REENGINEERING THE BUSINESS PROCESSES IN SMALL, MEDIUM AND MICRO ENTERPRISES (SMME’S) IN ORDER TO IMPROVE PROFITABILITY

By

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Submitted in partial fulfilment of the requirements for the degree of Masters in Business Administration at the Port Elizabeth Technikon

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Date of submission: January 2002
DECLARATION

This work has not been previously accepted in substance for any degree and is not been concurrently submitted in candidature for any degree.

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The dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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ABSTRACT

The research problem addressed in this study was to identify guidelines to improve business processes that will enhance the ability of Small, Medium, and Micro Enterprises (SMME’s) to be able to operate competitively in local and global markets.

Reengineering of business processes (BPR) is necessary because of internal factors such as increasing global competition, increasing domestic competition, new technologies, industry overcapacity, shrinking markets and increasing pressure from suppliers.

There are also various external factors that influence the necessity to reengineer business processes. These factors include increasing cost structure, declining profitability, declining sales, low productivity, inadequate employee skills and less efficiency in operations. In order to identify guidelines that will enhance SMME’s performance, questionnaires with relevant questions were used.

The findings of the literature survey clearly highlights the specific areas where attention is required for improvements.
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CHAPTER 1
INTRODUCTION, PROBLEM STATEMENT AND DEFINITION OF CONCEPTS

1.1 INTRODUCTION

Although new small businesses are being started on a daily basis many existing small business are failing just as frequently. Small businesses are closing down as a result of profits not being maximized. There are different reasons that exist, the main ones of which will be discussed next. Human effort is still being used in small businesses today; although information technology is available at a reasonably low cost (O’Brien, 2000:23). This prevents businesses from operating in a competitive environment in which internetworked computer systems create markets possible that can instantly and cheaply process business transactions. The result is that the processing of such transactions becomes time-consuming and costly. This further results in businesses being unable to

♦ charge competitive prices;
♦ increase the volume of business;
♦ cut costs;
♦ or perform a combination of these options (Harris, 1992:106).

Small businesses normally process transactions manually. The effect of this practice is excessive paper wastage instead of cost effective transactions conducted on-line.
To reduce the use of paper for the processing of transactions, businesses need to change from being manual enterprises to become internetworked enterprises. The internet is changing the way businesses are operated and how people work. Information technology is being increasingly recognized for the support it gives business operations and end user work activities (O’Brien, 2000:21). Unfortunately many small businesses do not implement these business processes (Davenport, 1993:37).

1.2 THE PROBLEM

1.2.1 Main Problem

A possible reason for small businesses failing is that their business processes need to be reengineered in such a way as to improve their profitability. The aim of the research is to identify the business processes that need to be reengineered.

This leads to the following problem, which will be addressed by this research:

What guidelines should be followed by SMME’s in order to improve their profitability?

1.2.2 Sub-Problems

In order to develop a research strategy to deal with and solve the main problem, the following sub-problems have been identified:
(a) What critical business processes does the literature reveal that will enable SMME’s to improve profitability?

(b) What business processes do current managers use to maximize profitability?

(c) How can the above-mentioned two be integrated to improve profitability?

1.3 DELIMITATION OF THE RESEARCH

Delimitation of the research serves the purpose of making the research topic manageable. The exclusion of certain topics does not imply that there is no need to research them. The delimitations are as follows:

1.3.1 Management Level

The study will be limited to owner - managers of small businesses.

1.3.2 Size of the Organization

Small, medium and micro enterprises will be used in this study. The motivation for this is that they make a substantial contribution to the economy and very seldom make use of information technology (IT) to support their business operations.
1.3.3 Geographical Demarcation

The empirical component of this study will be limited to small businesses in the Port Elizabeth/Uitenhage area. The empirical survey will be conducted by a postal questionnaire and, if necessary, personal visits to small businesses will be undertaken.

This delimitation means that any conclusions drawn from this study can therefore not be generalised to small businesses other than those small businesses in the Port Elizabeth/Uitenhage area.

1.3.4 Business Processes

The research will be limited to examining business processes used and reengineering those business processes that will improve profitability in small businesses. This study will therefore exclude all other processes such as human resource policies and procedures, training and implementation of policies, to mention some.

1.3.5 Subject of Evaluation

The field of reengineering the business processes could be divided into the following:

(a) Marketing
(b) Finance
(c) Sales
(d) Manufacturing

1.3.6 Basis for Guidelines

It is intended in this study to develop guidelines for reengineering the business processes from the current literature. The aim of the study is to develop guidelines made up from what the current literature reveals are the necessary business processes that need to be reengineered with what managers say are the required business processes.

1.4 DEFINITION OF SELECTED CONCEPTS

Important concepts will be explained below.

1.4.1 Business Process

According to O’Brien (2000:24) “… a business process is any set of activities designed to produce a specified output for a customer or a market”.

1.4.2 Reengineering

Hammer (1994:247) defines reengineering as “the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements, such as cost, quality, service and speed”.
1.4.3 Small Businesses

Megginson, Byrd, Scott and Megginson (1994:9) say that small businesses have at least two of the following features:

(a) Management is independent, since the manager usually owns the firm.
(b) Capital is supplied and ownership is held by an individual or a few individuals.
(c) The area of operations is provincially local, although the market is not necessarily local.
(d) The firm is small in comparison with the largest competitors in its industry.

1.4.4 Management

Management is defined by Carnegie and associates (1987:13) as “... the ability to obtain results through effective utilization of the resources available to the organization”. The resources inferred to are money, material, machinery, methods and labour. For the purpose of this research the author will concentrate on maximizing of profit by reengineering the processes of the above resources. Managers are responsible for medium and long term planning and organizing within their functional areas, and also for control over their management activities (processes).
1.4.5 Profitability

The profit-making activities of a business influence its financial structure. According to Megginson et al (1994:370), those activities are reflected in the revenue and expense accounts, as shown by the following formula, Net income (Profit) is equal to Revenue (Income) minus Expenses (Costs).

1.5 ASSUMPTIONS

It is assumed that in theory and practice that sufficient information will be available on reengineering of business processes, to such an extent that meaningful conclusions can be drawn and appropriate recommendations made.

1.6 THE SIGNIFICANCE OF THE RESEARCH

Many small firms are owned and operated by a special group of people who see business ownership and operation as an answer to the dream of self-determination. These people take risks, put in the time and effort and if successful, reap the rewards, which are the goals of any business (Steinhoff and Burgess, 1986:5).

These owners and operators are steadily increasing in number, which makes them important to the market system of the economy. Today small businesses are the heart of that market economy with their buying and selling of products and services, especially with the high rate of unemployment in South Africa. Altogether they make up about 50 percent, a substantial portion, of all formal enterprises in South Africa.
Small businesses also provided a large percentage of new jobs created in the early part of the 1990s. New jobs come from the expansion of existing small businesses or through the starting up of new businesses. However, while many new businesses start up each year, nearly one-half of them are out of business within 18 months. Fayo, S. 17 October 2000. Small businesses failure rate increases. *Eastern Province Herald*. Even with the risks of failure and financial loss, the rewards of owning and operating a small business have great appeal to the people of South Africa. By running these businesses, many families benefit in terms of jobs, income, products and services. In fact they provide some workers with their first job!

The result of this research could help lower the percentage of failed businesses by teaching the fundamentals of planning, organizing and operating a small firm. The model could be used to reengineer business processes in small firms.

### 1.7 RESEARCH DESIGN

In order to promote a logical solution of the stated sub-problems, the following broad procedure will be used for this study:

#### 1.7.1 Literature Survey

A secondary literature survey will be conducted to determine the approaches for reengineering business processes.
1.7.2 Empirical Study

The empirical study will consist of the following:

♦ Mail survey

A mail survey will be conducted among small businesses. A questionnaire drawn up by the researcher will be used to establish what business processes managers use. This is to determine the extent to which the best business processes can be implemented.

♦ Measuring instrument

The researcher will develop a questionnaire and analyse the results thereof.

♦ Sample

Names and addresses of all small, medium and macro enterprises will be obtained from the Community of Self-employment Center (COMSEC) and Port Elizabeth Regional Management Advisory Center (PERMAC).
♦ Statistical analysis of data

The statistical procedures to be used in interpreting and analyzing the data will be determined in consultation with a statistician at the time the questionnaire is drawn up.

The results of the literature survey and the empirical survey will be integrated to develop a model on reengineering the business processes in small businesses.

1.8 DIVISION OF CHAPTERS

The research has provisionally been planned to include the following chapters:

CHAPTER 1: Introduction, problem statement and definition of concepts

CHAPTER 2: Small, Micro, and Medium – sized enterprises in the South African economy

CHAPTER 3: Business process reengineering.

CHAPTER 4: Indicators of success in SMME’s.

CHAPTER 5: The empirical study, methods use and analysis of data

CHAPTER 6: Conclusion and recommendations.
1.9 SUMMARY

In this chapter the main problem together with the sub – problems were identified. In order to understand key terms, these were defined and the research demarcated in order to make the study manageable. The proposed program of study was set out to allow the reader an understanding of the structure of the project. In the next chapter the Small, Medium, and Micro enterprise sector and their role in the South African economy will be discussed.
CHAPTER 2

SMALL, MICRO, AND MEDIUM – Sized Enterprises in the South African Economy

2.1 INTRODUCTION

A society with a vibrant entrepreneurial spirit is an economically healthy society (Annual Review, 2000:23). Such a spirit is usually visible through the role and importance of the small, micro and medium – sized enterprises (SMME's). That is why, amongst other things, SMME’s are important and increasingly so within the current context of the South African economy. SMME’s play an increasingly significant role in terms of providing access to the job market for many who had not had the opportunity to work and participate in the economy before. This has become more evident since the government began focusing on improving the conditions for business to flourish in an effort to stimulate investment and employment.

2.2 THE ROLE OF THE SMME SECTOR

In this chapter the SMME sector of the South African economy is analysed firstly by focusing on the role of the sector in terms of its contribution to the gross domestic product (GDP), employment, the number of establishments
and its contribution to salaries and wages. Secondly, this chapter provides an overview of the South African labour market regarding the number of self-employed in terms of provincial distribution and race. A clear distinction between the formal and informal sectors as well as rural and urban areas is made. Thirdly the role and contribution of the sector is discussed. Fourthly the constraints of the small business sector is highlighted. Lastly, an overview regarding the number of new establishments is provided.

### 2.2.1 Contribution to the Gross Domestic Product

The economic structure of the formal sector in South Africa resembles that of many industrialised or developed countries (Annual Review, 2000: 23). This is particularly evident when can easily be seen by comparing the relative importance of each of the nine main industrial sectors to each other in terms of their contribution to GDP.

Table 2.1 provides a breakdown in terms of size and class of each sector's contribution to GDP. From this table it is clear that on average for the whole country, 34.8 percent of the GDP is generated by SMME’s and 65.2 percent by large enterprises.
Table 2.1: Percentage contribution of SMME’s to the GDP in the industrial sectors

<table>
<thead>
<tr>
<th></th>
<th>MICRO</th>
<th>SMALL</th>
<th>MEDIUM</th>
<th>LARGE</th>
<th>TOTAL</th>
</tr>
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<tbody>
<tr>
<td>Agriculture</td>
<td>4.13</td>
<td>8.67</td>
<td>43.71</td>
<td>43.49</td>
<td>100.00</td>
</tr>
<tr>
<td>Mining</td>
<td>1.01</td>
<td>1.74</td>
<td>2.55</td>
<td>94.70</td>
<td>100.00</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5.27</td>
<td>7.37</td>
<td>21.02</td>
<td>66.34</td>
<td>100.00</td>
</tr>
<tr>
<td>Electricity</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Construction</td>
<td>3.14</td>
<td>35.6</td>
<td>12.20</td>
<td>49.06</td>
<td>100.00</td>
</tr>
<tr>
<td>Trade</td>
<td>2.27</td>
<td>23.41</td>
<td>17.12</td>
<td>57.21</td>
<td>100.00</td>
</tr>
<tr>
<td>Transport</td>
<td>7.07</td>
<td>18.50</td>
<td>20.30</td>
<td>54.13</td>
<td>100.00</td>
</tr>
<tr>
<td>Business &amp; other services</td>
<td>14.90</td>
<td>12.90</td>
<td>2.90</td>
<td>69.30</td>
<td>100.00</td>
</tr>
<tr>
<td>Average: all sectors</td>
<td>5.82</td>
<td>13.90</td>
<td>15.05</td>
<td>65.23</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Annual Review (2000: 23)

2.2.2 Contribution to Employment

Irrespective of the importance of SMME’s in terms of their contribution to GDP, arguably their biggest single contribution to the South African economy is in terms of employment (Annual Review, 2000:24).

The role of SMME’s as an agency for employment in the country cannot be overemphasised, especially within the context of a developing nation. Within South Africa this also implies incredible socio – economic challenges,
predominantly as a result of the racially biased policies followed under Apartheid (Annual Review, 2000:24).

SMME’s employ 54.5 percent of all the formal private sector enterprises, compared to 45.5 percent in the large enterprises.

2.2.3 Contribution to the Number of Establishments

SMME’s are by far the largest number of private formal institutions (Annual Review, 2000:26). In South Africa 97.5 percent of all establishments in the formal private sector are SMME’s. Micro – sized enterprises are dominant comprising approximately 67 percent of all the institutions. It is in the trade, transport, business and other services sectors that micro – sized enterprises are particularly large in number. The construction sector tends to consist of small enterprises whilst agriculture tends to be medium – sized enterprises.

2.2.4 Contribution to Salaries And Wages

From the sections above, it can be seen that SMME’s are major role players in the South African economy regarding employment and the number of establishments and to a lesser extent in their contribution to GDP. The remaining discussion regards the contribution of SMME’s to salaries and wages. Except for the trade, construction and transport sectors the large
establishments dominate the total salaries and wages paid to employees. This is despite the fact that there are more workers in the SMME sector than in large enterprises. In these three aforementioned sectors the small and medium-sized enterprises contribute the most to the total value of the salary and wage bill (Annual Review, 2000:28). This provides supporting evidence to a statement made earlier regarding the importance of small enterprises in these sectors. In total, large enterprises contribute to 57,3 percent while SMME’s contribute 42,7 percent of the total value of salaries and wages paid. This is slightly higher than the contribution of SMME’s to GDP, which is approximately 35 percent.

2.3 THE SOUTH AFRICAN LABOUR MARKET

The findings with respect to the contribution of SMME’s to the GDP, employment and salaries and wages reported thus far refer to the formal economy and do not take the informal sector into account. The subsequent sections provide a detailed breakdown of total employment in the South African labour market, thereby including both formal and informal sector activities.

Estimates from the 1999 October Household Survey (OHS) reveal that in 1999 some 7 634 million of the grand total of 10 369 million workers in South Africa worked in the formal sector while 2 705 million were involved in informal sector activities (Annual Review, 2000:30). This is consistent with the
unemployment rate of 23.3 percent of the economically active population for the country in 1999. According to the expanded definition of unemployment, the unemployment rate is as high as 36.2 percent of the economically active population. This figure includes the so-called discouraged workers (people who are seeking a job but have not taken active steps to find work during the four weeks prior to the OHS interview). From this one can deduce that, depending on the definition used, roughly between a quarter and a third of the country’s economically active population was unemployed in 1999 (Annual Review, 2000:30). From the breakdown according to population group, persistent racial inequalities regarding the relative rates of unemployment are still evident. The unemployment rate among Africans is 29 percent but only 4.7 percent for Whites. For Coloureds and Asians these figures are 15.3 and 15.5 percent respectively (Annual Review, 2000:31). There are also wide discrepancies between the unemployment rates for each of South Africa’s nine provinces. Provincial unemployment rates range from 13.6 percent for the Western Cape to 34 percent for the Northern Province (Annual Review, 2000:32).

2.3.1 Distribution of Employment Opportunities between the Formal and Informal Sectors

It is evident from information that the informal sector is responsible for 27 percent of the total, while the formal sector accommodates 74 percent of all workers (Annual Review, 2000:31). Considering the size of the informal sector
contribution to total employment, it is becoming increasingly important to consider the dissipation of the employment opportunities in the informal sector. The expansion in the informal sector employment creation created significant benefits for overall labour absorption in South Africa. Firstly, as the informal sector is labour-intensive, it is a suitable vehicle for creating job opportunities in a country like South Africa where capital is scarce and labour is abundant. Secondly with the necessary assistance, several informal sector enterprises can improve their profitability substantially, thereby creating scope for expansion and the creation of more job opportunities (Annual Review, 2000:31). This will in turn serve to alleviate the pressure on the limited capacity of the formal sector business enterprises to provide employment. Thirdly, the informal sector may also provide the prospective small (formal) business entrepreneurs with the opportunity to develop their skills in management and business operation. Finally a much-needed safety net is provided by the informal sector to those affected during periods of unemployment in the formal sector.
2.4 THE SMALL-BUSINESS SECTOR IN SOUTH AFRICA’S ECONOMIC DEVELOPMENT

2.4.1 Size and Diversity of the Sector

Although the statistical base of the SMMEs in South Africa is still poor, there can be little doubt about their relative significance. There are more than 800,000 small, medium and micro-enterprises in the country, absorbing about a quarter of the labour force of 15 million people. This is in addition to about 3,5 million people involved in some or other type of survivalist enterprise activities (WPA, 1995:7).

The small business sector is highly diverse, with structures, problems, growth potential and access to support differing widely between segments. These differences relate as much to the economic sectors-retailing, manufacturing, mining, and so on - as they relate to the stages of growth of enterprises, namely start-up, expanding or stagnating (WPA, 1995:7).

From a broad strategy perspective the most important distinction is between survivalist activities, micro-enterprises, small enterprises and medium-sized enterprises, with the general term ‘small business’ and the abbreviation ‘SMMEs’ widely used to contrast this sector with big(ger) business. Due to the similarity of some of the obstacles facing them, survivalist and micro-enterprises are often lumped together, whereas many support agencies feel that medium- sized enterprises need not be viewed as a category warranting particular attention (WPA, 1995:7).
The following are the characteristics of the four categories of enterprises:

**Survivalist enterprises** are activities by people unable to find a paid job or get into an economic sector of their choice. Income generated from these activities usually falls far short of even a minimum income standard, with little capital invested, virtually no skills training in the particular field and only limited opportunities for growth into a viable business. Poverty and the attempt to survive are the main characteristics of this category of enterprises. Support strategies should primarily help these people - a large percentage of whom are women - to get out of this sector. Given the large number of people involved in survivalist activities, this constitutes a vast challenge, which has to be tackled within the broader context of the RDP (WPA, 1995:8).

**Micro-enterprises** are very small businesses, often involving only the owner, some family member(s) and at the most one or two paid employees. They usually lack 'formality' in terms of business licenses, value-added tax (VAT) registration, formal business premises, operating permits and accounting procedures. Most of them have a limited capital base and only rudimentary technical or business skills among their operators. However, many micro-enterprises advance into viable small businesses. Earning levels of micro-enterprises differ widely, depending on the particular sector, the growth phase of the business and access to relevant support. Small enterprises constitute the bulk of the established businesses, with employment ranging between five and about 50. The enterprises will usually be owner-managed or directly controlled by the owner-community. They are likely to operate from business or industrial premises, be tax-registered and meet other formal registration
requirements. Classification in terms of assets and turnover is difficult, given the wide differences in various business sectors like retailing, manufacturing, professional services and construction (WPA, 1995:9).

Medium enterprises constitute a category difficult to demarcate, that of sector action. It follows from these distinctions and it is a fundamental principle of the government’s SMME support strategy that the problems of each of these four categories need a somewhat different policy stance. Equally important for the present phase of small business support in South Africa is the recognition of the particular problems and needs of enterprises initiated, owned or controlled by those who were disenfranchised and/or otherwise discriminated against in the past. Aside from the racial dimension, that is enterprises owned or controlled by black South Africans, we also refer to women and all other disadvantaged and marginalised groups, including those in remote rural areas as well as the disabled, elderly people and the youth. Such enterprises are found in all four of the above categories (WPA, 1995:8).

The government is committed, within given financial and organisational constraints, to structure its SMME support in such a way that special attention is given to the problems faced by these disadvantaged enterprises. Since publicly funded support for small enterprises should only be granted to those really needing it, the objective definition and classification of different types of small enterprises is essential (WPA, 1995:8).
The Department of Trade and Industry (DTI), after consultation with the National Small Business Council (NSBC, will create the mechanism to identify different types of enterprises based on sectoral, size and developmental criteria.

### 2.4.2 Role and Contribution Of The Sector

All over the world it has been recognised that the small business sector plays an important if not critical role in the economic and social development of a country. This also applies to South Africa, where the small business sector has been neglected during much of the century following the discovery of diamonds and gold, and the establishment of a modem, capitalist economy with almost exclusive white control (WPA, 1995:9).

While the importance of large industrial, mining and other enterprises for the growth of the economy cannot be denied, there is ample evidence that the labour absorptive capacity of the small business sector is high, the average capital cost per job created is usually lower than in big business and its role in technical and other innovation is vital for many of the challenges facing South Africa’s economy (WPA, 1995:8).

Given South Africa’s legacy of big business domination, constrained competition and unequal distribution of income and wealth, the small business sector is seen as an important force to generate employment and more equitable income distribution, to activate competition, exploit niche markets (both internally and internationally), enhance productivity and technical change, and through all of this stimulate economic development (DTI, 1995:26).
Taking into account the very large micro-enterprise segment of the small business sector, as well as those struggling in survivalist activities it should be clear that the small business sector plays a crucial role in peoples’ efforts to meet basic needs and help marginalised groups - like female heads of households, disabled people and rural families-to survive during the current phase of fundamental structural changes where the formal economy is unable to absorb the increasing labour supply, and social support systems are grossly inadequate (DTI, 1995:25).

Experience has shown that in the past black people have been able to make far greater progress in the micro- and small-enterprise segments of the economy than in medium-sized and larger enterprises. Thus, the SMME sector has-all its impediments notwithstanding - proven to be a highly significant vehicle for black economic empowerment.

2.4.3 Constraints Facing The Small-Business Sector

There can be no doubt that, compared to big business in South Africa and in other countries, small businesses face a wider range of constraints and problems and are less able to address the problems on their own, even in effectively functioning market economies (WPA, 1995:9). The constraints relate, among others, to the legal and regulatory environment confronting SMMEs, the access to markets, finance and business premises (at affordable rentals), the acquisition of skills and managerial expertise, access to appropriate technology, the quality of the business infrastructure in poverty areas and, in some cases, the tax burden. In the South African context the
constraints have been particularly hard on entrepreneurs in rural areas and on women.

Much has been written about these issues over the past few years and debated at public forums internationally as well as in South Africa (WPA, 1995:24). This research based on an understanding of these problems and their legitimacy, without restating the facts here. At the same time it has to be recognised that problems and constraints differ widely between the various segments of SMMEs and also the sectors as well as owner categories. Generally speaking, the micro- and survivalist enterprises are far less able to face constraints linked to finance, market access and the acquisition of skills. On the other hand, some sectors like agriculture, construction and manufacturing confront small enterprises with a particularly wide range of problems, thus preventing easy access to these sectors by new enterprises or increasing the risk of those already in the sectors (WPA, 1995:9). Even among medium-sized enterprises, problems like international competition, technology transfer and skills training can constitute major growth obstacles. These differences are of critical importance for the national support strategy. They not only stress the need for some degree of public sector involvement, but also emphasize the need for explicit differentiation in the support framework.

In addition to sector - specific differences of constraints, the legacy of apartheid constitutes an important factor in the inability of black owned or controlled small enterprises to face business development constraints (WPA, 1995:9). For decades, if not centuries, the majority of South Africans were deprived of viable business opportunities in the following ways:
(a) Bantu Education restricted opportunities for the acquisition of technical and professional skills by black people;

(b) There was total absence of entrepreneurial education or sensitizing for young people in a way that could encourage them to enter business and acquire a culture of entrepreneurship;

(c) Apartheid confined the majority of the African people to homeland areas which were not only the poorest in terms of living standards and business opportunities, but also lacked a dynamic business environment;

(d) Even outside the homelands the system of apartheid made it impossible for black would-be-entrepreneurs to participate in business apprenticeships and partnerships with more established (non-black-owned/controlled) enterprises:

(e) Racially segregated residential areas, enforced through the Group Areas Act, not only uprooted millions from the places of residence and business, but also led to large capital losses and virtually destroyed the fabric of black small enterprises;

(f) Segregation increased the distance between black residential and working areas, thereby increasing the cost and risk of conducting business;

(g) The drastic curtailment of property ownership rights of blacks made it impossible for them to acquire assets that could serve as collateral for loan financing; it also excluded blacks from the long-run process of capital accrual and growth through rising property values and share prices;

(h) Apartheid left no real space for the business involvement of black women;
(i) Marriage laws reduced women to unions with no contractual capacity at all.

Even though marriage laws have changed, customary law remains intact and there are cultural, behavioural and attitudinal constraints which affect women’s participation in business, particularly in rural areas. There are also restrictions in terms of access to land. Due to these processes, small business-support policies will for a considerable time also have to focus on the particular needs of black enterprises and ways to overcome the remaining consequences of that legacy (WPA, 1995:10). This does not imply that policies should only focus on black-owned or controlled enterprises or business-infrastructure facilities in formerly black-reserved towns, but that policy differentiation will have to include affirmative elements.

All over the world small business-support policies have become targets of active vested interest lobbying (WPA, 1995:11). All too often government is pressurised to help overcome constraints, even though enterprises - either individually or through joint action-could also resolve the problems. This applies in particular to segments of the small business community, which are well organised, well articulated and skilful in the channeling of their requests, thereby laying claim to a disproportionate part of the limited resources available for small business support.
2.5 SUMMARY

In this chapter an overview of SMME’s sector was discussed. Firstly, the role of the sector and its contribution to the gross domestic product, employment, the number of establishments, salaries and wages were mentioned. Secondly, the South African labour market was analysed with particular reference to distribution of employment opportunities between the formal and informal sectors.

The final section was used to explain where the small business sector fits in South Africa’s economic development. These issues were discussed to highlight the importance of the small, medium, and micro enterprises and their contribution that the sector makes to the South African economy.
CHAPTER 3
BUSINESS PROCESS REENGINEERING

3.1 INTRODUCTION

Chapter 3 will focus on three basic approaches to Business Process Reengineering (BPR). The first approach explains BPR in terms of information technology (IT) as a basis for reengineering. The second approach involves including organisational redesign in the solution. The third recommends that human resource policies are an important aspect of reengineering. Before implementation of IT and automation of processes, it is important to analyse the organisations processes and intended goals with an attempt to standardise and simplify them.

The discussion will be preceded by an overview of business process reengineering. The relationship between business process reengineering (BPR) and Total Quality Management (TQM) will then be discussed. Thirdly the concept of IT, organisational redesign and human resource policies and their influence on Small, Medium, and Micro enterprises (SMME’s) will be discussed.
3.2 WHAT IS A BUSINESS PROCESS?

Davenport and Short (1990) define *business process* as "a set of logically related tasks performed to achieve a defined business outcome." A process is "a structured, measured set of activities designed to produce a specified output for a particular customer or market. It implies a strong emphasis on how work is done within an organization" (Davenport 1993). In their view processes have two important characteristics in that they have customers (internal or external), and they cross organizational boundaries, that is they occur across or between organizational subunits. One technique for identifying business processes in an organization is the value chain method proposed by Porter and Millar (1985).

*Processes* are generally identified in terms of beginning and end points, interfaces, and organization units involved, *particularly the customer unit*. High Impact processes should have *process owners*. Examples of processes include: developing a new product; ordering goods from a supplier; creating a marketing plan as well as processing and paying an insurance claim.

According to Davenport and Short (1990: 221) processes definition are based on three dimensions, entities, objects and activities.

*Entities* are processes which take place between organizational entities. They could be interorganizational (e.g. Electronic Data Interchange), interfunctional or interpersonal.
Processes result in manipulation of objects. These objects could be Physical or Informational. Finally, processes could involve two types of activities, Managerial (develop a budget) and Operational (fill a customer order).

3.3 WHAT IS BUSINESS PROCESSES REENGINEERING?

Business Process Redesign is "the analysis and design of workflows and processes within and between organizations" (Davenport and Short 1990:15). Teng (1994:68) defines BPR as "the critical analysis and radical redesign of existing business processes to achieve breakthrough improvements in performance measures."

3.3.1 How does BPR differ from TQM?

Teng (1994:72) notes that in recent years, increased attention to business processes is largely due to the TQM (Total Quality Movement). He concludes that TQM and BPR share a cross-functional orientation. Davenport observed that quality specialists tend to focus on incremental change and gradual improvement of processes, while proponents of reengineering often seek radical redesign and drastic improvement of processes.

Davenport (1993:52) notes that Quality management, often referred to as total quality management (TQM) or continuous improvement, refers to programs and initiatives that emphasize incremental improvement in work processes and outputs over an open-ended period of time. In contrast, Reengineering, also known as business process redesign or process innovation, refers to discrete initiatives that are intended to achieve radically redesigned and improved work processes in a
bounded time frame. Contrast between the two is provided by Davenport (1993:11) in Table 3.1, which shows the difference between Process Improvement (TQM) and Process Innovation (BPR).

Table 3.1: Process Improvement (TQM) versus Process Innovation (BPR)

<table>
<thead>
<tr>
<th></th>
<th>Improvement</th>
<th>Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Change</strong></td>
<td>Incremental</td>
<td>Radical</td>
</tr>
<tr>
<td><strong>Starting Point</strong></td>
<td>Existing Process</td>
<td>Clean Slate</td>
</tr>
<tr>
<td><strong>Frequency of Change</strong></td>
<td>One-time/Continuous</td>
<td>One-time</td>
</tr>
<tr>
<td><strong>Time Required</strong></td>
<td>Short</td>
<td>Long</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td>Bottom-Up</td>
<td>Top-Down</td>
</tr>
<tr>
<td><strong>Typical Scope</strong></td>
<td>Narrow, within functions</td>
<td>Broad, cross-functional</td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td><strong>Primary Enabler</strong></td>
<td>Statistical Control</td>
<td>Information Technology</td>
</tr>
<tr>
<td><strong>Type of Change</strong></td>
<td>Cultural</td>
<td>Cultural/Structural</td>
</tr>
</tbody>
</table>

Source: Davenport (1993: 11)

3.3.2 What are the Myths about BPR created by the popular Literature?

The popular management literature has created more myth than practical methodology reengineering. The concept of BPR has been with us since about 1990, however it is widely misunderstood and has been equated to downsizing, client/server computing, quality, ABC, and several other management nostrums of the past several years. Based on interviews and conversations with more than 200 companies, and 35 reengineering initiatives, Davenport and Short (1990:12) identify seven reengineering myths.
The Myth of Reengineering Novelty: Reengineering, although about familiar concepts, is new in that these concepts are combined in a new synthesis. These key components have never been together before.

The Myth of the Clean Slate: Regardless of Hammer's (1990:113) exhortation: "Don't automate, obliterate", Clean Slate change is rarely found in practice. Or, as Davenport and Stoddard (1994:21) state: a "blank sheet of paper" used in design usually requires a "blank cheque" for implementation. Hence, a more affordable approach for most companies is to use Clean Slate Design that entails a detailed vision for a process without concern for the existing environment. However, the implementation is done over several phased projects. This is also supported by preliminary findings of Caron, Jarvenpaa and Stoddard (1995:185). Their findings ran contrary to Hammer (1990:64) "although reengineering can deliver radical designs, it does not necessarily promise a revolutionary approach to change. Moreover, a revolutionary change process might not be feasible given the risk and cost of revolutionary tactics."

The Myth of IS Leadership: In contrast to the much touted leadership role, IS is generally viewed as a partner within a cross-functional team that is generally headed by a non-IS project leader and a non-IS business sponsor who have better control over the processes that are being redesigned.

The Myth of Reengineering vs. Quality: Unlike Hammer and Champy's (1993:114) call for all out "radical change," most companies have a portfolio of approaches to organizational change including reengineering, continuous improvement, incremental approaches, and restructuring techniques.
The Myth of Top-Down Design: The implementation and execution of the redesigned processes depends upon those who do the work. Hence, the participation, and more importantly, acceptance and ownership, at the grass roots level is essential for successful BPR.

The Myth of Reengineering vs. Transformation: BPR is a process that contributes to organizational transformation (OT). However, it is not synonymous with transformation. OT is defined as "Profound, fundamental changes in thought and actions, which create an irreversible discontinuity in the experience of a system" (Adams 1984:74). OT is generally about the emergence of a new belief system and necessarily involves reframing, which is a discontinuous change in the organization's or group's shared meaning or culture. It also involves broad changes in other organizational dimensions besides the work processes: such as organizational structure, strategy, and business capabilities.

The Myth of Reengineering's Permanence: Davenport and Stoddard (1994:13) speculate that reengineering has peaked in the US in 1994 and would probably become integrated with much broader organizational phenomena: such as another synthesis of ideas that includes the precepts of reengineering; its integration into existing change methods; or its combination with quality and other process-oriented improvement approaches into an integrated process management approach.

3.3.3 What is the Relationship Between BPR & Information Technology?

Hammer (1990:112) considers IT as the key enabler of BPR, which he considers as "radical change." He prescribes the use of IT to challenge the assumptions inherent
in the work processes that have existed since long before the advent of modern computer and communications technology. He argues that at the heart of reengineering is the notion of “discontinuous thinking or recognizing and breaking away from the outdated rules and fundamental assumptions underlying operations...” as these rules of work design are based on assumptions about “technology, people, and organizational goals that no longer hold,” he suggests the following principles of reengineering:

(a) Organize around outcomes, not tasks;
(b) Have those who use the output of the process perform the process;
(c) Subsume information processing work into the real work that produces the information;
(d) Treat geographically dispersed resources as though they were centralized;
(e) Link parallel activities instead of integrating their results;
(f) Put the decision point where the work is performed, and build control into the process; and
(g) Capture information once and at the source.

Davenport and Short (1990:111) argue that BPR requires taking a broader view of both IT and business activity, and of the relationships between them. IT should be viewed as more than an automating or mechanizing force: it should fundamentally reshape the way business is done.
Business activities should be viewed as more than a collection of individual or even functional tasks: in a process view for maximizing effectiveness. IT and BPR have a recursive relationship. IT capabilities should support business processes, and business processes should be in terms of the capabilities IT can provide. Davenport and Short (1990:112) refer to this broadened, recursive view of IT and BPR as “the new industrial engineering”.

Business processes represent a new approach to coordination across the firm. IT's promise—and its ultimate impact—is to be the most powerful tool for reducing the costs of coordination (Davenport and Short 1990:112). The following capabilities that reflect the roles that IT can play in BPR are outlined as Transactional, Geographical, Automatical, Analytical, Informational, Sequential, Knowledge Management, Tracking, and Disintermediation (Davenport and Short 1990:113).

Teng et al. (1994:68) argue that the way related functions participate in a process that is, the functional coupling of a process—can be differentiated along two dimensions: degree of mediation and degree of collaboration. They define the Degree of Mediation of the process as the extent of sequential flow of input and output among participating functions. Furthermore, they define the Degree of Collaboration of the process as the extent of information exchange and mutual adjustment among functions when participating in the same process. In their framework, information technology is instrumental in Reducing the Degree of Mediation and Enhancing the Degree of Collaboration. Also, innovative uses of IT would inevitably lead many firms to develop new, coordination-intensive structures, enabling them to coordinate their activities in ways that were not possible before. Such coordination-intensive structures may raise the organization's capabilities and responsiveness, leading to potential strategic advantages.
Many of the ways that information technology can improve business processes, according to (O’Brien, 2000:344) are illustrated in Table 3.2

<table>
<thead>
<tr>
<th>IT Capability</th>
<th>How IT Improves Business processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional</td>
<td>Transform unstructured processes into routine transactions</td>
</tr>
<tr>
<td>Geographical</td>
<td>Transform information quickly and easily across large distances, making processes independent of geography</td>
</tr>
<tr>
<td>Automational</td>
<td>Reduce or replace human labour in a process</td>
</tr>
<tr>
<td>Analytical</td>
<td>Bring complex analytical methods to bear on a process</td>
</tr>
<tr>
<td>Informational</td>
<td>Bring large amounts of detailed information into a process</td>
</tr>
<tr>
<td>Sequential</td>
<td>Enable in the sequence of tasks, often allowing multiple tasks to be worked on simultaneously</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Allow the capture and dissemination of knowledge and expertise to improve a process</td>
</tr>
<tr>
<td>Tracking</td>
<td>Allow the detailed of the status, inputs, and outputs of a process</td>
</tr>
<tr>
<td>Disintermediation</td>
<td>Connect two parties within a process that would otherwise communicate through an intermediary</td>
</tr>
</tbody>
</table>


3.3.4 What is the Role of the IS function in BPR?

Although, BPR has its roots in IT management, it is primarily a Business Initiative that has broad consequences in terms of satisfying the needs of customers and the
firm’s other constituents (Davenport & Stoddard 1994:44). The IS group may need to play a behind-the-scenes advocacy role, convincing senior management of the power offered by IT and process redesign. It would also need to incorporate the skills of process measurement, analysis, and redesign. In addition, the CIGNA IS group had to develop a new set of basic values that reflected a change in focus from technology to a focus on business processes and results (Caron, Jarvenpaa and Stoddard, 1994:21). The specific business divisions led the BPR initiatives; and the IS groups served as partners in enabling the radical changes.

3.3.5 Is there a BPR Methodology?

Davenport and Short (1990:116) prescribe a five-step approach to BPR:

- **Develop the Business Vision and Process Objectives**: BPR is driven by a business vision which implies specific business objectives such as Cost Reduction, Time Reduction, Output Quality improvement, QWL/Learning/Empowerment (Senge, 1990:221).

- **Identify the Processes to be Redesigned**: Most firms use the High- Impact approach which focuses on the most important processes or those that conflict most with the business vision. A minority of firms use the Exhaustive approach that attempts to identify all the processes within an organization and then prioritize them in order of redesign urgency.

- **Understand and Measure the Existing Processes**: For avoiding the repeating of old mistakes and for providing a baseline for future improvements.
Identify IT Levers: Awareness of IT capabilities can and should influence process design.

Design and Build a Prototype of the New Process: The actual design should not be viewed as the end of the BPR process. Rather, it should be viewed as a prototype, with successive iterations. The metaphor of prototype aligns the BPR approach with quick delivery of results, and the involvement and satisfaction of customers.

3.3.6 Why do BPR projects fail? What can be done about it?

It has been found that 70 percent of the BPR projects fail. The biggest obstacles that reengineering faces are a lack of sustained management commitment and leadership, unrealistic scope and expectations and resistance to change.

Based on the BPR consultants’ interviews, Bashein, Markus and Riley, (1994:187) outline the positive preconditions for BPR success as: Senior Management Commitment and Sponsorship; Realistic Expectations; Empowered and Collaborative Workers; Strategic Context of Growth and Expansion; Shared Vision; Sound Management Practices; Appropriate People Participating Full-Time and Sufficient Budget. They also identify negative preconditions related to BPR as: The Wrong Sponsor; A "Do It to Me" Attitude; Cost-Cutting Focus and, Narrow Technical Focus. The negative preconditions relating to the Organization include: Unsound Financial Condition; Too Many Projects Under Way; Fear and Lack of Optimism; and, Animosity Toward and By IS and HR Specialists. To turn around negative
conditions, firms should: Do Something Smaller First; Conduct Personal Transformation and Get IS and HR Involved.

King (1994:67) views the primary reason of BPR failure as overemphasis on the tactical aspects and the strategic dimensions being compromised. He notes that most failures of reengineering are attributable to the process being viewed and applied at tactical rather than strategic levels. He points out that there are important strategic dimensions to BPR, notably:

(a) Developing and Prioritizing Objectives;
(b) Defining the Process Structure and Assumptions;
(c) Identifying Trade-Offs Between Processes;
(d) Identifying New Product and Market Opportunities;
(e) Coordinating the Reengineering Effort; and,
(f) Developing a Human Resources Strategy.

He concludes that the ultimate success of BPR depends on the people who do it and on how well they can be motivated to be creative and to apply their detailed knowledge to the redesign of business processes (Davenport & Stoddard 1994:225).
3.3.7 Where is BPR heading?

Over the last few years, the reengineering concept has evolved from a "radical change" to account for the contextual realism (Caron et. al, 1994:221) and to reconcile with more incremental process change methods such as TQM, towards a broader, yet more comprehensive process management concept (Davenport 1995:44).

Based upon a theoretical analysis and survey of literature relevant to reengineering, Kettinger and Grover (1995:154) outline some propositions to guide future inquiry into the phenomenon of BPR. Their propositions center around the concepts of knowledge management, employee empowerment, adoption of new IT’s, and a shared vision. Earl, Sampler and Short (1995:21) have proposed a "process alignment model" that comprises four lenses of enquiry: process, strategy, MIS, and change management and control, and used it for developing an inductive taxonomy of BPR strategies. Malhotra (1996:169) has developed the key emphasis on these issues based primarily on an integrative synthesis of the recent literature from organization theory, organization control, strategy, and MIS.

King (1994;212) believes that although the current fadism of BPR may end, however, process reengineering, in some form or known by some other name would be of enduring importance (Davenport and Stoddard 1994:118).
3.4 ORGANISATIONAL REDESIGN AND BUSINESS PROCESS REENGINEERING

DuBrin (1996:1) explains that to develop better products and services, and to produce more competitively, many firms have de-emphasized the traditional method of organizing work by functional departments. Instead they organize work by key processes, projects or activities such as serving the customer. From this perspective, work activity cuts across functions and stays clearly focused on customer requirements.

To lower costs and speed up decision-making, many middle management positions have been eliminated. Extensive use of information technology has also made it possible to jettison many intermediary positions.

3.4.1 Downsizing and the Creation of Flat Structures

A dominant trend in the work place is for organizations to trim down in size (DuBrin, 1996: 13). Management layers are often reduced in the process. It has been found that reengineering accelerates the downsizing movement because it often eliminates many jobs from the work process.

The trend to downsize and create flat organization structures is used for several important purposes. A primary reason for eliminating one or more layers of managers is to reduce personnel costs. Cost reduction is important for a Small, Medium and Micro Enterprises to become competitive with rivals. In addition cost
reduction is necessary to cope with dwindling budgets. Reducing costs by decreasing the number of managerial layers, along with the laying off of workers, is a favourite tactic of turnaround managers (DuBrin, 1996:15).

Reducing layers of management can also offer the advantage of speeding up decision-making. With more layers of management, more approvals are required, thus increasing the time required to make a decision. Also, with fewer management layers, lower levels of management can communicate directly to top management instead of going through a ponderous chain of command. With rapid decision-making, customer service may improve.

### 3.4.2 Effective Downsizing

As reengineering and process redesign gain momentum, the downsizing movement is necessary (DuBrin, 1996:235). Although layoffs may decrease in magnitude, the trend toward slimmed-down organizations will not lessen. One of senior management's primary motives for reengineering is to reduce costs through payroll reduction. Conceivably, many executives look to reengineering as a way of improving customer service and modernizing operations. Yet these executives do not suffer from colour blindness. Reengineering has the distinct green glow of money saved and increased profits (DuBrin, 1996: 236).

Reengineering, process redesign, and the horizontal corporation lead to downsizing because they reduce the number of people needed to carry out business transaction. Total Quality Management (TQM) sometimes leads to downsizing. Downsizing has
improved the financial position and competitiveness of many firms. Many small businesses have eliminated the jobs of unproductive people and emerged as more profitable (DuBrin, 1996: 237).

### 3.4.3 Developing a Downsizing Game Plan

Downsizing is so pervasive today that useful guidelines for its proper execution are readily available. Managers no longer have to rely on intuition to downsize their organizations. Instead, a game plan can be developed to increase the chances that downsizing will produce bottom-line gains yet minimise human suffering. An effective game plan will also prevent some of the confusion and disruption that accompany most downsizings. The game plan is as follows:

(a) *Eliminate low-value or no-value activities:* This is called activity-based reduction - a new term for systematically comparing the costs of a firm's activities to their value to the customer.

(b) *Keep the future work requirements in mind:* The answer to bloat is not to let go of people who will be an important part of the firm's future.

(c) *Identify the tasks that retained employees will perform:* Then prepare to train these employees.

(d) *Decide which workers will be let go:* Use seniority, position, function, employment status, voluntary resignation, early retirement, and performance as criteria.
3.5 BUSINESS IMPROVEMENT versus BUSINESS REENGINEERING

BPR combines a strategy of promoting business innovation with a strategy of making major improvements to business processes so that a company can become much stronger and a more successful competitor in the marketplace. This is illustrated in Table 3.3.

However, Table 3.3 points out that while the potential payback of reengineering is high, so is its risk of failure an level of disruption to the organizational environment. Making radical changes to business processes to dramatically improve efficiency and effectiveness is not an easy task. While many companies have reported impressive gains many others have failed to achieve the major improvements they sought through reengineering projects.
Table 3.3: How business process reengineering differs from business improvement

<table>
<thead>
<tr>
<th></th>
<th>Business Improvement</th>
<th>Business Reengineering</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>Incrementally improving</td>
<td>Radically redesigning</td>
</tr>
<tr>
<td></td>
<td>Existing processes</td>
<td>Business processes</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Any Process</td>
<td>Strategic business processes</td>
</tr>
<tr>
<td><strong>Primary Enablers</strong></td>
<td>IT and work simplification</td>
<td>IT and organisational redesign</td>
</tr>
<tr>
<td><strong>Potential Payback</strong></td>
<td>10% - 50% improvements</td>
<td>10 - fold improvements</td>
</tr>
<tr>
<td><strong>What Changes?</strong></td>
<td>Same jobs, but just more</td>
<td>Big job cuts; new jobs;</td>
</tr>
<tr>
<td></td>
<td>efficient</td>
<td>Major job redesign</td>
</tr>
<tr>
<td><strong>Risk of Failure and</strong></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><strong>Level of Disruption</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Colleen Frye, "Imaging Proves Catalyst for Reengineering," Client/Server Computing, November 1994: 54

### 3.6 HUMAN RESOURCE ENABLERS OF BUSINESS PROCESS REENGINEERING

Though organisational and human resource enablers of Business Process Reengineering (BPR) are often inextricably linked, the author will focus on enablers that are closely tied to the way individual workers are trained, motivated, compensated, and evaluated, rather than how their work is structured in terms of organisations and groups. In particular, the author will focus on skills, job motivation, and human resource policies to explain the link.
Davenport (1993: 107) explains that new processes invariably involve new skills. Because BPR often involves both greater worker empowerment and a broader set of work tasks, the requisite new skills may involve both greater depth of job knowledge and greater breadth of task expertise. A worker expected to be a task generalist and participate on an autonomous team, for example must learn about the jobs of the other team members (cross training) and if new technologies are to be employed in the process, must acquire skills in applying and using those technologies.

Motivation levels of employees are a key determinant of process performance (Davenport, 1993: 109). Employee motivation results from a combination of factors, some determined by individuals’ personalities. Companies can set as an objective the hiring of workers with high motivation levels, but they can also design motivation into their processes. Davenport (1993: 110) further asserts that the consensus model in studies of work organisation suggests that work motivation derives from five key aspects of the job, or process:

- Skill variety (the variety of skills necessary to complete the job)
- Task identity (the degree to which a job involves completion of an entire activity)
- Task significance (the perceived importance and impact of the job)
- Autonomy (the freedom and discretion with which the job is performed)
- Feedback (the extent to which information about the performance of the job is provided to the worker).
Although a process innovation orientation does not guarantee job motivation, a number of aspects of business process thinking make some of these motivating characteristics more likely. The cross-functional nature of processes, for example, implies a greater likelihood of skill variety in a particular job. Similarly, the strong output orientation of process-based work organisation increases the probability of task identity. Finally, the measurement focus on processes provides a potential source of job feedback. Deduced from the above, well-designed process jobs are likely to be highly motivating, and high motivation is a key aspect of process performance.

A number of other human resource policies can be viewed as process innovation enablers when combined with technological and other organisational changes (Davenport, 1993: 110). These policies, and their implications for process innovation, are discussed below.

### 3.6.1 Compensation

Since the early 1900’s companies have experimented with approaches to compensating workers on the basis of operational improvements. This approach, now usually called “gainsharing,” is widely referenced in the quality literature. In general researchers have discovered that compensating workers on the basis of performance leads to productivity increases, although the issues involved are complex. Obviously, given the strong measurement orientation of a process approach, it would be relatively straightforward to compensate process workers on the basis of process performance. Just as obviously, doing so would probably be an
effective motivational technique for these employees. At the management or process owner level compensation-orientated enablers might include giving managers a financial stake in the performance of the process, perhaps even ownership in the literal sense (Davenport, 1993:111).

3.6.2 Career Paths

A process view of the organisation usually implies career paths different from those found in the typical functional, hierarchical organisation. Career movement is likely to be more lateral than upward; titles may no longer reflect the importance of the role. There are several firms in which new processes already seem to involve fewer options for upward advancement. Companies that can figure out how to motivate employees under these new career conditions will have a long-term advantage in process innovation over those that cannot (Davenport, 1993: 111).

3.6.3 Work - role Rotation

Because processes are typical collections of functions, a process worker should know as much as possible about other functions and activities in order to be able to effectively integrate across them. One way to ensure broad process knowledge is to rotate workers through the various jobs in the process or in related processes. This, like process-oriented career paths, is a long-term enabler of process innovation that should be established broadly throughout a company rather than for a specific process (Davenport, 1993:111).
3.6.4 Lifetime Employment

Although seemingly impossible for most American firms to achieve, a lifetime employment policy greatly facilitates process innovation. Employees who feel that they have a job for life are much less worried about designing or performing. In the United States, which still maintains a lifetime employment policy, economic pressure is weakening its policy rapidly many firms around the world do so, particularly in Japan. Large Japanese firms’ employment of this lifetime policy is often credited for the process flexibility and grass-roots innovativeness of their employees (Davenport, 1993:112).

Because of their broad and long-term nature, most of the policies described above should be viewed as contextual factors for enablement as much as enablers. They make process innovation through other enablers much more likely to happen. Only the most dramatic change in human resource policies could itself be viewed as a lever for a new process design.

The absence of these human resource enablers could be considered constraints to process innovation. In fact, most change management methodologies focus on identifying and removing organizational and human resource constraints. The positive tone of enablement may spur more enthusiasm for innovation.
3.7 MANAGING HUMAN RESOURCES AND ORGANISATIONAL CHANGE

The primary lesson to be learned from extensive sociotechnical research is that social and technical change must be managed jointly. Any approach to embedding the enablers described in this and the previous chapter in new processes should be a joint method, with concurrent consideration of all the enablers necessary for a specific process design.

Walton (1998:145) has proposed that all major systems changes be accompanied by an “organizational impact statement” that lays out the simultaneous development of the information system and the organization. Although he offers other options – “anticipatory development of the organization” (which may be appropriate for some of the broader and longer-term human enablers described above) and “reactive development of the organization”–he argues most strongly for simultaneous development.

What form simultaneous development should take depends on how an organization plans to implement technical and organizational change. For example, a firm using a systems-development lifecycle methodology to structure the development of new information systems that support a process should manage human change along with the systems change. The company should plan the organizational and human resource changes as it plans the system, design the human change in detail as it designs the system, and construct the new organizational structures, cultures, and human resource procedures as it constructs the system.
A prototyping approach is generally more appropriate than a lifecycle model for implementing process innovations. At the same time that information systems are prototyped using quickly built systems on personal computers, organizational enablers, including skills, motivational approaches, human resource policies, and even, to the degree possible, organizational structure and culture, should be prototyped with a small group of process workers and process inputs and outputs.

The structure of the prototype should reflect two potentially conflicting objectives: to prove that the process design and the enablers work, and then learn from mistakes and missteps made during the “experiment”. The conflict between these objectives is readily apparent when the issue of personnel selection is raised. To prove the concept, one would want to choose the best people available. To learn from the prototype, the appropriate people would be of average capability. Companies must strike a balance between these two objectives in pursuing the prototype-based approach to implementation.

3.8 SUMMARY

This chapter has considered the role of organizational and human resource factors as enablers of process innovation. Acting alone and in concert with information and technology, these approaches can lead to radical change in work structure, motivation and process performance. Like other enablers, human and organizational aspects of the organization can either constrain or provide opportunities for innovation.
The three key enablers of process change – information technology, information, and organizational/human issues – have now been described. As noted in our overview of the approach to process innovation, these enablers should be considered early in the life of a process innovation initiative. After some enablers have been identified as relevant and explored in a preliminary fashion, the Small, Medium and Micro organizations can begin to construct a vision for the new process, as described in the following chapter. The selected enablers become components of the overall vision of how work is to be done.
CHAPTER 4
INDICATORS OF SUCCESS IN SMME’s

4.1 INTRODUCTION

Udell (1980:13) reminds us that a key to planning is to be able to keep track of expanding, and conversely declining market situations. It is particularly important to spot symptoms of decline as soon as possible. Far too frequently, managers do not identify decline until it is too late, and the profits necessary to introduce replacement products and services are eroded.

Companies that are in the midst of a growth situation find it difficult to identify symptoms of decline for two reasons: Firstly emotional ties to existing products and services often cloud an executive’s ability to view them objectively, and secondly sales may be constant while profits decline rapidly (Udell, 1980:13).

Another complication is the fact that most businesses face a fluctuating demand for their products and services. This makes both financial forecasting and resource budgeting more difficult. In a review of studies to identify the success or failure of businesses Udell, (1980:14) identifies following business indicators that should be monitored: Profitability, Growth, Customer satisfaction, and Cash flow.
4.2 PROFITABILITY

Earning a profit and staying in business is the most important aspect of operating a business. Profit cannot be left to chance in small firms (Megginson et al, 1994:364). Yet all too frequently it is, because small business owners tend to know little about finance. Even when efforts are made to plan for profit, they are often inadequate, for owners tend to assume that history repeats itself - that past profits will be repeated in the future. Instead small business managers must learn to identify all income and costs if they are to make a profit. Therefore each item must be realistically priced and each cost should be accurately computed.

4.2.1 Need for Profit Planning

Megginson et al (1994:364) explains that to make a profit, prices must cover all costs and include a markup for planned profit. It is also imperative to determine how much profit a company wants to earn and how to achieve it; learn how to set up an accounting system for the firm and how to read, evaluate, and interpret its accounting and financial figures; and evaluate, or estimate, the firm’s financial position.

A lack of accurate cost information, a recurring problem among small business owners, usually results in profits of unknown quantity—or even a loss. Also it can foster the illusion of making a greater profit than really earned, if any.
4.3 HOW A BUSINESS’S FINANCIAL POSITION CHANGES

The operations of a small business result from decisions made by its owner and managers and the many activities they perform (Megginson et al, 1994:364). As decisions are made and operations occur, the firms’ financial position constantly changes. For example, cash received for sales increases the bank balance; credit sales increase accounts receivable; and purchases of material, while increasing inventory, also increases accounts payable or decreases the bank balance. At the same time, machines decrease in value, materials are processed into inventory, and utilities are used. Consequently, because the financial position of the business is constantly changing, those changes should be recorded and analysed.

4.3.1 Tracing Changes in a Company’s Financial Position

Throughout its operations, the important question to small business owners is whether their business is improving its chances of reaching its primary objective—to make a profit (Megginson et al, 1994:365). However some small firms make a profit and still fail, since profits are not necessarily in the form of cash. Accounts receivable may reflect profits, but many of those accounts may not be collectable. Too much money may be tied up in other assets and not available to pay the bills as they become due. In other words, focusing only on net income may be foolhardy, unless other variables are considered. The “bottom line” is not an end in itself, but it is the beginning of the more difficult process of tracking cash flow.
4.3.2 Importance of Accounting

Accounting is quite important in achieving success in any business, especially a small one (Megginson et al, 1994:365). Therefore, the businesses’ accounting records must accurately reflect the changes occurring in a firm’s assets, liabilities, income, expenses and equity. The continued operation of a business also depends on maintaining the proper balance among its investments, revenues expenses and profit. Because profit margins are so critical to the success of the business, any decline in them should trigger an immediate search for the cause.

Many small business owners do not realise their business is in trouble until it’s too late, and many fail without knowing what their problem is, or even that they have a problem (Megginson et al, 1994:366). All the owners know is that they end up with no money and can’t pay the bills. These owners often consider financial statements “a necessary evil” and think everything is fine as long as sales are increasing and there is money in the bank. They don’t realise that what they do in their business is reflected in the financial statements. They tend not to pay much attention to the information accountants give them.

4.4 GROWTH

Growth will play an important role in a firm’s future (Udell, 1980:1). Current levels of economic activity in the service industries are high and South Africa is well on its way to becoming more of a service economy. There is further evidence that the trend is likely to continue.
More leisure time, working wives, single parent families, and increasing cost of personal ownership of certain physical products will increase the demand for consumer goods. Similarly, business opportunities are likely to grow. Business has become increasingly complex, specialised, and competitive. As a result, more businesses are being forced to call in experts to provide services to meet special needs (Udell, 1980:1).

On the other hand, a “no change, no growth” policy is likely to result in premature failure of a business for the following reason that specific services have a life cycle. They are conceived and born, they grow to maturity, and then die. It’s a natural, but frequently fatal mistake, to assume there will always be a need for the service as it now exists. Just as the village Smithy and ice man have faded from the scene, traditional family restaurants, barber shops and watch shops have suffered serious declines. Businesses that have become a part of the South African scene in the past few decades include computerised data services, mini warehouses, and many new franchise businesses (Udell, 1980:1).

Changing life styles and technological innovation take their toll on demand. Furthermore, an inflexible attitude towards change is an open invitation to your competition. Unfortunately many executives become lulled into a false sense of security by escalating growth figures. An eight percent growth rate isn’t very impressive if the rate of inflation is 12 percent. In fact, it may be a cause for alarm! Similarly, the growth of the competition of an organization is increasing by twelve percent; the organisation may be losing a share of its market to the competitor (Udell, 1980:2).
An assumption should not be made that all is going well just because sales of existing services are good. As a service offering matures, profits can drop. This can occur before there is a sales decline. During later stages of a service life cycle, competition often drives prices down. The cost of doing business generally increases, squeezing profit margins and reducing overall profitability.

Udell (1980:2) further states that there are ways to make sure that businesses are not fooling themselves about growth. For example, use of business yardsticks can help businesses avoid financial misconceptions that sometimes accompany poorly managed growth.

4.4.1 Managing Growth

While managing growth falls in the easier said than done category there are a number of management concepts that can make the job easier. Understanding the nature of a business is one of the first and most important steps in managing growth so that it is controlled—not stifled, for two reasons (Udell, 1980:4).

The first reason is that this will give the firm a better idea of the actual market share of the firm’s service. Identifying what business the firm is in may appear to be simple, but experience of many firms in South Africa both small and large, indicates that this is not always readily done. The following illustration can be used. The railroads did not stop growing because the need for freight and passenger transportation declined. The railroads declined because they let others take business away from them - because they considered themselves in the railroad business, rather than in
the transportation business. They were product orientated rather than customer oriented (Udell, 1980:4).

This mistake is repeated virtually everyday. For example, family restaurants have yielded to fast food franchises; and chain stores have captured the business of the neighbourhood grocery. In each case the established companies gave up business by being unwilling to adopt a new technology, or for refusing to shift their business to meet changing customer needs.

The second reason for making a real effort to gain a good understanding of the firm’s business is that the owner will be able to get the returns wanted from the firm as the firm grows. The owner should be sure to identify what direction he wants the business to take. This will help to control the business and avoid the situation where the tail (the business) wags the dog (the owner).

Udell (1980:4) explains that growth for growth’s sake is not a good business strategy. Growth should add to the business, increase profitability, or otherwise enhance the welfare of the business. Indiscriminate growth can, in both short and long term, have a substantial negative impact. Thus, it is important that inventory of a small business’s strengths and weaknesses must be taken before planning for growth. It is risky to move into new business opportunities without identifying the strengths and weaknesses first. For example:

- If a business is cash poor, new business opportunities demanding a heavy financial commitment may not be feasible.
A business with a reputation for top quality may not be well suited to high volume, low margin, and minimal service.

Conversely, management of a low cost, fast paced service may have difficulty in altering its style, procedures, and customer image to fit a high profit margin, quality service

4.5 CUSTOMER SATISFACTION

No plan is worth the time if customers think badly of a firm (Udell, 1980:38). Developing a strategy for preventing customers and others from being taken advantage of is another important element in business planning. A large number of companies are lodged against service – related companies. As a business expands, it will be more and more difficult to ensure that customers receive fair treatment unless provision is made for this in advance.

The problem that is faced by businesses is illustrated in the following case study: The owner of a small service firm has a family that is dependent on the business for support. His business is highly competitive, and the competition has begun to engage in exaggerated (false and deceptive) advertising. As a result the storeowner has been losing customers and may be forced out of business unless he adopts similar tactics. The question is, Should he lie like his competitors? There are three possible answers: “yes,” “no,” and “it depends.” The latter answer is likely to come from someone who believes that his or her treatment of customers should be dictated by the situation. In other words, while it is wrong to lie to customers in most
cases, certain circumstances—the fact that competitors are doing it—may justify a company following suit.

Adopting this sort of philosophy has permitted business people to justify any sort of behaviour (Udell, 1980:39). The easy way out and modifying standards to fit the situation is a trap.

### 4.5.1 A Strategy for Preventing Abuse

Udell (1980:39) describes the steps to follow in order to ensure satisfied customers. They are:

- Customers should be told how to spot potential abuses in the respective industry and what to do about them. Competitors should, however, not be named. One company’s image is not built by climbing all over the image of competitors.
- Customers should be furnished with reasonable and easily understood guarantee of the services of the firm.
- If it is a repair business, replaced parts should always be returned to customers along with an explanation of what was wrong.
- If a bill is going to exceed estimates, the customer should be called before the job is commenced.
- Time should be invested in training employees in customer relations.
- Follow-up letters and questionnaires should be used to thank customers and to determine if the service has been satisfactory. This information that has been generated should be used to correct problems.
• Develop a code of ethics for the business. Put it in writing and communicate it with your employees.

• Make these policies known to customers and explain the processes in the event of a complaint

• Resolve complaints quickly and fairly. While the emphasis should be to “bend over backwards” to be fair, care should be taken not to be victimised by consumer fraud.

• Don’t be afraid to guarantee customers fair treatment, but remember, honesty is an intangible asset. Unless it is backed up with tangible evidence and results, the chances are that an “honesty” theme will not be carried. Honesty should be illustrated.

4.5.2 The Costs of Poor Customer Service

Businesses survive because they have customers that are willing to buy their product or service (Hayes, 1998:25). However, many times businesses fail to "check in" with their customers to determine whether they are happy or not and what it will take to make or keep them happy.

Hayes (1998:26) explains that according to the U.S. Consumer Affairs Department, it costs five times more to gain a new customer than to retain an existing one. Other studies have reported that with just a five percent increase in customer retention a firm can raise its profitability by 25 percent and in some cases as much as 85 percent. Similar studies also show the longer a company keeps a customer, the more money it will make. What happens is that consumers spend slowly at first, but
with succeeding years of good experiences, they will spend increasingly more. Firms perceived as having better customer service can charge more for their products and services and still have higher market shares and returns on sales than their competitors.

TARP, a management consulting research company, reports only two to four percent of dissatisfied customers ever complain to a business regarding a poor experience (Zeithaml, Parasuraman and Berry 1990:13). The others just leave and do business with competitors. Of customers that leave in a given year, 68 percent do because of supplier indifference or poor attitude. In a study conducted by General Electric, GE found that word-of-mouth has a significant influence on consumer decisions, twice as much as advertising. Negative word-of-mouth can be really dangerous since dissatisfied customers are usually more vocal than satisfied customers. Depending on the industry and the nature of the bad experience, dissatisfied customers will complain to 10 to 20 friends and acquaintances, which is three times more than those with good experiences. Furthermore, this negative information is influential, and consumers generally place significant weight on it when making a decision.

If that isn’t reason enough, fierce competition is requiring more and more innovations to differentiate firms from one another. With technology available to virtually everyone today, the traditional feature and cost advantages are no longer relevant. Still, product and service quality provides an enormous opportunity to distinguish a firm from the rest. The Japanese have recognized this and have taught that quality is to be expected. Today’s consumers do, and they know more about products and services than they ever did (Sewell, Carl and Brown, 1998:236).
According to futurist and corporate advisor, Faith Popcorn, a new type of customer is emerging in the '90s (Sewell, Carl and Brown, 1998:245). They are "vigilante consumers" — a new generation of super consumers that are smart, discriminating and vocal. They demand value for their money and expect the companies that they buy from to be responsible and accountable. When companies don't respond, these "vigilante consumers" will make sure that they will tell anyone who will listen why they shouldn't do business with those companies. Satisfying these smarter consumers just makes good business sense.

4.5.3 The Customer Service Payoff

Customers are the best source of business information—whether it's to improve an existing product or service or whether something new is planned to be launched (Zeithmal, Berry and Parasuraman, 1990:263). There's no substitution for "getting it from the horse's mouth." Lines of communication are opened up, resources are able to be aligned properly; and often changes can be made and therefore products can be launched more quickly. When customers are directly involved, odds for achieving success are increased; decisions are "mistake-proofed", that is what really matters can be worked on. When customers are routinely asked for feedback and are involved in a business, they, in turn, become committed to the success of that business.

Zeithaml and Berry (1990: 274) warn that even the best intentions are subject to problems along the way. Temptations to avoid are:
• **Complacency** — Obtaining feedback is an ongoing process, not a one-time event. It is not what customers want if they are only asked occasionally. Change is certain, and priorities do shift. The most successful companies are those that can detect and respond to customer changes quickly.

• **Analysis paralysis** — When feedback is received, don’t analyze it to death. Many corporations have departments full of statisticians to determine the reliability and validity of the feedback; however, they never get around to doing anything with the data. In most cases, it will be very obvious as to what is being done well and where improvements are needed so it’s the business’ best interest to get started immediately.

• **Doing nothing with the feedback** — Nothing will do more to cut off feedback from customers than not doing anything with their suggestions. They should be shown that their input is appreciated. Businesses must communicate to them what has changed as a result of their input. If they feel nothing has been done, then they think their efforts have been wasted and will not participate further.

• **Failing to listen to the experts** — Another valuable source of customer information is the employees. They deal with customers constantly and often have first hand knowledge on what the customers’ "hot buttons" are. Too often employers ignore this valuable resource. Talking to employees should be one of the first steps taken in gathering customer satisfaction data. That way a preliminary reading on potential
problem areas will be obtained so that efforts can be focused when soliciting customers for their feedback.

• *Demotivator* for employees — Customer feedback should not be used to punish employees. Instead, use it to detect areas for improvement. Improper training and lack of communication and direction are often the culprits of poor job performance. Besides, if customers discover that their input is used to discipline employees, they may stop providing constructive feedback altogether.

### 4.6 ASSESSING CUSTOMERS’ SATISFACTION LEVEL

In order to determine whether customers are satisfied with the goods or service the following needs to be considered:

#### 4.6.1 Sources of Customer Data

Too many times organizations claim to know what their customers’ requirements are, yet too many times they fall short of the mark. Sure, they probably know their customers’ general requirements, but do they know what influences customer buying decisions, how important each influencer is, or how they measure up to the competition in the areas most important to the customer? In most cases they don’t and won’t unless they collect this information in a formal, systematic manner (Hayes, 1998:154).

Within the organization — without looking too far, potential areas of customer discontent can be uncovered by reviewing key operational data. Check on the status
of backlogs or stock-outs. Chances are if these are significant some customers may not be happy with the delivery cycle time.

Review your "Returns and Allowances." If they are high, then customers are sending a strong message that they were not happy with the product they purchased — either the quality was inferior or they felt the product was misrepresented and not what they expected at all.

Another place to look is the internal reject or yield rates. If rejects are high or yields low, it could be that some bad product is leaking out to the customer. Even if the product is inspected before shipping it to the customer, tests have shown that inspection isn't 100 percent reliable — some bad product will sneak out.

A businesses’ employees are a valuable source of information on customer satisfaction (Hayes, 1998:155). They interact with customers constantly and probably know a great deal about customers' likes and dislikes. If the business is a one-person organization, then the owner is the one dealing with customers. The owner knows what's going well, what needs fine-tuning, and what needs a major overhaul. The owner should begin the search for customer data in-house. Most likely some things will be uncovered that can be fixed immediately, which will make the customers happy and get the organisation started on the right track.

Customers — a good point to start is with a review of customer complaints and inquiries. If there is no systematic way of collecting these, one should be developed. Both are good indicators of opportunity areas. However, complaints and inquiries
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should not be the only source of concern. Only two percent to four percent of dissatisfied customers ever complain. If only complaints are been looked at, other 96 percent to 98 percent who have problems with the business are being missed (Hayes, 1998:156).

Surveys and focus groups are two popular methods for gathering information on customer needs. Surveys are written assessments given to individual customers; focus groups are oral assessments administered to groups of customers. Both must have clear and specific goals up front in order to be successful. A broad questionnaire or focus group session provides a lot of information, but it’s usually too general to do anything with. Objectives must be clear and questions specific if they are to provide results that can be acted upon (Hayes, 1998:157).

Although focus groups and surveys are similar in what they want to accomplish, one may be more suitable than the other, depending on the application. Surveys are relatively simple and economical to administer and can reach large amounts of customers, but the information can sometimes be limited since it is a one-way exchange of information. On the other hand, focus groups take more time and effort, are often more expensive to administer and may not be as far-reaching as surveys, but their interactive nature may produce clearer feedback. The best results are found when combinations of both techniques are used to identify customer requirements and expectations (Hayes, 1998:158).
4.6.2 The Best Kind of Customer Data

More is not necessarily better when it comes to customer data, but getting the right kind of data is critical. Following are the key characteristics of good customer data:

- **Ongoing** — One thing is certain, change is going to happen. Customers may change; their needs may change; the environment may change (For example, the competition gets tougher, regulations change); and most certainly the business changes. As the business improves, customers expectations will likely rise, too. In order to respond to these changing needs, customers will constantly need to be assessed (Scott, 1991:14).

- **Specific** — In order to make the kind of improvements customers will appreciate, specific feedback is needed. While general inputs may give an overall tone of the customer, only specific feedback can be responded to.

- **Timely** — If old data is being consulted, it may be obsolete and no longer relevant.

- **Focused** — Organizations have limited resources. While the problems can be overwhelming, just a few can be realistically worked on. If too much is tried, nothing might be done well.

- **Weighted** (according to importance) — This will help to narrow the list of opportunities to just the few on which to concentrate. The relative importance can be rated, but it will be much better if the customer does it.
• **Competitive comparison** — Businesses should always know where they stand in comparison to their competition. If customers are willing to provide businesses with that feedback, they should take it. A separate survey will not be needed.

### 4.7 CASH FLOW MANAGEMENT

Competition, low net margins and expensive finance are the main pressures on most company managements these days (Edwards, 1991:204). They lead to a short-term way of corporate life – how to pay a dividend, how to get more orders this month, or even how to meet the salary bill. To counter the blinkered view short-termism, longer-range planning is essential for growth and a viable share of the market.

There is no real conflict between short-term pressures and long term financial planning. Any planning must have a visible information base, which can be changed as trading dictates. The changes involve practical decisions on, for example, fixed assets, stock levels, and production runs, all of which are influenced by cash positions.

#### 4.7.1 Long – term and short – term financing

Edwards (1991:204) states that companies must keep a strong grip on cash and all the elements of working capital: stocks, debtors, creditors and short – term borrowings.
Obviously fixed assets should always be financed by capital and long-term loans, rather than short-term borrowings, to get the balance structure right. Additions to fixed assets normally come along in large chunks at infrequent intervals. Time allows for them to be purchased on appropriate terms and for funds to be obtained to meet these terms. It is usually disastrous to borrow ‘short and to lend it long’. The more difficult mass of short-term assets and liabilities requires constant management involvement. The only way to ensure a rate of inflows to match outflows of cash is to plan each item and monitor its achievement by the relevant departments (Edwards, 1991:205).

4.7.2 Factors in Cash Flow forecasts

How detailed should a forecast be? If too much time is expended, there is a diminishing return in benefit.

How will the forecast be used? Rather than being just another unpopular company form, it should be seized upon by the owners to include all business planning (Edwards, 1991:205).
4.8 SUMMARY

This chapter dealt with the business indicators that should be monitored in order to identify the success or failure of a business. The importance of profitability and profit planning were explained. Thereafter the effect of the changes in the financial position of a small business was illustrated.

It was then pointed out that the importance of accounting information was to record and report business transactions and events for small business firms and other organizations. The importance that growth will play in the future of a firm and the importance of satisfying customers and their needs was then explained to illustrate their importance in the success of an organization.
CHAPTER 5
THE EMPIRICAL STUDY, METHODS USED AND ANALYSIS OF DATA

5.1 INTRODUCTION

In this chapter the method used to implement the empirical study will be discussed in detail. The main and sub-problems will be reviewed and the manner in which these problems are solved will be offered. The method of compiling the questionnaires will be described and the questionnaire will separated into two sections. The questionnaires were faxed to the population selected. The requirements were clearly spelt out. Once the questionnaire was returned the information was collated and analysed.

The results were tabulated for each question posed to the respondents and conclusions were drawn for each set of results. The information will be then used in the combination of the two origins of information in the following chapter.

5.2 RESEARCH DESIGN

Riley, Wood, Cark, Wilkie and Szivas (2000:8) state that there are two types of research, pure and applied. Pure research is that which has no obvious practical implications beyond contributing to a particular area of intellectual enquiry. Applied research, on the other hand, is problem-focused and is directed towards solving
some particular intellectual question that has practical implications for a client outside the academic world.

The nature of this research project is applied and as such it attempts to develop a strategy that has resulted in a problem that the researcher wishes to resolve. According to Welman and Kruger (1999:12) a research problem refers to some difficulty, which the researcher experiences in the context of either a theoretical or practical situation and for which he/she wishes to obtain a solution. In the case of this study the problem posed by the researcher is:

**What guidelines should be followed by SMME’s in order to improve their profitability?**

In order to assist in resolving the main problem, three sub-problems were identified, namely:

(a) What critical business processes does the literature reveal that will enable SMME’s to improve profitability?

(b) What business processes do current managers use to maximize profitability?

(c) How can the above two be integrated to improve profitability?

The procedure used to solve the main problem and sub problems was as follows:

- In Chapter Two a literature study was conducted to establish the role of SMME’s in the South African Economy. This chapter focused on the contribution of the
SMME sector to the gross domestic product, employment, the number of establishments and its contribution to salaries and wages. This chapter resolved the sub-problem two.

- Chapter Three focused on three basic approaches to business process reengineering. It connected the use of information technology with the necessary components of human resource policies as an effective model of implementation of IT and automation of processes. A discussion followed describing the concept of information technology, organisational redesign and human resource policies and their influence on Small, Medium and Micro enterprises. This chapter assisted in resolving sub-problem two.

- Chapter Four dealt with the measurement of success. In this chapter the four indicators of success were discussed. These indicators are profitability, growth, customer satisfaction and cash flow. Sub – problem three was addressed.

- Chapter Five was a description of the empirical study, the methods used and the research results.

- Chapter Six brings the theoretical information gained from the literature study together with the information from the empirical study. Similarities and differences will be observed and final BPR guidelines are presented.

### 5.3 PLANNING THE EMPIRICAL STUDY

The empirical study was conducted by means of an e-mail survey with the use of a questionnaire developed from the literature study. The results of the questionnaire were then statistically analysed. The process followed during the empirical study is set out below.
5.3.1 The Questionnaire

Leedy (1997:192) states that a common instrument for observing data beyond the physical reach of the observer is the questionnaire. As stated above, the questionnaire (see Annexure1) was developed using information obtained from the literature study in Chapters Two, Three and Four. The questions were selected to address each of the factors impacting on the development of an effective business process-reengineering model for the future.

The questionnaire was developed bearing the following in mind:

Instructions: The instructions to the questionnaire must ensure that all respondents are treated equally. Two principles that form the foundation for good instructions are clarity and courtesy.

Types of questions used: Leedy (1997:193) states that there may be open and closed questions. A closed question is where responses are restricted to a small set of responses that generate precise answers. Open-ended questions do not impose restrictions on the possible answer but are difficult to aggregate and computerize. However, the response is often richer and deeper. He further adds that a structured questionnaire must provide questions possessing an element of steering information for the respondent without any prompting from the researcher. This is the method that was used in the questionnaire developed for the empirical study.

The questionnaire was divided into two parts. One section was made up of demographical questions in order to categories the size of business, the age of the
owner, the number of employees and the number of sales and purchases transactions on a daily basis.

The other section was made up of more specific questions regarding the present and future of information technology. Small businesses were polled across the whole spectrum of SMME’s in the Port Elizabeth–Uitenhage area. The issue of a business process reengineering (BPR) was introduced as well as the direction the small business thought this would take. The questions were designed to try and determine the commitment to information technology and the progress in this regard within SMME’s.

Leedy (1997:196-197) states that there are key issues pertaining to questionnaire design. These are as follows:

♦ Use simple and concise language;
♦ Do not make unrealistic demands of those who fill in the questionnaire;
♦ Each question should ask about only one topic;
♦ Each question should have no escape route, that is don’t know, no comment;
♦ Each question should be polite;
♦ Be straight forward and guard against double meanings;
♦ Get the question order right;
♦ Make the layout easy to follow;
♦ Give clear instructions;
♦ Test the questionnaire first;
Length of questionnaire: The writer is of the opinion that a questionnaire should not be long and complicated. More pages with a clear and user-friendly layout are better than fewer pages of a cramped and forbidding layout that would not encourage the respondent to complete it.

The above principles were followed when drawing up the questionnaire. In addition to this, the draft questionnaire was tested in a pilot study. Hague (1994:95) identifies piloting as a study to identify if any aspects of the questionnaire do not work. It tests whether:

- Question wording makes sense and is not ambiguous or vague.
- Questions are relevant to the research topic.
- The layout of the questionnaire is user friendly.

A pilot was initially completed to test the questionnaire among 14 organisations classified as Small, Medium and Micro Enterprises who are involved in the implementation of information technology in their small businesses. The 14 organisations were chosen because of their classification as SMME’s.

Once the responses of the pilot study were reviewed, questions that were vague and ambiguous were revised in order to be more user – friendly. For ease of administration, the questionnaire was reduced to three pages including the covering letter and the questionnaire (see Annexure 1). This was deemed necessary to increase the response rate and simplify the response procedure.
However, prior to conducting the study, the questionnaire was checked by a senior lecturer, who is a member of staff at the MBA Unit at the Port Elizabeth Technikon, as well as a statistician from the University of Port Elizabeth, after which the necessary adjustments were made. Once these changes had been affected, the questionnaire was presented to the small, medium and micro enterprises.

5.3.2 Administering the questionnaire

The questionnaire was e-mailed to the dealer body demarcated in the research with the covering letter (see Annexure 1) on 19 October 2001. The aim of the covering letter was to provide the following information:

♦ The aim of the research;
♦ The fact that the questionnaire was endorsed by small business advisors;
♦ Reference to and solicitation of the idea.
♦ A cut-off date of 26 October 2001 was set for return of the completed questionnaire. The questionnaire is shown in Annexure 1.

5.3.3 The Population

A list of Small Medium and Micro enterprises was obtained from a Port Elizabeth Regional Management Advisory Center (PERMAC) and these businesses were contacted telephonically to explain the purpose of making contact and to enquire the best way to distribute the questionnaires. It was decided to use a sample of one hundred businesses from the manufacturing and service sectors. The selection
between the different sectors was done on a random basis. The total population used in the study is illustrated in Table 5.1

Table 5.1: Size of the Population

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
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</tr>
<tr>
<td>Service</td>
<td>57</td>
</tr>
<tr>
<td>Total number of Businesses</td>
<td>100</td>
</tr>
</tbody>
</table>

5.4 RESULTS OF DEMOGRAPHIC DATA IN THE QUESTIONNAIRE

A section of the questionnaire enquired of the respondents as to general information regarding their businesses and their classification in terms of age of the owner, number of owners, number of employees and number of sales and purchase transactions per day.

The results of the questionnaire are recorded in Figures 5.2 – 5.12.
Figure 5.2: Businesses that make a profit

From the figure it can be seen that 15 out of the sample of 32 businesses (47 percent) of small businesses are currently making a profit. This is an incentive for the organizations to continue operating and make improvements.
Figure 5.3: The businesses that use human effort.

The above figure illustrates that 65 percent of SMME’s still make use of human effort as opposed to information technology.

Figure 5.4: Number of businesses that use information technology to process transactions

From the above it can be clearly seen that 47 percent of small, medium and micro enterprises never use technology to process transactions and for other purposes.
Figure 5.5: Number of SMME’s that operate in the local market.

Figure 5.5 shows that 20 out of 34 (58 percent) of firms operate in the local market while the remainder offer their goods and services on the foreign market.

Figure 5.6: Firms that charge competitive prices

The figure illustrates that only 50 percent of businesses can charge competitive prices for their goods and services.
Figure 5.7: Age of the owner

The results above indicate that 56 percent of SMME owners are older than 35 years. This is seen as an important fact when analyzing which businesses are successful.

Figure 5.8: Number of owners
The above figure shows that all the respondents had businesses that consisted of one to ten owners. The type of businesses contacted falls within the small business classification.

Figure 5.9: Number of employees

Most of the respondents recorded employee numbers of between one and twenty. This number is not unusual for small businesses. Because of their limited capacity and limited resources SMME’s are under pressure to utilize the minimum labour possible.
Figure 5.10: Number of sales transactions per day

The above figure illustrates that 82 percent of respondents process fewer than 50 sales transactions per day. This is probably a characteristic of a business that is static.

Figure 5.11: Number of purchase transactions per day.
The reason for the daily purchase transactions being less than 50 is that the demand for goods and services is low. Firms do not normally hold large volumes of stock. They will therefore only purchase what they expect to sell.

5.5 THE VALIDITY AND RELIABILITY OF THE QUESTIONNAIRE USED IN THIS STUDY

According to Leedy (1997:32), validity and reliability are terms used in connection with measuring instruments. The integrity of the research is based on the validity and reliability of that piece of work and, as such, it is important that the work should conform to the requirements of validity and reliability. A brief discussion of these concepts and their relevance to this study follows below:

5.5.1 Validity

Validity is concerned with the effectiveness and soundness of the measuring devise. The crucial question is whether it measures what it is intended to measure and whether it is accurate. Therefore, in this example of this study, does the questionnaire measure what it was intended to measure? (Leedy, 1999:32). It is the author's opinion that the study revealed an accurate research because the requirements of a valid research were satisfied.
5.5.2 Reliability

Leedy (1997:35) states that reliability is seen as the consistency with which the measuring devise performs. This means that apart from delivering accurate results, the measuring instrument must deliver similar results consistently. According to Singleton, Straits and Straits (1993:121), reliability may be improved by conducting exploratory studies in the area of interest or by conducting pretests on a small sample of persons similar in characteristics to the target group. In this study, both were conducted by the researcher—in the form of the literature study (Chapter Two and Three of this work) and a pilot study conducted on SMME’s. The aim of the study was to ensure that all questions were understandable and relevant.

5.6 AN ANALYSIS OF RESULTS OF THE QUESTIONNAIRE

The questions in one section were designed to measure the profitability of small businesses in the delimited area. It was assumed that the knowledge of Information Technology and its ability to improve business processes would be limited for many of the respondents. As such and also because of the small population, it was decided to keep the questions as simple as possible in an attempt to research the general attitude towards the effect of reengineering the business processes.

It can be seen that the questions have been limited as far as possible to requiring the respondents to rate the questions making it possible to gauge the level of support very easily. Set out below is the results of the study with a short discussion on the issues being discussed.
From the above it can be clearly seen that 47 percent of small, medium, and micro enterprises never use technology to process transactions or for other purposes.

Keeping the above in mind, it would be interesting to ascertain what advantages, if any, a business that uses information technology has over a business that predominantly uses human effort. The following table will be used in this analysis.
Table 5.2: The correlation between the different variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
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[Ho: p = 0; Ho: p ≠ 0]  [* means that we reject Ho, while the chances that we reject incorrectly are less than five percent]

The above information indicates that, where there is a positive relationship, as the one variable increases the other variable increases as well (Q1 and Q3) and conversely where there is a negative relationship, as the one variable increases so the other variable decreases and vice versa (Q4 and Q7).

It is then clear from the table, that businesses that use IT (Q3):

- Make a reasonable profit.
- Are able to charge competitive prices.
 ♦ Are linked via the Internet.
 ♦ Are linked via the Intranet.
 ♦ Experience positive growth.

Table 5.3: The correlation between the different variables

<table>
<thead>
<tr>
<th>Variable</th>
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<th>Q12</th>
<th>Q13</th>
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[Ho: p = 0; Ho: p ≠ 0]   [* means that we reject Ho, while the chances that we reject incorrectly are less than five percent]

The table illustrates that where there is a positive correlation, as the one variable increases so too will the other increase (Q11 and Q1). Similarly the negative correlation implies that as the one variable increases so the other will decrease and vice–versa (Q11 and Q4).
It is clear from the table that growing businesses (Q17):

♦ Make a profit.
♦ Use technology.
♦ Are able to charge competitive prices.
♦ Employ staff that is computer literate.
♦ Bank their cash takings daily.
♦ Have owners older than 35.
♦ Use documentation for all transactions.

5.7 SUMMARY

The objective of this chapter was to set out the planning, the execution and the results of the empirical component of the study. The research population was clearly defined and a questionnaire was based on the model developed information gleaned form the literature study. A letter accompanied the questionnaire, which was delivered and faxed to the preferred respondents. A small but satisfactory response rate was achieved through this method. The response rate was 35 out of 100.

The results of the empirical study were then analysed in order to ascertain the amount of agreement with the theoretical guidelines that was developed from the literature study. Furthermore, valuable insight was gained as to the overall expertise with information technology in small, medium and micro enterprises. An opportunity with respect to the use of technology in small businesses was identified. Added to this was the conclusion from the empirical study that substantial support for the
factors within the theoretical model existed. In the next chapter the theoretical model for business process reengineering (BPR) will be confirmed, recommendations made and conclusions drawn.
CHAPTER 6
RECOMMENDATIONS AND CONCLUSIONS

6.1 INTRODUCTION

The aim of this chapter is to integrate the results obtained from the literature study with the results obtained from the empirical study. In order to do this, results from the analysis are reviewed to determine whether there were any results received from the respondents that indicated that certain areas needed attention. If such areas were identified, recommendations on their improvement will be suggested. The next step is to integrate the results from the theoretical study and the results from the empirical study. Once this has been completed, Business Process Reengineering will be explained for the key areas of concern. Finally, recommendations will be put forward as to potential areas of research, problems encountered will be mentioned and the final conclusions drawn.

6.2 AN INTEGRATION OF THE FINDINGS OF THE THEORETICAL STUDY WITH THE FINDINGS OF THE EMPIRICAL STUDY

Theoretical components of Business Process Reengineering (BPR) was developed using secondary sources. This information was used to solve the first problem. This problem centered around the issue of improving the profitability in Small, Medium and Micro enterprises (SMME's) by using Information Technology (IT). Using the information researched for sub–problem one a questionnaire was developed in order
to resolve further sub – problems identified. This resulted in solutions to sub – problems identified i.e. the issue of using IT to restructure work by transforming business processes in order to cut costs and improve the output designed for a customer or market. Opinions were sought from SMME’s in the Port Elizabeth–Uitenhage area.

6.2.1 A Review of the Empirical Study with a view to Reengineering Business Processes that were identified by the Respondents

A survey of the results obtained in the empirical study revealed that in certain areas where IT was not used, businesses were not as successful as those businesses that used information technology to restructure work. Although there were various opinions evident, it is clear that the majority of the variances were due to the unfamiliarity of information technology to many of the respondents.

It may be concluded therefore that there is generally support for BPR an as such no factors were withdrawn from the development process. The following section deals with the finalisation of the business process reengineering to transform business processes.

6.2.2 Reengineering Business Processes

The objective of this study was to identify an effective strategy to improve profitability of Small, Medium and Micro enterprises. As a result of this study it was clear that using information technology and business process reengineering frequently results in the development of information systems that help give a company a competitive
advantage in the market place. These strategic information systems use information technology to develop products, services, processes, and capabilities that give a business a strategic advantage over the competitive forces it faces in its industry. This stated objective is achieved by a process that consists of three distinct steps:

♦ A study of relevant literature was done;
♦ A sample of the population of SMME’s were surveyed to ascertain their level of concurrence with the proposed process;
♦ The results of the theoretical study were integrated with the results of the empirical study in order to arrive at the final proposal.

6.3 SUMMARY

The objective of the previous section was to integrate the findings of the theoretical discussion and the empirical study. This has resulted in the recommendations on Reengineering of Business Process (BPR) incorporating the traditional ways of doing business with an Information Technology (IT) component as explained above.

6.3.1 Research Method

The main problem that was identified in this study was, “Can small, medium, and micro enterprises effectively reengineer their business processes in such a way as to improve their profitability?” The motivation behind this study was the fact that there is continual financial pressure on smaller dealers to remain viable. One of the features of using information technology for business process reengineering is that it results
in the development of information systems that help give a company a competitive advantage in the market place. These strategic information systems use information technology to develop products, services, processes, and capabilities that give a business a strategic advantage over the competitive forces it faces in its industry. These forces include not only a firm’s competitors but also its customers and suppliers, potential new entrants into its industry, and companies offering substitutes for its products and services.

The research was based on a literature study; firstly on the concept of the way firms are doing business. Thereafter-different ways of how information technology can assist in business process reengineering. These ways conformed to many authors’ concepts of business revolution. A detailed discussion, which concentrated on information technology and BPR followed and this was cross-referenced against the practical scenario of small, medium, and micro enterprises in South Africa. Using this information a questionnaire was developed and faxed and delivered to SMME’s in the Port Elizabeth–Uitenhage area. The responses to the questionnaire were analysed and the support for the suggestions was noted.

The information from the above was integrated into a list of suggestions of how small, medium, and micro enterprises should reengineer their business processes. The difference between these suggestions and the way things are done currently is at the crux of the study.
6.4 RECOMMENDATIONS

At the end of this study, certain issues appeared that probably need particular attention. A short discussion of each of these factors follows:

6.4.1 Knowledge of Employees and Employers

From the responses of employees and employers, it was evident that the level of computer literacy in many cases was low or non-existent. Most employers were aware of information technology and were confident that it would have a major impact on the way business would be done in the future. They were also aware of the potential benefits of using information technology to gain a competitive advantage over the competitive forces. The recommendation is therefore that SMME’s provide training for their employees to equip them for the challenge of doing business in the competitive marketplace in the future.

6.4.2 Population

The respondents from the population only numbered thirty-four. It was expected that the response would have been a lot better. However it is clear that SMME’s, either do not see the importance of using information technology or have limited resources and do not have the capacity to complete a simple but important questionnaire. There is no evidence to support the fact that the same situation is not consistent in all other small, medium, and micro enterprises.
6.5 CONCLUSIONS

It was evident that there was wide acceptance of the fact that information technology would have an enormous effect on the existing methods of performing business processes in the South African economy.

It is imperative to note that, in order to maximise the advantages of using information technology, it would require a massive training program to be implemented by the owners of small, medium, and micro enterprises as well as a small initial outlay of capital. The future benefits of embarking upon a capital expenditure of this nature far exceed the nominal costs.

Tangible benefits are favourable results as illustrated in Table 6.1 below:

<table>
<thead>
<tr>
<th>Tangible Benefits</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase in sales or profits</td>
<td>• Development of computer-based products</td>
</tr>
<tr>
<td>• Decrease in information processing costs</td>
<td>• Elimination of unnecessary documents</td>
</tr>
<tr>
<td>• Decrease in operating costs</td>
<td>• Reduction in inventory carrying costs</td>
</tr>
<tr>
<td>• Increased operational efficiency</td>
<td>• Less spoilage, waste, and idle time</td>
</tr>
</tbody>
</table>
The work towards this thesis has had a positive response from some of the SMME's, especially those who are using information technology for their business processes. A substantial amount of information has been learned by the author and those businesses who identified the need for using information technology. There is also an expectation amongst other businesses who have been convinced that IT is the way to go in the future but who do not have the necessary financial resources. Perhaps the solution could be to join forces with another SMME in order to reduce costs and share a network.

The main advantage in using Internet, Intranet and Extranet to do business in the South African Market is to be accessible to all businesses in the global economy and in doing so ensuring that the goods and services are available to more customers.
REFERENCES


Fayo, S (2000). *Small Businesses Failure Rate Increases*. Eastern Province Herald


ANNEXURE 1

Dear Sir/Madam

I am currently developing a thesis with regard to Information Technology (IT) and Business Process Reengineering (BPR) in Small, Medium and Micro Enterprises (SMME’s).

In order to do this I respectfully request you to complete the attached questionnaire and fax it back to me at your earliest convenience. My deadline is Friday October 26 2001.

The aim of my research is to determine what business processes are used by SMME’s and which of these processes are performed using IT. There is little doubt that the cost of using Information Technology can substantially reduce the cost of doing business. The aim of my research is to develop guidelines for the future that would benefit all SMME’s.

Your involvement would make a substantial contribution to the development of this model, would be invaluable and greatly appreciated.

Please note that this study is part of my academic curriculum and the information obtained will remain confidential and will not be used for any purpose than other than for the reason given above.

Thank you, in anticipation
Malcolm Figg

Fax: (041) 504 3859
E-Mail: Malcolm@petech.ac.za

The title of my thesis is Reengineering the Business Processes of Small, Medium and Micro Enterprises in order to improve Profitability.
Kindly complete the following questionnaire by circling the number applicable to your business. Circle the numbers according to the following ratings:

1  Never  
2  Seldom  
3  Not Sure  
4  Mostly  
5  Always

1. My business makes a reasonable profit.  1 2 3 4 5
2. My business still uses human effort.  1 2 3 4 5
3. My business uses technology to process transactions.  1 2 3 4 5
4. My business operates in the local market.  1 2 3 4 5
5. My business operates in the global market.  1 2 3 4 5
6. I am able to charge competitive prices.  1 2 3 4 5
7. My business is linked via the internet.  1 2 3 4 5
8. My business is linked via the intranet.  1 2 3 4 5
9. The staff possess necessary end user computer skills.  1 2 3 4 5
10. The owner is computer literate.  1 2 3 4 5
11. Do you use documentation for all purchases.  1 2 3 4 5
12. Do you use documentation for all sales.  1 2 3 4 5
13. Do you use documentation for all cash receipts.  1 2 3 4 5
14. Do you use documentation for all goods received?  
   | 1 | 2 | 3 | 4 | 5 |
15. Do you use documentation for all goods delivered?  
   | 1 | 2 | 3 | 4 | 5 |
16. Is all cash received banked daily?  
   | 1 | 2 | 3 | 4 | 5 |
17. My business is growing.  
   | 1 | 2 | 3 | 4 | 5 |
18. Number of owners.  
   | 1-10 | 11-20 | 20-50 |
19. Number of sales transactions per day.  
   | 1-50 | 50-100 | >100 |
20. Number of purchases transactions per day.  
   | 1-50 | 50-100 | >100 |
21. Number of employees.  
   | 1 – 20 | 20 –50 | >50 |
22. Age of owner.  
   | 20 –25 | 26 –35 | >35 |
23. Type of business.  
   | ........................................... |