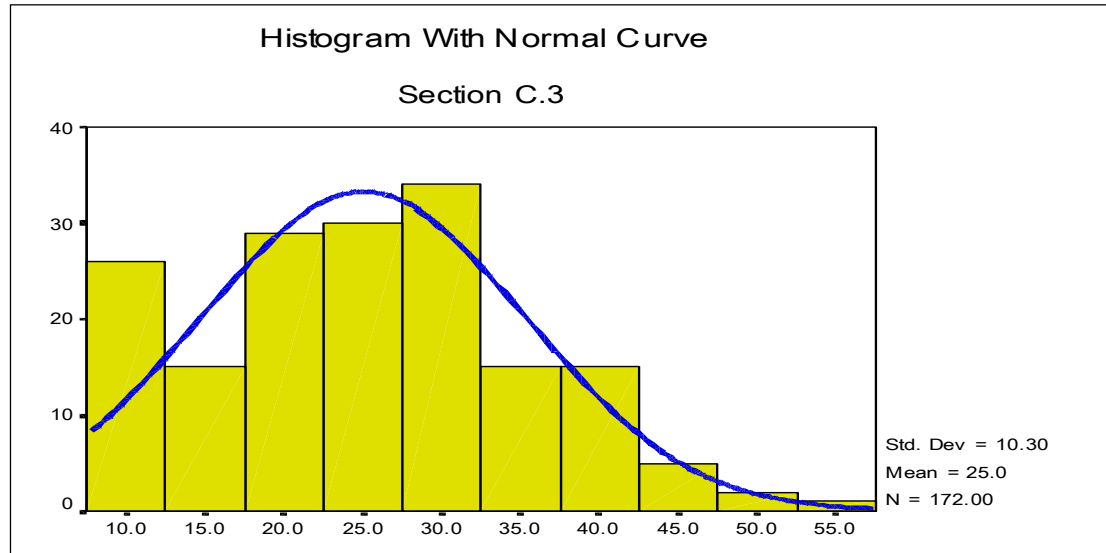


Figure 6.17: International Competitiveness Strategies

Similarly, the data on international competitiveness strategies depicts a symmetrical distribution, with 79% of data on the middle range, 17% on the lower limit, and 4% on the upper limit (see Figure 6.17).

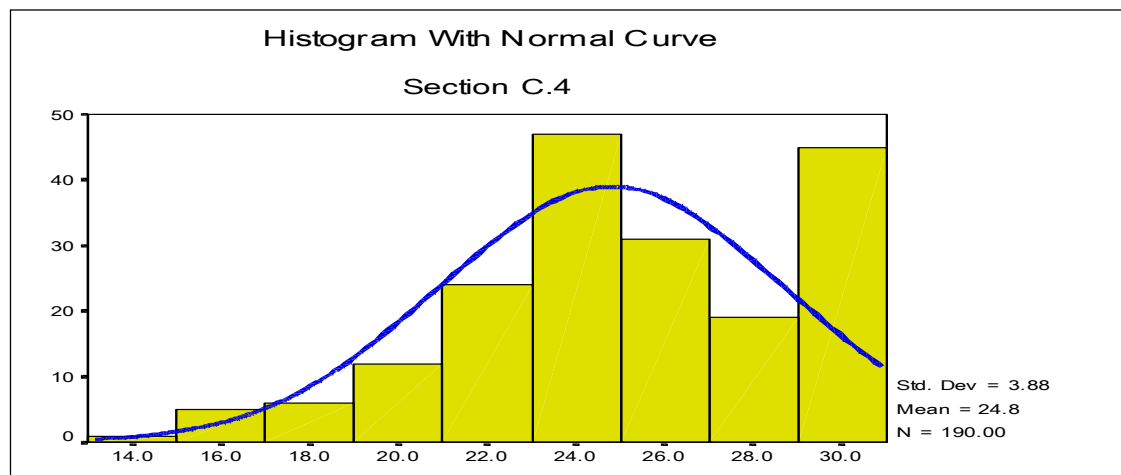


Figure 6.18: International Competitiveness

Finally, the data on competitiveness also reflect a symmetrical distribution with 73% of data on the middle range, 0.5% on the lower limit, and 25% at the lower limit (see figure 6.18).

6.4 IMPORTANCE AND IMPLEMENTATION

This section reports on the importance and implementation of each international learning process and process cluster using various analysis tools such as the mean values, trend analysis, and correlation analysis.

6.4.1 The Importance of and Implementation of International Learning Processes

This section reports the mean for each process cluster and for each process individually. These are summarized below.

PROCESS CLUSTER	MEAN
Perceptions of TNCs (PT)	5.28
International Competitiveness (IC)	4.07
International Competitiveness Strategies (ICS)	3.47
International Competitiveness Challenges (ICC)	2.34
Learning Activities (LA)	2.26

Table 6.4: All Process clusters from the highest to the lowest (Importance)

PROCESS	MEAN
Q7, Q9, Q11, Q13	6.57
Q5	1.50

Table 6.5: The Highest and the Lowest Processes (Importance)

The means are at the 95% confidence level. As a result, concerning the study population, it can be said with 95% certainty that each mean would apply in the range of 0.05 more or 0.05 less than the sample mean. The highest mean amongst clusters is on small business perceptions of TNCs followed by IC and ICS at 5.28, 4.07, and 3.47 respectively (see table 6.4). Questions 7, 9, 11, 13, which refer to perceptions of small businesses towards TNCs, have

the highest mean score of 6.57, whereas question 5 on international competitiveness challenges has the lowest mean score of 1.50 (see table 6.5e). The data indicates the high level with which small businesses view the importance and implement international learning processes in terms of ranking.

6.4.2 Trend Analysis

The means values are at the 95% confidence level with a 0.05 confidence level. As a result, for this study population, it can be said with 95% certainty that each mean would apply in the range of 0.08 more or 0.05 less than the sample mean.

6.4.2.1 The Importance and implementation of International Learning Process Clusters

The results of the trend analysis of process clusters are illustrated in figure 6.19 below:

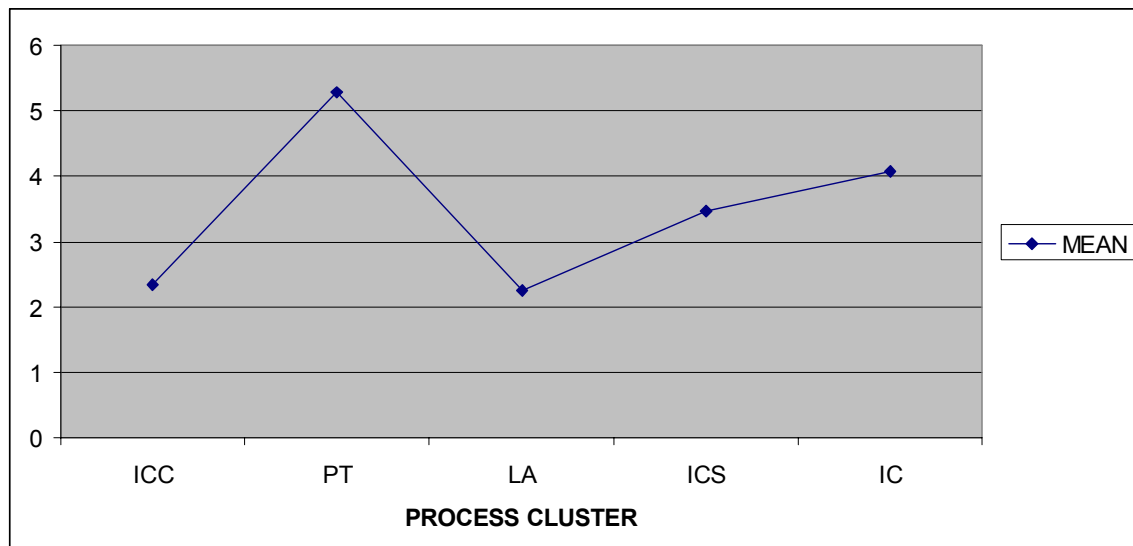


Figure 6.19: The Importance and Implementation of Process Clusters

The trend regarding the importance and implementation of international learning process clusters indicates the highest mean on small business

perceptions of TNCs (5.28) followed by international competitiveness (4.07). These mean values fall within the range 0.08 more or 0.08 less than the sample mean.

6.4.2.2 The Importance and Implementation of Individual Processes

The results of the trend analysis on the importance and implementation of individual processes are illustrated in figure 6.20 below:

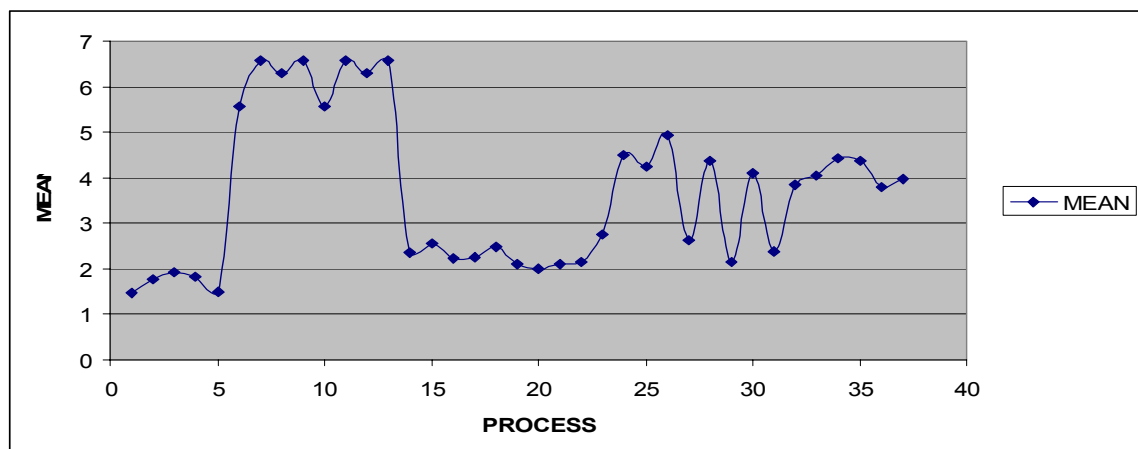


Figure 6.20: The Importance and Implementation of Individual Processes

The individual processes in figure 6.20, reflect the same trend as the international learning clusters above and are dominated by perceptions of TNC processes followed by international competitiveness strategies within the required range.

6.5 THE CORRELATION ANALYSES OF IMPORTANCE VERSUS IMPLEMENTATION

The analysis was performed between the perceptions of TNCs and the extent of implementation of learning activities; international competitiveness challenges and the extent of implementation of learning activities; learning perceptions from TNCs and the extent of implementation of international competitiveness strategy; learning activities and extent of implementation of international competitiveness strategies; and Learning activities and the

extent of international competitiveness. Therefore, the 2-tailed correlation analysis was performed at 95% confidence level.

The results are summarized below.

Correlation Analyses of Importance and Implementation in General

The results of the correlation analysis of the importance and implementation in general are summarized and are shown in the Table 6.7.

VARIABLES		95% CONFIDENCE LEVEL CASES (%)
Importance	Implementation	
<i>Perception</i>	<i>International Competitiveness Strategy</i>	94
<i>Learning Activities</i>	<i>International Competitiveness</i>	47
<i>Learning Activities</i>	<i>International Competitiveness Strategy</i>	44
<i>Perceptions</i>	<i>Learning Activities</i>	25
<i>International Competitiveness Challenges</i>	<i>Learning Activities</i>	20
<i>Perceptions</i>	<i>International Competitiveness</i>	16.5

Table 6.7 Correlation Analyses of Importance and Implementation in General

The results of the correlation between importance and implementation of individual processes are reported in Annexure 3. The results indicate the strongest correlation between importance of perceptions of small businesses and the implementation of international competitiveness strategies at 94% correlation cases followed by learning activities and international competitiveness and international competitiveness strategy at 47% and 44% respectively (see Table 6.7).

6.6 CONCLUSION

This chapter presented the data. On the sample profile, the data reflected a representative sample of firms in terms of type of industry, size of firms, number of people employed, gross profit/turnover, gross asset value, experience of firms, all representing small businesses in terms of the official definition; and management experience, education, age of firm, and planning formality, all reflecting reasonable maturity of small businesses in the sample. The majority of the firms in the sample are not linked to TNCs. Of those that are linked, the majority were through industrial cooperation agreements followed by 'arms length' subcontract type of linkages. Also, the majority of firms were not involved in international trade.

Finally, the data were analyzed through six steps, that is, data validation, general analysis of all international learning process clusters and processes, analysis of importance and implementation in general, analysis of importance and implementation of process clusters, analysis of importance and implementation of individual processes, and data consolidation. The reliability of data was successfully tested through alpha values and histograms. The means of the importance and implementation of international learning processes at individual process and process cluster levels were established and were within the 0.08 more or 0.08 less than the sample mean at the 95% confidence level. Finally, the data was consolidated through a 2-tailed correlation analysis of the importance and implementation of international learning clusters. The results indicate some interesting trends in terms of the correlation between the importance and implementation of international learning processes.

The results of the empirical findings will be discussed in the next chapter.

CHAPTER SEVEN

DISCUSSION OF RESULTS

CHAPTER 7: DUSCUSSION OF RESULTS

7.1 INTRODUCTION

The aim of this chapter is to discuss the results as established in Chapter 6, which presented the data.

This chapter begins with a quantitative description of the importance and extent of implementation of each process cluster using a comparative analysis of the means and a trend analysis. The process cluster trend analysis found that small businesses perceptions of TNCs are important while the international competitiveness challenges were found to be the least important process cluster. On the other hand, international competitiveness strategies were found to be most implemented process cluster than learning activities amongst small businesses that are linked to TNCs.

For the individual processes, in terms of importance, this chapter found that processes 7 (revenue generation), 9 (stabilization of fluctuations), 11(learning of new technologies), and 13 (increase of organizational capabilities) were the most important processes, while process 5 (changes in government regulations) was the least important process. In terms of the extent of implementation, this chapter found that process 26 (development of new international marketing strategies) was the most implemented process, while process 20 (learning activities on finance) was the least implemented process.

In the second part, this chapter analyzes the importance and implementation of processes in general and found that there was a significant correlation between the importance and the extent of implementation of the processes. The chapter analyzed the importance and implementation of the process clusters and found that the highest number of correlations was between perceptions of TNCs and implementation of international competitiveness strategies; followed by learning activities and international competitiveness. This result indicates that, by improved perception processes and learning activities from TNCs, international competitiveness strategies and

international competitiveness process clusters could be influenced. This part also indicated that there was correlation between process clusters in terms of importance and the extent of implementation, and, therefore, indicates that, by influencing perception, the extent of implementation of process clusters could be improved.

7.2 GENERAL RESEARCH PURPOSE FLOW

In this chapter, the data will be analyzed in order to ensure that the research propositions, purpose, and objectives are achieved,

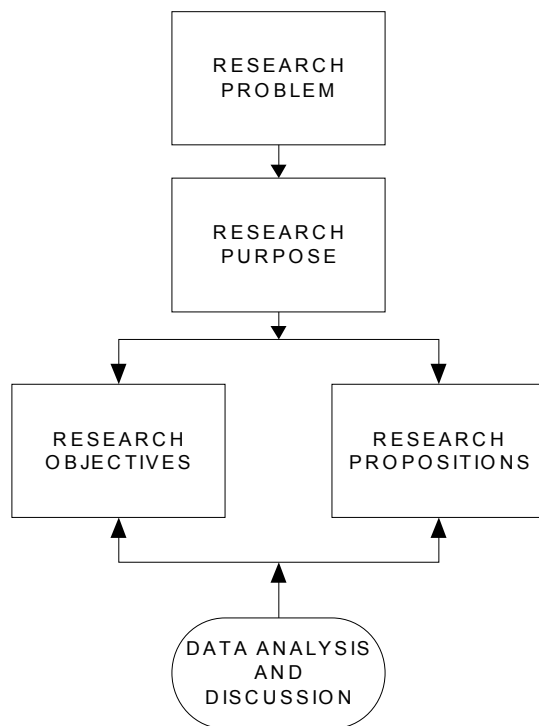


Figure 7.1 General Research Purpose Flow

The achievement of this process will satisfy the research purpose and thereby address the research problem. This process of meeting the research purpose is illustrated in Figure 7.1.

The research purpose, objectives, and propositions of this study are re-summarized below.

7.2.1 The Purpose of the Study

In order to achieve the proposed solution to the research problem, the main purpose of the study is to investigate international learning of small businesses that have a relationship with TNCs and are confronted by international competitiveness challenges within a transforming developing economy. The fundamental elements of this aim comprise:

- (i) The identification and understanding of international learning processes for small businesses in a relationship with TNCs;
- (ii) The analysis of international learning processes based on international “best practices” that reflect organizational learning evidence;
- (iii) The quantitative identification and description of international learning processes for small businesses in transforming economies; and
- (iv) The development of a model that enhances a case for a rational and comprehensive programme that supports linkages between small businesses and TNCs and enhances small business international learning. The model differentiates between the strategic processes that can be influenced and those that require broader and long-term interventions. By complying with an international learning model, small businesses’ international competitiveness will be optimized.

7.2.2 The Research Objectives

The purpose of this study is attained if the following objectives are achieved:

- (i) To quantitatively identify and describe the international learning processes for small businesses linked to TNCs operating in a transforming economic environment;
- (ii) To establish the level of importance of the international learning processes on these small businesses;

- (iii) To establish and quantify the extent of implementation of these international learning processes;
- (iv) To determine, from the identified international learning processes, the correlations between importance and the extent of implementation of international learning processes in small business;
- (v) To differentiate between international learning processes that can be influenced in the short term and those that require broad and long term interventions; and
- (vi) To use the outcomes of identification, description, and differentiation as the basis of a model that supports programmes that reinforce linkages between small businesses and TNCs and enhances small business international learning.

7.2.3 The Research Propositions

Proposition 1:

when there is a positive correlation between the level of importance and extent of implementation of international learning processes in small businesses linked to TNCs, confronted by international competitiveness challenges in transforming developing economies, then the extent of implementation of these processes will increase with the an increase in the level of importance of these processes in these small businesses.

Proposition 2:

When there is a positive correlation between the level of importance and extent of implementation of perception of TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of international learning processes will increase with an increase in the level of importance of these processes in these small businesses.

Proposition 3:

When there is a positive correlation between the level of importance and extent of implementation of learning activities from TNCs in small businesses linked to TNCs, confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of international learning processes will increase with an increase in the level of importance of these processes in these small businesses.

7.3 DISCUSSION OF IMPORTANCE AND IMPLEMENTATION

Section 6.4 above indicated the extent of the achievement of the research objectives (i), (ii), and (iii). The analysis enabled the quantitative identification and description of international learning processes of small business confronted by international competitiveness challenges in transforming developing countries, the quantification of the importance of international learning processes in these small businesses and the quantification of the extent of their implementation of international learning processes in these small businesses.

It was found that small business perceptions of TNCs was the most important process cluster; while international competitiveness challenges was found to be the least important international learning process cluster. On the other hand, international competitiveness strategies were found to be the most implemented international learning process cluster while learning activities was the least implemented cluster.

For the individual processes, in terms of importance, this chapter found that processes 7 (revenue generation), 9 (stabilization of fluctuations), 11 (learning of new technologies), and 13 (increase of organizational capabilities) were the most important processes in small business linkages with TNCs, while process 5 (changes in government regulations) was the least important process. In terms of the extent of implementation, this chapter found that process 26 (development of new international marketing strategies) was the most implemented process, while process 20 (learning activities on finance)

was the least implemented process. These results are reflected in the following tables.

Process 7: Perception

It gives us a chance to increase revenue

Process 9: Perception

Allows us to stabilize fluctuations

Process 11: Perception

It gives us a chance to learn new technologies

Process 13: Perception

Gives us a chance to increase organizational capabilities

Table 7.1: The most important international Learning Processes in small businesses

Process 5: International Competitiveness Challenge

Change in Government regulations

Table 7.2 : The least important international learning process in small businesses

In terms of the extent of implementation, it was found that process 26 was the most implemented process while process 20 was the least implemented process.

Process 26: International Competitiveness Strategy

Development of new international marketing strategies

Table 7.3: The most implemented international learning process in small businesses

Process 20: Learning Activity

Finance

Table 7.4: The least implemented international learning process in small businesses

The quantitative identification and description of international learning processes of small businesses confronted by international competitiveness challenges in a transforming developing economy illustrate which process clusters are considered important and which are not; as well as those that are extensively implemented and those that are less implemented in these small businesses.

The data obtained provide a general review of the international learning processes of small businesses linked to TNCs confronted by international competitiveness challenges. These results are important, especially as the literature review has shown some gaps in these areas. The results in this area, therefore, begin to fill in this gap in the literature on small businesses and provide a launching pad for more in-depth studies.

Furthermore, in order to obtain a better view of the international learning processes of small businesses linked to TNCs and confronted by international competitiveness challenges in a transforming economy and their implementation of these international learning processes, the next section will analyze the correlation between the importance and implementation of international learning processes.

7.4 DISCUSSION OF CORRELATION BETWEEN IMPORTANCE AND IMPLEMENTATION OF INTERNATIONAL LEARNING PROCESSES

7.4.1 International Learning Processes in General

The data presented in section 6.5.1 provides an understanding that is required for the achievement of research objective (iv). The analysis enabled the determination from the identified international learning processes, that is, whether there is a statistically significant correlation between the importance of international learning processes and the extent of the implementation.

The results indicated that, in general, there is a significant correlation between the importance and the implementation of international learning processes in small businesses confronted by international competitiveness challenges. Therefore, a general understanding is established that the extent of implementation of international learning processes is linked to their level of importance.

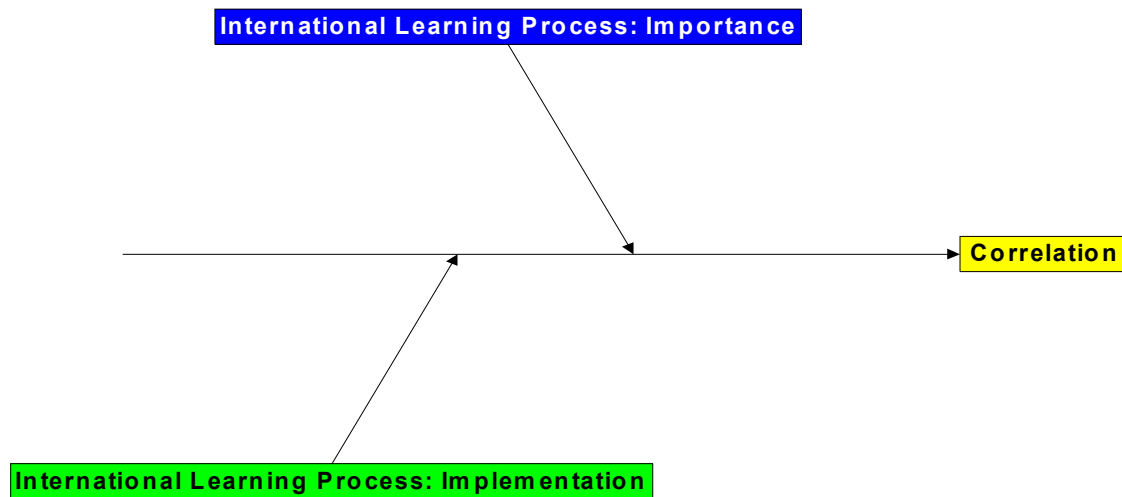


Figure 7.2: Importance and Implementation of International Learning Process Correlation in General

Since small businesses face challenges such as of lack of resources, support from government, unstable economic conditions, stifling regulation; small businesses linked to TNCs have a tendency to perceive benefits from TNCs as highly important, learn from these TNCs, and implement international learning processes. The importance and implementation correlation of international learning processes is illustrated in Figure 7.2

This general finding provides important knowledge on small business theory. Further investigation would need to be conducted to look at specific international learning process clusters such as the correlation between learning activities and international competitiveness strategies; and perceptions and learning activities. Extending the investigation into deeper levels will enable the increase of the extent of implementation of international learning processes in small businesses confronted by international competitiveness challenges in a transforming developing economy.

As a result, the next section examines the correlations between the level of importance and the extent of implementation of international learning process clusters and individual processes.

7.4.2 Process Clusters

The analysis of data and results in section 6.5.1 also provided information required to achieve research objectives (iv), (v), and (vi). The data analysis provided the basis for the determination, from identified international learning processes, of correlation between the importance of international learning processes and the extent of implementation of these processes in small business that are linked to TNCs, confronted by international competitiveness challenges in transforming developing economies. Also, the analysis facilitates understanding of how small businesses linked to TNCs perceive TNCs, learn from TNCs, implement international competitiveness strategies, and how they perform internationally and the international learning processes that can be influenced in the short-run and those that require long-term interventions.

7.4.2.1 Significant Correlations between the Importance and the Implementation of process clusters

The results indicate that in small businesses, confronted by international competitiveness challenges in a transforming developing economy, there is a high correlation between perception of TNCs and implementation of international competitiveness strategy. Further analysis of results indicates that small businesses having a direct linkage or relationship with TNCs would be more prone to implement international competitiveness strategies than those that are not linked to TNCs.

The results in Figure 7.3 indicate that the small firms that are linked to TNCs are highly active in the development and implementation of international strategies.

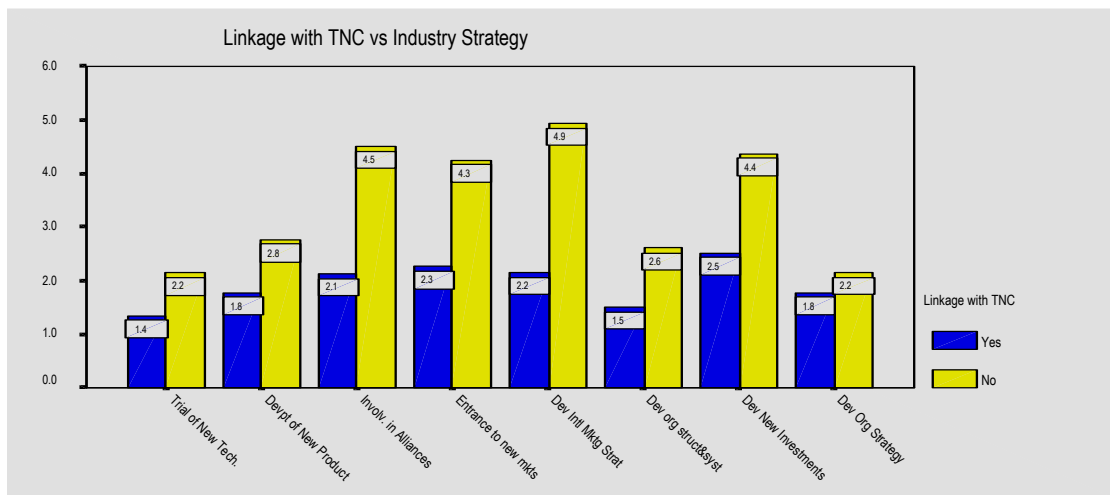


Figure 7.3: International Competitiveness Strategies

In terms of *trial of new technologies*, firms that are not linked to TNCs indicated a high level of passivity at a significance level of 0.001 (99.9%). The results indicate that small firms that are linked to TNCs will be more active in the trial of new equipment and technologies than firms that are not linked to TNCs.

In terms of *development of new products*, small firms that are not linked to TNCs indicate a higher level of passivity than firms that are linked. Out of 50 firms that are linked to TNCs, the mean score was 1,78 whereas out of 200 firms that are not linked, the mean score was 2,8. The differences in these mean scores are at a significant level of 0.000 (100%). Small firms that are linked to TNCs are highly active in the development of new products.

In terms of *involvement in domestic and foreign alliance*, firms that are not linked are highly passive at a significant level of 0.00 (100%). Similarly, in the *entrance to new markets (domestic or foreign)*, *development of new international marketing strategies*, *new investments (domestic and foreign)* and *development of new organisation structures and systems*, the significant level is at 0.000 (100%). This data indicate a strong argument that small firms that are linked to TNCs are more likely to be internationally competitive, with

strong international strategy being a major indicator of international competitiveness.

However, the results indicate that perceptions are not sufficient for small businesses to be internationally competitive. The second high correlation was found to be between learning activities and the extent of international competitiveness (47% cases) of small business confronted by international competitiveness challenges in transforming developing countries. From this finding, it can be seen that in small businesses confronted by international competitiveness challenges, learning activities from TNCs are significant for international competitiveness of these small businesses.

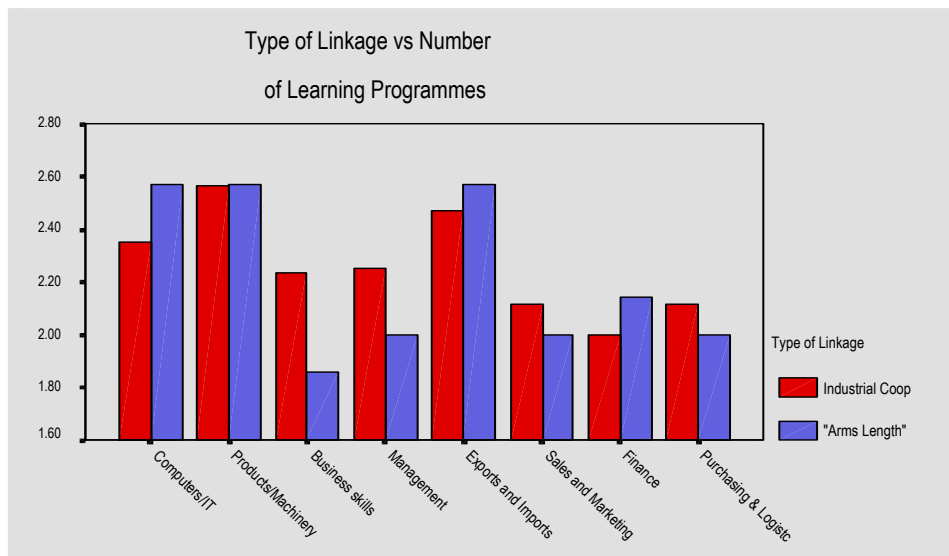


Figure 7.4: Learning Activities

Among small businesses linked to TNCs, the results indicate an interesting trend towards strong learning activities in technological areas such as information technology, and products and machinery as illustrated in figure 7.4. Also, there are strong trends towards international trade learning activities such as on exports and imports, with the least learning activity on finance. The statistical difference between the extent of small business linkage and learning activities with TNC is not significant.

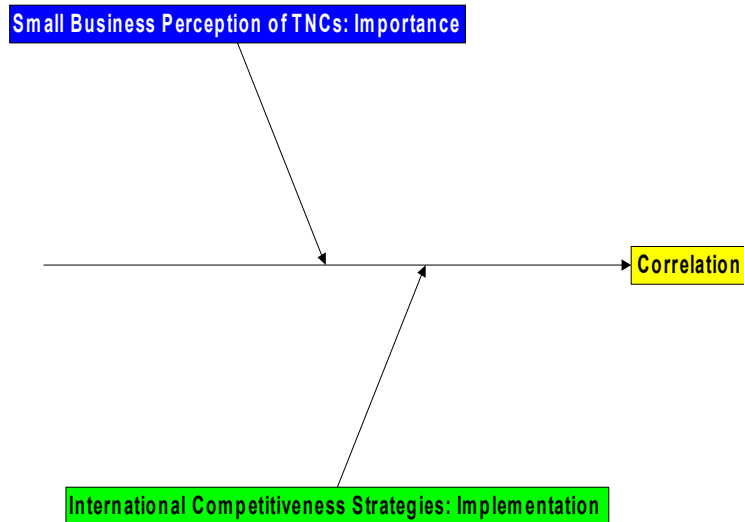


Figure 7.5: The Importance and Implementation of International Learning Processes: Perception and International Competitiveness Strategies

Learning activities are also correlated to the extent of implementation of international competitiveness strategies (44% cases). These last two findings show the importance of learning activities. Learning activities and international strategies and competitiveness together make up 91% of correlations.

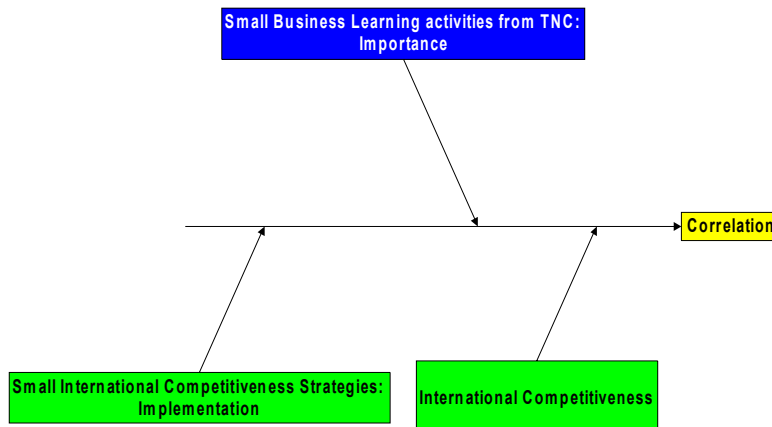


Figure 7.6: The Importance and Implementation of International Learning Processes: Learning Activities and International Competitiveness Strategy and Competitiveness

7.4.2.2 Correlations Cases between Importance and Implementation of International Learning Process Clusters

The results in section 6.5.1 indicate that in small businesses confronted by international competitiveness challenges, there are few correlation cases between perceptions and learning activities (25% correlation cases); international competitiveness challenges and learning activities (20% correlation cases); and perceptions and international competitiveness (17% correlation cases). Thus for these processes, the importance of perceptions and international competitiveness cannot increase the extent of learning activities between small businesses and TNCs alone.

VARIABLES		95% CONFIDENCE LEVEL CASES (%)
Importance	Implementation	
<i>Perception</i>	<i>International Competitiveness Strategy</i>	94
<i>Learning Activities</i>	<i>International Competitiveness Strategy and International Competitiveness</i>	91
<i>Perceptions and International Competitiveness Challenges</i>	<i>Learning Activities and International Competitiveness</i>	61

Table 7.5: Consolidated Importance and Implementation process clusters

On the process clusters, the combination of perceptions and international competitiveness challenges can have a strong influence on learning activities, and therefore, on international competitiveness strategy and international competitiveness as well. Together, perceptions and international competitiveness challenges make up 62% of the correlation cases. This finding, therefore, means that there is strong correlation between perception of TNCs and international competitiveness challenges, and learning activities and international competitiveness. This finding is shown in table 7.5.

This particular aspect of the results reinforces other findings on survival versus learning anxiety by Schein (Coutu, 2000:6) and James (2003:15-33)

on competency and behaviour of small firms as established in the literature review in previous chapters.

The above finding provides an important contribution to small business theory and further provides the basis for a rational and targeted short term intervention strategy to enable the strengthening of the opportunities for international learning by changing perceptions of TNCs by small businesses and their view of international competitiveness challenges.

However, it is critical to further investigate whether any specific correlations between perceptions and international competitiveness challenges which can be of benefit to the rational and target short-term intervention for improved international learning within small businesses confronted by international competitiveness challenges in a transforming developing economy.

Hence, the next section will examine whether there are significant correlations between the level of importance and the extent of implementation at an individual processes level.

7.4.3 Individual Processes

The analysis of data on individual processes provides the information required for the achievement of research objectives (iv), (v), and (vi). The analysis enabled the determination from the identified international learning processes cluster, of which individual processes have the highest correlations and lowest correlations; the quantitative identification and description of how small businesses confronted by international competitiveness challenges implement their international learning processes and identify those specific processes that can be influenced by short-term interventions and those that require long term interventions.

7.4.3.1 High Levels of Correlations between Importance and Implementation of Processes

The results indicate that, in small businesses confronted by international competitiveness challenges in a transforming developing economy, there are significant correlations between the level of importance and extent of implementation of international learning processes as illustrated in Table 7.6.

PROCESS CORRELATIONS	
Importance	Implementation
Process 6: Perception It gives us a chance to acquire new skills	Processes: International Competitiveness Strategies 22, 24, 25, 26, 27, 28, 29
Process 8: Perception It gives us a chance to broaden organizational skills	Processes: International Competitiveness Strategies 22, 23, 24, 25, 26, 27, 28, 29
Process 11: Perception It gives us a chance to learn new technologies	Processes: International Competitiveness Strategies 22, 23, 24, 25, 26, 27, 28, 29
Process 13: Perception It gives us a chance to broaden organizational capabilities	Processes: International Competitiveness Strategies 22, 23, 24, 25, 26, 27, 29
Process 14: Learning Activity Computers/Information Technology	Processes: International Competitiveness Strategies 25 Processes: International Competitiveness 32, 33, 34, 35, 36, 37
Process 15: Learning Activity Products/Production/Machinery	Processes: International Competitiveness Strategies 24, 25, 26, 27, 28, 29 Processes: International Competitiveness 34, 35, 36
Process 16: Learning Activity Business Skills/Entrepreneurship	Processes: International Competitiveness Strategies 24, 26, 27, 29 Processes: International Competitiveness 33
Process 17: Learning Activity Management	Processes: International Competitiveness Strategies 23, 24, 25 Processes: International Competitiveness 33

PROCESS CORRELATIONS	
Process 18: Learning Activity Exports and Imports/International Trade	Processes: International Competitiveness Strategies 26, 27, 29 Processes: International Competitiveness -
Process 19: Learning Activity Sales and Marketing	Processes: International Competitiveness Strategies 23, 26, 27, 28, 29 Processes: International Competitiveness 34
Process 20: Learning Activity Finance	Processes: International Competitiveness Strategies 25 Processes: International Competitiveness 36
Process 21: Learning Activity Purchasing and Logistics	Processes: International Competitiveness Strategies 24, 25, 26, 27, 28, 29 Processes: International Competitiveness 34
Process 6: Perception It gives us a chance to acquire new skills Process 1: International Competitiveness Challenges New Technologies	Process: Learning Activities 14,18 Process: International Competitiveness -
Process 8: Perception It gives us a chance to broaden organizational skills Process 2: International Competitiveness Challenges New or Shifting Buyer Needs	Process: Learning Activities 14, 15, 17 Process: International Competitiveness -
Process 11: Perception It gives us a chance to learn new technologies Process 3: International Competitiveness Challenges Emergence of New industry Segments	Process: Learning Activities 14, 15, 19, 21 Process: International Competitiveness -
Process 13: Perceptions It gives us a chance to broaden organizational capabilities Process 4: International Competitiveness Challenges Shifting Input Costs or Availability	Process: Learning Activities 14, 15, 16, 18, 21 Process: International Competitiveness 37
Process 5: International Competitiveness Challenges Change in Government Regulations	Process: Learning Activities - Process: International Competitiveness -

Table 7.6: International Learning Processes which have correlation between level of importance and extent of implementation

Thus the extent of implementation of international learning processes in small businesses confronted by international competitiveness challenges in a transforming developing economy is linked to the importance of perceptions of TNCs, learning perceptions, and international competitiveness challenges in these small businesses.

The lack of information and support hinders small businesses, on their own, from initiating and sustaining importance of international learning processes and the extent of their implementation.

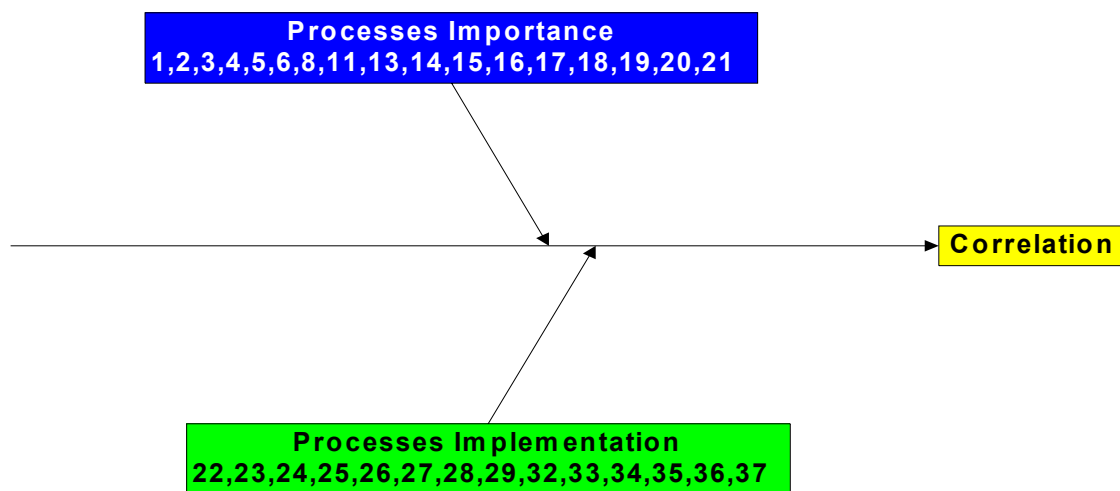


Figure 7.7: The Correlation between Importance and Implementation of Individual Processes

While the implementation of these processes may be deterred by lack of information and support, the results indicate that when small businesses linked to TNCs confronted by international competitiveness challenges in a transforming economy implement international learning processes, they would achieve international competitiveness as there are correlations in a majority of individual processes as indicated in Figure 7.7.

It can, therefore, be observed that in small businesses confronted by international competitiveness challenges in a transforming developing economy, importance of international learning processes revolve around perception of TNCs, learning activities from TNCs, and international

competitiveness challenges. These include the most important processes 8 (broadening organizational skills); and 11 (chance to learn new technologies). Process 5 (changes in government regulation) was considered not so important by small businesses.

Process 8: Perception

It gives us a chance to broaden organizational skills

Process 11: Perception

It gives us a chance to learn new technologies

Table 7.7: International Learning Processes that are the most important in terms of number of correlations with implementation

Process 5: International Competitiveness Challenges

Changes in Government
Regulations

Table 7.8: International Learning Processes that small businesses have difficulty with in terms of number of correlations with implementation

Thus, in the short-term, these perceptions could be reinforced, particularly among small businesses that are not linked to TNCs as well as to the TNCs. The role of government support could be improved in order to improve the extent of implementation of international learning processes, which are currently the least important.

Process 24: International Competitiveness Strategy

Involvement in domestic and foreign alliances

Process 25: International Competitiveness Strategy

Entrance to new markets (domestic or foreign)

Process 26: International Competitiveness Strategy

Development of new international marketing strategies

Process 27: International Competitiveness Strategy

Development of new organization structures and systems

Process 29: International Competitiveness Strategy

Development of new organizational strategy

Table 7.9: International Learning Processes that are implemented most in terms of number of correlations

Table 7.9 indicates the most implemented international learning processes by small businesses confronted by international competitiveness challenges in a transforming developing economy. These international learning processes are predominantly international competitiveness strategies such as involvement in domestic and foreign alliances, entrance to new markets (domestic and international), development of new international marketing strategies, development of new organizational structures and systems, and development of new organizational strategies.

Process 17: Learning Activity
Management

Process 19: Learning Activity
Sales and Marketing

Process 20: Learning Activity
Finance

Process 32:: International Competitiveness
Image

Table 7.10: International Learning Processes that were implemented least in terms of number of correlations.

On the other hand, the least implemented international learning processes are predominantly on small business learning activities with TNCs as indicated in table 7.10. The areas that are lacking in implementation include learning on business management, sales and marketing, and financial management, while the international competitiveness lagging behind is that small businesses confronted by international competitiveness challenges have a problem of poor image. These international learning processes require short-term interventions.

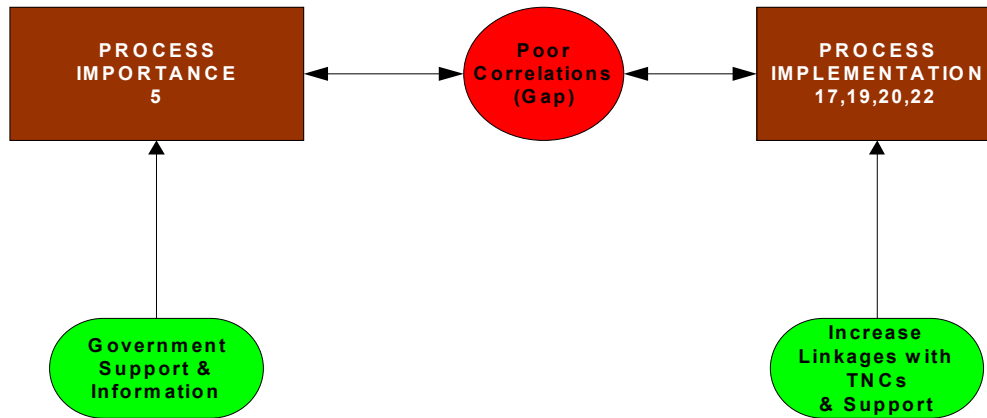


Figure 7.8: The importance and Implementation of Processes and Required Support

The identified weak correlations in terms of importance and implementation of international learning processes (5 – changes in government regulations, 17 – learning activities in management, 19 – learning activities in sales and marketing, 20 – learning activities in finance, and 22 – trial of new equipment, machinery, and technology) can benefit from short-term intervention of enhancing relationships and learning activities between small businesses and TNCs.

The above findings provide important information that adds to the knowledge base and further provide the basis for rational and targeted interventions to enable strengthening of international competitiveness of small businesses confronted by international competitiveness challenges in a transforming developing economy.

7.5 CONCLUSION

The results presented in chapter 6 were discussed in this chapter. The discussion commenced with a description of the level of importance and extent of implementation of international learning process clusters, and then the level of importance and extent of implementation at individual international learning processes. This discussion is continued into the next chapter on conclusions in order to achieve the research purpose and thereby address the research problem and research propositions. The discussion in the next

chapter also alludes to the new theoretical model that is being developed and discusses conclusion and recommendations for the study.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The aim of this chapter is to present the major findings of this study, show how the research problem, purpose, and objectives, and propositions have been satisfactorily addressed, and to finally make recommendations, based on findings, for future areas of research.

The chapter begins by connecting each aspect of the research purpose and research objective to chapters and sections where they were reported and covered. Furthermore, the chapter uses the empirical results of the study to examine the research propositions, to indicate if they were supported or not. The chapter also reports a new theoretical model of international learning for small business confronted by international competitiveness challenges in transforming a developing economy and a summary of the main research findings.

The main conclusion of this study highlights support for the development of a rational and targeted intervention designed to initiate and sustain the international learning processes of small businesses confronted by international competitiveness challenges in transforming developing economies. The international learning processes can be strengthened through linkage with TNCs and, hence, their performance in a challenging environment is optimized.

8.2 PROCESS OF SATISFYING THE RESEARCH PROBLEM

The chapter analyses the achievement of the research purpose and objectives, and how the research problem has been addressed as well as the research propositions through the findings of this study. The process of satisfying the research problem of this study is illustrated in Figure 8.1.

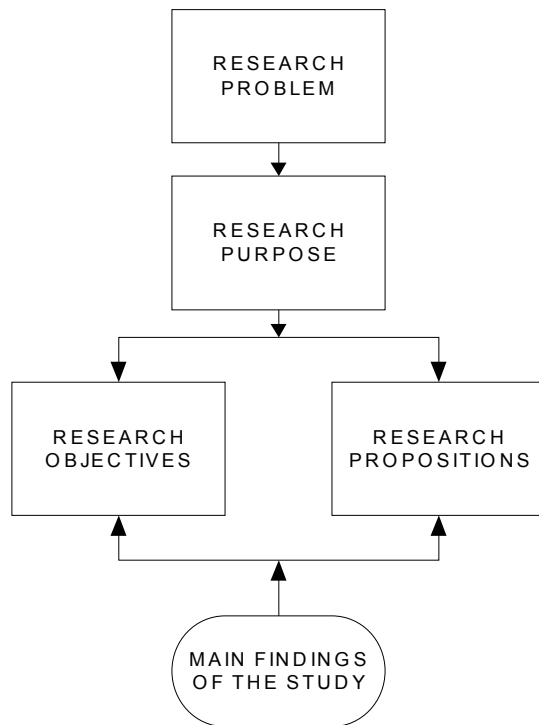


Figure 8.1: Satisfying the research problem

In turn, the process of satisfying the research problem is discussed in the next sections of this chapter.

8.3 ACHIEVEMENT OF THE RESEARCH PURPOSE

In order to achieve the proposed solution to the research problem, the main purpose of the study was to investigate international learning of small businesses that have a relationship with TNCs and are confronted by international competitiveness challenges within a transforming developing economy. The fundamental elements of this aim comprise:

- (i) The identification and understanding of international learning processes for small businesses in a relationship with TNCs.

This element was achieved. The critical competencies of a small business crucial for this study are what are referred to as process dimensions in chapter 4. Process dimensions should be observable in the owner of a small business as evidenced in our GALVENOR case study in chapter 1. These six competencies were broadly categorized, that is, opportunity, relationship,

conceptual, organizational, strategic, and commitment competencies. The relationship competency was identified as the most important for small business international competitiveness.

- (ii) The analysis of international learning processes based on international “best practices” that reflect organizational learning empirical connection;

This element was achieved in Chapters 2, 3, 4, and 5. The international learning processes evident in small businesses linked to TNCs were discussed with the aid of practical examples of various small business and TNCs linkage programmes in South African and other countries. The literature review and exploratory studies in South Africa revealed some key elements of international learning processes in a relationship between small businesses and TNCs which were formally discussed in literature review chapters.

- (iii) The quantitative identification and description of international learning processes for small businesses in a transforming developing economy.

This element was achieved in Chapters 6 and 7. Statistical analysis of data collected revealed the importance and implementation of international learning processes in South Africa, with a particular focus of the study in the Durban metropolitan area.

- (iv) The development of a model that enhances a case for a rational and comprehensive programme that supports linkages between small businesses and TNCs and enhances small business international learning. The model differentiates between the international learning processes that can be influenced and those that require broader and long-term interventions. By complying with an international learning model, small businesses international competitiveness will be optimized.

This element is achieved in this chapter.

7.4 ACHIEVEMENT OF RESEARCH OBJECTIVES

The purpose of this study was attained by achieving the following objectives:

- (i) To quantitatively identify and describe the international learning processes for small businesses linked to TNCs operating in a transforming economic environment.

This objective was achieved in Sections 6.4 and 7.3. It was discovered that small businesses linked to TNCs have the most important processes as the perceptions they have of TNCs and learning activities with TNCs, which were found to be correlated to international strategies, and international competitiveness of these small businesses.

- (ii) Establish the level of importance of the international learning processes on these small businesses;

This objective was achieved in Sections 6.4 and 7.3. Small business perceptions of TNCs, and learning activities were found to be highly important.

- (iii) To establish and quantify the extent of implementation of these international learning processes.

This objective was achieved in Sections 6.4 and 7.3. It emerged that the most implemented international learning processes are international competitiveness strategies.

- (iv) To determine, from the identified international learning processes, the correlations between importance and the extent of implementation of international learning processes in small business.

This objective was achieved in Sections 6.5 and 7.4. Most correlations were found to be between small business perceptions of TNCs and international competitiveness strategy; learning activities and international competitiveness; and learning activities and international competitiveness strategies.

- (v) To differentiate between international learning processes that can be influenced in the short-term and those that require broad and long-term interventions;

This objective was achieved in Section 6.5 and reported in this chapter. The learning processes that were found to be least important, and, therefore, least implemented were identified, and were identified as requiring short-term interventions.

- (vi) To use the outcomes of identification, description, and differentiation as the basis of a model that supports programmes that reinforce linkages between small businesses and TNCs and enhances small business international learning.

This objective is achieved in this chapter.

8.5 ADDRESSING THE RESEARCH PROPOSITIONS

The research propositions developed according to the methodology reported in chapter 5 and motivated in Chapters 2, 3, and 4 are evaluated against the research findings of this study.

Proposition 1:

When there is a positive correlation between the level of importance and extent of implementation of international learning processes in small businesses linked to TNCs, confronted by international competitiveness challenges in transforming developing economies, then the extent of implementation of these processes will increase with the an increase in the level of importance of these processes in these small businesses.

The study's findings are shown as process clusters, derived from dimensions processes in the small business learning literature, and then as individual processes. These process clusters which were identified are:

- International Competitiveness Challenges

- Perceptions of TNCs
- Learning Activities from TNCs
- International Competitiveness Strategies
- International Competitiveness.

Of these, the level of importance and extent of implementation displayed correlations in all process clusters. Where there are few correlation cases such as between perceptions and international competitiveness challenges, and learning activities and international competitiveness; the extent of implementation will be influenced by improvements in the level of importance and interventions. These include interventions such as improved government support, and support of linkages and learning activities between small businesses and TNCs.

The research results fully support this proposition, since all international learning process clusters indicate some correlation between the level of importance and the extent of implementation. Therefore, the extent of implementation will be influenced by the importance of these international learning processes.

Proposition 2:

When there is a positive correlation between the level of importance and extent of implementation of perception of TNCs in small businesses confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of international learning processes will increase with an increase in the level of importance of these processes in these small businesses.

On the perceptions of TNCs in small businesses confronted by international competitiveness challenges, perception processes 8 (chance to broaden organizational skills) and 11 (chance to learning new technologies) showed the highest level of correlations with international competitiveness challenges. These processes are indicated below:

Perceptions of TNCs have the highest number of correlations with international competitiveness strategies, followed by learning activities, and international competitiveness. These results are reflected in chapter seven, table 7.5.

The results fully support this proposition, since the importance of perceptions of TNCs is correlated to international learning processes. Where there are few correlations, the short-term interventions to improve the extent of implementation by improving the importance of perceptions of TNCs will be critical.

Proposition 3:

When there is a positive correlation between the level of importance and extent of implementation of learning activities from TNCs in small businesses linked to TNCs, confronted by international competitiveness challenges in transforming developing economies, the extent of implementation of international learning processes will increase with an increase in the level of importance of these processes in these small businesses.

On learning activities from TNCs in small businesses linked to TNCs, confronted by international competitiveness challenges in a transforming developing economy, the results showed the significant number of positive correlations between the importance and the extent of implementation of international learning processes. The extent of implementation of international competitiveness strategies, and international competitiveness process clusters showed the highest number of correlations with the importance of learning activities. These results are presented in table 7.5.

Thus, the research results do support this proposition, that is, the implementation of international learning processes will be increased by an increase in the level of importance of learning activities from TNCs.

8.6 A NEW THEORETICAL MODEL: THE STRENGTHENING OF INTERNATIONAL LEARNING PROCESSES OF SMALL BUSINESSES CONFRONTED BY INTERNATIONAL COMPETITIVENESS CHALLENGES IN TRANSFORMING DEVELOPING ECONOMIES THROUGH LINKAGES WITH TRANSNATIONAL CORPORATIONS

The identification of international learning processes into those processes whose extent of implementation can be increased by an increase in the level of importance, and by increasing perceptions of TNCs and learning activities from TNCs in small businesses confronted by international competitiveness challenges leads the way for new approaches towards small business international competitiveness. This finding provides the basis for a new model or theory of strengthening the international learning capabilities of small businesses that are confronted by international competitiveness challenges in an environment such as that of the South African economy.

The learning capabilities of small businesses are influenced by competency and behaviour of small firms (James, 2003:15-33; and Taylor and Panza, 2003) in as much as they are influenced by survival anxiety and learning anxiety of small firms as argued by Schein (Coutu, 2002:6); as well as networks that are created by small firms and ability to take advantage of opportunities (Lall, 2000:4; and 2002:45; and Man and Chan, 2002).

According to Lall (2003:48), for local organizations in developing countries to access new technologies, there are two forms of access, that is, *internalized* and *externalized*. Internalized access happens from a TNC to foreign affiliates under its control, and externalized access takes place is between TNC and independent firms. He contends that externalized transfers generally tend to call for greater learning effort by the receiving firms.

This new theoretical model proposes two pillars: *identification pillar* and *development pillar* (this model is graphically represented in figure 8.2 below). The identification pillar comprises the identification of those processes whose

extent of implementation is dependent on the level of importance of learning perceptions and learning activities from TNCs. On the other hand, the development pillar involves development of international learning processes that have a high level of importance and have been identified and the monitoring of the extent of implementation of learning processes whose increase can be influenced.

In terms of the results discussed in Chapter 7, the short-term interventions of improving information and influencing perceptions and learning activities from TNCs in small businesses become the identification pillar of the theoretical model.

From the content of the identified processes that require short-term interventions, which include process 5 (international competitiveness challenges), government regulations; processes 19 and 20 (learning activities) management and finance; as well as process 32 (international competitiveness: image); it can be seen that the focus of the short-term intervention should be on government support of linkages, information, and creation of a conducive small business and TNC relationship environment. These processes should emphasize or reinforce the improvement of learning activities associated with business management, financial management, and on improving the image of small businesses. Improving perceptions of TNCs by government on all role-players, in the short-term, would have a multiplier effect, in that perceptions would affect other international learning processes as identified in this study.

This approach confirms the identified gap (Kaplinsky, 1993; Johnson and Rice, 1987; Katz and Shipiro, 1986) that absorbing new complex technologies does not only require modification and mastery of technology, as may be viewed in a mechanical sense, but also require modifications in organizational practices and procedures, which is a complex learning process. Hence, the identification pillar is critical for international learning to be effective in small businesses.

The more specific and longer term target interventions involve the development of a small businesses and TNCs linkage programme. This programme is referred to in this theoretical model as the development pillar. This is a further step to the identification pillar. This pillar is driven more by the perceptions of all stakeholders involved in the linkages between small businesses and TNCs and the processes involved. This pillar has effect on the perception of TNCs; international learning activities with TNCs; international competitiveness strategies; as well as international competitiveness of small businesses in a transforming developing economy.

By following a systemic and rational approach of first addressing perceptions of TNCs in small businesses with the leadership of small businesses; and learning activities with the leadership of both TNCs and small businesses, and the role of government leadership; will foster improved international learning processes.

Some international practice experiences of linkage programmes, as identified in Chapter 3, provide evidence of possibilities in the implementation of this theoretical model. For example, Singapore's Local Industry Upgrading Programme (LIUP) provides an example of a practical linkage programme in a developing country context. This programme, which is well reported by Wong (1994), is based on practical experience in Singapore.

Hence, this study's construction of a new theoretical model on the international learning processes of small business confronted by international competitiveness challenges begins to fill the knowledge gap on strengthening capabilities of developing countries such as South Africa, which will enable these countries' small firms to optimize their international competitiveness.

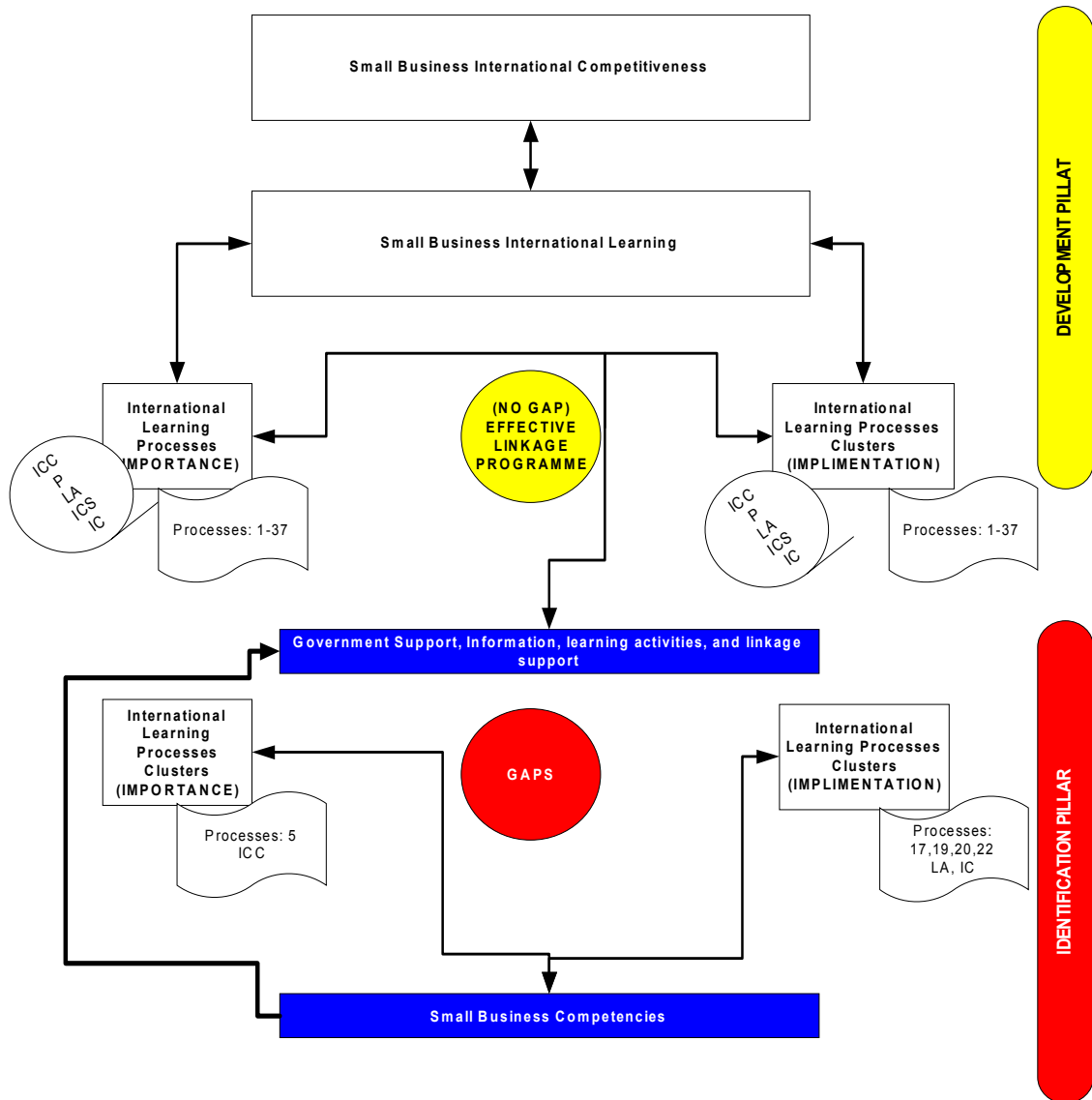


Figure 8.2: A new Theoretical Model: The Strengthening of International Learning Processes of Small Businesses Confronted by International Competitiveness Challenges in Transforming Developing Economies Through Linkages with Transnational Corporations

The new theoretical model provides a solution to the research problem identified in Chapter 1: “How can a small business strengthen its international competitiveness through a relationship with a TNC?”.

If small businesses, confronted by international competitiveness challenges in a transforming developing economy, can increase the importance of perceptions of TNCs and learning activities with TNCs in process 5 (adapting to changes in government regulations) and processes 17 (learning activities

on management), 19 (learning activities on sales and marketing), 20 (learning activities on sales), and 22 (trial of new equipment, machinery, and technology); then their extent of implementation of international learning processes in these small businesses will increase.

According to James (2003:15-33); and Taylor and Panza (2003), the learning capabilities of small businesses are influenced by competency and behaviour of small firms, in as much as they are influenced by survival anxiety and learning anxiety of small firms as argued by Schein (Coutu, 2002:6); as well as networks that are created by small firms and ability to take advantage of opportunities (Lall, 2000:4; and 2002:45; and Man and Chan, 2002). Hence, the small business competencies play a critical role in reinforcing the level of importance of international learning processes (perceptions and learning activities).

This reinforcement will also lead to the development pillar of sustainable programme that ensures an increased level of importance and the extent of implementation of international learning process clusters.

This increase in implementation of international learning processes is due to small business competencies (James, 2003:15-33 and Man and Chan, 2002) and learning and survival anxieties (Coutu, 2002:6) which are part of the behaviour of a small business.

A NEW THEORETICAL MODEL

If small businesses confronted by international competitiveness challenges in a transforming developing economy can increase the importance of perceptions of TNCs and learning activities with TNCs in process 5 and processes 17, 19, 20, and 22; then their extent of implementation of international learning processes in these small businesses will increase (see Table 8.1). This will also lead to the development pillar of sustainable programme that supports an increased level of importance and the extent of implementation of international learning process clusters.

Process 5: International Competitiveness Challenges

Changes in Government Regulations

Process 17: Learning Activity

Management

Process 19: Learning Activity

Sales and Marketing

Process 20: Learning Activity

Finance

Process 32: International Competitiveness

Image

Table 8.1: Priority International Learning Processes

The overall impact of the identification and development pillar of international learning processes, according to this theoretical model, will be the strengthening of government support, learning activities, and international competitiveness; and, hence, the optimal performance of small businesses confronted by international competitiveness challenges in a transforming developing economy.

8.7 SUMMARY OF THE MAIN FINDINGS OF THIS STUDY

In small businesses confronted by international competitiveness challenges in a transforming developing economy, it was found that:

(a) For international learning process clusters, perceptions of TNCs, and learning activities from TNCs were considered to be the most important international learning process clusters, while international competitiveness challenges were found to be the least important international learning cluster. On the other hand, international competitiveness strategies and learning activities from TNCs were found to be the most implemented international learning processes, while international competitiveness was the least implemented process cluster.

(b) For individual processes, in terms of importance, it was established that processes 8 (broaden organizational skills) and 11 (chance to learn

new technologies) were the most important processes, while process 5 (changes in government regulations) was the least important process. For individual processes, in terms of implementation, it was established that processes 24 (involvement in domestic and foreign alliances), 25 (entrance to new markets), 26 (development of new international marketing strategies), 27 (development of new organization structures and systems), and 29 (development of new organizational strategy), were the most implemented processes, while process 14 (learning activities on computer and information technology) was the least implemented process.

(c) For processes in general, it was established that there is a positive correlation between the level of importance and the extent of implementation of international learning processes. This finding showed that, in general, the extent of implementation of international learning processes in small business confronted by international competitiveness challenges can be influenced by the changes in the level of importance of international learning processes.

(d) The significant gap in the level of importance and extent of implementation in some international learning process cluster in terms of correlations such as international competitiveness challenges and international competitiveness means the extent of implementation is dependant on the level of importance.

8.8 STUDY CONCLUSIONS

The business and management problem that culminated into this study's research problem is "how to optimize the performance and competitiveness of small businesses during the period of trade liberalization and globalization?".

The literature on organizational learning has evolved to incorporate the following factors. Firstly, the dichotomy developed over the years between higher and lower levels of learning is disputed and the merging of the two strands of learning in organizations is attempted by Schein (Coutu, 2002) and

Sun and Scot (2003). Secondly; small business learning is different from big business learning. Small business learning is dependent on the qualities or competencies of an entrepreneur or owner of a small business. Small business owners have high survival instincts, which conjures certain skills including, among others, identifying opportunities, creating and maintaining relationships, and commitment (James, 2003; Man and Chan 2002; 1998). Critically important is the entrepreneurs' ability to network, a point well expressed by Taylor and Pandza (2000) and Taylor (2003).

Lall (2003) emphasizes the pressures of globalization on small businesses and a need for learning in small businesses. There is, therefore, a case for equating international competitiveness challenges with Schein's survival anxiety condition. In view of the pressures of international competition, one of the possible solutions is through a small business relationship with a TNC. TNCs have control over international markets (Nolan, 2002). There is high potential for South Africa to increasingly attract TNCs.

A number of programmes exist locally and internationally that facilitate linkages between small businesses and TNCs. These programmes differ according to the initiator, the motive, and the approaches. Some programmes are initiated by small businesses themselves, others by TNCs, government, and non-governmental organizations. Linkage programmes have been viable at a grand-scale where governments have developed and implemented policies that facilitate linkages. A good example is the LIUP that engages all stakeholders in different priority sectors to create linkage programmes.

Therefore, this study proposes a model that supports a rational and targeted approach to identify and develop international learning capabilities of small businesses confronted by international competitiveness challenges through linkages with TNCs. The theoretical model differentiates between international learning processes that can be influenced in the short-term and those that require long-term intervention of linkage programmes that promote international learning processes in small businesses. By using this rational and targeted approach to initiate and develop international learning

processes, the international competitiveness of small businesses confronted by international competitiveness challenges in transforming developing economies will be optimized.

By following this rational and target approach of initially identifying important international learning processes, such as perceptions of TNCs and learning activities from TNCs process cluster, and processes such as broadening of organizational capabilities, learning new technologies, and financial management in small businesses confronted by international competitiveness challenges will foster the creation of learning small businesses. The implementation of international learning processes such as perceptions, strategies, and organization structures and systems, will optimize the international competitiveness performance of these small businesses.

This study, therefore, concludes that by the utilization of a rational and targeted international learning framework for interventions in small businesses that are confronted by international competitiveness challenges, the international learning processes of these small businesses can be enhanced and their international competitiveness performance optimized.

8.9 STUDY RECOMMENDATIONS

There are two types of recommendations made based on the findings of this study. Firstly, recommendations related to future research and recommendation related to small business practice and support.

8.9.1 Recommendations Related to Future Research

In order to further develop the knowledge around the issues discussed, the following recommendations are made:

- (a) Continuation of this study up to stage 8 of Dubin's theory building methodology by developing hypotheses and testing them.

- (b) The study should be repeated in other sectors of small businesses beyond manufacturing - such as retail and wholesale, and services sectors. Furthermore, the uniformity of business sizes could be looked at as the impact of size within the broad cluster of small businesses as classified in the Small Business Act of 1996 could be significant. These factors are important since international learning processes may differ from sector to sector and from one size to another.
- (c) Benchmarking studies of different local and international linkage programmes need to be conducted on a continual basis. Benchmarking studies could also consider the role of information, communication technologies (ICT) in linkages between TNCs and small businesses, such as the internet, e-mail, and satellite. These studies will feed into local and national linkage programmes and enable expansion and creative approaches in accelerating implementation. In this instance, a strong partnership between the DTI, National Research Foundation (NRF) and South African universities, particularly those situated in metropolitan areas, could be encouraged. The research and development partnership will fund, monitor and evaluate the quality, dissemination, and utilization of research output at industry levels.
- (d) Finally, the author of this thesis plans to further conduct case studies that engage deeply with small businesses learning in linkages with international institutions such as TNCs. Given the depth and the outcome of these studies, relevant small business international learning processes outlined in this study could be recommended for reinforcement by relevant institutions based on industry peculiarities. These case studies could be conducted at the post-doctoral level. The results of these case studies can be disseminated in different forums that deal with linkage programmes. The case studies can be utilized to promote linkages between small businesses and TNCs at government and industry levels. The author could also utilize the case studies to monitor theoretical

developments and international best practice on linkage programmes, small business learning and international competitiveness.

8.9.2 Recommendations Related to Small Business Practice and Support

Based on the findings of this study, there are three recommendations that are made. These recommendations are targeted at small business practitioners and policy makers in South Africa:

- (a) There is a need to develop instruments that monitor international competitiveness challenges that are facing small businesses in different sectors. The instrument could be a continuation of work started by Raphie Kaplinksy, Mike Morris, and John Bessant (DTI, 2001) commissioned by DTI on “guidelines for assessing competitive performance and practice”. The international competitiveness challenges instruments will enable practitioners to have a tool that can pick-up industry-specific small business related indicators and early warning signs. This instrument can be a form of localized, industry based international competitiveness challenge monitors. These localized monitors can be aggregated into a provincial and national international competitiveness challenges monitor. Industry associations are well placed to pioneer the development and the implementation of international competitiveness monitors. These monitors can take a form such as the South African Chamber of Business (SACOB)’s Business Confidence Index (BCI) (SACOB, 2005). The industry associations can collaborate with big business and small business support agencies such as SEDA and the Department of Trade and Industry (DTI) in the development and implementation of the international competitiveness challenges monitor. Critical in the process is the engagement of key role players such as small businesses in different formations, and trade unions.
- (b) The government needs to intensively facilitate the development and roll-out of focused small business support mechanisms that tackle directly

international competitiveness challenges such as the “benchmarking clubs”. An example is the Automotive benchmarking club in Durban (see Barnes and Morris, 2000). The current small business support mechanisms at an institutional level are broad and generic. As a result, very few small businesses are able to benefit from these programmes. Rather, the existing institutions such as SEDA could play a wholesale role that effectively facilitates industry based international competitiveness initiatives. In this study, it has been revealed that small business’s perception and awareness of international competitiveness challenges is dependent on the exposure of a small business such as exposure to international trade and networks. Focused small business support mechanisms that have an international competition approach are important. Access to international competition information and the industry and the small firm’s ability to assess its own strength and weaknesses could be primary functions of these institutions. The availability of the international competition information can create survival and learning anxiety that is needed for small firms to adapt to competition.

- (c) The government of South Africa needs to consider implementing a grand scale programme that is equivalent to Singapore’s LIUP. The South African programme could create an enabling linkages environment and engagement of stakeholders on the expansion and roll-out of programmes in different sectors. The programme could include forums that support the creation and maintenance of linkage programmes from different government levels to small firms clusters levels. The South African DTI is well positioned as a government department to facilitate the formation of the grand-scale linkage programme. The DTI needs to be empowered by an act of parliament that gives powers and provides enabling resources for the creation of the linkage programme. Legislation can be developed in consultation with the key stakeholders. The programme will be more of a consolidation of different relevant existing programmes such as the Sector Partnership Fund (SPF) which provides funding for sector partnership initiatives as well as National

Industrial Participation Programme (NIPP). NIPP is a programme that seeks to leverage economic benefits and support the development of South African industry by effectively utilizing the instrument of government procurement. The NIPP programme is mandatory on all government and parastatal purchases or lease contracts (goods and services) with an imported content equal to or exceeding US\$10 million.

8.10 CONCLUSION

This chapter presented the major findings of this study and explained how the research problem, purpose, objectives, and propositions were achieved and made recommendations for future research as well small business practice. This chapter, furthermore, reported on a new theoretical model on international learning processes of small businesses confronted by international competitiveness challenges in transforming developing economies, and summarized the study's main research findings.

The chapter concluded by highlighting the main conclusions, namely, the utilization of a rational and targeted international learning framework for interventions in small businesses that are confronted by international competitiveness challenges. The international learning processes of these small businesses can be enhanced and their international competitiveness performance optimized.

Several recommendations for future research as well as for small business policy and practice were also made.

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ANNEXURES

ANNEXURE 1

FINAL QUESTIONNAIRE

08 July 2003

TO WHOM IT MAY CONCERN

Re: Organisational Learning and International Competitiveness

Your company has been selected from a database of organisations associated with the manufacturing sector in KwaZulu-Natal to participate in the above study.

To assist us, it would be appreciated if you could provide us some opportunity to fill this questionnaire on the abovementioned study. To complete the questionnaire will only take you 15-20 minutes. This survey is part of a field seminar at the Durban Institute of Technology. All the information gathered will be treated in a strictly confidential manner. The results will be shared with the research team at the Durban Institute of Technology. The report of the research will benefit your firm as it will influence industrial policy and your organizational strategies as forces of globalisation intensify.

Please kindly complete the questionnaire. Our fieldworker will arrange collection.

Thank you very much for your support

Yours faithfully

Bheki Mfeka
Researcher

SECTION A – DEMOGRAPHICS

1. In which industry within the manufacturing sector does your firm belong?

2. How would you rate your firm's management experience in this industry?
 - ☐ Less than 1 year
 - ☐ 1-5 years
 - ☐ 6-10 years
 - ☐ 11-20 years
 - ☐ above 21 years
3. Indicate the kind of management education received by the majority (more than 50%) of the members of the management staff?
 - ☐ University Education including Business Schools
 - ☐ Technikon Education
 - ☐ Technical Education
 - ☐ On-the-Job Training and Experience
 - ☐ Private Colleges
4. Indicate the age of your firm?
 - ☐ Less than 1 year
 - ☐ 1-5 years
 - ☐ 6-10 years
 - ☐ 11-20 years
 - ☐ above 21 years
5. Would you please indicate the gross profit/turnover of your firm?
 - ☐ Below R500 000
 - ☐ R501 000 – R1m
 - ☐ R1,1m – R5m
 - ☐ R5,1m – R10m
 - ☐ Above R10m
6. Would you please indicate the asset value of your firm in the year 2000/2001?
 - ☐ Below R500 000

- ☐ R501 000 – R1m
- ☐ R1,1m – R5m
- ☐ R5,1m – R10m
- ☐ Above R10m

7. How many people are employed by your business?

- ☐ 1-5
- ☐ 6-20
- ☐ 21-50
- ☐ 51 and above

8. Is your business currently linked to a Multinational or Transnational Corporation?

- ☐ YES ☐ NO

9. If yes to the above, tick areas where you have a relationship or link with a multinational or Transnational Corporation:

Areas	Tick
Outright equity Control (owned 100% by parent company)	<input type="checkbox"/>
Joint Venture (could be majority or 50-50 or minority	<input type="checkbox"/>
Industrial Cooperation Agreement	<input type="checkbox"/>
Licensing and Franchising	<input type="checkbox"/>
“Arms Length” market relationship	<input type="checkbox"/>
<i>(“Short to longer-term” recurrent contractual supplier-buyer relationship)</i>	

10. Is your business involved in international trade?

- ☐ YES ☐ NO

11. If yes, to the above, indicate how it is involved.

- ☐ Export
- ☐ Import
- ☐ Import and Export

12. Please indicate the extent of planning formality on the issues of strategy and technological development in your firm.

- ☐ No Planning (pure incident)
- ☐ Informal Planning (verbal, implicit and assumed to be understood by all)
- ☐ Formal Planning (written explicit, and communicated to all)

SECTION B – LINKAGES WITH TNCS AND PERCEIVED BENEFITS

1. What are the benefits of a relationship/linkage with a Transnational or Multinational Corporation? Indicate the extent to which you agree with each of the following statements (where 1 = “does not describe our firm’s position at all” and 7 = “describes the firm’s position to a great extent”).

It gives us a chance to acquire new skills	1	2	3	4	5	6	7
It gives us a chance to increase revenue	1	2	3	4	5	6	7
Gives us a chance to broaden organizational skills	1	2	3	4	5	6	7
Allows us to stabilize fluctuations	1	2	3	4	5	6	7
It gives us a chance to increase our products	1	2	3	4	5	6	7
Gives us a chance to learn new technologies	1	2	3	4	5	6	7
It is a situation that creates new demand for our products	1	2	3	4	5	6	7
Gives us a chance to increase organizational capabilities	1	2	3	4	5	6	7

2. Would you please indicate the extent to which your company benefits/learns (from available programmes) from Transnational/Multinational Corporations on each of the stated areas of knowledge and skills from 1994 to date (where 1 = “there are no programmes at all”; 2 = . “there are few programmes”; 3 = “there are many programmes”)

Computers/Information Technology	1	2	3
Products/Production/Machinery	1	2	3
Business skills/Entrepreneurship	1	2	3
Management	1	2	3
Exports and Imports/International Trade	1	2	3
Sales and Marketing	1	2	3
Finance	1	2	3
Purchasing & Logistics	1	2	3

SECTION C – STRATEGIC ORIENTATION AND COMPETITIVENESS

1. Would you please indicate the estimate growth in the following sales from 1994 to date

Domestic Sales _____ %

International sales _____%

2. Please indicate the impact of the following industry changes in order of their importance on firm's production and competitiveness from 1994 to date. (1 = Very Important 2 = Important 3=Not important 4= Not applicable)

New Technologies	1	2	3	4
New or Shifting Buyer Needs	1	2	3	4
Emergence of a New Industry Segment	1	2	3	4
Shifting Input Costs or Availability	1	2	3	4
Change in Government Regulations	1	2	3	4

3. Please indicate the extent to which your firm has been active in counteracting changes in your industry. (1= Highly Active 7=Highly Passive)

Trial of new Equipment, machinery, and technology	1	2	3	4	5	6	7
Development of new products	1	2	3	4	5	6	7
Involvement in domestic and foreign alliances	1	2	3	4	5	6	7
Entrance to new markets (domestic or foreign)	1	2	3	4	5	6	7
Development of new international marketing strategies	1	2	3	4	5	6	7
Development of new organisation structures and systems	1	2	3	4	5	6	7
Development of new Investments (domestic or foreign)	1	2	3	4	5	6	7
Development of new organizational strategy	1	2	3	4	5	6	7

4. To what extent have the following competitiveness strategies been effective to your firm between 1994 to date (where 1 = "does not describe our firm's position at all"; 5 = describes our firm's position to a great extent).

Image	1	2	3	4	5
Price	1	2	3	4	5
Quality	1	2	3	4	5
Efficiency	1	2	3	4	5
Customer Responsiveness	1	2	3	4	5
Innovation (new technology, products & methods)	1	2	3	4	5

ANNEXURE 2 A**DESCRIPTIVE STATISTICS****Table 1: International Competitiveness Challenges**

		Is your business currently linked to a Multinational or Transnational Corporation?			
		N	Mean	Deviation	Error Mean
New Technologies	Yes	37	1.189	0.3971	6.53E-02
	No	150	1.467	0.5754	4.70E-02
New or shifting buyer needs	Yes	35	1.771	0.8075	0.1365
	No	146	1.781	0.7381	6.11E-02
Emergence of a new industry s	Yes	31	1.871	0.7184	0.129
	No	122	1.918	0.767	6.94E-02
Shifting input costs or availability	Yes	37	1.541	0.7301	0.12
	No	148	1.811	0.6319	5.19E-02
Change in government regulations	Yes	37	1.189	0.4618	7.59E-02
	No	146	1.5	0.6459	5.35E-02

Table 2: International Competitiveness Strategies

	Is your business currently linked to a Multinational or Transnational Corporation?	N	Mean	Std. Deviation	Std. Error Mean
Trial of new equipment, machinery and technology	Yes	37	1.3514	1.111	0.1826
	No	151	2.1523	1.3601	0.1107
Development of new products	Yes	37	1.7838	1.1337	0.1864
	No	147	2.7687	1.3602	0.1122
Involvement in domestic and foreign alliances	Yes	36	2.1389	1.8072	0.3012
	No	147	4.5102	1.9209	0.1584
Entrance to new markets (domestic or foreign)	Yes	37	2.2703	1.4653	0.2409
	No	147	4.2585	1.9056	0.1572
Development of new international marketing strategies	Yes	37	2.1622	1.7562	0.2887
	No	149	4.9396	2.0376	0.1669
Development of new organization structures and systems	Yes	35	1.5143	1.1725	0.1982
	No	148	2.6216	1.5968	0.1313
Development of new investments (domestic or foreign)	Yes	36	2.5278	1.5764	0.2627
	No	149	4.3758	1.9813	0.1623

	Is your business currently linked to a Multinational or Transnational Corporation?	N	Mean	Std. Deviation	Std. Error Mean
Development of new organizational strategy	Yes	37	1.7838	1.7019	0.2798
	No	150	2.16	1.5065	0.123

Table 3: International Competitiveness

	Is your business currently linked to a Multinational or Transnational Corporation?	N	Mean	Std. Deviation	Std. Error Mean
Image	Yes	38	4	1.1625	0.1886
	No	152	3.8421	0.9974	8.09E-02
Price	Yes	38	4.0263	1.0777	0.1748
	No	153	4.0523	0.8255	6.67E-02
Quality	Yes	38	4.8158	0.3929	6.37E-02
	No	154	4.4286	0.6941	5.59E-02
Efficiency	Yes	38	4.6842	0.4711	7.64E-02
	No	154	4.3896	0.7524	6.06E-02
Customer responsiveness	Yes	38	4.1579	0.8551	0.1387
	No	153	3.7974	0.8611	6.96E-02
Innovation (new technology, products and methods)	Yes	38	4.6053	0.7181	0.1165
	No	153	3.9608	0.9381	7.58E-02

Table 4: Perceptions of TNCs

	N	Mean	Std. Deviation	Std. Error Mean
It gives us a chance to increase revenue	17	5.7059	1.6111	0.3907
	7	6.1429	1.8645	0.7047
Allows us to stabilize fluctuations	17	5	1.8371	0.4456
	7	6.2857	0.9512	0.3595
It gives us a chance to increase our products	17	5.8235	1.5098	0.3662
	7	6.1429	1.4639	0.5533
It is a situation that creates new demand for our products	17	5.3529	1.6179	0.3924
It gives us a chance to acquire new skills	17	6.1176	1.8331	0.4446
	7	5.5714	1.3973	0.5281
Gives us a chance to broaden organizational skills	17	6.1176	1.5765	0.3824
	7	6.5714	0.7868	0.2974
Gives us a chance to learn new technologies	17	6.6471	1.4552	0.3529

	7	6.2857	0.7559	0.2857
Gives us a chance to increase organizational capabilities	17	6.4118	1.5024	0.3644
	7	6.5714	0.7868	0.2974

Table 5: Learning Activities from TNCs

	N	Mean	Std. Deviation	Std. Error Mean
Computers/Information Technology	17	2.3529	0.4926	0.1195
	7	2.5714	0.5345	0.202
Products/Production/Machinery	16	2.5625	0.5123	0.1281
	7	2.5714	0.5345	0.202
Business skills/Entrepreneurship	17	2.2353	0.4372	0.106
	7	1.8571	0.378	0.1429
Management	16	2.25	0.5774	0.1443
	7	2	0	0
Exports and Imports/International Trade	17	2.4706	0.5145	0.1248
	7	2.5714	0.5345	0.202
Sales and Marketing	17	2.1176	0.4851	0.1176
	7	2	0	0
Finance	17	2	0.6124	0.1485
	7	2.1429	0.378	0.1429
Purchasing and Logistics	17	2.1176	0.4851	0.1176
	7	2	0.5774	0.2182

ANNEXURE 2 B**ALPHA COEFFICIENTS****Table 6: Perceptions of TNCs**

		Total Section B.1
It gives us a chance to acquire new skills	Pearson Correlation	.739
	Sig. (2-tailed)	.000
	N	54
It gives us a chance to increase revenue	Pearson Correlation	.931
	Sig. (2-tailed)	.000
	N	54
Gives us a chance to broaden organizational skills	Pearson Correlation	.884
	Sig. (2-tailed)	.000
	N	54
Allows us to stabilize fluctuations	Pearson Correlation	.759
	Sig. (2-tailed)	.000
	N	54
It gives us a chance to increase our products	Pearson Correlation	.839
	Sig. (2-tailed)	.000
	N	54
Gives us a chance to learn new technologies	Pearson Correlation	.718
	Sig. (2-tailed)	.000
	N	54
It is a situation that creates new demand for our products	Pearson Correlation	.824
	Sig. (2-tailed)	.000
	N	54
Gives us a chance to increase organizational capabilities	Pearson Correlation	.817
	Sig. (2-tailed)	.000
	N	54
Total Section B.1	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	54

** Correlation is significant at the 0.01 level (2-tailed).

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 54.0

N of Items = 8

Alpha = .9201

Table 7: International Competitiveness Challenges

		Total Section C.2
New Technologies	Pearson Correlation	.725
	Sig. (2-tailed)	.000
	N	150
New or shifting buyer needs	Pearson Correlation	.678
	Sig. (2-tailed)	.000
	N	150
Emergence of a new industry segment	Pearson Correlation	.783
	Sig. (2-tailed)	.000
	N	150
Shifting input costs or availability	Pearson Correlation	.750
	Sig. (2-tailed)	.000
	N	150
Change in government regulations	Pearson Correlation	.409
	Sig. (2-tailed)	.000
	N	150
Total Section C.2	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	150

** Correlation is significant at the 0.01 level (2-tailed).

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 150.0 N of Items = 5

Alpha = .6872

Table 8: Learning Activities

		Total Section B.2
Computers/Information Technology	Pearson Correlation	.532
	Sig. (2-tailed)	.000
	N	51
Products/Production/Machinery	Pearson Correlation	.573
	Sig. (2-tailed)	.000
	N	51
Business skills/Entrepreneurship	Pearson Correlation	.610
	Sig. (2-tailed)	.000
	N	51
Management	Pearson Correlation	.298
	Sig. (2-tailed)	.034
	N	51
Exports and Imports/International Trade	Pearson Correlation	.522
	Sig. (2-tailed)	.000
	N	51
Sales and Marketing	Pearson Correlation	.772
	Sig. (2-tailed)	.000
	N	51
Finance	Pearson Correlation	.623
	Sig. (2-tailed)	.000
	N	51
Purchasing and Logistics	Pearson Correlation	.769
	Sig. (2-tailed)	.000
	N	51
Total Section B.2	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	51

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 51.0

N of Items = 8

Alpha = .7254

Table 9: International Competitiveness Strategies

	Total Section C.3	
Trial of new equipment, machinery and technology	Pearson Correlation	.582
	Sig. (2-tailed)	.000
	N	172
Development of new products	Pearson Correlation	.574
	Sig. (2-tailed)	.000
	N	172
Involvement in domestic and foreign alliances	Pearson Correlation	.876
	Sig. (2-tailed)	.000
	N	172
Entrance to new markets (domestic or foreign)	Pearson Correlation	.763
	Sig. (2-tailed)	.000
	N	172
Development of new international marketing strategies	Pearson Correlation	.810
	Sig. (2-tailed)	.000
	N	172
Development of new organisation structures and systems	Pearson Correlation	.665
	Sig. (2-tailed)	.000
	N	172
Development of new investments (domestic or foreign)	Pearson Correlation	.780
	Sig. (2-tailed)	.000
	N	172
Development of new organizational strategy	Pearson Correlation	.541
	Sig. (2-tailed)	.000
	N	172
Total Section C.3	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	172

** Correlation is significant at the 0.01 level (2-tailed).

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 172.0

N of Items = 8

Alpha = .8569

Table 10: International Competitiveness

	Total Section C.4	
Image	Pearson Correlation	.830
	Sig. (2-tailed)	.000
	N	190
Price	Pearson Correlation	.790
	Sig. (2-tailed)	.000
	N	190
Quality	Pearson Correlation	.766
	Sig. (2-tailed)	.000
	N	190
Efficiency	Pearson Correlation	.734
	Sig. (2-tailed)	.000
	N	190
Customer responsiveness	Pearson Correlation	.757
	Sig. (2-tailed)	.000
	N	190
Innovation (new technology, products and methods)	Pearson Correlation	.642
	Sig. (2-tailed)	.000
	N	190
Total Section C.4	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	190

** Correlation is significant at the 0.01 level (2-tailed).

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 190.0

N of Items = 6

Alpha = .8407

ANNEXURE 3

CORRELATION ANALYSIS

Table 11: Perception of TNCs and Learning Activities

	Computers/ IT	Products/ Production	Business Skills/Entrepr.	Management	Exports and Imports	Sales & Marketing	Finance	Purchasing & Logistics
It gives us a chance to acquire new skills	.179	.109	.834	.095	.805	.149	.726	.256
It gives us a chance to broaden organisational skills	.022*	.001**	.115	.678	.781	.187	.136	.004
It gives us a chance to learn new technologies	.263	.015*	.375	.764	.463	.920	.928	.216
It gives us a chance to increase organisational capabilities	.005**	.003**	.045*	.338	.372	.068	.386	.003**

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

Table 12: Perceptions of TNCs and International Competitiveness Challenges

	New Technologies	New or Shifting Buyer Needs	Emergence of a New Industry Segment	Shifting Input Costs or Availability	Change in Government Regulations
It gives us a chance to acquire new skills	.028*	.979	.004**	.951	.207
It gives us a chance to broaden organisational skills	.007**	.058	.017*	.286	.943
It gives us a chance to learn new technologies	.503	.823	.776	.876	.733
It gives us a chance to increase organisational capabilities	.004**	.644	.121	.085	.733

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

Table 13: Learning Activities and International Competitiveness Challenges

	New Technologies	New or Shifting Buyer Needs	Emergence of New Industry Segments	Shifting Input Costs or Availability	Change in Government Regulations
Computers/IT	.019*	.536	.037*	.007**	.244
Products/Production	.078	.213	.408	.229	.822
Business Skills/Entrepr	.231	.471	.226	.568	.266
Management	.901	.014*	.355	.238	.908
Exports and Imports	.006**	.475	.139	.021*	.456
Sales & Marketing	.396	.825	.001**	.980	.981
Finance	.377	.096	.213	.306	.435
Purchasing & Logistics	.203	.257	.000**	.580	.724

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

Table 14: Perception of TNCs and International Competitiveness Strategy

	Trial of New Equipment & Technology	Development of new products	Involvement in Domestic & International Alliances	Entrance to new Markets (domestic or international)	Dev. of new international marketing strategies	Dev. of new organizational structures & systems	Dev. of New Investments (domestic or foreign)	Development of new organizational strategy
It gives us a chance to acquire new skills	.028*	.646	.019*	.031*	.000**	.000**	.000**	.003**
It gives us a chance to broaden organisational skills	.000**	.004**	.000**	.000**	.000**	.000**	.001**	.000**
It gives us a chance to learn new technologies	.001**	.010*	.009**	.000**	.006**	.000**	.102	.001**
It gives us a chance to increase organisational capabilities	.000**	.012*	.000**	.000**	.000**	.000**	.000**	.000**

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

Table 15: Learning Activities and International Competitiveness Strategies

	Trial of New Equipment & Technology	Development of new products	Involvement in Domestic & International Alliances	Entrance to new Markets (domestic or international)	Dev. of new international marketing strategies	Dev. of new organizational structures & systems	Dev. of New Investments (domestic or foreign)	Development of new organizational strategy
Computers/IT	.058	.762	.353	.047*	.081	.186	.878	.162
Products/Production	.012*	.137	.000**	.000**	.001**	.000**	.006**	.000**
Business Skills/Entrepr	.799	.168	.003**	.067	.019*	.019*	.227	.000**
Management	.916	.034*	.040*	.038*	.788	.788	.833	.522
Exports and Imports	.927	.145	.136	.285	.029*	.029*	.072	.031*
Sales & Marketing	.347	.034*	.103	.062	.020*	.020*	.029*	.024*
Finance	.628	.842	.084	.002**	.247	.247	.184	.097
Purchasing & Logistics	.977	.845	.001**	.000**	.000**	.003**	.052*	.000**

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

Table 16: Perception of TNCs and International Competitiveness

	Image	Price	Quality	Efficiency	Customer Responsiveness	Innovation
It gives us a chance to acquire new skills	.809	.784	.412	.905	.981	.508
It gives us a chance to broaden organisational skills	.370	.306	.064	.404	.116	.207
It gives us a chance to learn new technologies	.686	.732	.402	.335	.711	.942
It gives us a chance to increase organisational capabilities	.158	.340	.080	.268	.313	.035*

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

Table17: Learning Activities and International Competitiveness

	Image	Price	Quality	Efficiency	Customer Responsiveness	Innovation
Computers/IT	.000**	.001**	.000**	.000**	.006**	.014*
Products/Production	.064	.117	.001**	.003**	.012*	.100
Business Skills/Entrepr	.191	.033*	.697	.645	.630	.121
Management	.142	.043*	.618	.889	.024	.346
Exports and Imports	.155	.099	.234	.059	.727	.211
Sales & Marketing	.921	.280	.054*	.340	.966	.110
Finance	.949	.699	.440	.302	.006**	.286
Purchasing & Logistics	.301	.505	.035*	.122	.079	.176

* - Correlation significant at the 0.01 level (2-tailed)

** - Correlation significant at the 0.05 level (2-tailed)

ANNEXURE 4

EXAMPLE OF A MEETING WITH SUPEVISOR REPORT

ATTENTION: Paul Ramjugernath
CC: Terry Davies

FROM: Bheki Mfeka

RE: D. Tech. Meeting with Prof. Bhenkelle

DATE: 08 JUNE 2000

Dear Sir,

I put on record the details of the meeting we had with Prof Bbenkelle on the 6th of June 2000 at University of Natal, Pietermaritzburg Campus. The following issues were discussed in accordance with the submitted chapters:

Introduction

Prof. started by highlighting the assessment approach that he would be using and as such suggested that a closer look at these issues be done. Firstly, logical approach (the manner in which facts are refuted or supported and the approach used to do so). Secondly, the content (the technical standard and command of ideas). Finally, the writing style (the language and the layout).

Chapter 2 – KwaZulu-Natal Small Business Environment

Having raised concerns about the unavailability of good quality literature on small businesses in KZN; Prof Bbenkelle concurred and suggested that the title of this Chapter should rather be altered to South Africa since the majority of work relate to the bigger South African context with the few provincial data/literature to support it.

Secondly, Prof. Suggested that expansion be made on this chapter by including such significant issues as Finance, Marketing, Product and Technology, and Institutional support.

Chapter 3 – Organisational Learning

Technical chapter was left out on our discussions since it required a lot of time form Prof, and that he would have to consult relevant literature to verify arguments.

Chapter 4 – Methodology

It was suggested that a different approach to methodology chapter be used instead of the one used. The following approach was recommended:

1. Restatement of the research problem/question/ management dilemma.
2. Research design – a choice between exploratory; descriptive, and causal design.'
3. Sample design – Sample selection (Define population, sample units,) sample size, data collection methods.
4. Methods of Data Analysis

Conclusion

Prof. strongly suggested that a book by Cooper and Schindler (Business Research Methods) be purchased and chapters in Scientific Thinking and Research Process be

read. Also it was advised that a search around the existing excellent and relevant PhD thesis, and try to emulate its standard. Also, it was suggested that SABINET; Natal Library Society (PTMB) be consulted.

Closing: Agreed to hold fortnight meetings

Thank you

Bheki Mfeka

ANNEXURE 5

EARLY EXPLORATORY STUDY

**ENTREPRENEURIAL RESEARCH UNIT
TECHNIKON NATAL
BEREA CAMPUS
Cell: 083 755 9074**

Fax: 031 – 301 2070

Bheki Mfeka – Research Fellow

This survey is part of an on-going research at Natal Technikon's Entrepreneurial Research Unit (ERU). This research attempts to explore ways in which organisations outside your business could of maximal benefit into the development of your business. You are requested to put a cross in evry box that is relevant to your situation or option.

Number of People Employed:.....

Nature of Business:.....

Estimated Annual Turnover:.....

- Cross in the box on relevant relationship that currently exists between your business and stated institutions?

RELATIONSHIP

INSTITUTIONS	Supplier	Buyer	Franchise	Joint Venture	Shareholder	Advisor	Tender	Membership	Other (Specify)
Multinational Companies									
Local Companies									
Government									
Non-Government Org.									
Educational Institutions									
Other (Specify)									

EXPLORATORY STUDY PAPER

“INTERNATIONAL LEARNING”: THE ROLE OF TRANSNATIONAL CORPORATIONS IN THE DEVELOPMENT OF INTERNATIONAL COMPETITIVENESS FOR SMALL BUSINESSES

B.N. Mfeka

Technikon Natal: Entrepreneurial Research Unit, South Africa

June 1999

Foreign direct investment generated by Transnational Corporations (TNCs) is commonly accepted as a solution to problems faced by developing countries; in this regard South Africa is not an exception. However, the impact of these firms on the development of small businesses is yet to be examined. Essentially we shall attempt to answer the question: How could our small businesses learn from TNCs for their international competitiveness? Implicit in this question is the assumption that TNCs are a source of international competitiveness for small businesses. There is no evidence to demonstrate that effective learning from TNCs is an important feature for a successful internationally competitive small business. This paper, as an initial part of an investigation into this question, would, therefore, attempt to answer the essential question: “Could TNCs be a source of international learning for small businesses?” There are two important aspects to this question: TNCs exist and have an impact in the globalisation process and in our economy as such; and that small business organisations do learn through the kind and extent of relationship they have with their external institutions. In an attempt to answer this question we will draw on the published literature, and on the researcher’s small direct survey within the Durban Central Business District on the relationship between small businesses and TNC or Multinational Companies (MNCs).

Transnational Corporations and South Africa

The debate over the impact of Transnational Corporations (TNCs) in developing countries has generated polarities in theory between the Marxist and non-Marxist pro-TNC and anti-TNC critics; hence it is agreed that a general theory for TNCs and their impact in developing countries does not exist (Parry, 1980; Jenkin, 1987; Dunning, 1988; Suville and Lumby, 1994). However, the existence of the TNCs is a fact that is yet to stay with us for the next generations. The globalisation phenomenon seems to be inevitable since the launch of the Uruguay Round in 1986 where developing countries were responsible for 58 of 72 autonomous market

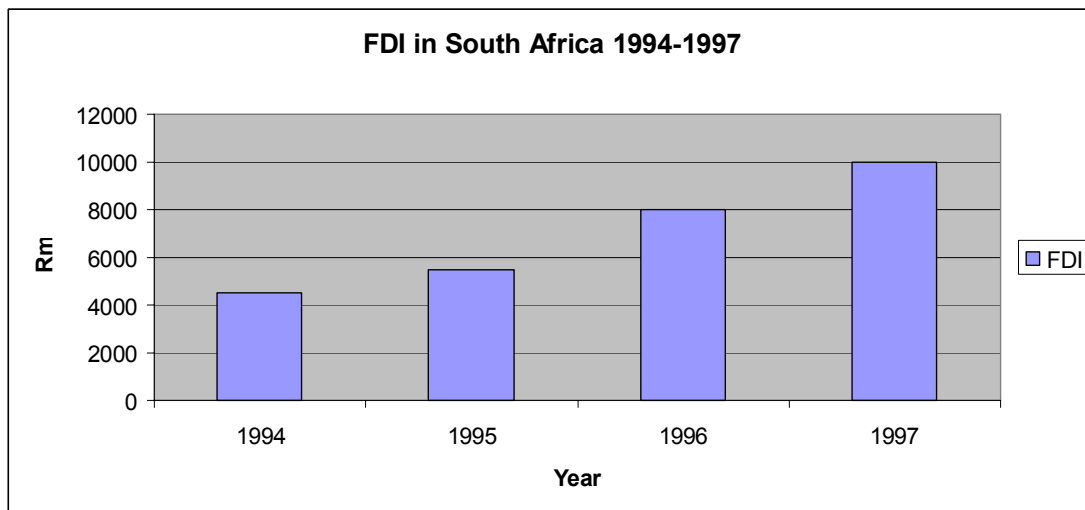
liberalisation actions reported to the General Agreement of Trade and Tariffs (GATT) (world Bank, 1995).

In South Africa, the African National Congress (ANC) Government was elected in April 1994. Responding to the demand from the electorate it introduced the Reconstruction and Development Programme (RDP), which presented one side of the macroeconomic framework that was needed for economic restructuring that is, demand side (Stals, 1998). The introduction of the Macroeconomic Strategy for Growth, Employment and Redistribution (GEAR) in June 1996 was a shift from demand side to the supply side economic development approach; its implementation has been seen as a bid to woo foreign direct investment (FDI) (Finance Week, 1997).

According to Streeten (1974, 252-5), there are four gaps that developing countries like South Africa suffer, which create a “vacuum” for FDI. These are firstly, a resource gap; secondly, the foreign exchange gap; thirdly, the skills and technology gap; and finally, the budgetary or budget deficit gap. To break out of this “vicious poverty circle” it is necessary that these gaps are filled and the commonly offered solution is the foreign portfolio investment (FPI) and FDI (World Bank, 1994). These fundamentals are arguably implicit as objectives in the South African GEAR (Stals, 1994). The FPI involves acquisition of foreign securities or financial assets that is equity finance. On the hand the FDI involves the setting up of foreign production facilities or the purchase of existing foreign businesses (Saville and Lumby, 1994)

According to the Investment Responsibility Research Centre, a monitoring group base in Washington, the FDI in South Africa has increased to \$2,87m (R13bn) from June 1996 to April 1997 as reflect in Figure 1 below. When reinvested earnings are into account, that figure increases to \$7,83bn (Finance Week, 1997).

Figure 1 – FDI from May 1994 to April 1997



Currently, United States (US) is the largest FDI source followed by Malaysia, Japan, United Kingdom, and Germany with \$1,34bn, \$983m, \$311m, \$129m, and \$83m respectively. The largest foreign investment since 1994 election is the R5,5 billion purchase of 30% stake in the state-owned Telkom by US based SBC Communications (R3,3bn) and Telkom Malaysia (R2,2bn).

International Learning and Small Business Organisations

It is argued that FDI involves more than capital flows since capital is often accompanied by inter alia, technological know-how, management capacity, and access to foreign market. The literature in the economic development and industrialisation indicates that the TNCs are the most important of the channels through which developing countries acquire technological capabilities (O'Connor, 1985; Dicken, 1992; Colman and Nixon, 1994; and Hewitt et al., 1995). Building the national technological capabilities does not depend exclusively on research and development but on the significant process of learning, which takes place through accumulating changes in production and technology. O'Connor (1985:324) put it:

...the strength of R&D capabilities in a give country is not a function simply of the existence of formal research institutes and laboratories. Perhaps equally important is the accumulated knowledge acquired by the indigenous workforce through a protracted process of learning by doing and transmitted formally and informally on-the-job training.

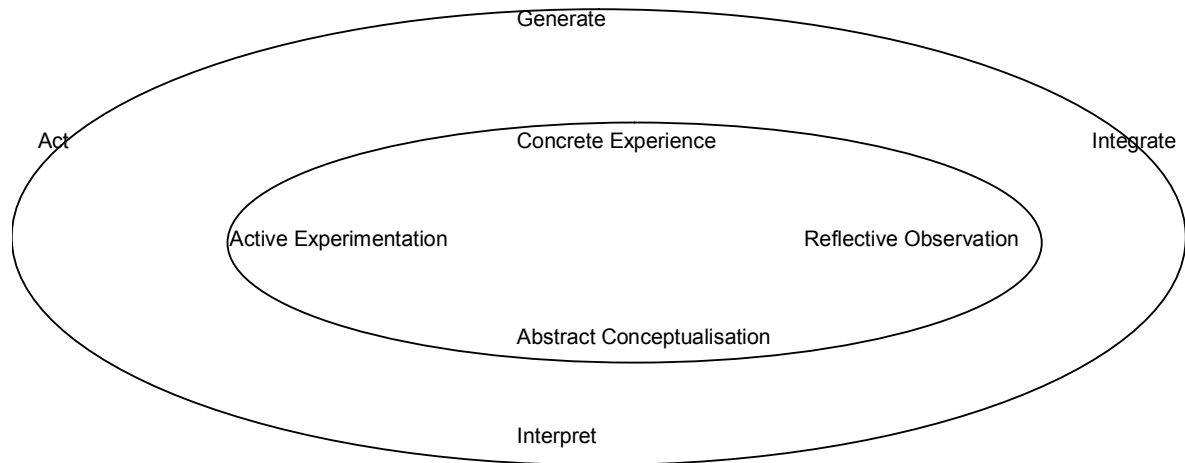
In South Africa, there is currently no study, which focuses on the impact of TNCs on small business organisations. The study that exists is by Saville and Lumby (1994), which look at the impact of TNCs in general within the building and construction engineering sectors. Much research in the impact of TNCs on small business is in Europe and United States (Rothwell and Beesly, 1989, and Julien et al., 1994). It has been found that many small firms find it difficult to take advantage of liberalisation of trade because of low productivity and failure to utilise external sources of technological information.

Japanese small businesses have been known for their ability to learn or create knowledge, with the assistance from Government, through large foreign companies such as IBM in the computer industry. During the early stages of the revolution of the Japanese computer industry, Japanese firms were still at their infancy and still 'relied' on IBM until the establishment of the Fifth Generation Computer Project in 1979 (Nakamura and Shibuya, 1996). IBM President, R. Gomery, associated Japanese companies with "pulling technology" because of their ability to learn from foreign US companies (Nonaka, 1991; Kodama, 1995; and Ackoff, 1981).

Dixon (1994), notes that learning organisation is a result of; firstly, work; secondly, making meaning out of the experience we and other have in the world; thirdly, intentionally planned effort to learn; and finally, collectively relying on ourselves for answers (Padler, 1993). For organisational learning to occur, the organisation must actively facilitate learning. This process involves, according to Jalinek (1979:44), four steps as illustrated in the outer circle of the organisational learning cycle in figure 2 below. It includes widespread generation of information; integration of new/local information into organisational context; collective interpretation of information; and finally, the authority to take responsible action on the interpreted meaning.

In Kolb's (1984) experiential learning cycle model (see the inner circle of figure 2 below), it is necessary that all organisational members engage in practices that gather information from external environment (that is customers, suppliers, conferences and so forth) (Manning, 1992; Dixon, 1994), which will engage the organisation in experiments that produce new information.

Figure 2 – The Organisational Learning Cycle and Experiential Learning Cycle



Source: Jalinek, 1979

Developing small business organisations to learning organisation would require strategic changes in organisation cultures (Haracleous, 1995) that is change of routines, communications, control systems, stories and myths, paradigm, and symbols (Johnson, 1992) to a culture that would facilitate learning.

Relationship Between Small Businesses And Transnational Corporations: Some Evidence in Durban, South Africa

In this section, the results of a convenience direct survey of 30 small firms (manufacturing and services) around the Durban Central Business District (including Umngeni, Umbilo, Rossburg, and City Centre) on the relationship between small firms and institutions that are external to the small firm including TNCs are reported. The relationship variables identified were selected based on the writer's opinion from literature and expert opinion. The relationship variables were supplier, buyer, franchise, joint venture, shareholder, tender, advisory, and membership. External institutions that were identified were multinational companies (MNCs); local companies, government, non-governmental organisations (NGOs), and educational institutions.

The most common and high relationship that was found was between the small business and local companies followed by multinational companies at 45% and 39%

respectively (Figure below). The data also indicate (see table 1 below) most relationships that exist are based on buyer-supplier linkages. In addition, MNCs have a higher relationship with small businesses in the areas of franchise, joint ventures, and shareholding. The educational institutions and Government have the lowest relationship with small businesses at 14% and 18% respectively.

RELATIONSHIP (%)

INSTITUTIONS	Supplier	Buyer	Franchise	Joint Venture	Shareholder	Advisor	Tender	Membership	TOTAL
Multinational Companies	83	50	13	23	13	17	3	3	39 %
Local Companies	83	90	3	10	3	17	23	17	45%
Government	30	23	-	3	-	17	32	-	18%
Non-Government Org.	37	40	-	7	3	7	23	3	23%
Educational Institutions	30	23	-	7	-	7	10	-	14%
								Average	27,8%

Table 1 – Relationship between Small businesses and External Institutions

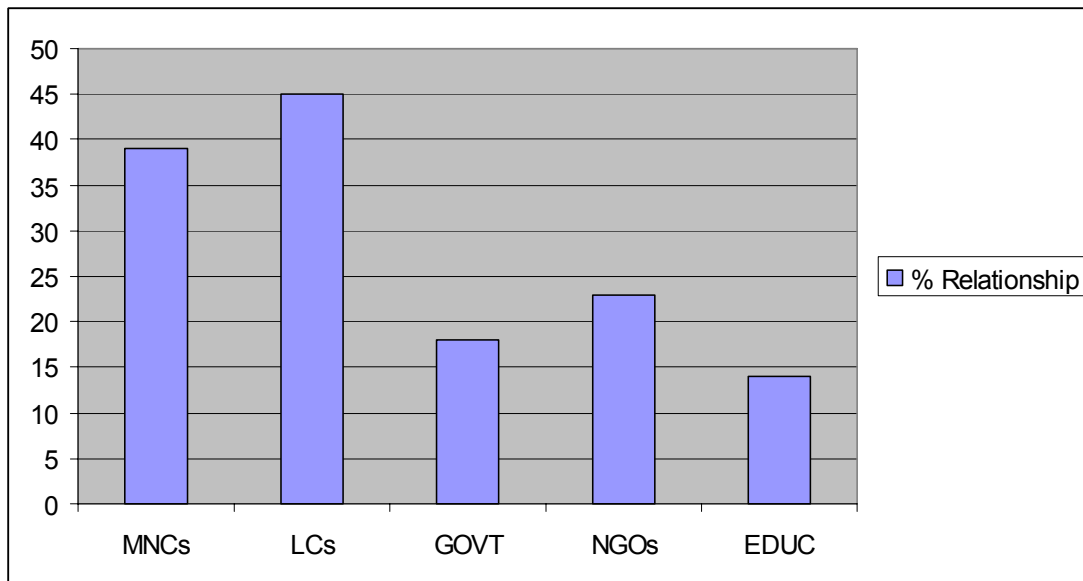


Figure 3 – The Relationship between Small Firms and External Institutions

An inference could be made through this survey; that there is a relationship between small businesses and TNCs, as well as other external institutions. It can, therefore be assumed; firstly that a certain amount of learning does take place informally and formally according to the extent of the relationship that currently exist between small business with the external institution. Secondly, and finally, the extent of the relationship between small businesses and TNCs could be the basis of ‘international learning’ experience for small businesses.

Conclusion

We have been able to establish, through the existing literature, the imperatives for the existence of FDI in the form of TNCs for developing countries as an attempt to develop the economy. Also, the significance of TNCs as a channel through which technological capabilities are transferred was indicated. Hence, the importance of a learning organisation was highlighted as a prerequisite for an organisation to engage in practices that gather information from external institutions or sources. A relationship with TNCs, could therefore, be the basis of international learning to occur.

We have also found through the survey in the Durban that TNCs have a sound relationship with small businesses. We have inferred, through the survey that a certain amount of learning does take place formally and informally in accordance with the extent of the relationship, and that the relationship between small businesses and TNCs could be the basis of international learning for small businesses.

However, there is a need, firstly, to establish common learning variables relevant to each type of a relationship; secondly, to establish the nature of learning from each kind of a relationship; and thirdly, to prove that the greater the relationship with TNCs the greater the learning that takes place. Finally, we would have to quantify and qualify the impact of learning from TNCs in terms of international competitiveness of a small business.

ANNEXURE 6

**PAPER PRESENTED AT INTERNATIONAL BUSINESS AND ECONOMY
CONFERENCE (IBEC) IN SANFRANSISCO, CA, January 2003 AND
INTERNATIONAL SMALL BUSINESS CONFERENCE (ISBA) IN NEWCASTLE,
UK, November 2004.**

SMALL BUSINESS INTERNATIONAL COMPETITIVENESS: LEARNING FROM TRANSNATIONAL CORPORATIONS

By Bheki Mfeka¹

ABSTRACT

This paper presents results of an assessment of linkages between small manufacturing firms and Transnational Corporations (TNCs) in South Africa within the province of KwaZulu-Natal. The basic premise of this assessment is that small business linkages with TNCs and learning from TNCs affect international competitiveness of small manufacturing firms. The hypothesis tested was that small businesses that are linked to TNCs will score higher on the international competitiveness measure compared to those that are not linked. A theoretical basis provided is an evolutionary organisational learning approach triggered by the interaction of internal and external organisational environment, which constraints individual and group reaction within an organisation, as a result, linkages with TNCs who are dominant global technology carriers is likely to enhance international competitiveness. Empirical data, using outsider mode of enquiry, supports this view.

INTRODUCTION

In tackling issues of relationships between organisations and markets it is important to note from the outset that we have neither a good understanding of the word 'technology transfers' and the word 'organizational learning' nor the word 'international competitiveness'. Most of the writers and practitioners in these areas use these concepts as if they were readily applied and common as socio-economic trajectories within the context of developing countries. In order to investigate these concepts in the context of developing countries such as South Africa, it is important that we critically review the existing literature and test the applicability of frontiers around these concepts in our region.

This is precisely because the existence and the impact of dominant economic players and technology agents, that is, Trans-national Corporations (TNCs) in developing countries has generated much polarities in theory and between the Marxists and non-Marxists pro-TNC and anti-TNC critics; hence it is agreed that a general theory for TNCs and their impact in developing countries does not exist². However, the existence of TNCs is a fact that is yet to stay with us for next generations.

The literature in the economic development and industrialization indicates that TNCs are the most important of the channels through which developing countries acquire

¹ Bheki Mfeka is the Knowledge and Research Manager at Godisa (South African High Technology Small Business Development Agency) and Doctoral Candidate at Durban University of Technology

² Refer to Parry (1980); Jenkin (1987); Dunning (1988); Saville and Lumby (1994)

technological capabilities³. According to Streeten (1974, 252-5), there are four gaps that developing countries like South Africa suffer, which create a “vacuum” for Foreign Direct Investments (FDIs), that is; firstly, a resource gap; secondly, the foreign exchange or trade gap; thirdly, the skills and technology gap; and finally, the budgetary or budget deficit gap. To break out of this “vicious underperformance circle” it is necessary that these gaps are filled and the commonly offered solutions are the Foreign Portfolio Investment (FPI)⁴ and the FDI⁵. These “fundamentals” were arguably implicit as objectives in the South African Gear policy⁶.

The combination of trade liberalization, FDI, technology flows, and deregulation and privatization, have not only improved firms’ productions internationally but also increased competitive pressures in previously protected markets, resources and assets, South Africa being not the exception. At the same time technological advances have enhanced firm’s ability to coordinate international networks. FDI, perhaps more importantly, has become a means of transferring production technology, skills, innovative capacity and organizational and managerial practices between locations as well as accessing international marketing networks. The first to benefit are enterprises that are part of trans-national systems (consisting of parent firms and affiliates) or that are directly linked to such systems through non-equity arrangement, but these assets can also be transferred to domestic firms and the wider firms and the wider economics if the environment is conducive.

In that context, the relationship between TNCs and local firms, especially, small businesses has not been effectively explored, nor ever explored in developing countries in Africa, South Africa in particular. The small businesses in South Africa constitute approximately 90% of the manufacturing sector and small businesses account for about 25,5% of the Gross Domestic Product (GDP) of the Republic of South Africa⁷. The vastness of the small business sector in South Africa is an indication of the significance of the sector in the economic wellbeing of the nation.

This paper explores the relationship between small businesses and TNCs if it could be connected to learning and international competitiveness as evidenced by various measures including learning perception, level of learning from TNCs, participation in international trade, international sales growth, international strategies, and competitiveness strategies. There are many reasons that necessitate the study of this nature, for example, the government policy on relationships that enhance small business survival and competitiveness in the global changes, and enhancement of opportunities for small businesses as key player in employment creation and economic growth in South Africa. As such studies on small business international competitiveness are significant especially when they answer questions surrounding key issues that enhance learning and enhancement or small business organisations.

EVOLUTIONARY ORGANISATIONAL LEARNING LITERATURE

The strategies and paradigms that prevail in any organisation are constrained by their environment (internal and external). This cumulative work has been pioneered by many strategic management proponents including Porter (1980, and 1990), and Hill

³ As indicated in most literature such as O’connor (1985); Dicken (1992); Colman and Nixon (1994); Kaplinsky (1993); and Hewitt et al (1995).

⁴ The FPI involves the acquisition of foreign securities or financial assets, that is, equity finance.

⁵ See World Bank (1995) report.

⁶ See South African Reserve Bank Governor’s report, Stals (1998).

⁷ See Ntsika’s Small Business Report, 1999

and Jones (1995). In the same way the nature of learning in an organization is triggered by the interaction of the internal and external environment, which constrains the individual reactions within an organisation⁸. Previous research and wisdom is converged to open way for advanced evolutionary theories of organizational learning. Traditionally, organizational learning has been focused on individual cognition and cultural/group/systems perspective and environmental stimuli. These perspectives have created divergence in the body theory of organizational learning rather than convergence.

Studies of individual cognition learning have asserted the role of individual cognition as superior which suggested a link between discussions of organizational learning and theories of cognition whereas there is a need to understand the process of organizational learning as a complete process on its own⁹. As a result, cognitive studies have created what could be called, 'systematic lack' in the development of organizational learning studies.

On the same wavelength, cultural/group/systems perspective studies have spent much time focusing on elaborating what organizational learning should be rather than what it is and endeavours on progressive systematic empirical studies. As a result it has created confusion on what is really meant by the term¹⁰. A mistake, often discoverable, by organizational learning scholars is to latently infer a wild dichotomy between a learning organisation and 'others' which are assumable 'non-learning' organizations. They do this by stipulating factors constituting a 'learning organisation' implying a formal approach towards the development of a learning organisation. This has been evident in the 80s and 90s when big corporations were obsessed with formal implementation of jargon-laden concepts such as "continuous improvement", "knowledge-creating company" and so forth, which have proven not to be successful in most organizations¹¹.

Similarly, organizational learning approach devoid of the context or life of an organization renders the accumulative work in vain. In the context of a small firm, it would be highly improbable to assume a formal implementation of a sweeping universal conceptual model on organizational learning, without considering the life context of a small firm.

Studies in organizational learning have not acknowledged the role that linkages or networks with other organizations as well as organisations' own norms, values, systems and structures influence each other to trigger organizational learning or what Cohen and Levinthal, call "absorptive capacity"¹² – which described the organisation's ability to assimilate new knowledge and skills or ability to learn.

The investigation of small business international competitiveness and learning from linkages with TNCs concept come from a common conclusion from studies which are concerned with identifying obstacles in effective technology transfer, which state that

⁸ Huemer and Ostergren (1999) specifically refer to this process as "evolutionary" and Dutton (1993) talk of the constraints as "contextual conditions".

⁹ see various studies including Cook and Yanow (1996) in the edition by Cohen and Sproull (1996)

¹⁰ see Schein (1995 and 1996)

¹¹ see a survey by Business Times, January 30, 2000.

¹² See Jones and Creaven (2001)

small firms are often constrained by their limited ability to acquire and utilise information from external sources to evolve new operational practices¹³.

RESULTS ON INTERNATIONAL COMPETITIVE MEASURES

The data on international competitiveness of small manufacturing firms linked to TNCs compared to those that are not linked to TNCs was based on a random sample of 300 firms from a database of about 4000 firms of which 800 were manufacturing small firms who are members of the Durban Chamber of Commerce and Industry which is part largest manufacturing region in the province of KwaZulu-Natal in South Africa. The sample is equal to 37,5%; and out of that sample about 70% (210) responded positively. The sample came out to be fairly representative of the major industries in the region (see table 1 below).

INDUSTRY	% REPRESENTATION
1. Furniture	13.4%
2. Chemical	12,8%
3. Footwear	12,3%
4. Other	11,2%
5. Leather	9.1%
6. Clothing	8,6%
7. Plastic	7,5%
8. Engineering	7,0%
9. Aluminium	6,4%
10. Moulding	6,4%
11. Fibre Glass	5,3%

Table 1 – Industrial Representativity

The next table captures the specific characteristics of the data, with emphasis on the demographic variables used in the study. The firms surveyed are fairly old in terms of management experience of senior staff and existence of the firm in terms of years with most of firms at 69% above 6 years. However, with Gross Profits and Asset Values, most firms are ranging between R0,00 to R1million compared to 35.8% and 38.4% of firms with Gross Profits and Asset Values above R1,1m respectively.

OBSERVATIONS					
A.	1-5 yrs	6-10 yrs	11-20yrs	Above 21 yrs	
1. Management Experience	31%	33.5%	27%	8.5%	
2. Age of the firm	33.2%	34.2%	25.6%	7%	
B.¹⁴	Below R500,000	R5001,000 – R1m	R1,1m – R5m	R5,1m – R10m	Above R10m
1. Gross Profit/Turnover	39.3%	25%	19.6%	13.7%	2.5%
2. Asset Value	40.1%	21.6%	18.6%	16.2%	3.6%

¹³ see, for an example, Chaston et al (1998); United Nations Centre on Transnational Corporations (1987); Lall (1993); and Jones and Craven (2001).

¹⁴ See National Small Business Act (1996) for classification of Small, Medium, and Micro Enterprises.

C.	1-5	6-20	21-50	51 and above
1. Number of People Employed	5.1%	68.2%	24.2%	2.5%
D.	YES	NO		
1. Linkage with TNCs	19.8%	80.2%		
2. Involvement in International Trade	27.64%	72.36%		
E.	Exports	Import and Exports	Imports	
1. Type of Involvement in International Trade	47.17%	33.96%	18.87%	
F.	Industrial Cooperation Agreement	Arms Length – Supplier-Buyer Relationship	Joint Venture	Outright Equity
1. Type of Relationship with TNCs	46.15%	26.92%	19.23%	7.69%
G.	Formal Planning	Informal Planning	No Planning	
1. Extent of Planning Formality	58.59%	39.39%	1.66%	

Table 2 – Specific Characteristics of Data

Of noteworthy to this study are variables around linkages and involvement in international trade. Only about 20% of small manufacturing firms are linked to TNCs and the majority of them at 46% are through industrial cooperation agreements, followed by buyer-supplier relationships at 27%. Also, only about 28% of manufacturing firms are involved in international trade (47% on Exports, 19% on Imports, and 34% are involved in both exports and imports). Finally, it is interesting to not that the majority of manufacturing small firms are involved in planning with about 59% formal and 40% informal. These are necessary conditions for relationship building and maintenance, as well as competitiveness. However, the 40% of small manufacturing firms involved in informal planning is quite a significant number for concern.

On international competitiveness measure, about four dimensions were used, that is, sales growth, industry changes, international strategy, and competitiveness strategy. Mean scores were used to test the significance levels on each variable for each dimension.

On Sales Growth between 1994 to 2002: There are many factors that influence domestic and international sales growth, and they vary according to industries, locations, capabilities, and so forth. However, this paper is interested in the role of linkages with TNCs. The significant levels on the mean scores were 0.041 on domestic sales, small firms linked to TNCs showing a strong performance. The data on international sales show a significant level of 0.731 which is a minor difference. The results on the international sales could be attributed to the sample size the data

on international trade involvement shows that very few small firms that are not linked to TNCs are involved in international trade. About 95% of firms linked to TNCs are involved in international trade, whereas only 11% that are not linked are involved in international trade.

On small manufacturing firms and Industry Changes: the extent to which a small firm is affected by industry change and the importance to which it attaches the impact of industry change indicate its competitiveness. There are many factors that may inform the view of each firm. In this study about five variables were identified, that is, emergence of new technologies, shifting buyer needs, new industry segments, shifting input costs, and government regulations.

Of critical importance to this study was the view on the impact of new technologies. The significance levels on mean scores on impact of new technologies were at 0.001 (99%) indicating that small firms linked to TNCs see impact of new technologies as highly important compared to those that are not linked to TNCs.

On shifting buyer needs there was no significant differences which reflect that both linked and not linked small firms are equally affected by shifting buyer need with mean scores at 1.77 and 1.78 respectively. Similarly, on the impact of new industry segments there were no differences.

On the impact of shifting input costs and availability, small firms that are linked to TNCs indicated impact of shifting input cost and availability as highly important compared to firms that are not linked to TNCs (significance levels at 96%). This is an indication of the extent to which firms linked to TNCs are involved in the buying of inputs at a wider international scale or levels where issues of cost and availability are critical.

Finally, on the impact of government regulations, there are high significance levels at 99.9%. Small firms linked to TNCs indicate high importance of impact of government regulations, reflection that could be attributed to international versatility and sensitivity to changes in regulations.

The results on the data on levels of activeness in international strategy among small manufacturing firms linked to TNCs compared to those that are not linked to TNCs is central as a measurement of international competitiveness. About eight variables were measured in this dimension, that is, trial of new technologies; development of new products, involvement in alliances (domestic and foreign); entrance to new markets, development of international marketing strategies; development of organisational structures and systems; development of new investments; and development of organisational strategy. The results in table 4 below indicate reflect one sided results reflecting the extent to which small firms linked to TNCs are highly active in international strategy compared to those that are not linked; with all instances reflecting a 100% significance level, except one for development of organisational strategies where all firms indicate high activity.

(highest score = highly passive, and lowest score = highly active)

	Trial of New Technologies	Development of New Products	Involvement in Alliances	Entrance to New Markets	Develop International Marketing Strategies	Dev. Organisational Structures and Systems	Dev New Investments	Dev Organisational Strategy
Small Firms Linked to TNCs	Mean = 1.4	Mean = 1.8	Mean = 2.1	Mean = 2.3	Mean = 2.2	Mean = 1.5	Mean = 2.5	Mean = 1.8
	Sign Level = 0.001 (99.9%)	Sign Level = 0.00 (100%)	Sign Level = 0.00 (100%)	Sign Level = 0.00 (100%)	Sign Level = 0.00 (100%)	Sign Level = 0.00 (100%)	Sign Level = 0.00 (100%)	Sign Level = 0.224 (76%)
Small Firms Not Linked to TNCs	Mean = 2.2	Mean = 2.8	Mean = 4.5	Mean = 4.3	Mean = 4.9	Mean = 2.6	Mean 4.4	Mean = 2.1

Table 3 - Level of Activeness in International Strategy

Finally, firms were asked to indicate the extent to which they have used effectively competitiveness strategies in terms of the variables such as quality, efficiency, customer responsiveness, image, and price. The results indicated that small firms that are linked to TNCs are superior when it comes to quality of the product, efficiency of production and customer responsiveness with 100%, 99.7%, and 98% significance levels respectively. On the other hand on image and price strategies there were not significant differences.

CONCLUDING REMARKS

This paper presented an empirical assessment of linkages between small manufacturing firms and Trans-national Corporations. It can be concluded that small manufacturing firms linkages with TNCs are significant for international competitiveness of small manufacturing firms. The main implication is that linkages between small manufacturing firms and TNCs are crucial for international competitiveness for small firms in South Africa. Findings suggest a strong relationship between domestic and international sales growth, reaction to industry changes, high activeness in international strategy, and competitive strategy with linkage to TNCs.

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