



MAURITIUS RESEARCH COUNCIL

TECHNOLOGY AND INVESTMENT DECISIONS IN THE SMALL AND MEDIUM ENTERPRISES SECTOR IN MAURITIUS

Final Report

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INVESTMENT DECISIONS IN

THE SERVICE SECTOR

ENTERPRISES SECTOR IN

MAURITIUS

Report to the

Mauritius Research Council

by Dr. A. S. M. S. M. S. M. S.

MAURITIUS RESEARCH COUNCIL

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CHAPTER 1

INTRODUCTION

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CHAPTER 1

INTRODUCTION

1.1 Placing the study into context

Over the last decades, there has been an increasing awareness for the potential of technology in the acceleration of development. However, so far, the literature has concentrated mainly on large firms. Very little has been done concerning the importance of technology for the Small and Medium Enterprises (SME's) especially for the Small Island Economies. This study attempts to take this factor into consideration and is thus a contribution to the literature. An attempt is made to find the importance of technology policies for the survival of SMEs. The scope of this study is limited to the SMEs engaged in the manufacturing sector in Mauritius.

The introduction of new technologies to SMEs is essential to increase their competitiveness. In contrast to large enterprises, SMEs have a greater flexibility to change their production capabilities at a faster rate. As such, the SMEs can react faster to any change that might occur. If good use of this capability is made, SMEs would thus have an advantage over the large firms.

Recently there has been a shift from mass production to mass customisation. Technology is the major gateway to industrial development. Competition requires the employment of new updated technologies. The technology that was previously used is no longer competitive. In order to avoid growing external dependency, there is a

need to allocate resources to establish a comprehensive framework for technological innovation capabilities. In fact, the latter is nowadays more important than technology itself. This is particularly important since technological capacities tend to become easily outdated.

1.2 The Changing Environment

The SMEs sector has to react to the changing circumstances so as to be able to maintain their markets. These are:-

- Globalisation
- Environmentalism
- Labour Costs
- Quality

1.2.1 Globalisation

Globalisation is one of the most significant occurrences of the 21st Century. Globalisation is transforming the structure of the economy. As a result the SMEs are expected to face extremely harsh economic conditions. It is high time for the SMEs to change and adapt to the changing economic situations. They have to respond appropriately. Otherwise they would not be able to survive. Therefore it is very important to encourage the SMEs to invest in new technology so as to be more competitive. According to Porter, competitiveness today is a function of the capacity of companies to innovate and upgrade.

With the gradual removal of the tariffs following the commitments of the WTO agreement, the SME's sector is bound to face more challenges in

the near future. They are well aware of the fact that they have to face stiffer competition. It should also be noted that this has also led to the emergence of newer opportunities in the context of regional cooperation. SADC, COMESA, IOR and IOC will give a greater market for Mauritian firms. However, in order to benefit from such opportunities, they will have to be internationally competitive. This can definitely be achieved by investing in new technologies.

It should also be recognized that presently only a small proportion of SMEs operating in Mauritius produces for export. The removal of trade restrictions is only going to benefit these firms. On the other hand, the removal of these trade barriers is going to pose a serious threat to the existence of all the SMEs in Mauritius. Foreign firms would thus be able to enter the Mauritian market. As a result, the SMEs would be subject to more competition which might ultimately lead to their closure. For example through regionalisation, Egypt presently poses a serious threat to Mauritius.

1.2.2 Environmentalism

In the last few years there has been a change in consumer behaviour. Though its impact is presently still insignificant, it is expected that it is going to change drastically in the coming years. This can mainly be attributed to the rising concern of the people for the environment. Various organizations like the Green Peace have been lobbying in favour of the environment and to a certain extent they have been able to influence people at large. As a result, the criteria for buying goods has greatly changed. Consumers are increasingly becoming more

perceptive and are also making their purchasing decisions on stricter selection criteria. This is mainly because of the fact that today, people have a greater purchasing power and want to have value for money.

Besides, environmental sustainability has been the focus of some attention in recent years. SMEs are an important source of pollution in developing countries, and the SME sector can play a key role in the introduction and dissemination of technologies for environmental clean-up. Thus a special emphasis on improving the technological performance of SMEs in terms of environmental impact seems appropriate.

1.2.3 Labour Costs

It is common to consider a firm as being competitive if it can produce goods or services of higher quality at a lower cost as compared to its competitors. The level of technology plays a very crucial role in this determination of competitiveness. Because of the increasing labour costs, the SMEs have no other choice than to become more capital intensive. Wages have been increasing at a very rapid pace. This is a serious threat to the Mauritian economy as presently labour is relatively cheaper in some African and Asian countries.

1.2.4 Quality

Consumers usually expect to obtain value for money. Because of their present high purchasing power consumers put more emphasis on this particular factor. Greater concern is being given to quality standards. In

order to comply with a common international standard, use of the ISO 9000 has been made. It is becoming a pre-condition for sales. There is a trend where the firms need to set up the necessary procedures, which would ensure that the good is an ISO 9000 certified product. Technological improvement helps towards achieving better quality.

If SMEs are to maintain and improve their competitiveness in this new environment, it is essential that they acquire the necessary technology. They need to respond to the changing business environment and produce goods where they would enjoy a comparative advantage. However, it is difficult for the SMEs to possess all the necessary resources and know-how. As such, they sometimes find themselves facing serious business problems, which result in a decline of their competitiveness. An effective way for the SMEs to overcome this problem is to invest in new technology.

If the SMEs are to maintain their competitiveness, they will have to improve their technological capabilities so as to enable them to tackle technological innovation. There are two patterns of technological innovations. These are:

- 1) Customer oriented Technological Innovation
- 2) Market based Technological Innovation

Customer oriented Technological Innovation is based on customer needs while the new Market Technological Innovation is when firms undertake technological innovation with vision and foresight in order to develop new markets. It is important for SMEs to have foresight and

vision and to tackle the technological innovation through product development. In Mauritius it has always been the Customer Oriented Technological Innovation, which has led to innovations as the firms were adapting themselves to the changing consumer wants. Though it is important, the changing business environment now requires firms to make more intensive use of Market Based Technological Innovation. It is imperative that they undertake the required innovations faster than their competitors in order to increase their probability of survival.

1.3 The Research Justification

Every business has to face, quite often, the problem of investment decisions. These are very important decisions for any type of business because their results continue over an extended period and have long-term implications. The decisions making involve heavy funds and are irreversible. Proper investment decisions are thus crucial to any organisation's survival as well as its growth.

Investment decisions depend on an analysis of forecasted costs and benefits which are difficult to estimate. These decisions involve the "examination of how well the expected future returns justify the related present investments" and therefore can have significant effect on the long-run profits of an organisation. There are different methods and models which are available to help such decision making though there is still a confusion as to which model works better.

The decision process itself is very complex. Projects do not just appear; a continuing stream of good investment opportunities results from hard

thinking, careful planning and in some cases, large outlays for research and development. Still some very difficult measurement problems are involved: the scales and costs associated with particular projects must be estimated, frequently for many years into the future, and in the face of great uncertainty. Organisations must however, make investment decisions despite these problems. This requirement has led to the development of procedures that assist in making optimal decisions and it is obvious that the investment decision should be made on economic justifications based on valid and objective criteria.

While it is acknowledged that investment decision making is a difficult one, its economic appraisal is still possible. The technological appraisal, however, involves many quantitative aspects and is more complex. And because of different constraints small organisations are more affected than the larger organisations. They have limited access to technological information, may not even be aware of the existence of certain technologies or their use, operate on too small scale to economically make use of desired technology; do not possess the necessary skill, knowhow or expertise to assess viability of a particular technology and worse may not have the necessary financial resources to adopt the required technology. Yet because of the increased competition these small organisations are forced to fight for survival and with the rapid evolution of technology coupled with the constant increase in costs they are called upon to shift to newer technology – at times in the face of total uncertainty.

This importance of technology in investment decisions has been considered mainly in the context of large enterprises. Numerous

surveys have been made in India, in the UK and in the US. There are also numerous textbooks, journal articles and research papers discussing the link between technology and investment decisions in large firms. However, very little research has been made for small organisations – though by the very nature of their small size they are likely to be more affected.

The problem of technology and investment decision is further accentuated when looked from a small economy's point of view, like Mauritius. Smallness may not necessarily hinder development but it gives rise to specific problems, like very little diversity in raw materials and resources, limited domestic market, forced concentration on products in which there is a comparative advantage, an unsufficiently diversified economic structure, high exposure to foreign trade risks..... Mauritius, being an island economy is further characterised by its small size, insularity and remoteness. Dependency on the rest of the world is very high. Thus technology and investment decision become more important but at the same time more complex.

Yet, unfortunately, studies with regards to technology and investment decisions by small organisations in Mauritius are simply non-existent. Very little is known about what goes on in the mind of the investor, how important technological investment is for him, how he considers investment in technology, his preferences, the criteria he uses for investing in technology..... All these important issues cannot be answered without some empirical research being conducted in the small business sector and it is with this in mind that this research study is being undertaken.

1.4 Objectives of the Study

Small enterprises have their own peculiarities and operate in a different environment. This study tries to analyse the specificities of organisations in the small scale sector, the conditions under which they make their technology investment decisions and how these decisions are affected by operating in a small economy like Mauritius. Technology investment decisions are appraised and the reasons motivating their decisions are analysed.

This study is confined to an analysis of current technology investment practices in the small scale sector – the small and medium enterprises (SMEs) in Mauritius. The aim is to provide evidence on the technology investment practices in the SME sector. The specific objectives of the study are to analyse the existing practices, the parameters and variables that are considered important and the kind of thinking that goes on in terms of final decision making.

The survey may not have much relevance to the larger sector which is no doubt better equipped to deal with technology investment decisions – they have better qualified and trained cadres, more regular investments, better and faster access to information On the otherhand, because of their intrinsic characteristics – small size, low capital investment, run by owner / manager – SMEs are faced with greater constraints.

1.5 Hypotheses

The above objectives can be restated as the following hypotheses:

- i. SMEs are aware of the importance of investing in technology.
- ii. In spite of constraints SMEs are willing to invest in new technology.
- iii. The ultimate aim of SMEs in investing in technology is to reduce cost.

1.6 Scope and Methodology

Technology investment decisions are common to all types of business irrespective of their size, sector, ownership or nature of management. However, the scope of the study is limited to the Small and Medium Enterprises (SMEs) engaged in the manufacturing sector in Mauritius.

The small scale sector in Mauritius comprises of more than 20,000 enterprises. In fact information is not available on their exact number. Their sizes vary from investment (in terms of equipment) of a few hundred rupees to as much as ten million rupees. Their labour force is not an important criterion for their classification. The sector is very widely diversified and englobes almost every possible activity.

In view of the scarcity of reliable relevant data regarding this sector, for sampling purposes, only Small and Medium Enterprises registered with the Small and Medium Industries Development Organisation (SMIDO) have been contacted. The survey has been carried out among two hundred small entrepreneurs selected from the different sectors in proportion to the registered SMEs. The technology investment practices have been analysed through a personal interview which has apart from making it possible to obtain first hand information, enabled

them to understand the technical aspects of the questions involved. The questionnaire has been designed to be as comprehensive as possible – with relevance to the small-scale sector.

1.7 Organisation of the Study

The study is designed to be presented in chapters. The present chapter places the study into context and apart from justifying the need for the research, outlines the objectives of the study and presents the hypotheses.

Chapter 2 offers a general outlook of the Mauritian economy and its evolution from a monocrop to an industrialised economy. It also deals with the importance and evolution of the SMEs in Mauritius and explains why an analysis of technology investment practices for SMEs is important.

Chapter 3 describes the concept of Investment decision and explains how the situation is more complicated when the investment is in technology.

Chapter 4 presents a detailed analysis and the findings of the survey while Chapter 5 contains a summary and the conclusion.

CHAPTER 2

PROBLEMS AND PROSPECTS OF THE SME SECTOR IN THE MAURITIAN ECONOMY

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CHAPTER 2

PROBLEMS AND PROSPECTS OF THE SME SECTOR IN THE MAURITIAN ECONOMY

Investment practices of business enterprises are not only dependent on the internal factors affecting the organization but are also affected by the external environment in which they operate. The economic environment in which enterprises function has a significant impact on the way their investments will be processed and used. In view of this importance it is necessary to have an overview of the Mauritian economy and the evolution of SMEs in Mauritius before analysing the technology and investment decisions of Small and Medium organisations in Mauritius.

2.1 The Republic of Mauritius

The Republic of Mauritius is a group of small tropical islands located in the Indian Ocean to the east of Madagascar – precisely at 20° south of the equator and 57° east of Greenwich.

Mauritius is of volcanic origin and has a land area of approximately 1,865 square kilometers, only about half of which is arable. The population of Mauritius is slightly over 1.3 million, some 3 percent of which live on the outer island of Rodrigues. Though the population of Mauritius constitutes of people of very diverse ethnic origins – mainly Indians, African, Chinese, European – the multiethnicity has not in

anyway impeded the development of its economy but has rather immensely contributed to it. Within the ethnic, religious and cultural diversity the government functions in a system of parliamentary democracy, a result of its British colonization since 1810. Living standards in Mauritius – especially nutrition, health care and general education – greatly exceed those of neighbouring countries. With a literacy rate of well over 90 percent, Mauritius has a standard of living of a middle-income developing country.

Mauritius has been hailed as an economic miracle by many observers. Factors that have contributed to the success of the Mauritian economy are:

- the strong demand for the products of Mauritius' growing sectors, the export processing zone industries and tourism.
- the continuation of the sugar quota arrangement with the European Economic community (EEC).
- a prudent demand management.
- The availability of labour.
- The dynamism and pragmatism of the Mauritian entrepreneurs.
- Generally favourable external conditions.

The economy of Mauritius has passed through several distinct phases and, in the process, has successfully diversified from a monocrop culture, highly dependent on the export of sugar into manufactured exports and tourism.

The Second World War virtually cut the island off its main customers and sources of supply. A radical reorientation of the economic policy was needed and the economy started diversifying into nonsugar agriculture and small manufacturing industries. Foreign investment was, however, virtually non-existent. During the 1950's the economy became relatively prosperous, having per capita GNP estimated at Rs 1097 in 1957, in spite of considerable seasonal unemployment.

The 1960's saw a population explosion. There appeared to be no simple solution to the problems posed by the population growth as sugar plantations were unlikely to provide more job opportunities. Prospects for other industries did not seem much better. Geographically isolated and without natural resources or industrial experience, the island seemed to have little opportunity for producing for the world market despite its low wage rates and high literacy rate – 85 per cent of the population. Crop diversification aimed towards agricultural import substitution was the only hope. Manufacture of products for local consumption also started wherever this could be efficiently done on a small scale. The domestic market was, however, too small to support inward-oriented industrialization.

The promotion of import-substituting industrialization continued throughout the 1960's. The government provided the necessary impetus through the use of fiscal incentives and disincentives because only import substitution appeared to give the promise of industrialisation. Mauritian entrepreneurs lacked production or marketing experience and seemed unlikely to go into export-directed manufacturing.

In the 1970's the traditional investment opportunities became limited as easy import substitution possibilities had been almost exhausted. The significant increase in sugar process in the 1970's gave rise to what became known as the "sugar boom" and this triggered a period of unprecedented economic growth.

In the late 1970s and early 1980s the Mauritian government had implemented a program of stabilization and adjustment which succeeded in creating an economic environment in which most of the preconditions for sustained, export-led growth were satisfied.

New investment opportunities were opened up by the Export Processing Zone (EPZ) law adopted in 1970. Profits from the sugar sector financed the rapid expansion of the EPZ sector. From 9 enterprises in 1971 the EPZ sector increased to 85 enterprises in 1976. After 1976 sugar profits dried up, there was a worldwide recession and because of its economic difficulties the rate of growth of EPZ industries declined drastically.

The structural transformation of Mauritius from a monoculture to an outward oriented diversified economy gathered new force in the mid 1980's. World economic recovery improved export prospects and at the same time protectionism in the United States and the EEC worked in favour of Mauritius. Over the period 1983 to 1988, the performance of the Mauritian economy has been striking. Per capita income nearly doubled; the current account of the balance of payments changed from a deficit to a surplus; the overall fiscal deficit was reduced and the rate of unemployment fell to almost zero.

2.2 Mauritius at Crossroads

In the last ten years Mauritius has enjoyed considerable prosperity. In spite of its remoteness from sources of raw material and from the markets needed to support diversification, Mauritius has evolved from a monoculture to a semi-industrialised, export-oriented economy with remarkable speed. The country, which was previously, classified among the poorest, now ranks comfortably in the middle income group.

Growth has basically been export led, fuelled by relatively cheap labour and preferential market access. Mauritius, however, has now reached full employment and rising labour costs make it imperative for the economy to restructure out of low technology, labour intensive industries. Further, with the emergence of new competitors in the traditional labour intensive exports the sustainability of the economic growth is faced with growing challenges and will be even more difficult in the next century with the liberalisation of trade in the context of post GATT development and the formation / strengthening of regional blocks like NAFTA, TAFTA, SADC, IOR.

Notwithstanding its remarkable performance, the Mauritian economy now faces a number of constraints and vulnerabilities that leave its success fragile. The Mauritian economy is highly dependent on the external economic environment and the continuation of preferential trade arrangements.

The basic problems that Mauritius will now have to face are:

- tougher international competition (saturation of export growth)

- lack of natural resources
- heavy dependence on foreign capital
- heavy dependence on foreign entrepreneurs.

2.3 **Future of the Mauritian Economy**

The future of Mauritius is a concern for all Mauritians, more so for its political and economic leaders who know that, if the country is to survive and prosper into next century, changes will have to be made in order for the country to sustain its economic growth and development. The present stagnation of economic growth necessitates that the future of the Mauritian economy be relooked at. The pattern for the remarkable economic performance of Mauritius over the last ten years has been one of low cost labour and preferential market access. However, despite preferential access to the EC and US market, value added and profitability have been falling steadily in the export sector, and growth in the EPZ has been tapering off over the last few years, partly due to labour scarcity, and partly because Mauritian export manufacturers are increasingly undercut either by low-cost competitors in labour-surplus countries of Asia, the Caribbean and the Mediterranean or by larger cost-efficient countries. Thus, domestic and international factors are now forcing future growth to be based on a new paradigm.

The slackening of the Mauritian economy is due to the fact that while Mauritius has been successful in the first stage of its economic development – which has helped it to industrialise rapidly and solve its employment problem – it has been less successful in reaching the take-off stage for the second phase of its industrialization. This time it is not

a question of economic transformation from agriculture to industry but one of industrial transformation which is a more difficult process. Both domestic and international factors will have to be considered for future growth.

2.3.1 Domestic Factors

Local conditions for sustainable growth of the export for the years to come will depend to a large extent on the following:

- the ability of manufacturing enterprises to increase and promote productivity to leverage cost advantage
- improvement in flexibility to react to changing market requirement
- production of goods of consistent quality to retain confidence of buyers
- providing rapid response by reducing manufacturing lead times
- investing in equipment and appropriate technology
- ability to change management and workforce attitude.

2.3.2 International Factors

Mauritius, being a small open economy, is highly dependent on external trade. International competitiveness will be the overriding factor that will determine its economic growth. There are already clear indications that efforts to achieve a steady and smooth economic growth are jeopardized by circumstances beyond control due to the degree of openness of the economy. Mauritius is, once again, vulnerable to international economic events as it was in the late seventies and early

eighties. The regular economic swings are almost a natural feature of the economic development of Mauritius. While the European countries and the United States are caught in the grip of recessionary conditions, no matter how far they are, it is Mauritius that is forced to sneeze. This is due to the fact that these countries are its major trading partners.

With a population of nearly 1.3 million, Mauritius has a limited market. In order to be competitive Mauritian enterprises will be forced to capture additional overseas markets. The nearest ones – those of the region of the South West Indian Ocean island and of the Preferential trade Area African countries – are at a development stage which, neither favours, nor can afford imports on a sizable scale. Mauritius must therefore look for markets in Europe, North America, Asia and Australia.

2.4 Proposals for Sustained Growth

It is now obvious that the Mauritian economy is showing signs of weaknesses and there is an urgency to adopt measures for sustaining the economic growth. Mauritius will be able to adhere to the emerging "Asian tigers Club" only if it can sustain rapid growth. This may be a challenging task, perhaps more challenging than the phases of development achieved so far but not impossible. The government is already setting the pace – "the first key objective is to set the economy on a higher growth trajectory" (1995/96 Budget speech, Hon. R. Sithaneni). In fact, the Government has, all along, recognised that economic growth, to be sound and viable, must be sustainable, and together with the private sector the government is now showing deeper concern for the development of the Large Scale Manufacturing sector

and the Small Scale sector. While Mauritius cannot do anything about its size and openness which are the sources of its vulnerability to external factors, it can moderate the impact of an adverse development such as a recession, by diversifying its products and markets.

2.4.1 The Large Scale Manufacturing Sector

One of the most important measures taken by the government in order to achieve a sustainable economic growth is to boost up the manufacturing sector – especially the export sector. The Government is showing much concern about the successive years of sluggish growth in this sector and recognizes that its non performance will put the economy at stake. That's why, the Government is keen on helping to create a favourable environment for EPZ and other firms in the manufacturing sector to modernise and expand and, by so doing, is aiming at transforming the whole of Mauritius into an export processing zone. In fact, the 1995/96 Budget has introduced a very important package of measures to encourage and facilitate investment in the manufacturing sector in order to improve its long term viability.

2.4.2 The Small Scale Sector

Small enterprises have, in general, contributed immensely for the economic development and success of many countries. Some have left their prints for ever on the economy. In all developed nations there are thousands of successful businessmen who started as a small entrepreneur. Such has been the case for Mauritius. The success of

Mauritius through the next century will depend on the survival of these entrepreneurs.

In its endeavour to boost up the manufacturing sector the Government recognizes the importance of the small scale sector also. Given the small size of the economy and the market there is an equally important need for local entrepreneurship, local investment and local production.

In Mauritius the small scale sector continues to play a significant role in promoting growth and employment creation. This sector has benefited from considerable Government support and over the years has increased steadily. The Government is now taking all the necessary measures to enable the small businesses to act as a valuable support for the large enterprises in respect of ancillary services or subcontracted jobs. The end result is to have a closer and smoother integration of economic activity.

Following are some of the recent proposals made by the government to maintain a favourable investment climate in the small scale sector:

- increasing loan limits for the acquisition of equipment by small scale industries.
- helping small entrepreneurs to reduce excess capacity in certain enterprises by establishing a "Bourse de Sous-Traitance".
- setting up of industrial zones for small industries on pilot basis.

A lot has been said about stagnation or decline in investment during the last few years. However, Government has taken the necessary

measures to help create a climate that is conducive to growth and sustainable economic development – much emphasis is being laid on modernization. This is something that will not happen overnight – it is a long process, but positive signs in this process can be witnessed already, especially in the large scale manufacturing sector. In fact, the Government has expressed its willingness to adopt science and technology as vehicles for economic development.

Unfortunately, however, the small scale sector comprising the SMEs has not been able to grow and modernize as fast as the large sector. This sector benefits from considerable Government support in the form of tax and duty concessions and soft-term loans – though comparatively much less than the large scale manufacturing sector. In spite of the provision of additional attractive incentives and an improvement in overall conditions the small scale sector is not really growing at a rate at which it can sustain the future of the industrial growth. This is a very ironical situation as Mauritians are known to be very entrepreneurial. "La 'debrouillardise' Mauricienne est legendaire! De la boutique du coin de la rue aux hypermarches, du petit contracteur aux grosses entreprises de construction, les mauriciens sont en passe de devenir une population de businessmen" (Vision No. 19 Dec 1994).

Among the factors that may have contributed to this slow growth one of the following may be cited – lack of resources, lack of capital, lack of skill, limited technology, limited market.... One important issue that takes into consideration all these factors is the investment decision. Investment decision involves an analysis of viability of investments for their acceptance. The vast changes and improvements that are now

taking place in technology makes the investment decision become more difficult. And with a view to improve quality and productivity organizations are forced to adapt to the latest technology. This issue is not unique to small enterprises only. Even larger enterprises are faced with the problem of making technologically wise investment decision but they are relatively more equipped to face them and are affected by lesser constraints. It is thus important to study the peculiarities of small organizations before linking the technology & investment decisions in Small and Medium Enterprises in Mauritius.

2.5 Small and Medium Enterprises (SME) – Definition

The definition of an SME varies from country to country and has evolved over time. Different criteria have been used by different countries to define small enterprise – for example, the turnover volume, the family-type business, the independence of the entrepreneur, small market, share, etc. It is difficult to agree upon an internationally accepted definition of SME because there is a wide diversity of units belonging to this group. Apart from the differences that may exist in size, nature of activity or types of technology used, the definition of an SME will also vary over time.

The most common criteria used for defining SMEs are

- the number of workers employed
- the amount of investment
- the cost of the project
- the volume of sales or turnover

In Mauritius the investment criterion has been adopted. A local SME is defined as "an enterprise engaged in manufacturing and which uses production equipment, the aggregate CIF value of which does not exceed Rs 5 million".

This definition of SME aims at

- accelerating the pace of modernisation of small and medium enterprises, that is replacement of old machinery and equipment by new ones;
- creating a modern small and medium enterprises sector;
- making the SME sector more competitive (both in term of price and quality) and become export oriented.

For the purpose of analysis contained in this study, compliance to the above definition as given in the Industrial Expansion Act of 1993 (part VII, sector 37) will be made. The Ministry of Industry and Industrial Technology and SMIDO also stick to this definition.

2.6 Importance of SMEs in Mauritius

SMEs play a very important role in national economies. They act as the engine of growth and development for both developing and developed countries. In fact, they constitute pillars of the economy in developing countries – such is the case in Mauritius. They are sometimes known to be the group of "hidden operators" of the informal sector and very often constitute not only a large pool of wealth generators, but are also regarded as the real "underground foundation" of many socio economic

development plans. A Central Statistic Office (CSO) survey revealed that there are more than 25000 SMEs in the manufacturing sector in Mauritius.

The importance of small enterprises was particularly felt in the early eighties when a high rate of unemployment (exceeding 20%) was prevailing in Mauritius. Because of the inability of the Government as well as large establishment in the private sector to create employment (mostly due to financial constraints) attention was focused on small enterprises that had the potential of creating gainful employment. This was based on the fact that they could create additional jobs in a relatively shorter span of time and at a relatively lower cost of capital than the large firms. Moreover, because these enterprises are spread in different areas they could absorb part of rural and urban unemployed as well, and at the same time ensure a more equitable distribution of income and wealth.

Small enterprises are more resilient to crises and have the capacity of adapting themselves quickly to the changing environment. They are more flexible and responsive than larger firms.

Further, small scale enterprises are spread in all sectors of activities, e.g trade, construction, agriculture, manufacturing They are sometimes sub-contractors to larger ones and at other times function as a nursery of entrepreneurial and managerial talent.

SMEs are, thus, instrumental in minimising the impact of unemployment on the economy, in maintaining a high standard of living for a large

proportion of the population and in fostering prosperity in different regions. Their contribution in the growth of the economy is therefore important for both political and economic reasons.

The acknowledged importance of SMEs has given rise to a multiplicity of organizations involved in small enterprise development. Just to quote a few examples, the Development Bank of Mauritius (DBM), the Mauritius Commercial Bank (MCB), the State Commercial Bank (SCB), Centre de Promotion des Petites Entrepreneurs and Mauritius Employers' federation (MEF) are all involved in offering various services to entrepreneurs. Assistance is not restricted to granting of loans but is also provided in management training, preparation of feasibility report and technical assistance – this fits well in the Government's objective of transforming Mauritius into a "nation of entrepreneurs".

Mauritius is now industrialising rapidly and more emphasis is being laid on the production of quality products. SMEs cannot be isolated from such development. In future, therefore, even the small entrepreneurs will have to invest in learning modern techniques of production and adopt the appropriate technology for their scale of operations.

2.7 Evolution of SMEs in Mauritius

SMEs have been instrumental in the setting up of the industrial base in Mauritius. When Mauritius first embarked on its industrialisation process in the 1970's there was only a small number of SMEs. These were set up mainly as import substitution industries. In those days, only enterprises employing less than 25 persons and having fixed asset

value up to Rs 300,000, exclusive of land fell within the small scale range.

Back in 1968, a Small Scale Industries Branch operated at the Ministry of Education and Culture. In 1976, the Small Scale Industry Unit (SSIU) was set up in the then Ministry of Commerce and industry to promote industrialisation in the small scale sector as well. The SSIU was restyled Small Industries Development Organisation (SIDO) in 1983.

In the second half of the eighties, there has been a strong government commitment to the small enterprise development with financial assistance of existing institutions to small scale entrepreneurs on a larger scale, the involvement of new institutions for the same purpose, the enactment of the Small Industries Act, and the upgrading and staffing of SIDO.

In 1988 the Small Scale Industry (SSI) Act was passed. For the first time a legal definition of a small scale industry was provided: "a commercial enterprise which is engaged in manufacturing, uses production equipment, the aggregate CIF value of which does not exceed Rs 500,000, and is duly registered". This definition singles out the volume of investment as the criterion to identify a small scale enterprise. While the previous definition referred to fixed asset but excluded land, the new definition also excludes the cost of building. This definition is also narrower in the sense that it is restricted to industries which manufacture and process raw materials. The employment size of the enterprise, which was one yardstick that was traditionally used to qualify a small enterprise for almost two decades,

was done away with. The definition of the SSI Act also provided for a voluntary registration system followed by granting of duty exemption on imported production equipment and the establishment of the small scale Industry Advisory Board. In 1991 this definition was reviewed when the ceiling of production equipment was raised to Rs1 .0m.

In 1993 the Industrial Expansion Act was passed. Part VIII of this Act defines a SME and makes provision for the registration of a small and medium enterprise by the issue of a certificate of Registration by the Minister of Industry and Industrial Technology. The incentive to register lies in the exemption from payment of duty on imported equipment or the entitlement to a revision of duty on production equipment. The Industrial and Expansion Act of 1993, further, makes provision for the modernisation and growth of the manufacturing sector including the small manufacturing enterprises.

Institutional and legislative reforms brought about in 1993 gave a boost to the development of the small sector. Under the Small and medium Industries Development Organisation (SMIDO) which was a division of the Ministry of Industry and Industrial Technology was changed into that of a para statal body with sufficient degree of operational autonomy in order to foster the development of SMEs. This demonstrates the growing Government's commitment to promote the SME's sector.

The objects of SMIDO as spelt out in the legislation are wide reaching in that they emphasise in particular, the consolidation, expansion, modernisation and integration of SMEs. The main objectives of SMIDO are to:

- promote the modernization and expansion of SMEs and, their integration with the larger industrial sector.
- facilitate linkages among enterprises especially by way of subcontracting activities.
- organise training programmes for entrepreneurs.
- provide information and documentation service.
- assist in marketing and organisation of production systems.
- provide extension services.
- provide common facilities particularly in the maintenance and repairs of production equipment.

2.8 The Process of Modernisation

Various incentives are offered to promote the development of SMEs. A registered enterprise is exempted from payment of customs duty and levy on production equipment up to an aggregate CIF value not exceeding Rs 5m. However, the actual total duty exemption sanctioned would appear to be quite low. This is explained by the fact that a large part of equipment is either already free of customs duty or has a very low rate of duty.

SMEs are also eligible for loans and other funds at favourable rates of interest from the Development Bank of Mauritius Ltd and other commercial banks. Various schemes like the Small Scale Industries Financing Scheme, the Small Business Financing Scheme, the Small Entrepreneurs Financing Scheme and the Small Rural Enterprise

Scheme have been in operation for providing financial support to SMEs. It is expected that by making funds available to SMEs at favourable interest rates their cost of capital will decrease and this will prompt them to invest more.

Furthermore, to encourage small entrepreneurs to set up companies and thereby pooling their resources together, corporate tax on small enterprises has been reduced from 35% to 15%. This is also expected to increase the net profit of the SMEs by about 31 % and will indirectly facilitate the modernisation process.

Still in a bid to modernise the operation of SMEs, a Computerisation Assistance Programme for Enterprises (CAPE) has been launched in 1994. Under this scheme, which is operated by the National Computer Board with the support of the Ministry of Finance, financial assistance and the necessary consultant services are provided to SMEs to assist them in introducing information technology in their services.

2.9 Why Technology and Investment Decisions For Small Organisations?

Small organisations have very often been criticised for not adopting "best practice" models of financial management and for their poor financial management skills (**Jarvis et al, 1996**). However, a large proportion of small firms do survive. This suggests that the "best practice" models are not necessarily appropriate to small firms and alternative approaches may be available. Such is probably the case for investment decisions in small organisations.

Technology and Investment decisions in small organisations are as important as it is in large firms. In fact they are more important in small firms because the amount of resources available is comparatively more restricted than that of their larger counterparts. The main drawbacks that Small and Medium Enterprises (SMEs) face in their investment decisions process are:

Lack of financial resources: SMEs have limited funds available for investment. They also suffer from lack of easy access to capital markets.

More hardship in the fall back position: Because of the limitation in the availability of funds SMEs cannot invest in different projects at the same time. Unlike large firms with large capital budget they cannot allocate capital to numerous projects. A wrong investment decision can be very drastic to the SME while for a large firm a mistake on one project can be offset by successes with others. Even the funds necessary to correct a mistake may not be available.

Lack of trained personnel: It is alleged that managers of SMEs are simply not well trained, they are even considered as being unsophisticated.

Scarce management talent: Another argument relates to the fact that management talent is a scarce resource in small firms. That is, even if managers are aware of the use of sophisticated investment techniques, perhaps the time pressures are such that they simply cannot rationally

allocate the necessary time to use elaborate techniques to analyse a proposed project.

High cost of investment analysis: To some extent the costs involved for the investment decision are fixed; the costs may be larger for bigger expenditures, but not by much. To the extent that the costs of analysis are fixed, it may not be economical to incur these costs if the project itself is relatively small.

Greater uncertainty in cash flows: Small firms face greater uncertainty in estimating the cash flow that might be generated beyond the immediate future. Most managers of small firms are uncomfortable making forecast beyond a few years. They prefer making decisions on "gut feeling" rather than using sophisticated techniques (like DCF) which require explicit estimates of cash flows through the life of the project.

SMEs originally are more labour intensive. The rising cost of labour puts them in a very precarious position vis a vis their larger counterparts. This situation is worsened by the availability of capital and their lack of knowledge about existence and use of new technology. At times they are even scared and are not even willing to consider shifting to more capital intensive production methods.

In spite of all these drawbacks, small firms, like their larger counterparts, are always faced with the problem of allocating scarce resources to competing viable projects. And technology competence is an essential factor for this success. This decision determines, to a large extent their success or failure and even their survival. Yet, it is not known what

goes on in their technology and investment decision process. What is known, simply, is that small firms must do all they can to compete effectively with big business and to a large extent this is determined by proper allocation of resources and choice of technology. It is, therefore, important to probe into the technology and investment decisions of small enterprises.

2.10 Summary

The Mauritian economy has evolved from a monocrop economy to a significantly industrialised one. Unlike the first stage of its economic development which has been very successful, the take-off for the second phase of its industrialisation appears to be more difficult because of both domestic and international factors. In order to sustain the economic growth, both the large scale manufacturing sector and the small scale sector will have to be developed. The constraints being greater for small organisations, while their growth being considered as very important for the future growth of the economy, it is imperative that SMEs make great efforts.

There is a multitude of SMEs in Mauritius and their structure is very varied and their businesses very diversified. Among the various criteria that are used for defining SMEs the following are more common: the number of workers employed the amount of investment, the cost of the project or the volume of sales or turnover. In Mauritius, the investment criterion has been adopted, and SMEs being a manufacturing enterprise using production equipment, the CIF value of which does not exceed Rs 5 millions. SMEs have played a significant role in the economic

development of the country – the most important being its help in minimising the impact of unemployment. It is recognised that its role in the future will be still more important and, as such, the Government, through various institutions, is assisting its smooth evolution and growth – one way being to help them to modernise rapidly. The process of modernisation no doubt involves investment in equipment and fixed assets. As this process is likely to be a long term one it is worth looking into how they proceed with their technology and investment decisions.

CHAPTER 3

THE TECHNOLOGY

INVESTMENT

DECISION

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CHAPTER 3

THE TECHNOLOGY INVESTMENT DECISION

The Micro and Macro environment in which small organisations operate have been discussed in the previous chapter. Special attention have been drawn to the fact that organisation operating on a small scale specially in a small island economies like Mauritius, have certain constraints in view of their own small structure and environment. It is now important to analyse the trends and development in the theory of investment practice before enquiring into how it is practised in small organisations.

3.1 The Concept of Investment Decisions

An investment decision is one which involves the organisation making a cash outlay with the aim of receiving cash in the future. It is similar to other decision as it is based on the concept of the comparison of alternatives. It refers to decisions relating to the allocation of funds for the purpose of maximising long term profitability of the organisation.

Investment decisions are common to every organisation, whether private or public. From the individual to the government or from the small business to multinational corporation, everyone has to be very cautious in making investment decisions mainly because resources are scarce and the use to which they can be put are many. Businessmen

and entrepreneurs have always been concerned with the way in which to allocate limited resources to unlimited possible investment projects. How they have gone about this process of allocation has definitely evolved over time – from simple intuition, through rules of thumb to the use of more and more sophisticated investment criteria.

Investment decisions are, however, dependent on factors which may differ depending on whether the decisions are taken at the organisation level, the national level or at the international level.

At the firm level the investment decision technique to be applied may be influenced by the size of the organizations, its capital intensity and the risk conception. Other important factors for considerations are

- the amount of investment required and funds available.
- the minimum expected rate of return on investment.
- the expected return from the investment.

At the national level profitability is no more the first criterion for selecting projects. The emphasis is more on "social cost – benefit" analysis.

On an international level, the investor, who wants to position himself in the Global Market, is concerned with the risk and return characteristics of the projects. In addition to the usual investment criteria international business will depend on a multitude of other factors such as

- the possibility to attract new sources of demand or to enter highly profitable markets or to fully benefit from economies of scale.

- the use of foreign factors of production and foreign technology.
- international diversification and exploitation of monopolistic advantages.
- exchange rate fluctuations.
- inflations, government incentives, country risks

3.2 Importance of Investment Decisions

Investment decisions can be justified on economic grounds: projects can be accepted because they expect to generate growth opportunities or because they tend to reduce cost. Sometimes projects are also accepted on non-economic grounds.

The investment decision is a fundamental financial decision because

- it has long term implications as the decision commits the organisations to a project for an extended period of time.
- it involves a significant outlay of the resources for which provision may have to be made well in advance.
- it is very often an irreversible decision and reversing the decision will involve considerable additional expenses.
- it is difficult to make the right decision as it is difficult to assess future events which are uncertain.

Investment decision is thus one of the most important decisions with which financial management is involved.

3.3 Application of the Concept of Investment Decision

Investment decision is not a one period decision. It is a continuous process which is also very complex. Projects do not just appear. Investment opportunities may crop up at anytime: they may result from hard thinking, careful planning or may be the outcome of extensive research and development.

Moreover, it is difficult to measure exactly the viability of projects to enable comparisons and facilitate selection: the sales and costs associated with different projects are usually estimated over many years into the future and in the face of great uncertainty.

3.4 The Investment Decision Process

In order to have a successful investment programme it is important to have well integrated and developed investment system. Various authors have attempted to explain the process, for example, Bower (1971), King (1974), Mintzberg et al (1976), and Pinches (1982). Pike (1982) explains the investment decision process as going through different stages; identification of investment opportunities, projects screening, Evaluations / Selections and Control.

Projects are not simply "born". Though they may be originated haphazardly, the search for investment very often arises in response to a problem such as the replacement of worn out plants or the need for additional capacity .

When proposals have been generated they are subjected to a preliminary search or review. They are screened or reviewed to identify proposals which may be considered worthy of further investigation. Only those proposals which, at this stage, appear sufficiently attractive will be further analysed.

Projects are then evaluated by estimating their expected benefit and cost in terms of cash flows. This is a difficult task because of uncertainty and the amount of data available is very important as it may determine the success or failure of the investment.

The selection process involves deciding which projects are profitable. The projects that will be selected should be economically justified with regards to their profits – increasing or cost – reducing capabilities unless they are mandatory projects which are approved on their qualitative merits.

There is no standard administrative procedure for improving investment proposals. Different organisations adopt different selection procedures. Which method is appropriate for a particular purpose of the firm will depend upon the circumstances.

Once a selection is finalised the appropriation of funds should be planned.

3.5 The Problem of Choice

Investment decisions depend on an analysis of forecasted cost and benefits which are difficult to estimate specially in a constantly changing environment. There are so many methods of evaluation available that is difficult to decide on which one to apply as none of the models is perfect. Empirical studies have revealed wide variations in investment practices among organisations. Studies have also shown that the choice of an investment appraisal method depends on factors like the size of the organisations, the capital intensity of the organisation, the management style, degree of professionalism, history of the organisation (Sodolfsky, 1963; Christy, 1966; Klammer, 1972; Lorange and Morton, 1974; Mc Nally and Eng, 1980).

3.6 Technology Investment Decisions

References are very often being made in the literature regarding procedures and techniques adopted for selecting investment in technology. (Finnie, J., 1988; Senker P., 1984; Waldron D., 1988).

It is comparatively more difficult to justify investment in new technology, the most important benefits often being "strategic and difficult to quantify" (Agarwal et al 1991). In many organisations proposals for investment in new technology must be justified by expected financial return (Currie W., 1988(a)).

With the advances in technology and faced by global competition, many organisations are investing a lot in new technology. Some of them are

able to improve their position while others are not as successful. Several factors may have contributed to this failure, among which could be over – investment in a particular technology leading to a very little economy in operations. It is necessary to ensure that investment in new technology is optimal in order to ensure that the organisation can provide reliable quality, just in time delivery..... It is also important for organisation to invest on time before its equipment or products become obsolete.

Traditional investment procedures need to be modified in a number of ways in order to assess investment in technology. Investment in technology often requires fundamental changes – in lay out, processes, attitude, working practices..... Many of the benefits of technology are intangible and hard to measure. For instance it may lead to better quality and customer service, faster response time and enhanced ability to adjust to competitive changes. Further it is difficult to forecast competitor reactions and technological advances.

Organisations cannot rely exclusively on traditional investment appraisal methods for technology investment. Most cost savings, potential benefit or expected revenues from technology investment cannot be easily estimated. Managers very often have been faced with lots of difficulties in trying to find sound financial justification for investment in new technology. (Carnall C. and Medland A., 1984; Curries W. 1988 (b); Primrose R. et al, 1985). Rigid cost – benefit information on which to demonstrate the benefit from new technology is not easy to provide. It has also been observed that post implementation result in new

technology investments have not achieved the benefits expected. (Medland and Bernett, 1986).

Further, organisations trying to assess benefit of investment in technology face larger amount of uncertainty and risk. While the proposed investment should be assessed with regards to the risk factor, it is hardly possible to evaluate changes and evolution in the technological environment.

Investment in technology must therefore include both the traditional investment appraisal procedures and strategic analysis, perhaps using tools like scenario analysis, rather than restricting itself to cash flows associated to the investments and the different degrees of riskiness.

Managers tend to agree that

- ◆ new technology should be justified on the basis that it would improve the way in which work is undertaken.
- ◆ the existing approach of assessing the benefits from new technology based on simple cost – accounting is inappropriate.
- ◆ an understanding of the practical application of the new technology is more valid than the use of financial appraisal as a yardstick for measuring the success of new technology.

In view of the greater complexity of the decision making process when the investment is in new technology it is necessary to have an insight in some of the variables that affect such a decision.

CHAPTER 4

ANALYSIS AND

FINDINGS

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CHAPTER 4

ANALYSIS AND FINDINGS

In view of the significant number of SMEs and non-availability of relevant secondary data about investment practices in small organisations, a survey has been carried out. The survey was carried out among 200 Small and Medium Enterprises (SMEs) in Mauritius – all selected from those registered with SMIDO, and comprising of SMEs from all the different categories. Because, of the necessity of obtaining first hand information and also considering the technical aspects of some of the questions involved, the survey has been carried out by a personal interview. Those SMEs which were not willing to participate or which had moved to unknown locations were replaced by others from the same sector. The data obtained was analysed using the Statistical Package for Social Scientists (SPSS) software. Wherever possible cross-tabulation was resorted to in order to have a greater insight in the data collected.

Many questions not being mutually exclusive resulted in situations where the total percentages does not sum up to 100%.

4.1 Number of Workers Employed

Though the number of workers employed is not a criterion for defining SMEs the majority of SMEs still employs less than 25 workers. Figure 1 shows that as many as 81 % of the SMEs surveyed employed less than

25 workers and only 19% had between 25 and 49 workers. None of the SMEs surveyed had more than 50 workers. This does not in any way imply that all SMEs are not labour intensive. The absence of SMEs employing more than 50 workers is the result of the sampling which did not in any way consider this as an important variable for the purpose of selecting SMEs to be surveyed.

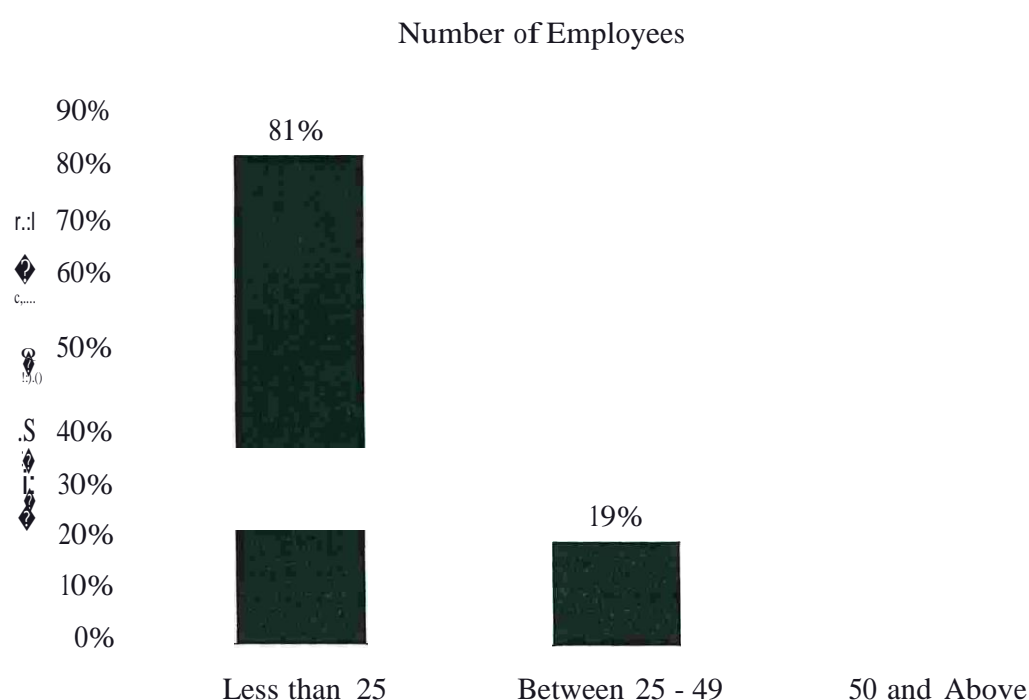


Figure I: Number of Employees
(n=200)

4.2 Year of Formation

Among the SMEs surveyed some were created as far back as from the early 1970s. Table I shows that as from 1985 onwards SMEs have been regularly formed but over the years SMEs have shown an unwillingness to grow big in terms of labour force. A third of SMEs

surveyed formed prior to 1985 had more than 25 workers – refer to Table II – and this proportion has constantly decreased. However, among SMEs created after year 2000 at least 25% have more than 25 workers.

Year Started Operation	Percentage of SMEs (%)
1984 and before	6.0
1985 – 1989	29.0
1990 – 1994	23.0
1995 – 1999	30.0
2000 Onwards	12.0

Table I: Year Started Operations
(n=200)

		Number of Employees		
		Less than 25	25–49	Total
Year Started Operations	1984 and Before	66.7%	33.3%	100.0%
	1985 - 1989	82.8%	17.2%	100.0%
	1990-1994	78.3%	21.7%	100.0%
	1995-1999	86.7%	13.3%	100.0%
	2000 onwards	75.0%	25.0%	100.0%
Total		81.0%	19.0%	100.0%

Table II: No of Employees according to year of operation

4.3 Ownership

SMEs are generally characterised by low investment both in capital and labour. As such most SMEs in Mauritius have originated as small proprietary concern, being solely owned and ran by one person.

Proprietary concern is still very popular among SMEs – 57% of the respondents are among this category (Figure II). Private companies constituted only 37% of the respondents while the partnership type of organisation is losing ground.

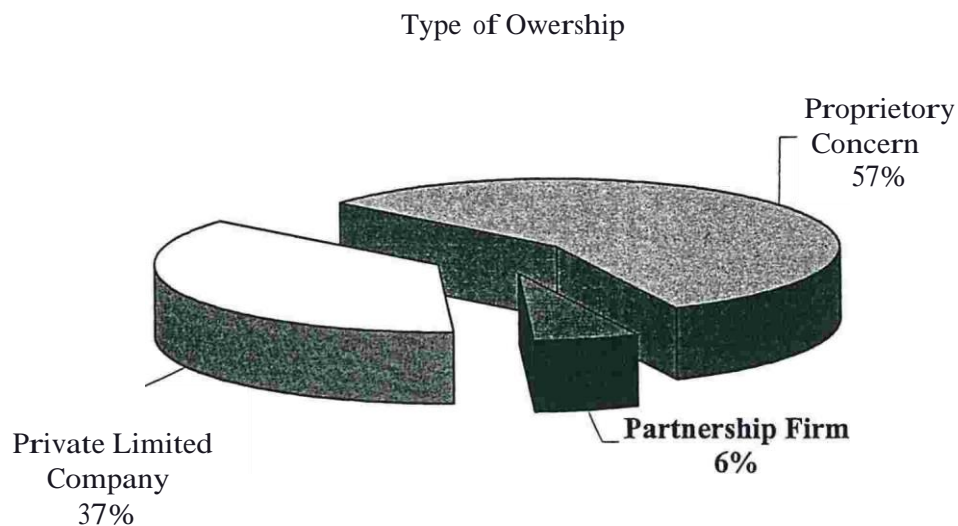


Figure II: Type of Ownership
(n =200)

Company form of organization is more popular among the Paper, Paper Products, Printing and Publishing and the Chemical, Rubber and Plastic Sectors (Table II). Sectors like the Jewelry and Related Products and the Metal Product and Workshop seem to still prefer the proprietary concern.

		How Is your Enterprise owned?			
		Proprietary Concern	Partnership Firm	Private Limited Company	Total
Sector in which Operating	Food, Beverages and Tobacco	63.6%	9.1%	27.3%	100.0%
	Textile, Wearing Apparel and Leather	55.6%	5.6%	38.9%	100.0%
	Wood Products and Furniture	61.5%	7.7%	30.8%	100.0%
	Paper, Paper Products, Printing and Publishing	28.6%		71.4%	100.0%
	Chemical, Rubber and Plastics	12.5%	12.5%	75.0%	100.0%
	Jewelry and Related Products	75.0%		25.0%	100.0%
	Metal Product and Workshops	73.3%		26.7%	100.0%
Total		57.0%	6.0%	37.0%	100.0%

Table III: Ownership per sector

The proprietary concern has also maintained its popularity over the years (Table IV) while the partnership firm seemed to be the least desired option. As from year 2000 among the SMEs surveyed at least 50% were private companies. If this tendency is maintained the private company will be the most desired form of ownership soon.

		How Is your Enterprise owned?			
		Proprietary Concern	Partnership Firm	Private Limited Company	Total
Year Started Operations	1984 and Before	50.0%		50.0%	100.0%
	1985 - 1989	58.6%	10.3%	31.0%	100.0%
	1990-1994	47.8%	4.3%	47.8%	100.0%
	1995-1999	66.7%	6.7%	26.7%	100.0%
	2000 onwards	50.0%		50.0%	100.0%
Total		57.0%	6.0%	37.0%	100.0%

Table IV: Ownership according to year of operation

As far as the number of workers employed is concerned Table V shows that the impact of ownership is not significant.

		How Is your Enterprise owned?			Total
		Proprietary Concern	Partnership Firm	Private Limited Company	
Number of Employees	Less than 25	56.8%	6.2%	37.0%	100.0%
	25–49	57.9%	5.3%	36.8%	100.0%
Total		57.0%	6.0%	37.0%	100.0%

Table V: Ownership and Number of Employees

4.4 Sector of Operations

SMEs surveyed were from different sectors. In fact the SMEs were chosen per sectors in relation to number of SMEs presently registered with SMIDO (Table VI).

Sector of Operations	Percent of SME
Food, Beverages and Tobacco	22.0%
Textile, Wearing Apparel and Leather	18.0%
Wood Products and Furniture	26.0%
Paper, Paper Products, Printing and Publishing	7.0%
Chemical, Rubber and Plastics	8.0%
Jewelry and Related Products	4.0%
Metal Product and Workshops	15.0%
Total	100.0%

Table VI: Sector of Operations
(n = 200)

4.5 Source of Finance

SMEs in general, have not been totally dependent on credit for running their organizations. In fact the majority of the SMEs (98.7%) acknowledged that they have used personal savings and other family sources for raising capital. This underlying personal commitment has in a way guaranteed the survival of many SMEs. The availability of capital in limited amount from personal sources, however, has compelled most SMEs (87%) to also resort to bank loans.

4.6 Level of Investment

Investment in SMEs still seem to be low. Only 27% of the SMEs surveyed have invested between MRs 3m to MRs 5m and only 1% has invested more than MRs 5m. (Ref Figure III) and this investment is only in the Textile, Wearing Apparel and Leather Sector (Table VII) The Metal Product and Workshops Sector has the least investment while investment in the Paper, Paper Products, Printing and Publishing as well as the Jewelry and Related Products Sectors seemed to be on the higher side.

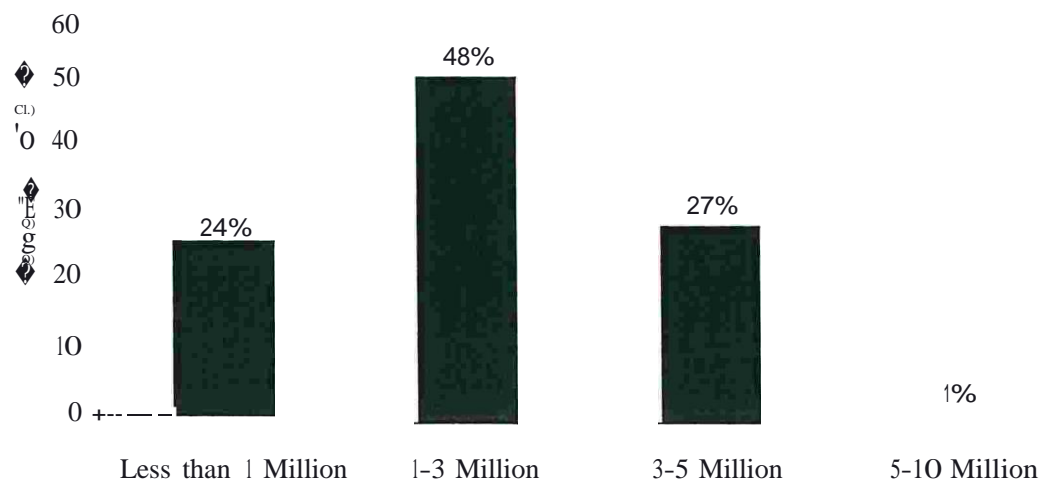


Figure III: Present level of Investment (n=200)

		Present Level of Investment Made				Total
		Less than 1 Million	1-3 Million	3-5 Million	5-10 Million	
Sector in which Operating	Food, Beverages and Tobacco	36.4%	50.0%	13.6%		100.0%
	Textile, Wearing Apparel and Leather	11.1%	55.6%	27.8%	5.6%	100.0%
	Wood Products and Furniture	11.5%	53.8%	34.6%		100.0%
	Paper, Paper Products, Printing and Publishing		28.6%	71.4%		100.0%
	Chemical, Rubber and Plastics		75.0%	25.0%		100.0%
	Jewelry and Related Products		25.0%	75.0%		100.0%
	Metal Product and Workshops	73.3%	26.7%			100.0%
		24.0%	48.0%	27.0%	1.0%	100.0%
	Total					

Table VII: Present level of Investment per sector
(n = 200)

Prior to 1990 corporate organizations were investing in greater amount compared to proprietary concerns. During the last decade, however,

significant investment has come from the proprietary concerns (Table VIII).

			How is your Enterprise owned?			
Year Started Operations			Proprietary Concern	Partnership Firm	Private Limited Company	Total
1984 and Before	Present	Less than 1 Million	100.0%			100.0%
	Level of Investment	1-3 Million	50.0%		50.0%	100.0%
	Made	3-5 Million			100.0%	100.0%
	Total		50.0%		50.0%	100.0%
1985-1989	Present	Less than 1 Million	83.3%	8.3%	8.3%	100.0%
	Level of Investment	1-3 Million	66.7%		33.3%	100.0%
	Made	3-5 Million	14.3%	14.3%	71.4%	100.0%
		5-10 Million		100.0%		100.0%
	Total		58.6%	10.3%	31.0%	100.0%
1990-1994	Present	Less than 1 Million	33.3%		66.7%	100.0%
	Level of Investment	1-3 Million	63.6%	9.1%	27.3%	100.0%
	Made	3-5 Million	33.3%		66.7%	100.0%
	Total		47.8%	4.3%	47.8%	100.0%
1995-1999	Present	Less than 1 Million	100.0%			100.0%
	Level of Investment	1-3 Million	57.9%	10.5%	31.6%	100.0%
	Made	3-5 Million	77.8%		22.2%	100.0%
	Total		66.7%	6.7%	26.7%	100.0%
2000 Onwards	Present	Less than 1 Million			100.0%	100.0%
	Level of Investment	1-3 Million	60.0%		40.0%	100.0%
	Made	3-5 Million	75.0%		25.0%	100.0%
	Total		50.0%		50.0%	100.0%

Table VIII: Level of investment according to ownership
(n = 200)

4.7 Labour / Capital Intensive

The SMEs surveyed were mostly capital intensive (Figure IV). Only 16% of the respondents considered themselves as being Labour Intensive.

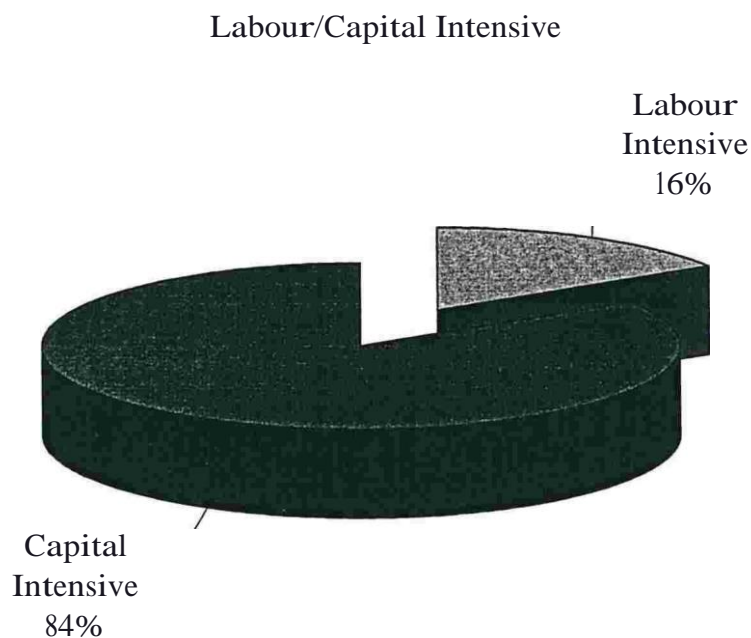


Figure IV: Labour/Capital Intensive
(n = 200)

The Metal Product and Workshops sector appeared to be most labour intensive than the other sectors, while sectors like Chemical, Rubber and Plastics and Jewelry and Related Products are more capital intensive (Table IX).

		Is your Organisation Labour or Capital Intensive?		
Sector in which Operating		Labour Intensive	Capital Intensive	Total
	Food, Beverages and Tobacco	18.2%	81.8%	100.0%
	Textile, Wearing Apparel and Leather	11.1%	88.9%	100.0%
	Wood Products and Furniture	11.5%	88.5%	100.0%
	Paper, Paper Products, Printing and Publishing	14.3%	85.7%	100.0%
	Chemical, Rubber and Plastics		100.0%	100.0%
	Jewelry and Related Products		100.0%	100.0%
	Metal Product and Workshops	40.0%	60.0%	100.0%
Total		16.0%	84.0%	100.0%

Table IX: Labour / Capital Intensive per sector

(n = 200)

A very interesting feature is that there was a growing tendency for SMEs to be more capital intensive. The survey revealed that some of the SMEs formed prior to 1995 were labour intensive while all the SMEs created after 1995 were capital intensive (Table X). Discussions with these SMEs revealed that they were moving towards capital intensive organizations because of the scarcity of skilled labour and the rapidly increasing cost of labour.

		Year Started Operations				
	%Sector in which Operating	1984 and before	1985 - 1989	1990 - 1994	1995 - 1999	2000 Onwards
Labour Intensive	Food, Beverages and Tobacco	50.0%	28.6 %	16.7%		
	Textile, Wearing Apparel and Leather	33.3%	25.0 %			
	Wood Products and Furniture		12.5 %	40.0%		
	Paper, Paper Products, Printing and Publishing			20.0%		
	Chemical, Rubber and Plastics					
	Jewelrv and Related Products		83.3 %	33.3%		
Capital Intensive	Metal Product and Workshops	50.0%	71.4 %	83.3%	100.0%	100.0%
	Food, Beverages and Tobacco				0%	
	Textile, Wearing Apparel and Leather	67.3%	75.0 %	100.0 %	100.0%	100.0%
		100.0%	87.5 %	60.0%	100.0%	100.0%
	Wood Products and Furniture				0%	
	Paper, Paper Products, Printing and Publishing		100.0 %	80.0%		
			100.0 %	100.0 %	100.0%	
	Chemical, Rubber and Plastics			%	0%	
					100.0%	100.0%
	Jewelry and Related Products				0%	
			16.7 %	66.7%	100.0%	100.0%
	Metal Product and Workshops				0%	

Table X: Labour / Capital Intensive according to year of formation per sector
(n=200)

The majority of SMEs created as companies were capital intensive while the largest percentage of labour intensive SMEs were proprietary concerns (Table XI).

		Is your Organisation Labour or Capital Intensive?		
		Labour Intensive	Capital Intensive	Total
How Is your Enterprise owned?	Proprietary Concern	22.8%	77.2%	100.0%
	Partnership Firm	16.7%	83.3%	100.0%
	Private Limited Company	5.4%	94.6%	100.0%
Total		16.0%	84.0%	100.0%

Table XI: Labour / Capital Intensive according to ownership

4.8 Attitude Towards Change

The SMEs surveyed were also assessed on their attitude towards change. The majority of the respondents (88%) considered themselves as being innovative (Figure V). In fact the SMEs which had confessed of being conservative were those that were created before 1990 and were mostly from the Food, Beverages and Tobacco and Wood Products and Furniture Sectors (Table XII). The Metal Products and Workshop Sector has partly remained conservative while strange enough 50% of the SMEs created in the Jewelry and Related Products sector after year 2000 considered themselves as conservative though this is a sector which is called upon to mechanise fast.

Attitude Towards Change

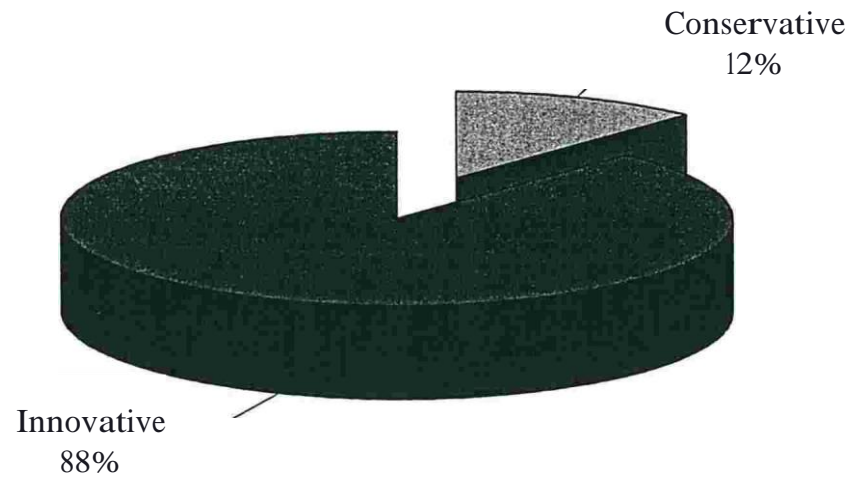


Figure V: Attitude towards Change
(n = 200)

	%Sector in which Operating	Year Started Operations				
		1984 and before	1985 - 1989	1990 - 1994	1995 - 1999	2000 Onwards
Conservative	Food, Beverages and Tobacco	50.0%	14.3%			
	Textile, Wearing Apparel and Leather					
	Wood Products and Furniture	100.0%	12.5%			
	Paper, Paper Products, Printing and Publishing					
	Chemical, Rubber and Plastics					
Innovative	Jewelry and Related Products					
	Metal Product and Workshops		100.0%	33.3%		
	Food, Beverages and Tobacco	50.0%	85.7%	100.0%	100.0%	100.0%
	Textile, Wearing Apparel and Leather	100.0%	100.0%	100.0%	100.0%	100.0%
	Wood Products and Furniture		87.5%	100.0%	100.0%	100.0%
	Paper, Paper Products, Printing and Publishing		100.0%	100.0%		
	Chemical, Rubber and Plastics		100.0%	100.0%	100.0%	
	Jewelry and Related Products				100.0%	50.0%
	Metal Product and Workshops			66.7%	100.0%	100.0%

Table XII: Attitude towards change according to year of operations
(n = 200)

4.9 Importance of investing in Technology and its Efficient Use.

Obviously all the 88% of SMEs which considered themselves as being innovative also considered it important to invest in technology. The majority of those SMEs which did not consider it important to invest in

technology came from the Metal Product and Workshops Sector (Table XIII).

		Do you consider it important to invest in Technology?			Total
		Yes	No	Don't Know	
Sector in which Operating	Food, Beverages and Tobacco	90.9%	9.1%		100.0%
	Textile, Wearing Apparel and Leather	94.4%	5.6%		100.0%
	Wood Products and Furniture	92.3%	7.7%		100.0%
	Paper, Paper Products, Printing and Publishing	100.0%			100.0%
	Chemical, Rubber and Plastics	100.0%			100.0%
	Jewelry and Related Products	100.0%			100.0%
	Metal Product and Workshops	53.3%	40.0%	6.7%	100.0%
Total		88.0%	11.0%	1.0%	100.0%

Table XIII: Importance of investing in Technology Per Sector

(n = 200)

However, in spite of what has been observed above, only 4% of the SMEs surveyed were using the latest technology available. Otherwise most of them (68%) were using technology which was at least 5 years old (Table XIV).

[What kind of equipment are you using now?	Percent of SME
Latest Technology	4.0%
Technology which is 5 years old.	68.0%
Technology which is 10 years old	17.0%
Technology which is more than 10 years old	11.0%
Total	100.0%

Table XIV: Equipment being used at present.

(n = 200)

It is also interesting to note that long existing SMEs were also trying to adopt latest technology. Table XV shows that among solely owned SMEs created before 1984 which were surveyed 33% were already using the latest technology available.

			What kind of Equipment are you using now?				Total
			Latest Technology	Technology which is 5 years old.	Technology which is 10 years old	Technology which is more than 10 years old	
How Is your Enterprise owned?							
Proprietary Concern	Year Started Operations	1984 and Before	33.3%	33.3%		33.3%	100.0%
		1985– 1989		29.4%	35.3%	35.3%	100.0%
		1990-1994		54.5%	36.4%	9.1%	100.0%
		1995-1999		95.0%	5.0%		100.0%
		2000 Onwards	16.7%	83.3%			100.0%
	Total		3.5%	63.2%	19.3%	14.0%	100.0%
Partnership Firm	Year Started Operations	1985– 1989	33.3%	33.3%		33.3%	100.0%
		1990-1994		100.0%			100.0%
		1995-1999		50.0%	50.0%		100.0%
	Total		16.7%	50.0%	16.7%	16.7%	100.0%
Private Limited Company	Year Started Operations	1984 and Before		66.7%	33.3%		100.0%
		1985 -1989		77.8%	11.1%	11.1%	100.0%
		1990-1994		72.7%	18.2%	9.1%	100.0%
		1995-1999		87.5%	12.5%		100.0%
		2000 Onwards	16.7%	83.3%			100.0%
	Total		2.7%	78.4%	13.5%	5.4%	100.0%

Table XV: Technology used in relation to ownership (n = 200)

In general, private companies were more up to date with technology. More than 78% of those surveyed were using technology which was less than 5 years old and that included even some SMEs which were formed as early as before 1984.

Whatever the technology they were using, 90% of the respondents felt that they were making efficient use of the technology employed (Table XVI). Those which confessed that they were not making efficient use of the technology were partnership firms which had in fact invested in the latest technology available. Even the corporate SMEs were not sure whether they were really making efficient use of the investment they had made in the latest technology. Surprisingly enough, all the proprietary concern SMEs believed that they were making efficient use of their investment in technology (Table XVII).

		Are you making efficient use of this Technology?			Total
		Yes	No	Don't Know	
How Is your Enterprise owned?	Proprietary Concern	91.2%		8.8%	100.0%
	Partnership Firm	66.7%	16.7%	16.7%	100.0%
	Private Limited Company	91.9%		8.1%	100.0%
Total		90.0%	1.0%	9.0%	100.0%

Table XVI: Efficiency of Technology in relation to ownership
(n = 200)

			How is your Enterprise owned?			
Are you making efficient use of this Technology?			Proprietary Concern	Partnership Firm	Private Limited Company	Total
Yes	Year Started Operations	1984 and Before	50.0%		50.0%	100.0%
		1985–1989	58.3%	4.2%	37.5%	100.0%
		1990-1994	50.0%	5.0%	45.0%	100.0%
		1995-1999	65.5%	6.9%	27.6%	100.0%
		2000 onwards	54.5%		45.5%	100.0%
	Total		57.8%	4.4%	37.8%	100.0%
No	Year Started Operations	1985 -1989		100.0%		100.0%
	Total			100.0%		100.0%
Don't Know	Year Started Operations	1985–1989	75.0%	25.0%		100.0%
		1990-1994	33.3%		66.7%	100.0%
		1995-1999	100.0%			100.0%
		2000 onwards			100.0%	100.0%
	Total		55.6%	11.1%	33.3%	100.0%

Table XVII: Efficiency of Technology in relation to year of formation

The majority of the respondents were not using the same equipments they started with. In fact 81% of them confirmed that they have purchased new equipments since. And 84% of these have purchased new equipments which might not necessarily have been the latest technology available at the time of purchase, though 95% of all the respondents considered upgrading of technology as an investment.

An important observation was that 61 % of the respondents which had purchased other equipments after their creation had made quite recent investment in technology— after year 2000 (Figure VI). The aggressive campaign and help provided by the SMIDO seemed to have contributed to this as the majority of these SMEs (59%) confirmed that they have learnt about the technology which they have purchased through SMIDO.

Though Internet access is fast developing only 2% of the respondents have learnt about the technology through the Web (Table XVIII).

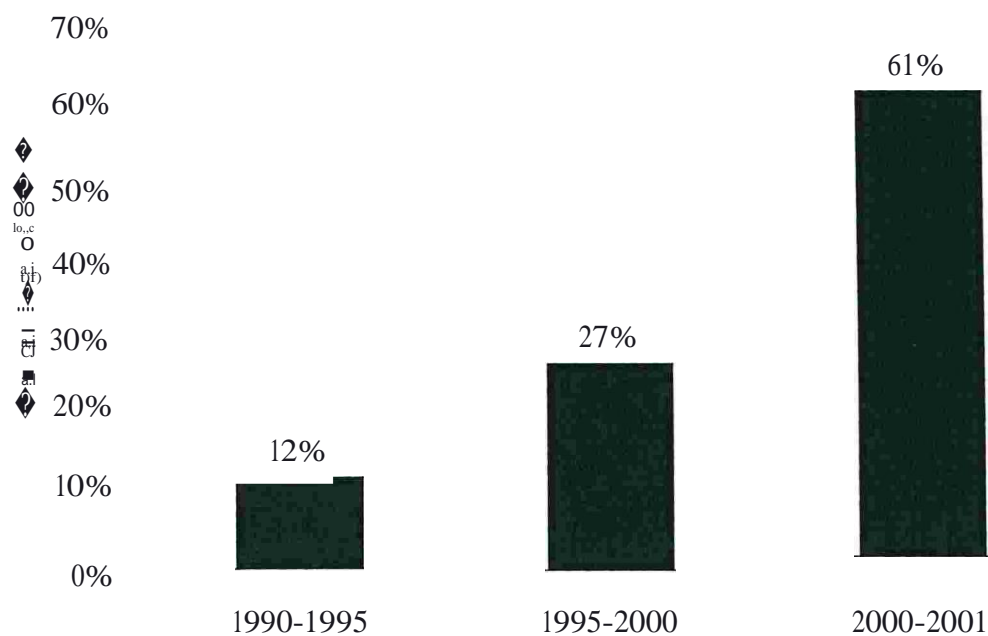


Figure VI: Last Investment
(n = 200)

How did you learn about that technology?	Percentage of SME
By word of mouth	18.0%
Specialised magazines	14.0%
Internet	2.0%
Agent contacting your business	35.0%
Direct contact with the equipment manufacturer	28.0%
SMIDO	59.0%

Table XVIII: Information about Technology purchased
(n = 200)

Sectorwise, SMIDO's influence on the SMEs investment in technology was more important in the Wood Products and Furniture and the Chemical, Rubber and Plastic sectors. The Jewelry and Related Products sector has been more influenced by information available from specialized magazines (Table XIX).

		How did you learn about that technology?					SMIDO
		By word of mouth	Specialised magazines	Internet	Agent contacting your business	Direct contact with the equipment manufacturer	
%Sector in which	Food, Beverages						
Operating	and Tobacco	18.2%	4.5%		47.6%	27.3%	45.5%
	Textile, Wearing Apparel and Leather	5.6%	38.9%	11.1%	44.4%	22.2%	55.6%
	Wood Products and Furniture	11.5%			38.5%	34.6%	84.6%
	Paper, Paper Products, Printing and Publishing	42.9%	28.6%		42.9%	42.9%	57.1%
	Chemical, Rubber and Plastics	12.5%			50%	37.5%	75.0%
	Jewelry and Related Products		75.0%			50.0%	25.0%
	Metal Product and Workshops	40.0%	6.7%			6.7%	40.0%
Total		18.0%	14.0%	2.0%	35.4%	28.0%	59.0%

Table XIX: Information about Technology Purchased per Sector

4.10 Criteria for Choosing Technology

The main criteria that have prompted the respondents to invest in the particular technology were the possibility of meeting the needs of production (97%) and suitability for their scale of production (94%) Table XX shows that, usually otherwise more popular factors like the cost or the maintenance of the equipments were not given much importance.

How do you consider the technology you have invested in?	Agree	Disagree	Uncertain	Total
Of low cost	9.0%	91.0%		100.0%
Easily maintainable	21.0%	78.0%	1.0%	100.0%
Worker controlled	40.0%	28.0%	32.0%	100.0%
Meet basic needs of production	97.0%	3.0%		100.0%
Suited for your scale of production	94.0%	5.0%	1.0%	100.0%

Table XX: How do you consider the technology you have invested in?
(n = 200)

4.11 Investment in New Technology

It was observed earlier that 81 % of the SMEs surveyed have invested in the purchase of equipments. Out of these, more than 50% have invested in a new technology while the others have either reinvested in the same technology or have simply upgraded the existing technology (Figure VII).

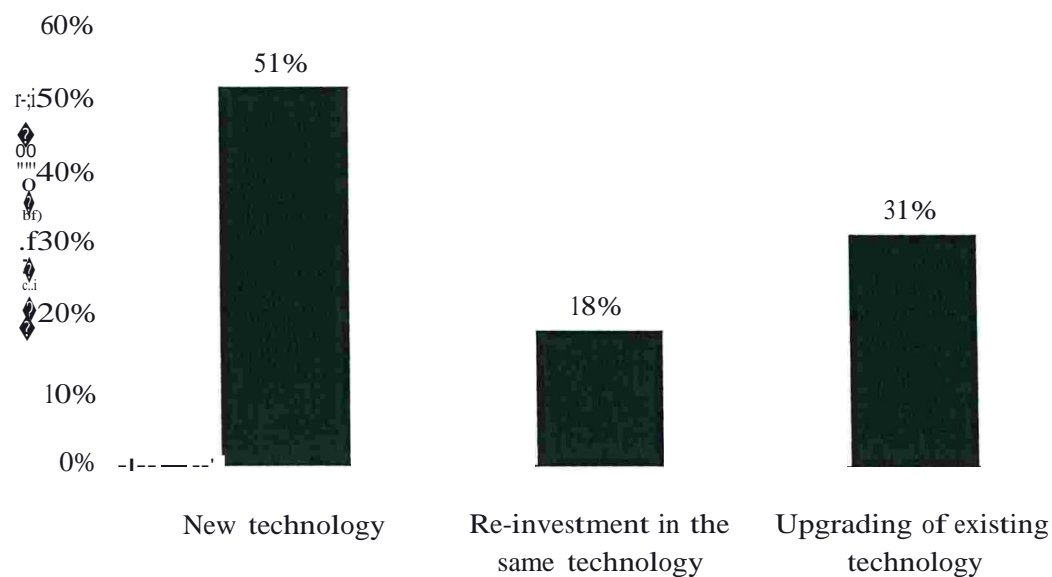


Figure VII: Type of Technology that the SME have invested in.

The sectors which have more investment in new technology is the Jewelry and Related Products and the Paper, Paper Products and Printing and Publishing Sectors (Table XXI). Half of the investment made in the Chemical, Rubber and Plastic Sector and 45% of that made in the Textile, Wearing Apparel and Leather Sector were only for upgrading their existing technology. The sector which had the least investment in new technology was the Metal Product and Workshops.

Sector in which Operating		The investment was in			Total
		New technology	Re-investment in the same technology	Upgrading of existing technology	
	Food, Beverages and Tobacco	50.0%	18.2%	31.8%	100.0%
	Textile, Wearing Apparel and Leather	38.9%	16.7%	44.4%	100.0%
	Wood Products and Furniture	65.4%	15.4%	19.2%	100.0%
	Paper, Paper Products, Printing and Publishing	85.7%		14.3%	100.0%
	Chemical, Rubber and Plastics	37.5%	12.5%	50.0%	100.0%
	Jewelry and Related Products	100.0%			100.0%
	Metal Product and Workshops	20.0%	40.0%	40.0%	100.0%
Total		51.0%	18.0%	31.0%	100.0%

Table XXI: Type of Technology Per Sector

More recently created SMEs (from year 2000 onwards) invested in new technology (83.3%) while prior to this period less than 50% only had invested in new technology (Table XXII).

Year Started Operations		The investment was in			Total
		New technology	Re-investment in the same technology	Upgrading of existing technology	
	1984 and Before	50.0%	16.7%	33.3%	100.0%
	1985 - 1989	41.4%	31.0%	27.6%	100.0%
	1990-1994	47.8%	17.4%	34.8%	100.0%
	1995-1999	50.0%	13.3%	36.7%	100.0%
	2000 onwards	83.3%		16.7%	100.0%
Total		51.0%	18.0%	31.0%	100.0%

Table XXII: Type of Technology according to year of operation

The ownership did not seem to have an important effect on the technology chosen as about 50% of each category had invested in new technology (Table XXIII).

		The investment was in			Total
		New technology	Re-investment in the same technology	Upgrading of existing technology	
How is your Enterprise owned?	Proprietary Concern	49.1%	24.6%	26.3%	100.0%
	Partnership Firm	50.0%		50.0%	100.0%
	Private Limited Company	54.1%	10.8%	35.1%	100.0%
Total		51.0%	18.0%	31.0%	100.0%

Table XXIII: Type of Technology according to Ownership

4.12 Reasons for Investing in New Technology

The reasons why SMEs have invested in new technology were varied – of prime importance, however was to improve performance (98%) Table XXIV also shows that they had to adopt new technology in order to face competition. Another important consideration was to increase productivity.

Question 17 (a)	
Invest in New Technology, why?	Percentage of SME
To improve performance	98.0%
To be up to date	37.3%
To improve productivity	66.7%
To conform to regulations	25.5%
Because of competition	72.5%

Table XXIV: Reasons for Investing in New Technology
(n = 102)

The sector which had invested more in new technology to improve performance was the Wood Products and Furniture (Table XXV). In fact this sector has been the most influenced by the other factors also. On the other hand, though conformance to regulations is equally important to all sectors it is only the Food, Beverages and Tobacco and the Wood Products and Furniture Sectors which have invested in new technology to ensure conformance.

		Reasons for Investing in New Technology				
		To improve performance	To be up to date	To improve productivity	To conform to regulations	Because of competition
Sector in which Operating	Food, Beverages and Tobacco	20%	4%	8%	12%	16%
	Textile, Wearing Apparel and Leather	13.8%	4.1%	12.5%	1.8%	12.4%
	Wood Products and Furniture	32.5%	12.2%	24.6%	12.3%	26.7%
	Paper, Paper Products, Printing and Publishing	12.2%	6.6%	9.8%		10.4%
	Chemical, Rubber and Plastics	6.3%	4.3%	6.3%		2.3%
	Jewelry and Related Products	7.9%	6.5%	4.2%		2.5%
	Metal Product and Workshops	5.8%	2.3%	2.1%		4.3%
Total		98.0%	37.3%	66.7%	25.5%	72.5%

Table XXV: Reasons for Investing in New Technology per Sector
(n = 102)

4.13 Application of New Technology

Application of a new technology may entail certain difficulties. 73% of the respondents which had invested in new technology confirmed that applying the new technology was not easy (Figure VIII). In fact all the SMEs which had invested in new technology in sectors like the Textile, Wearing Apparel and Leather and the Paper, Paper Products, Printing and Publishing complained that the application of the new technology was not easy at all (Table XXVI).

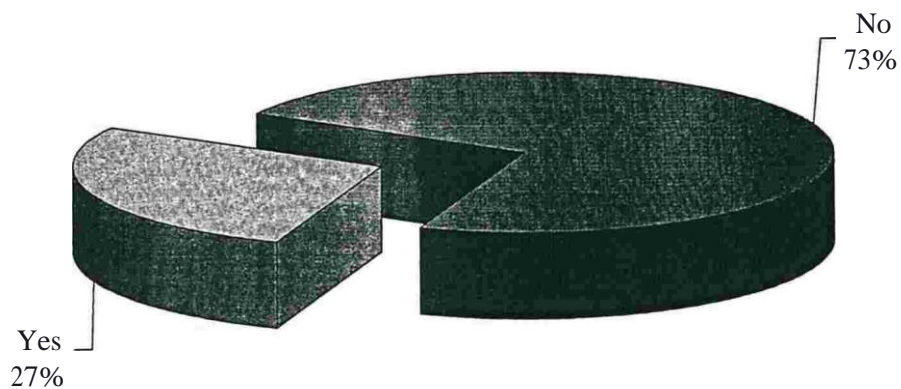


Figure VIII: Was application of the new technology easy?

(n = 102)

4.13 Application of New Technology

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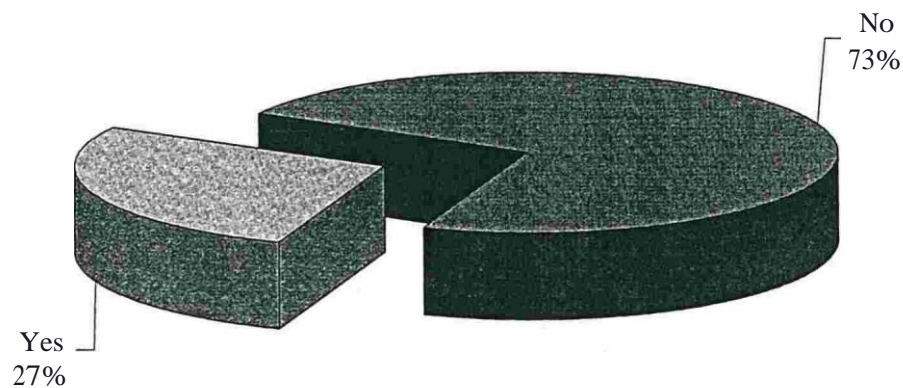


Figure VIII: Was application of the new technology easy?
(n = 102)

		Was application of the new technology easy?		
		Yes	No	Total
Sector in which Operating	Food, Beverages and Tobacco	7.8%	13.7%	21.6%
	Textile, Wearing Apparel and Leather		13.7%	13.7%
	Wood Products and Furniture	13.7%	19.6%	33.3%
	Paper, Paper Products, Printing and Publishing		11.8%	11.8%
	Chemical, Rubber and Plastics	2.0%	3.9%	5.9%
	Jewelry and Related Products	2.0%	5.9%	7.8%
	Metal Product and Works hops	2.0%	3.9%	5.9%
Total		27.5%	72.5%	100.0%

Table XXVI: Application of New Technology per Sector
(n = 102)

Major factors contributing to the difficulties faced in applying the new technology were the huge installation cost involved and the need to reorganise the whole process (Table XXVII). The respondents were also affected by the lack of technical help and scarcity of skilled workers.

If "No", why?	Percentage ofSME
No technical help	45.9%
No skilled worker	13.3%
Had to reorganise the whole process	64.9%
[Had to incur huge installation cost	73.0%

Table XXVII: Reasons why new technology was difficult.
(n = 74)

4.14 Investment in Same Technology

18% of the respondents which have reinvested in equipments have preferred the same technology because of the cost and in order to avoid re-training workers. Table XXVIII also shows that these SMEs considered investing in newer technology as being risky or had no idea about the reliability of the equipment. Others (38.9%) claimed that this strategy avoided reorganising the whole production process. Some, mainly from the Food, Beverages and Tobacco sector were still benefiting from technical support for the existing technology or claimed to be loyal to their suppliers (Table XXIX).

llf it was invested in the same technology, why?	Percentage ofSME
Cheaper	72.2%
[To avoid reorganising the whole production process	38.9%
tTo avoid retraining of workers	72.2%
!Loyalty to suppliers	5.6%
!Consider newer technology as being too risky	55.6%
tNo idea about the reliability of other equipment	55.6%
Still benefiting from technical support for existing techno	11.1 %

Table XXVIII: Reasons for investing in same technology.

(n = 34)

		Reasons for re-investing in the same technology					Still benefiting from
		Cheaper	To avoid reorganising the whole production process	To avoid retraining of workers	Loyalty to suppliers	Consider newer technology as being too risky	
Sector in which Operating						No idea about the reliability of other equipment	technical support for existing technology
	Food, Beverages and Tobacco	11.1%	11.1%	5.6%	5.6%		11.1%
	Textile, Wearing Apparel and Leather	11.1%	11.1%	16.7%		11.1%	5.6%
	Wood Products and Furniture	11.1%	11.1%	22.2%		11.1%	16.7%
	Paper, Paper Products, Printing and Publishing						
	Chemical, Rubber and Plastics	5.6%	5.6%				
	Jewelry and Related Products						
	Metal Product and Workshops	33.3%		27.8%		33.3%	27.8%
Total		72.2%	38.9%	72.2%	5.6%	55.6%	11.1%

Table XXIX: Reasons for re-investing in the same technology by sector
(n = 34)

No SMEs from the Paper, Paper Products, Printing and Publishing and the Jewelry and Related Products Sectors have reinvested in the same technology. Cost of the new technology was of greater importance for the Metal Product and Workshop Sector as almost 50% of those

investing in the same technology because of cost came from this sector. The majority of them also considered investing in new technology as being too risky.

4.15 Investment for Upgrading

31% of the respondents which have reinvested in equipment have simply preferred to upgrade the existing technology. This was considered as a cheaper option by 93.5% of these SMEs (Table XXX). Other factors which were considered important were to face competition and to improve performance. Assurance of technical support was not considered important.

If it was for upgrading, why?	Percentage ofSME
Cheaper option	93.5%
Assurance of technical support	0
To improve performance	64.5%
To be up to date	6.5% To
improve productivity	22.6% xTo
conform to regulations	22.6% Because
of competition	77.4%

Table XXX: Reasons for upgrading the technology used.
(n = 62)

4.16 Local / Foreign Technology

The majority of SME's investment has been in foreign technology (85%). Only 13% of the respondents invested in local technology (Figure IX). The only sector which was investing in local technology was the Metal Products and Workshop Sector. More than 50% of its investment was local (Table XXXI). The other sectors which also slightly invested in local technology were the Food, Beverages and Tobacco and the Wood Products and Furniture.

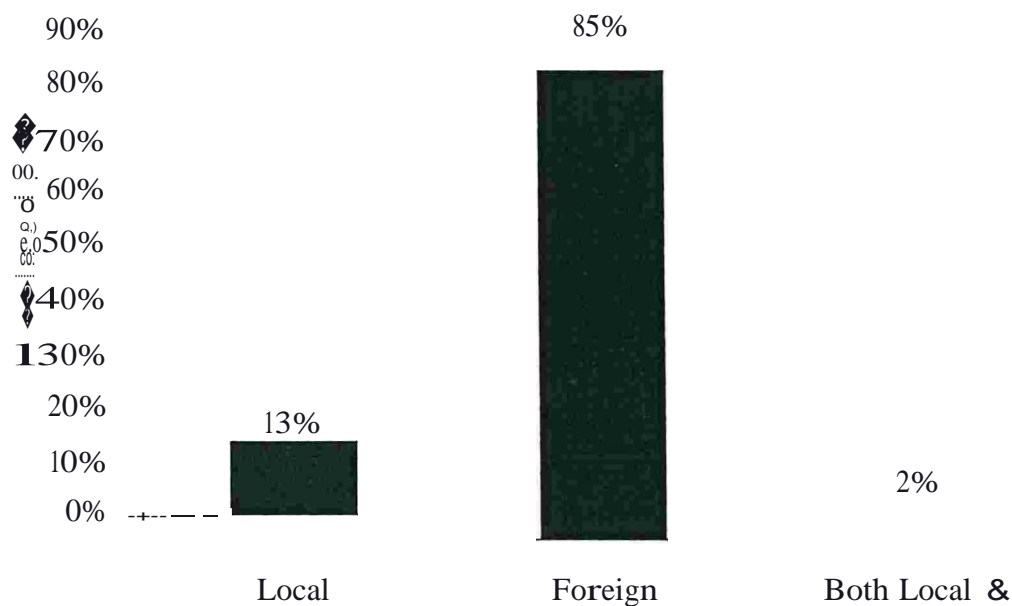


Figure IX: Origin of Technology

		Was your investment in local and/or foreign technology?			Total
		Local	Foreign	Both	
Sector in which Operating	Food, Beverages and Tobacco	13.6%	77.3%	9.1%	100.0%
	Textile, Wearing Apparel and Leather		100.0%		100.0%
	Wood Products and Furniture	7.7%	92.3%		100.0%
	Paper, Paper Products, Printing and Publishing		100.0%		100.0%
	Chemical, Rubber and Plastics		100.0%		100.0%
	Jewelry and Related Products		100.0%		100.0%
	Metal Product and Workshops	53.3%	46.7%		100.0%
Total		13.0%	85.0%	2.0%	100.0%

TableXXXI: Origin of Technology per Sector

Though many SMEs were inclined to use foreign technology, they all confessed that they have faced severe problems because of the intricacies of import procedures. Most of the small entrepreneurs seemed to have problems regarding import procedures as they were not involved in imports regularly. Help from a one-stop shop which could facilitate import/export procedures would be very desirable.

The SMEs were not affected by the need for arranging for foreign exchange or possible losses because of foreign exchange fluctuations.

4.17 Consequences of Investment in Technology

Investment in technology may have positive as well as negative effects.

The most important positive effect of the investment was that it has resulted in quality improvement. Figure X also shows that for many of the SMEs (72%) the scale of production has increased. In certain cases it was observed that the new investment had reduced the cost per unit or has increased workers motivation.

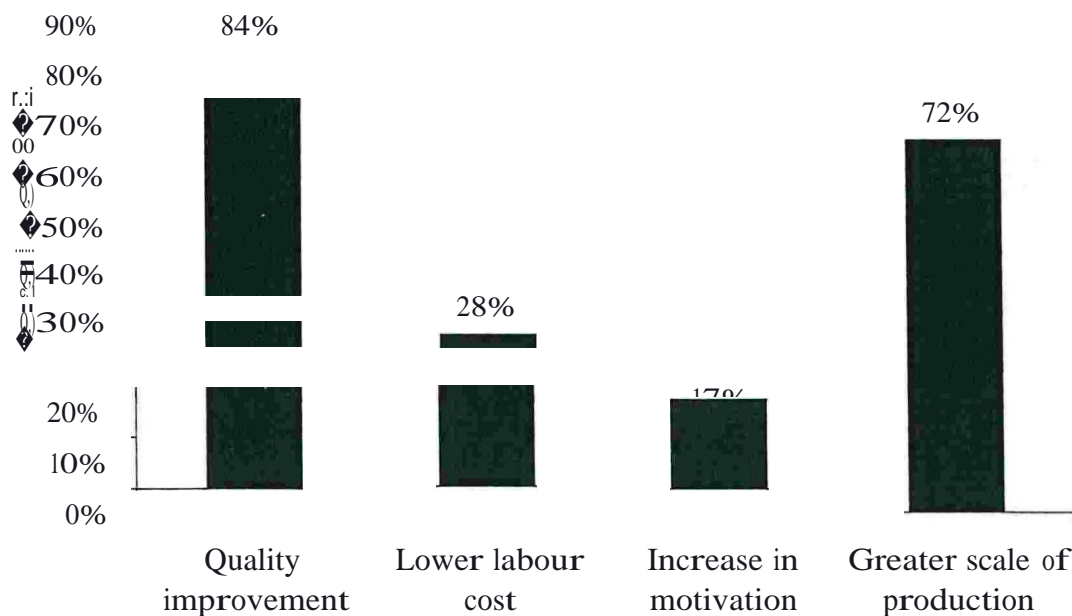


Figure X: Positive Effects of Investment

(n = 200)

SMEs which were capital intensive have benefited more from all these positive effects.

Among the adverse consequences faced by SMEs which had reinvested in technology the most important one was that it led to redundancy of workers (Figure XI). Many of the SMEs (52%) also realised that they became technology tied up while in certain cases (24%) they even realized that they were not making optimum use of the technology they have invested in.

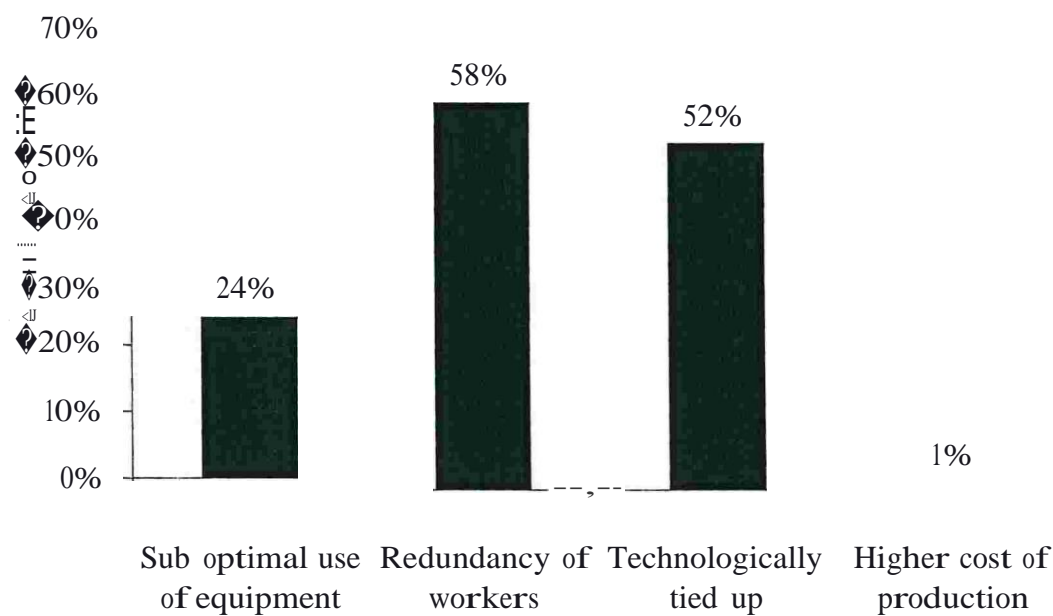


Figure XI: Negative Effects of Investment
(n = 200)

Capital, intensive SMEs were the most affected by the negative effects. As far as ownership was concerned, the proprietary concerns seemed to be much more affected than the corporate SMEs (Table XXXII).

Negative Effects		How Is your Enterprise owned?			Total
		Proprietary Concern	Partnership Firm	Private Limited Company	
Quality	improvement	66.7%	8.3%	25.0%	100.0%
	Lower labour cost	51.7%	6.9%	41.4%	100.0%
	Increase in motivation	61.5%	3.8%	34.6%	100.0%
	Greater scale of production	100.0%			100.0%

Table XX.XII: Negative Effects of Investment according to Ownership

4.18 Attitude of Workers

Though adopting new technology is important for the survival of all organizations, workers seemed to be more interested in sticking to the existing technology. Table XXXIII shows that among 86% of the respondents there was deep concern about their jobs. The usual apprehension was that technology would result in reduction of labour thereby making workers feel unsecured. Workers, also, were very often happy with their present situation and, preferring the status quo, were reluctant to go for the unknown. The workers, however, were not concerned about their wages as in most cases they were guaranteed of a minimum basic salary which would not be affected even if there was a change in the technology used.

What is the attitude of your workers towards investment in new technology?	Percent of SME
Reluctant	80.0%
[Motivated	13.0%
[Feel unsecured about their jobs	86.0%
Concerned about their wages	3.0%

Table XXXIII: Attitude of workers towards investment in new technology
(n = 200)

4.19 Future Investment in New Technology

SMEs do realise the importance of investing in new technology. 72% of the respondents confirmed that they were in fact planning to invest in new technology (Figure XII).

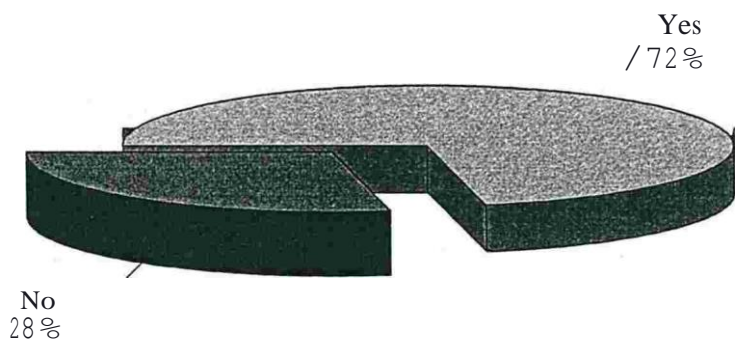


Figure XII: Intention to Invest in New Technology
(n = 200)

Sectorwise, those which were more willing to invest in new technology were the Paper, Paper Products, Printing and Publishing and the Chemical, Rubber and Plastics (Table XXXIV). The sectors which were the least tempted to invest in new technology were the Textile, Wearing Apparel and Leather and the Metal Products and Workshop. The

reluctance of the SMEs involved in Textile was due mainly to its deteriorating market situation while the Metal Products SMEs were constrained by their restricted scale of operation which in many cases did not justify use of sophisticated equipments.

Sector in which Operating		Are you planning to invest in new technology		Total
		Yes	No	
	Food, Beverages and Tobacco	81.8%	18.2%	100.0%
	Textile, Wearing Apparel and Leather	50.0%	50.0%	100.0%
	Wood Products and Furniture	73.1%	26.9%	100.0%
	Paper, Paper Products, Printing and Publishing	100.0%		100.0%
	Chemical, Rubber and Plastics	100.0%		100.0%
	Jewelry and Related Products	75.0%	25.0%	100.0%
	Metal Product and Workshops	53.3%	46.7%	100.0%
Total		72.0%	28.0%	100.0%

Table XXXIV: Intention to Invest in New Technology per Sector
(n = 200)

Based on the year of formation it seemed that SMEs created prior to year 2000 showed a greater willingness to reinvest in new technology compared to those formed after – (Table XXXV). The fact could be that the technology used by the SMEs formed after 2000 were considered as still having a long life.

		Year Started Operations					Total
		1984 and Before	1985-1989	1990-1994	1995-1999	2000 onwards	
Are you planning to invest in new technology	Yes	5.6%	27.8%	25.0%	37.5%	4.2%	100.0%
	No	7.1%	32.1%	17.9%	10.7%	32.1%	100.0%
Total		6.0%	29.0%	23.0%	30.0%	12.0%	100.0%

Table:XXXV: Intention to invest in new technology according to year of operations

4.20 Quantum of Proposed Investment

Though many of the SMEs have expressed willingness to invest in new technology, the amount of investment did not seem to be significant. In fact no one had shown any interest to invest more than MRs 10 million while only 11 % were prepared to invest MRs 3m to MRs 5m (Figure XIII). Investments of less than MRs 3m seemed to be the preferred option as 53% of the SMEs were willing to invest between MRs 1 m and MRs 3m while 36% were willing to invest less than MRs 1 m.

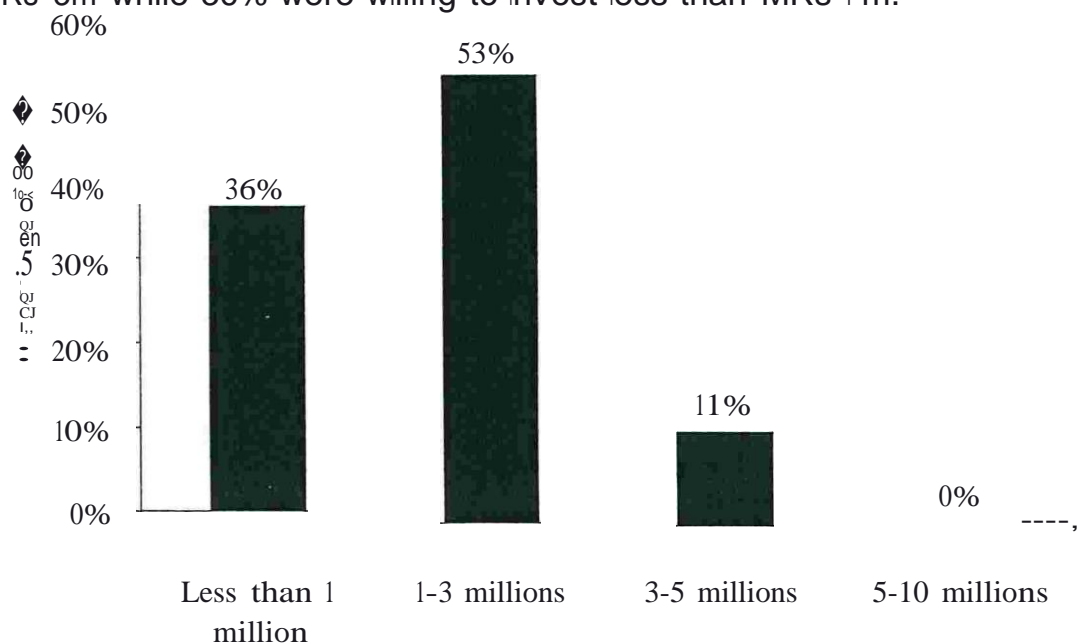


Figure XIII: Quantum of proposed Investment (n = 144)

The two sectors where all SMEs surveyed were willing to invest in new technology were the Paper, Paper Product, Printing and Publishing and the Chemical, Rubber and Plastics. (Table XXXVI). SMEs which were willing to invest between MRs 3m to MRs 5m were from the Wood Products and Furniture, the Paper, Paper Products, Printing and Publishing and the Chemical, Rubber and Plastics Sectors.

		How much do you propose to invest?				Total
		Less than i million	1-3 million	3-5 million	Not Applicable	
Sector in which Operating	Food, Beverages and Tobacco	36.4%	45.5%		18.2%	100.0%
	Textile, Wearing Apparel and Leather	16.7%	33.3%		50.0%	100.0%
	Wood Products and Furniture	23.1%	34.6%	15.4%	26.9%	100.0%
	Paper, Paper Products, Printing and Publishing	14.3%	42.9%	42.9%		100.0%
	Chemical, Rubber and Plastics	12.5%	75.0%	12.5%		100.0%
	Jewelry and Related Products		75.0%		25.0%	100.0%
	Metal Product and Workshops	46.7%	6.7%		46.7%	100.0%
	Total	26.0%	38.0%	8.0%	28.0%	100.0%

Table XX.XVI: Quantum of Investment according to Sector

4.21 Approach concerning Investment in Technology

The SMEs were also surveyed regarding their approach concerning investment in new technology. 50% of the SMEs preferred to analyse the available technologies before making use of the best ones while 40% would opt for investing in the latest technology available and then adopt them progressively to the specific conditions of their needs. Hardly 10% confessed that they would make use of traditional

technology first and with time start making use of modern technology provided that their business was profitable.

4.22 Use of Technological Innovation

58% of the SMEs which had shown willingness to invest in new technology would prefer to use New Market Technological Innovation while 42% would prefer the Customer Oriented Technological Innovation.

4.23 Criteria for Selecting Technology

The SMEs were asked about the criteria they would use for selecting the new technology they would invest in. The highest ranking criterion was the profit potential (97.2%). Table XXXVII shows that 83% of the respondents would choose a technology that would reduce prices while 75% would be influenced by competition. Surprisingly enough hardly 3% of the respondents would consider hire purchase facilities and even less (1.4%) would consider tax exemption. Though SMEs are usually characterised by limited access to capital only 11 % of them would use loan facilities as a criterion for selecting a particular technology.

Criteria for selecting Technology	Percentage of SME
Profit potential	97.2%
Force by competition	75.0%
To reduce prices	83.3%
Tax Exemption	1.4%
Loan Facilities	11.1 %
Hire Purchase Facilities	2.8%
Expectations	0%

Table XXXVII: Criteria for selecting Technology
(n = 144)

4.24 Aim for Investing in Technology

The aims of SMEs in investing in technology were varied and diversified (Table XXXVIII). 95% of the SMEs would wish to invest in technology in order to offer better quality products while 93% would wish to reduce cost of production. Improving productivity also seemed to be a preferred option (69%). While almost 53% of the SMEs would invest in technology to solve the labour shortage problems hardly 10% of them would care to invest in technology to motivate the workers.

What's your ultimate aim for investing in technology?	Percentage of SME
To offer better quality products	95.8%
To reduce cost production	93.1%
To improve productivity	69.4%
To increase output	33.3%
To become more capital intensive	48.6%
To use environmentally friendly technology	34.7%
To solve labour shortage problems	52.8%
To motivate workers	9.7%

Table XXXVIII: Ultimate aim to invest in Technology
(n = 144)

4.25 Sources of Finance for Investment in Technology

In spite of the fact that it was earlier observed that not many SMEs would use loan facilities as a criterion for selecting a particular technology almost all SMEs (98.6%) planning to invest confessed that they would resort to loan. As loans are usually not granted for the full value of the equipment they would also plough back their profits (84%). One third of the respondents would avail of credit facilities offered by suppliers. Unfortunately, so far, hire purchase is still not a preferred option among SMEs. Hardly 2% of them would use it for financing their investment in technology and these are from the Chemical, Rubber and Plastics Sector only.

4.26 Access to Sources of Finance

SMEs willing to reinvest in technology almost unanimously agreed that access to sources of loans should be facilitated by providing them with longer repayment terms and preferential interest rates. As many of the SMEs found it hard to meet the exigencies of loaning agencies 35% of them would wish the establishment of a Mutual Guarantee Fund which would guarantee those SMEs which cannot offer sufficient collateral (Table XXXIX). The creation of a National Entrepreneur Bank for financing SMEs was also desirable both by proprietary concerns and corporate SMEs.

[What do you think should be done in order to facilitate access for SME 's to sources of loans?	Percentage ofSME
Long repayment terms	97.2%
Establishment of a Mutual Guarantee Fund to act as a guarantor for bank loans to SME's with insufficient collateral	34.7%
Preferential interest rates	97.2%
[he creation of a National Entrepreneur Bank to provide direct Financial support to SME's	30.6%

Table XXXIX: Facilities needed by SME's to access sources ofloans.
(n = 144)

4.27 Use of Support Institutions

There are many institutions whose objectives are, among others, to support the development of SMEs. Among these, the most popular, by far, were the DBM and the SMIDO (Table XXXX). Institutions like MIDA and the EPZDA were not well known among the SMEs. They were,

however, making significant use of the IVTB and the TDS which argues well for the technological development of the SMEs.

Have you ever heard of/made use of the following support institutions?	Only Heard of	Both Heard of and Made Use of	Neither Heard of nor Made use of	Total
SMIDO	5.6%	94.4%		100%
EPZDA	8.30/c		91.70/c	100%
MEDIA/MID A	20.80/c	2.80/c	76.4%	100%
IVTB	62.50/c	36.1%	1.4%	100%
DBM	2.80/c	97.20/c		100%
TDS (Technology Diffusion Scheme)				
	37.50/c	29.2%	33.3%	100%

Table XXXX: Use of support Institutions
(n=144)

4.28 Reasons for not Willing to Invest In New Technology

28% of the SMEs surveyed were not planning to invest in technology mainly because of lack of incentives and limited access to credit. Other factors which influenced them not to plan future investment were declining market share, prohibitive interest rates / terms of loans or because they had just started operations (Table XXXXI).

[f "no", why?	Percentage ofSME
Shortage of skilled labour	
Unavailability of technical assistance	2.6%
Risk of non availability of spare parts	5.3%
Prohibitive rate of interest and/or terms of loans	21.1%
No incentives	47.4%
Lack of maintenance staff	
Fear of being technologically tied up	15.8%
Fear of actions that can be taken by unions	2.6%
[Limited or no access to credit	47.4%
Non-affordability due to exorbitant prices	2.6%
Unreadiness (Just started operations)	23.7%
[Declining market share	28.9%
Do not want total investment exceed Rs 10 millions so as to benefit from the advantage of a SME	

Table XXXXI: Reasons for no intention to invest on new technology at present.
(n = 56)

CHAPTER 5

SUMMARY AND

CONCLUSIONS

CHAPTERS

SUMMARY AND CONSIUSIONS

Investment decision is one of the most important financial management decision which is common in all type of organisations, no matter what their size and organisation structure are. It is so important that the survival and growth of an organisation very often depends on sound investment decision specially when it is in new technology. The impact may be greater and it may have more adverse consequences in small organisations. Small organisations are faced with further constraints when they operate in small economies, specially island economies like Mauritius.

The survey carried out at among SMEs in Mauritius has highlighted many important facts

- SMEs are still characterised by low level of investment.
- SMEs tend to be more capital intensive because of the scarcity of skilled labour and the rapidly increasing cost of labour.
- The majority of the SMEs consider themselves as being innovative. SMEs created before 1990 from the Food, Beverages and Tobacco and Wood Products and Furniture Sectors were more conservative.
- The majority of the SMEs consider it important to invest in technology unlike those from the Metal Product and Workshop Sector.
- Most of the SMEs are using technology which is at least 5 years old.

- Even long existing SMEs are trying to adopt latest technology.
- Corporate SMEs are more up to date with technology.
- Whatever the technology they were using, the majority of SMEs felt that they were making efficient use of technology employed.
- The majority of the SMEs have purchased other equipments after their creation.
- SMIDO has greatly influenced the SMEs decision to invest in technology.
- SMEs invest in a particular technology in order to meet their production needs or because it is suitable for their scale of production.
- SMEs are investing in new technology as well as in upgrading their existing technology.
- The Jewelry and Related Products and the Paper, Paper Products and Printing and Publishing Sectors have invested most in new technology.
- The sector which has least investment in new technology is the Metal Products and Workshops.
- SMEs are primarily investing in the new technology in order to improve performance.
- Application of the new technology has entailed certain difficulties for almost all those investing in same - common problems were huge installation cost and the need to reorganise the whole process.
- Reinvestment in the same technology has been made because of the cost or in order to avoid retraining of workers.
- Investment for upgrading was done when it was considered a cheaper option.

- The majority of SMEs investment in technology has been in foreign technology.
- Many of the SMEs investing in foreign technology have faced severe problems because of the intricacies of import procedures.
- The most important positive effects of investment in technology were quality improvement and increase in scale of production.
- The negative effect was that it lead to redundancy of workers.
- Employees are more interested in sticking to the existing technology because they apprehend redundancies in case of investment in new technology.
- Entrepreneurs from the printing business are those who are planning more investment in new technology.

They have realised that if they want to move away from the typical jobbing work and start exporting they will have to produce exceptionally high quality, using state – of – the – art technology.

- SMEs formed prior to the year 2000 showed a greater willingness to invest in new technology.
- The quantum of future investment remains insignificant the budget for subsequent technology usually dependent upon the perceived success of previous expenditure of new technology.
- SMEs prefer to analyse the available technologies before making use of the best ones.
- New Market Technological Innovations seem to be the preferred strategy among SMEs.
- SMEs select new technology on the basis of profit potential or expected reduction in cost.

- SMEs investing in new technology aim at offering better quality product or reduction of the cost of production.
- Availability of loan facilities is not an important criteria for selecting a particular technology.
- Longer loan repayment terms and preferential interest rate are what SMEs look for in order to facilitate access to sources of finance.
- The DBM and SMIDO are the most popular support institutions among SMEs.

Based on the above facts it is clear that SMEs need help and assistance if they have to shift to new technology. The willingness may be there but there are so many constraints, apprehensions that they hesitate to take the proper initiatives at the right time.

In the promotion of the industrialisation and development attempts should be made to encourage the use of technology. Creation of support institutions like Productivity Centres, Technology Centres, Technical Advisory Services, Technical Training Centres can be envisaged. These can provide invaluable assistance where technical information is non-existent or where the entrepreneurs want to consider alternative technologies or even in cases where the entrepreneur is not willing to take risk. These institutions can also help in identifying business opportunities involving the application of technology. Entrepreneurs are not aware of the latest development as there is not enough dissemination of information on new technologies available. In Korea, Thailand and Japan small organisation can, by accessing a particular network, take cognisance of new technological development. Seminars like the one organised by SMIDO in March 1998 on

"Information Technology for SMEs" should be a regular feature to motivate entrepreneurs to make use of available technology.

The creation of a special fund to help SMEs wishing to invest in new technology should also be envisaged. 'Technology diffusion to smaller - enterprises would be greatly helped if the industry association concerned were strengthened both to offer common services to their members and to act as a focal point for identifying and articulating their needs and for organising assistance from official agencies'. There should be sufficient orientation for fiscal incentives towards promoting technological upgrading. The "Technology and Process Development Grant" providing the possibility of finance to SMEs for their feasibility studies is already a step in the right direction to motivate and encourage small entrepreneurs to adopt new technology. The Mauritius Technology Diffusion Scheme which aims to grant the fund for the cost of buying - in or utilising outside technology support services has so far not been very successful in the promotion of up-to-date technology practices.

Once projects are identified the investment decision is usually based on the economic appraisal. Where project implementation involves new technology assistance / inplant consultancy must be available. In order to encourage the introduction and use of new production techniques and processes the SMIDO has a funding scheme for registered SMEs. It finances 50% of the cost of installation of new production techniques and processes. The Micro Credit Scheme has had an excellent response as it requires no collateral and targets women with very low income.

Though SMEs may claim to be innovative they are not necessarily highly creative in technology. This is due to lack of information about what is successfully practiced elsewhere. Help should be provided to them for project identification and a regular updated basket of opportunities feasible in the local context should be made available to small entrepreneurs. Utmost care should, however, be taken to avoid importation of unadapted technology.

In the increasingly vital world of information technology small is beautiful. Small enterprises, given the right impetus can contribute a lot. And as Mauritius now faces the challenge of moving to a new phase in its industrial development of transiting to high skill and high technology production the move of SMEs towards newer technology is of paramount importance.

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**Technalaav and InveSbnem decisions In the Small and Medium Enterprises
sector In MaurIUus**

Name of Enterprise:

Address:

Tel:

Contact Person:

No of Employees:

Year started operations:

Q1 How is your Enterprise owned?

- D Proprietary concern
- D Partnership firm
- D Private Limited Company

Q2 Which source has been used to raise the necessary capital?

- D From savings and/or family sources
- D From bank loans
- D Other
- D Please specify

Q3 Sector in which operating

- D Food, Beverages and Tobacco
- D Textile, Wearing Apparel and Leather

- ☐ Wood Products and Furniture
- ☐ Paper, paper products, printing and publishing
- ☐ Chemical, Rubber and Plastics
- ☐ Jewelry and Related Items
- ☐ Metal Product and workshops
- ☐ Others

Q4 Present level of investments made?

- ☐ Less than 1 million
- ☐ 1 – 3 millions
- ☐ 3–5 millions
- ☐ 5–10 millions

Q5 Is your organization

- ☐ Labour intensive?
- ☐ Capital intensive?

Q6 What is your attitude towards change?

- ☐ Conservative
- ☐ Innovative

Q7 Do you consider it important to invest in technology?

- ☐ Yes
- ☐ No
- ☐ Don't know

Q8 What kind of equipment are you using now?

- ☐ Latest technology
- ☐ Technology which is less than 5 years old
- ☐ Technology which is 5 to 10 years old
- ☐ Technology which is more than 10 years old

- Q9 Are you making efficient use of this Technology?
- D Yes
 - D No
 - D Don't know
- Q10 What kind of equipment did you start with?
- D Same as the one you are using now
 - D Other equipment which have already been disposed of?
- Q11 Have you reinvested or upgraded the technology since?
- D Yes
 - D No
- Q12 Are you using
- D a new equipment?
 - D a second hand equipment?
- Q13 Do you consider upgrading of technology as an investment?
- D Yes
 - D No
- Q14 When was your last investment?
- D 1990—1995
 - D 1995 – 2000
 - D 2000 – 2001
- Q15 How did you learn about that technology?
- Tick as appropriate*
- D By words of mouth
 - D Specialized magazines
 - D Internet

- D Agent contacting your business
- D Direct contacts with the equipment manufacturer
- O SMIDO D
- Others ***Please specify***

Q16 How do you consider the technology you have invested in?

(Please tick as appropriate)

	Agree	Disagree	Uncertain
Of low cost			
Easily maintainable			
Worker controlled			
Meet basic needs of production			
Suited for your scale of production			

Q17 The investment was in

- D New technology
- D Re-investment in the same technology
- D Upgrading of existing technology

Q17a If in a new technology why/

- D To improve performance
- D To be up to date
- D To improve productivity
- D To conform to regulations

- D Because of competition
- D Others

Please specify'

Was application of the new technology easy?

- ☐ Yes
- ☐ No

If no why?

- ☐ No technical help
- ☐ No skilled worker
- ☐ Had to reorganize the whole process
- ☐ Had to incur huge installation cost
- ☐ Other
- ☐ Please specify

Q17b If it was re-investment in the same technology why?

- ☐ Cheaper
- ☐ To avoid reorganizing the whole production process
- ☐ To avoid retraining of workers
- ☐ Loyalty to supplier
- ☐ Considers newer technology as being too risky
- ☐ No idea about reliability of other new equipment
- ☐ Still benefiting from technical support for existing technology

Q17c If upgrading why?

- ☐ Cheaper opinion
- ☐ Assurance of technical support
- ☐ To improve performance
- ☐ To be up to date
- ☐ To improve productivity
- ☐ To conform to regulations
- ☐ Because of competition
- ☐ Others

Please specify

Q18 Was your investment in local and/or foreign technology?

- D Local
- D Foreign
- D Both Local and Foreign

Q1 Ba If foreign what problems did you have?

- D Intricacies of import procedures
- D Arranging for foreign exchange
- D Loss because of foreign exchange fluctuations
- D Others

Please specify

Q19 What were the consequences of your investment?

Positive effects

- D Quality improvement
- D Reduced cost per unit
- D Increase in motivation
- D Greater scale of production

Negative effects

- D Sub optimal use of equipment
- D Redundancy of workers
- D Technologically tied up
- D Higher cost of production

Q20 What is the attitude of your workers towards investment in new technology?

- D Reluctant
- D Motivated
- D Feel unsecured about their jobs
- D Concerned about their wages

Q21 Are you planning to invest in new technology?

- D Yes
- D No (Go to Q28)

Q22 How much do you propose to invest?

- D Less than 1 million
- D 1 – 3 millions
- D 3 – 5 millions
- D 5 – 10 millions

Q23 Which approach do you usually use concerning investment in technology?

- D Make use of traditional technology and with time start making use of modern technology provided that the business is profitable
- D Invest in latest technology available and then adopt then progressively to the specific conditions of your needs
- D Analyze available technologies before making use of the best one

Q24 Which Technological innovation do you usually make use of?

- D Customer Oriented Technological Innovation
- D New market oriented Technological Innovation

Q25 Which criteria would you use for selecting technology?

- D Profit potential
- D Forced by competition
- D To reduce prices
- D Tax exemptions
- D Loan facilities
- D Hire purchase facilities

Q26 What's your ultimate aim for investing in technology?

- ☐ To offer better quality products
- ☐ To reduce cost of production
- ☐ To improve productivity
- ☐ To increase output
- ☐ To become more capital intensive
- ☐ To use environmentally friendly technology
- ☐ To solve labour shortage problems
- ☐ To motivate workers

Q27a Which sources of finance would you make use of?

- ☐ Ploughing back of profits
- ☐ Resorting to credit facilities from suppliers
- ☐ Resorting to loans
- ☐ Hire purchase
- ☐ Others

Please specify

Q27b What do you think should be done in order to facilitate access for SME's to sources of loans?

- ☐ Long repayment terms
- ☐ Establishment of a Mutual Guarantee Fund to act as a guarantor for bank loans to SME's with insufficient collateral
- ☐ Preferential interest rates
- ☐ The creation of a National entrepreneur Bank to provide direct Financial support to SME's

Q27c Have you ever heard of/made use of the following support institutions?

Please tick as appropriate

	Heard of	Made use of
SMIDO		
EPZDA		
MEDIA/MI DA		
IVTB		
DBM		
TDS (Technology Diffusion Scheme)		

Q28 If no why?

- ☐ Shortage of skilled labour
- ☐ Unavailability of technical assistance
- ☐ Risk of non availability of spare parts
- ☐ Prohibitive rate of interest and/or terms of loans
- ☐ No incentives
- ☐ Lack of maintenance staff
- ☐ Fear of being technologically tied up
- ☐ Fear of actions that can be taken by unions
- ☐ Limited or no access to credit
- ☐ Non-affordability due to exorbitant prices
- ☐ Unreadiness (Just started operations)
- ☐ Declining market share
- ☐ Do not want total investment to exceed Rs 10 million so as to benefit from the advantage of a SME

Jf.(!)(PE.:){(J)IX II

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