

## CHAPTER 2 - LITERATURE REVIEW

### 2.1 INTRODUCTION

The goal of the literature review was to meet the objectives of the study, which are:

- To examine business information needs and seeking patterns of SMMEs;
- To review small business information services and the channels of information dissemination to the SMMEs;
- To examine the role of Information and Communication Technologies (ICTs) in the use and delivery of business information in the SMME sector; and
- To propose a strategy for the sustainable delivery of business information to SMMEs in Namibia.

The research questions as outlined in Chapter 1 formed the basis of the subtopics of the literature review. Although studies have been carried out in other sectors like rural development, agriculture and health, not many on information needs and information seeking patterns have been identified in the SMME sector. This review provides a basis for the empirical survey on information needs and seeking patterns and the results assisted in the design of a strategy for the delivery of sustainable business information services for the SMME sector in Namibia.

Information and communication theories and models have helped us understand the way information is sought and delivered in our societies. In this study, the information needs and information seeking models will help in understanding the way information is sought and disseminated in the SMME sector. The models for measuring the impact of information on development will also be reviewed, together with evaluations of the impact of ICTs on the development process, especially the delivery and use of business information

In order to address the literature review adequately, several research questions were generated from the main research question of the study. These research questions were used as the subtopics in the review. The literature review is global but focuses mainly on developing countries, with specific reference to Namibia.

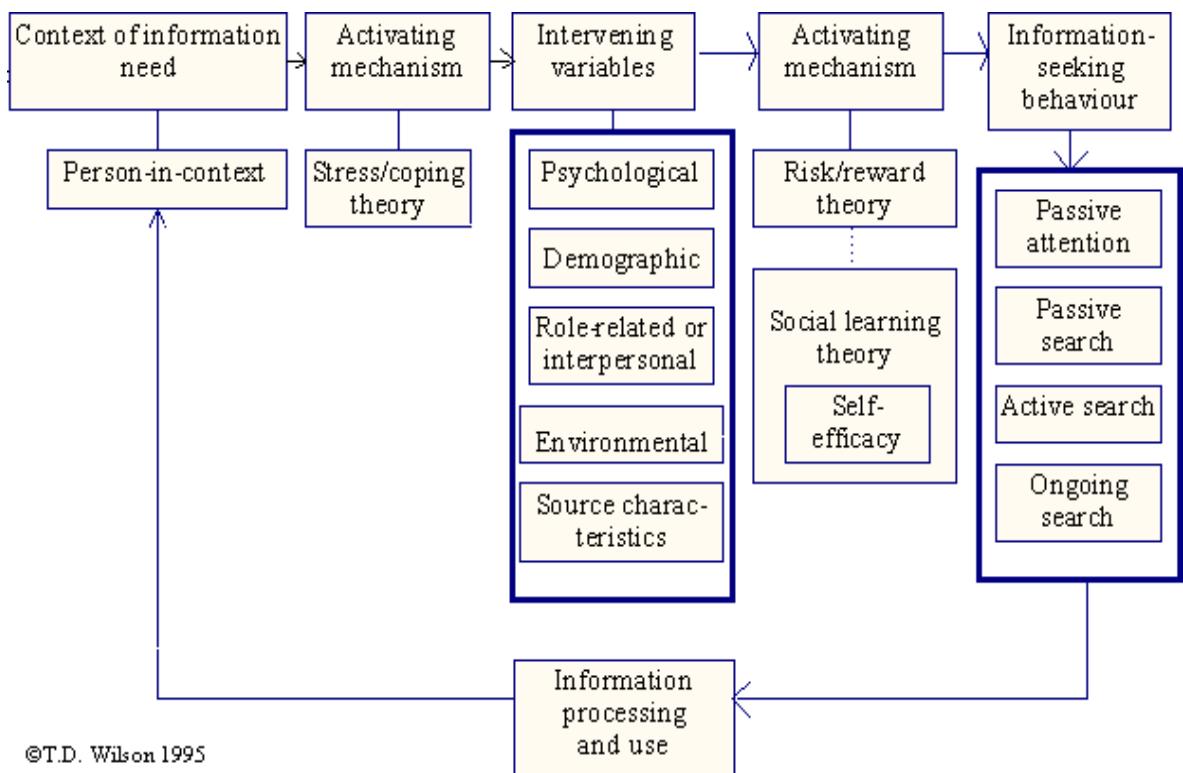
## 2.2 EXISTING INFORMATION BEHAVIOUR MODELS

Information needs and seeking behaviours has been the subject of many studies resulting in several models explaining human behaviour in how information needs arise and how we seek and search for information. The models on information seeking include among others: the Information Behaviour Model by Wilson (1981); Information Seeking by Wilson (1981; 1999) and Dervin (1992); Information Searching by Ellis (1989) and Kulthau (1993), and Information Searching and Retrieval (in automated environments) by Ingwersen (1996). Information seeking as a process in which information needs are pursued, or in which problem solving takes place, is found in each of these models (Foster 2004:228, Case 2002:115). This study uses Wilson's Information Behaviour Model (1996) as a framework for the investigation of information needs and information seeking patterns of SMMEs. The model was chosen because it incorporates both aspects of information needs and information seeking that were the subject of the investigation. Further more key aspects of the model were to be used in the design of the research instruments with both the SMMEs and business information service providers. The results should help to design a suitable strategy for business information services for the SMME sector in Namibia.

The basis of Wilson's 1996 model as depicted in Figure 1, is his earlier model of 1981, which was based on the premise that: "information seeking behaviour arises as a consequence of a need perceived by an information user who, in order to satisfy that need, makes demands upon formal or informal information sources or services, which can result in success or failure to find relevant information" (Wilson 1999:251). The

model had many shortcomings (Case 2002; Niedzwiedzka 2003) and this led Wilson to revise it to the Information Behaviour Model of 1996, which is the theoretical basis of this study.

Wilson's Information Behaviour Model (1996) pictures the cycle of information activities, from the rise of an information need to the phase when information is being used. It includes intervening variables, which have a significant influence on information behaviour, and mechanisms, which activate it (Niedzwiedzka 2003). The model begins with the “person-in-context” in which information needs arise. The needs are seen, as secondary needs caused by primary needs, which are of a physiological, cognitive or affective nature. The rise of a particular need is influenced by the context, which can be the person him- or herself, or the role the person plays in work, life or the environment.



**Figure 1: Wilson's 1996 model of information behaviour (Wilson 1999)**

Wilson also added intervening variables (previously called barriers in the 1981 model) that might motivate or hinder information seeking and these are: psychological, demographic (age, sex, education), environmental, and information source characteristics. Each of these intervening variables can either hinder or facilitate information seeking.

Between the levels of person-in-context and the decision to look for information is what Wilson calls the concept of “activating mechanism”. In this he notes that not every need leads to information seeking. In order to explain what stimulates and motivates information seeking, Wilson makes use of the stress coping theory to show that not all needs lead to information seeking. The risk/reward theory is applied to explain why in some situations, people seek information and not in others, and why certain information sources are more frequently used than others. And lastly, Wilson uses the social learning theory to explain why people may, or may not pursue a goal successfully based on their perceptions of their own efficacy (Wilson 1999; Case 2002; Niedzwiedzka 2003).

The model adds the different modes of search behaviours such as: passive attention, passive search, active search and ongoing search. According to Niedzwiedzka (2003), the first mode involves passive absorption of information from the environment, for example from a TV or radio without the person’s intention of seeking information. The second mode is the active search mode, which is said to apply when a particular behaviour leads to information acquisition and is relevant to the person seeking information. The third mode, the active search takes place when a person actively looks for information and lastly the fourth mode, the ongoing search, means continuing search carried out to update or expand the areas of information need (Niedzwiedzka 2003).

The last stages of the model include components about information processing and use. Information obtained by a user is processed, becomes an item of the user’s knowledge, and is used directly or indirectly, to influence the environment and, as a consequence, create new information needs (Case 2002; Niedzwiedzka 2003).

Wilson's model is seen as a general model of information behaviour and its criticism comes largely from areas where it cannot be fully utilised to explain behaviours of given groups of people. The model, which draws on theories from decision-making, psychology, innovation, health communication and consumer research, ignored special circumstances in other disciplines. Niedzwiedzka (2003), for example, identifies the case of managers in a given organisation and finds that the model cannot be fully applied. Given the complexity of the subject it is rather difficult to come up with one global model that explains information behaviour. The result has been the existence of many other models and theories trying to explain the same concepts but in a different manner.

Niedzwiedzka (2003) has identified some of the weaknesses of the Wilson's 1996 model as:

- Poor diagrammatical representation of the differences between the phase of the occurrence of information need and the phase when a decision to seek information is undertaken;
- The separation of psychological and demographic variables in the intervening variables section and yet they can be under one broad heading – personal variables;
- The separation of the features of information source from the information environment (context) and yet there can be a general class of environmental variables; and
- Variables should also be considered, not only at the stage of seeking, but also, at the need occurrence, decision-making, processing and use of information (Niedzwiedzka 2003).

Despite the above-mentioned weaknesses, Wilson's Information Behaviour Model remains a relevant framework for studying information behaviour. Wilson (1999: 250)

describes information behaviour models as “statements, often in the form of diagrams that attempt to describe information seeking activity, the causes and consequences of that activity, or the relationships among stages in information behaviour”. According to Case (2002:128) “the model was intended to illustrate the broad scope of information behaviour...and more useful as a heuristic diagram for designing empirical studies of information seeking”. The stages that the model outlines in information searching can be potentially relevant in exploring the information needs and seeking patterns of the SMME operators in Namibia.

## **2.3 WHAT ARE THE BUSINESS INFORMATION NEEDS OF SMMEs?**

The study of information needs is often complicated by the confusion over the definition of the concept “information” (Wilson 2000). The concept “information” can be defined in several ways depending on the perspective from which it is being looked at. Bernatowicz (1987:219) describes it “as of instrumental value, by which a man can achieve some values that contribute to basic elements of his system of values”. Mowlana (1997:25) defines information as ‘being associated with a human situation, with a communication medium, with something that can be added and accumulated, with something factual, valuable, and with knowledge’. In the business environment, Pleitner (1989:1) defines information, as “a structured, meaningful statement on reality which serves a purpose or, otherwise information is purpose-oriented knowledge”. It is important in this study to understand the nature of business information and the purpose of business information in a firm as a basis for making decisions that will lead to business growth and development.

### **2.3.1 What are information needs?**

The definition of “information needs” has also presented researchers with problems of meaning. Wilson (1981:5) points out that information needs in user studies “has presented seemingly intractable problems” which leads him to conclude that what in fact is meant by information needs is “information behaviour”. Researchers on the subject of information needs still suggest that it is not a basic human need, comparable to those of

food, shelter, security, or companionship. Information needs are said to change constantly with new relevant sensory inputs (Case 2002:76). In other words, new questions emerge as old ones are answered or even partially satisfied. Dervin (quoted in Case 2002) describes a need as “a state that arises within a person, suggesting some kind of gap that requires filling”. When applied to the word “information”, as in information need, what is suggested is a gap that can be filled by something that the needing person calls “information”. For Dervin (1992), looking for information is only one response to a gap: other responses could include seeking assurance, expressing feelings, connecting with another being and so forth.

The definition of “information needs” is made more difficult by problems relating to distinguishing between “information”, “data”, and “knowledge”, and also the problematic terms “needs”, “wants” and “demands” (Nicholas 1996). Chen & Heron (1982:5) define information needs as “that which arises whenever individuals find themselves in a situation requiring knowledge to deal with a situation”. Information needs arise in all aspects of life, the home, the office, in relationships, or at work (Wilson 1981, 1999). A variety of factors such as the range of information sources available, the uses to which the information will be put, affect information needs. The background, motivation, professional orientation and other individual characteristics of the users also affect them. The social, political, economic, legal and regulatory systems surrounding the user and the consequences of information use also affect information needs (Devadason & Lingham 1996).

It is clear that despite the varying differences in the emphasis and definition, there is consensus that information needs are linked to specific situations and that needs arise when the present level of knowledge is limited to deal with a new situation.

### **2.3.2 What are business information needs?**

Information and business information services are of strategic importance to businesses as the success of any firm depends on its ability to acquire the right information at the

right time and cost. Both large enterprises and small businesses rely on information for success. Business information, according to Thomas & Ballard (1995: 1), is “raw data converted into a form to enable the user to make a decision in response to a business need. This includes raw data, like statistics, market intelligence, contact information, marketing information, and sources of finance, government regulations, and tariffs”. For the purpose of this study business information needs refer to any information that small, medium and micro enterprises require on a day-to-day basis for their business enterprises and supporting the economic activities of the communities where they conduct business.

### **2.3.3 Business information needs of SMMEs**

There are very few studies on information needs, seeking patterns and information services for the SMME sector in Africa. Studies that are closely related to this study include: Zhao (1990); Kinnell et al. (1994); Duncombe & Heeks (1999); Mchombu (2000); Ikoja-Odongo (2001); Bourguin (2002); Duncombe (2004); and Njoku (2004).

Njoku’s (2004) study on information needs of small-scale fishermen in Nigeria examines their needs, sources and seeking behaviour. The study also examines problems encountered in a bid to obtain information. The results of this study show that information needs of fishermen are mostly on: credit facilities, skills training, storage and processing facilities, marketing strategies, sea conditions and locations of big fish and government policies. A similar study by Mchombu (2000) focuses on information needs of women operating small businesses in Botswana. The study ranked information needs as follows: business management (32.5 %), business diversification (22.5%), financial assistance (12.5%), and information on how to operate nursery schools (10%) and lastly 22.5 % of the respondents indicated a total lack of awareness of information needs.

The study by Ikoja-Odongo (2001) on information needs and use in the informal sector in Uganda relates closely to the above studies. The results show a variety of information needs, uses, effects, channels, languages, sources and constraints. It ranks information needs as: marketing information (22.7%), the need for raw materials and or supply

information (15.9%), seeking advice (13.6%), looking for contracts (9.0%), advertising services (9.0%), and government information regarding policies and regulations (4.5%), and other information needs (15.4%).

In a report on Information, ICTs and Small Enterprises in Botswana, Duncombe & Heeks (1999) emphasise the point that information is not the “be-all and end-all” of enterprise development and hence the study of information needs must be set alongside other needs. The results of their study ranked information needs as: access to skills, access to markets and access to finance. What is noticeable from the study from Botswana is the sectoral difference of information needs of enterprises. According to Duncombe (2004), manufacturing SMMEs (non-exporting) had higher levels of information needs – reflecting a struggle to survive, while service-based SMMEs and exporting ones had less information needs and had many information handling capacities.

The studies by Zhao (1990) and Kinnell et al. (1994) on the practice of information demand and business information provision for SMMEs in China respectively, also show that SMMEs have limited access to information. The types of information required are broad and include: new product development, markets for sale, standards, investment opportunities, research and development, technology, economy, finance and foreign trade. Furthermore, Chinese SMMEs require information on commercial intelligence on foreign markets, regulatory and barriers to foreign market entry, patents, product specifications and sample products.

Studies on the business information needs of SMMEs in Namibia are not readily available nor are they well documented. The only documented studies that treat information needs of SMMEs are the Namibia Economic Policy and Research Unit (NEPRU) sponsored surveys (Hansohm et al. 1998, 1999; Erastus-Sacharia et al. 1999; Tjituka and Harris 2005). In these studies the overall needs of SMMEs in the Walvis Bay and Greater Windhoek areas are reviewed and so are the information requirements, which were noted as: information about the services of the Chambers of Commerce; information about services of other agencies in all relevant areas; different sources of supply for raw

material and machinery; new markets; sources of finance; successful entrepreneurs as examples; and advice on improved financial record keeping; technology transfer; sites and premises and sourcing and training programmes.

The NEPRU surveys are limited in scope as their focus is more on other constraints to business growth than the role of information. The Small Business Information Centre (SBIC) in the Katutura Township of Windhoek keeps data on visits by small business operators to the centre, but this has not been analysed to identify delivery gaps and improve services at the centre. The Namibia Chamber of Commerce and Industry (NCCI) is another source of business information. A report by a consultant to streamline information services of NCCI indicated that visits to the NCCI information centre were low and there was no systematic way of keeping records on business information requests (Butterly 1998).

The studies cited above cover five different countries namely: Botswana, China, Uganda, Nigeria, and Namibia. They are representative of the subject of information needs and information seeking patterns of small, medium and micro enterprises in Africa and other developing economies. The studies are largely based on surveys using both qualitative and quantitative approaches. The studies, however, lack any approach towards hypothesis testing and are not based on any model testing. They have shown a variety of information needs and these needs generally fall within the same categories. The Chinese studies, on the other hand, show a wider range of information needs, reflecting a much bigger and broader economy in which the SMMEs are operating.

These studies on information needs of small and medium enterprises identify “information needs gaps” (Duncombe and Heeks 1999; Moyi 2003) across a wide range of business activities. The gaps were identified as the difference between stated demand for information from entrepreneurs and their success in obtaining information from service providers. These findings are confirmed by a study on the information and the small manufacturing firm (Muyawala 1997). The study carried out in Zambia noted that SMMEs lack adequate resources to obtain information on a systematic basis from both

local and foreign sources. There is no coordination between service providers and this result in wasteful duplication of work and leads to considerable gaps in information provision. The gaps are worsened by lack of physical access and costs involved and this has widened the gap between demand and supply of information. The study by Duncombe & Heeks (1999:7) attributes this to the following:

- Information services favour large enterprises and do not target small businesses;
- Entrepreneurs are not conscious of their information needs, are ignorant of existing information services and are not able to identify agencies which have appropriate information;
- Information providers rarely articulate information requirements of small businesses;
- Small entrepreneurs rarely look at information in monetary terms because they believe that information is a right, and therefore it is free of charge;
- Dissemination methods of information are poor, posing physical constraints in the flow of information to SMMEs; and
- There is a lack of qualified personnel to process and disseminate information to small businesses.

The literature indicates a range of business information needs of SMMEs. These needs are influenced by the requirements of the business operators in trying to solve a range of problems and achieve certain business goals. Further, the literature reveals that SMMEs are limited in their capacity to access information through lack of knowledge, technological limitations, barriers created by service providers, the low levels of education and the nature of businesses they operate. The gaps in the literature are on

issues of how to narrow information gaps in the SME sectors and on how to improve service delivery.

## **2.4 WHAT ARE THE SMMEs' INFORMATION SEEKING PATTERNS?**

### **2.4.1 What is information seeking?**

Wilson (1999:238) defines information seeking “as a result of the recognition of some need perceived by the user. The behaviour may take several forms, such as demanding information from a formal or informal system like a library or from other people”.

Information seeking is also described by Chen & Heron (1982:6) as “the paths pursued by individuals in the attempt to resolve a need”. Case (2002:17) sees information seeking as an important part of being human and that it is something that we do on a regular basis. What is common to all the three definitions is the fact that information seeking refers to actions people takes to obtain needed information. In the SMME sector we consider information seeking as the actions that business operators pursue in order to obtain business information to tackle a number of business challenges.

### **2.4.2 Information seeking patterns of SMMEs**

The problems most often experienced by small, medium and micro enterprises’ owners can be grouped into the following categories: general management, business operations, finance, technology, and marketing. Information seeking is bound to focus on solving these problems (McKenzie 2002; Beyene 2002; Murphy 2002; Premaratne n.d.). There are several factors that affect the information seeking patterns of small business. It has been shown in studies that small firms find information acquisition and utilisation to be a major problem (Fuelhart & Glasmeier 2003: 230). Wilson (1999) explains that information seeking behaviour is a result of the recognition of some need perceived by the user. The demands for information are usually placed upon informal or formal sources or services, resulting in failure or success to find information. Wilson’s

Information Behaviour Model (1996) shows how intervening psychological, demographic, interpersonal and environmental variables or barriers can influence information seeking. Triana et al. (1984: 40) also identify two independent variables in their examination of information seeking behaviour of Hispanic small businesses in the United States. The two are psychological characteristics of the business owners and the types of business problems that they perceived to be significant in running their business operations. It was identified that in these small businesses among Hispanics, the process of looking for information lay with the owner manager whose inclinations, predispositions and biases determine, to a large extent, what information will be found and/or used. The study by Triana et al. (1984) also reveals that lack of contacts and knowledge about where to obtain information are problems that plague almost all new small businesses.

The studies on information and small business (Duncombe & Heeks 1999; Moyi 2003; Njoku 2003; and Duncombe 2004) show that the main sources of information for enterprises are other business owners, family members or friends. The degree of friendship and relationship influences whether a businessperson approaches a specific individual to obtain information (Triana et al. 1984). Mchombu (2000) also observed the trend among small women's businesses in Botswana. They obtain their business information through informal channels and a large number of the women operators were not aware of the formal information resources and sources.

The problem of SMMEs' low level of awareness of their information needs also makes them unaware of where to look for information. Ikoja-Odongo (2001:5) observed that the SMME sector largely relies on other people in order to meet their information needs. Njoku's (2004) study revealed that chief sources of information for small-scale fishermen include colleagues, friends, neighbours and relatives. Chen & Hernon (1982) confirm these findings that "the generally felt preferences of information-seeking individuals are interpersonal sources". The results from the Botswana study by Duncombe & Heeks (1999) show that current information practices among respondents were largely informal in nature. This was true for both "traditional" sectors (manufacturing, leather, wood and

construction) and the “non-traditional” sectors (tourism, engineering and IT services). Duncombe (2004:8), in a recent study on formalisation of information in SMMEs, found a strong bias towards accessing of informal information and the use of informal information practices for information assessment and applications. More specifically small enterprises’ information sources and channels were characterised by the following (Duncombe & Heeks 1999):

- Reliance on information obtained through knowledge and experience of the business owner;
- Information received through local networking within the business community;
- Information received through contacts with family and friends; and
- Information accumulated through enterprise specific learning.

Furthermore, Duncombe (2004:10) observes that, “business owners prefer information generated by informal sources because it tends to be in closest proximity, it is more trusted, and it is applicable to their existing knowledge base. It is derived from sources that exhibit similar outlooks and aspirations to that of the recipient”. By and large, small businesses build external networks (Premaratne n.d.) that become important sources of information for many business inputs. Premaratne (n.d.), Sturges & Neill (1998), and Greve & Salaff (2003) maintain that informal networks (relatives and friends) provide inputs like advice and finance. Relatives are also a source of initial capital for many small enterprises.

The above studies indicate that formal sources are also used by SMMEs, both in the formal and informal sectors. The studies indicate that the more established SMMEs are the more they tend to rely on formal sources and the more they have established in-house information processing systems, often using ICTs. Duncombe & Heeks (1999) and

Duncombe (2004), in studies on Botswana's SMMEs, indicate that the established exporting SMMEs and the ones in the service sector that are well established rely heavily on formal information sources to obtain business information. The nature of information sources, the nature of the information itself and the qualitative assessment of the usefulness of information from particular sources are likely to be important factors which relate to usage of these sources, depending on the information need (Fuelhart & Glasmeier 2003: 248).

The literature on information seeking reveals that when it comes to obtaining information, SMME managers/owners rely heavily on private or informal sources. The informal sources are part of networks that they belong to or create as they grow. SMMEs make moderate use of publicly available commercial and institutional sources. Small firms create their own informal networks and these are trusted sources of business information, advice and learning (Sturges & Neill 1998; Frese et al. 2002; Kiggundu 2002; Murphy 2002; and Greve & Salaff 2003). Both informal and formal sources present SMMEs with certain problems in terms of access to business information.

### **2.4.3 What are the barriers to accessing business information?**

In the Information Behaviour Model, Wilson (1996) incorporates the concept of intervening variables to information seeking behaviour. Intervening variables to information seeking can be classified as: personal, social/interpersonal, environmental/situational and information source characteristics.

#### **2.4.3.1 Personal barriers**

Personal barriers include educational levels, knowledge base, demographic variables and other factors (Wilson & Walsh 1996). It has been noted that formal education, both secondary and university is significantly correlated with firm growth. What matters in education is not only knowledge and skills learned, but also the enhanced ability to learn

and seek information (Kristiansen et al. 2005: 169). Wynne & Lyne (2004) identify low levels of education as barriers to assembling and interpreting information among SMMEs. The lack of awareness about where and how to obtain information due to illiteracy has been identified in some studies (Mchombu 2000; Moyi 2003) as a major constraint to accessing business information by SMMEs. In Botswana about 20% of women respondents in Mchombu's (2000) study were not aware of their information needs due to low levels of education. In Namibia the SMME operators are largely from previously disadvantaged communities and possess limited knowledge and business skills due to limited education. Further, despite the existence of many service providers in Namibia, SMMEs are still limited in terms of information sources and the knowledge of potential business services.

Another personal barrier that has been observed is age. Older entrepreneurs are more likely to have better access to information and tend to perform better than younger ones (Kristiansen et al. 2005).

#### 2.4.3.2 Social barriers to accessing information

In developing countries, social networks have been observed to be particularly important for the delivery of a range of intangible, but critical enterprise resource inputs, including empowerment, trust, and motivation, as well as new knowledge and information (Greve & Salaff 2003; Duncombe 2004). Small enterprise networks tend to be composed of, and highly influenced by strong ties of close personal and family relationships (Frese et al. 2002; Kiggundu 2002; and Greve & Salaff 2003). These provide important conduits for predominantly informal, but trusted information. However, in “Innovations Research” it has been observed that “established behaviour patterns of the members of a social system may also act as a barrier to change and, hence as a barrier to information seeking” (Rogers, quoted in Wilson and Walsh 1996).

Murphy (2002) established in a study in Tanzania’s manufacturing sector that trust is an important binding and bridging mechanism in social relations that facilitates information

exchange and collective knowledge creation. But he also argues that social relations may limit access to information, ideas and capital if information and mutual assistance networks are only available to a small group of individuals.

Several other studies have also identified gender as a limiting factor in accessing information (Kristiansen et al. 2005). Mchombu (2000) established that the few studies that have reported on women's use of information in business show that they have fewer opportunities to exchange information than men do.

#### 2.4.3.3 Environmental/situational barriers to information seeking

The environment may impose barriers of an economic, political, geographic or other nature (Wilson & Walsh 1996). Several barriers to the growth and development of African SMMEs have been identified and they include: policy and regulatory environment, the state of the infrastructure and access to finance, markets and training (Beyene 2002). They all can be barriers to accessing business information.

Language is another situational barrier that can inhibit the free access to business information. Language in Namibia is seen as a big barrier to information seeking. The official language in Namibia is English and official publications are in English and Afrikaans but the majority of SMME operators do not necessarily understand or are able to read any one of these languages. Namibia's population, though very small, is highly diversified in terms of languages and this makes it difficult for any service provider to satisfy all the language groups, especially when they cannot read English or Afrikaans.

#### 2.4.3.4 Information sources as barriers to information seeking

The sources of business information are in themselves barriers to SMMEs in some cases. While governments, business support organisations and NGOs try to promote SMMEs' access to information, programmes are not properly designed to meet the needs of the sector and are not adequately staffed with trained personnel to disseminate information.

Njoku (2004) confirms that the shortage of information officers and extension workers or the failure to perform their duties is a source problem for fishermen in the small-scale sector in Nigeria. The other source characteristics which act as barriers to information accessing are the lack of business support organisations to articulate the information requirements of SMMEs as well as failing to educate and train them on how to access and use information (Heeks & Duncombe 1999). This could be attributed to the lack of trained personnel to process and disseminate information within business support organisations. Dissemination methods of service providers are generally poor. They pose physical constraints in the flow of information to target groups especially in rural areas where the literacy rates are low and postal, telecommunication and related services are inadequate (Muyawala 1997). Charging for business information is another possible constraint that SMMEs face in accessing information, as they largely see information as a free product that cannot be charged for (Butterly 1998).

The literature identifies several barriers to information seeking by SMMEs. These range from personal, environmental, attitudinal, institutional, economic and social barriers. What are missing from the literature on SMMEs are further discussions on the information laws or policies (sustainable strategies, including regulatory and policy frameworks) that could enable the smooth flow of information in the sector. However Bayene (2002) notes that despite these shortcomings the African regulatory environment is slowly improving and could, in the long run, improve access to information.

## **2.5 WHAT BUSINESS SUPPORT ORGANISATIONS EXIST TO MEET THE BUSINESS INFORMATION NEEDS OF SMMEs?**

### **2.5.1 Business support organisation for SMMEs**

There is general consensus among public policy makers, academics and researchers that entrepreneurship is a vital route to economic advancement for both developed and developing economies (Temtime et al. 2004: 563). As a result, a host of small business

assistance programmes are conducted by public, private and non-profit organisations in developing countries. This group of programmes is collectively known as Business Development Services (BDS). BDS organisations are characterised by fragmentation and lack of coordination. Abadullah (1999) and Beyene (2002) acknowledge that organisations created to promote SMMEs are not sufficiently prepared for the task and the interface with policy makers leaves much to be desired.

BDS organisations include government ministries and agencies, regional and local municipalities, Non- Governmental Organisations (NGOs), trade development organisations and chambers of commerce and industry, financial institutions, marketing organisations and information brokers. Ideal business information services include the small business information centres equipped with a variety of business information sources that include: business directories, trade magazines, journals and newspapers. The centres also provide such services as telephone enquiry services and selective dissemination of information services. Services are also delivered through a variety of communication channels that include print and electronic media, workshops and training programmes, provision of research facilities, visits and face-to-face meetings.

A more holistic and systematic way of implementing small business assistance programmes should be followed if they are to achieve long-term sustainable development (Temtime et al. 2004). In their study on Botswana's SMMEs, Temtime et al. (2004) identify the major characteristics of small businesses and potential assistance programmes, and present a decision tree model that matches the characteristics of firms with appropriate assistance programme(s). They illustrate with empirical data that there is a need for a small business assistance model that integrates the fragmented approach in supporting the development of small firms. Their model has not been tested and, more importantly, does not include business information provision as a component part of the assistance programmes.

In Namibia, the Government has been encouraging local authorities to play an active role in the development of SMMEs in their respective regions (Hansholm 1998, 1999). BDS

organisations have to develop an accurate understanding of the situation of SMMEs so that they can respond appropriately to their needs (Committee of Donor Agencies 1998). The Government of Namibia considers the development of small enterprises as part of its industrial development policy (Republic of Namibia 1997). Government has through various policy frameworks instituted measures to promote the sector. Through the Small and Informal Industries Division within the Ministry of Trade and Industry, government coordinates other government institutions involved in the development of small businesses (Erastus-Sacharia et al. 1999). The private sector and the NGO sector have also established the Joint Consultative Committee later to be called Joint Consultative Council (JCC) to coordinate the work of service providers. Some of the results of this effort are the establishment of the Small Business Information Centre in Katutura Township to provide SMMEs with business information.

There are several business service organisations in Namibia. Erastus-Sacharia et al.'s (1999) study on "Small Enterprise Support Institutions in Namibia" list several service providers. The Small Business Service Providers Directory of the Ministry of Trade and Industry and JCC also lists service providers in Namibia for small enterprises. What is true about service providers is that the rate of closure or failure in this sector is as high as that among the small businesses themselves. Service providers come and go except for established organisations like banks, government departments, local and regional authorities. The high closure rate in the sector is partly due to funding problems. Many business service organisations are donor funded and this creates problems of sustainability of their services once donors withdraw or focus on other development issues.

### **2.5.2 Business information services for SMMEs**

A wide range of activities has been undertaken by BDS organisations to improve the information environment of SMMEs so that they are able to respond more readily to market signals (Committee of Donor Agencies 1998). They include support for

attendance at trade fairs and business exhibitions, one-stop information shops, distribution of printed information, and support for learning visits to improve the information flow from business associations. According to Schleberger (1998: [Online]) recommends that the scope of business information services should include:

- Information on business trends and markets;
- Information on business organisations;
- Advisory services on: legal and regulatory aspects, business management, customer service, business expansion and diversification and technology;
- Identification and communication of business opportunities;
- Provision of access to business linkages, finance, markets (e.g. trade fairs); and
- Facilitation of business partnerships

Schleberger (1998) further states that information has to be focused and precise and that it has to be needs-based. Information has to be presented in both written and spoken form, taking into account that vernacular languages may play an important role and that accessibility must take into account the social networks in which SMMEs exist.

The development of fully-fledged business information services in many other developing countries is however hampered by many problems. Kinnell et al. (1994: 2) identified some of these problems in a study of marketing business information services to SMMEs as:

- Backward computer and communication industries;

- Inadequate information resources and low utilisation of them;
- Poor information awareness among the public;
- Immature information market; and
- Lack of information policies/or the need to adjust and intensify them.

In Namibia, the government initiated various programmes for the development of SMMEs including a vendor development programme to address the market problems of SMMEs (Beyene 2002:151). This programme was designed to improve market access for small businesses; improve the structure of and trading relations in the economy through SMMEs and big business linkages; and improve sector linkages.

Through the above measures it is possible to match buyers to suppliers and to help establish ongoing relationships between SMMEs and big businesses and provide needed sources of information (Beyene 2002). However, Erastus-Sacharia et al. (1999) point out that the availability of information to the SMME sector in Namibia is very poor. Small businesses complain of a lack of market information, and distribution arrangements that are oriented towards South Africa. There is very little information on export markets for Namibian products that have the potential for export. They further point out that a number of Namibian handicrafts made with locally produced materials are suitable for export. However, Namibia's export infrastructure in this regard is poorly developed with little information on export markets.

The Namibia Chamber of Commerce and Industry (NCCI) launched the Access to Information and Marketing Centre (AIM) in 1996 to provide market information and support services to the Namibian business community on a cost recovery basis (Butterly 1998). The services provided by AIM include: trade enquiry services, Namibian

companies' database, business advisory services, AIM Library, publications and the NCCI website.

The report by Butterly (1998) indicates that, AIM received an average of only two visitors per week and that the AIM Library is completely underutilised. The report indicates that the market for business information in Namibia is small and that it is overcrowded with suppliers of free information. The reports also noted the resistance amongst clients to pay for business information. This makes it difficult to operate a commercial business information services centre that is self-sustainable. If this is the situation for the wider business community then it means that for SMMEs the services are also out of reach. In a more recently commissioned study by NEPRU, Arnold et al. (2005) have identified the lack of information and awareness among SMMEs as one of the major problems with the usage of business services. There is a need to find mechanisms of increasing awareness of BDS services in Namibia.

Public library networks have not been used successfully to provide access to business information. In the United Kingdom, according to Kinnell et al. (1994), public libraries provide ready access to directories and a range of business information sources. In Africa, public libraries have not been adequately used for this function. Muyawala (1997) has observed that the reason militating against public libraries as suppliers of industrial, technological and business information to SMMEs is their image as being primarily educational and recreational. BDS organisations and other government agencies should explore the possibilities of using public libraries as avenues for disseminating business information and help demystify the role of libraries as purely educational and recreational.

The literature indicates that there are a host of services meant to benefit SMMEs in developing countries with business information. Coordination and networking amongst business support organisations in the provision of information is weak and there is little or no specialisation on the part of business organisations providing information. More research needs to be done in order to address issues of networking and coordination

among BDS organisations in order to provide better information services to the SMME sector.

## **2.6 WHAT ARE THE COMMUNICATION CHANNELS FOR BUSINESS INFORMATION SERVICES TO SMMEs?**

An important consideration in studying the information needs of SMMEs and their seeking patterns are the channels used by service providers to disseminate business information to the sector. The following section focuses on reviewing the literature on channels used by business support organisations to disseminate business information to SMMEs.

### **2.6.1 Business information communication channels**

The channels used by SMMEs to access business information can broadly be divided into the following categories: personal, media, training and research (Bourgouin 2002). Both SMMEs and service providers tend to divide the dynamics of information exchange into two main categories: formal (i.e. institutionally facilitated) and informal (i.e. word of mouth) mechanisms of communication (Peter quoted in Bourgouin 2002). However as Duncombe & Heeks (1999) and Bourgouin (2002) point out, it is difficult to pinpoint which mechanism is superior to the other as research shows that both formal and informal mechanisms are employed.

While Wilson's (1981) earlier model does not include communication studies as a field of study, the Information Behaviour Model (1996) shows some relationships between information seeking and communication. In the model, information sources can be seen as communication channels which link the person in context (need) to either formal or informal information sources as communicators or originators of messages. The process of communication is either successful or not and the process can be repeated depending on the outcome of the process (Wilson 1999:264).

### 2.6.1.1 Existing business information channels

Service providers believe formal methods of communication and networking (i.e. service provider facilitated methods) to be effective both in terms of information exchange and cost savings. Most SMME owners however feel that these formal methods have limited benefits and prefer causal face-to-face, informal contact. Bourgouin (2002) believes that formal information systems can allow for increased contact outside networks based on certain localities and they can also be useful for entrepreneurs who lack a coherent social network. In the study on Botswana, Duncombe & Heeks (1999) noted that the exception to using formal information sources was found among SMMEs that depended on government tenders and were involved in more formalised information practices. These enterprises according to Duncombe & Heeks (1999:5) lack access to informal business networks that are valued by the wider SMME community, and that they place a far greater emphasis on information received from government and non-governmental support organisations.

#### 2.6.1.1.1 Media as a channel of business information

The media has been hailed as a tool that will spread development information in developing countries (Schramm 1964). Some of the earliest writers and theorists on development strongly believed that traditional societies had to be transformed in order to achieve a certain level of “modernity” as was the case in the west (Mowlana 1997).

Scholars like Lerner (The Passing of Traditional Society), Rogers (2003) in Diffusion of Innovations and Schramm (1964) in Mass Media and National Development, advanced the notion that information and communication were important means of influencing social change and spurring economic development in developing countries. However these works were found to be weak in that they assumed that communication always carries relevant messages and that development had to be based on western ideas (Mchombu 1994). Mowlana (1997:193) points out that “countries and communities throughout the world face problems of deciding how best to use modern technology while minimising any negative impact on indigenous cultures”. Furthermore, while it has

been shown that various forms of mass media have potential for use in developing countries, traditional knowledge systems, forms and channels of communication and their integration with modern communication systems could be most effective in generating desired results with minimal negative impacts (Mowlana 1997).

Kristiansen et al. (2005:369) noted that it is generally recognised that exposure to media, newspapers and TV, creates opportunities for access to new ideas and business information. Studies covering channels used for disseminating business information to the SMME sectors show that the mass media is an important source of information and it is often ranked as a second or third choice of use by enterprises (Ikoja-Odongo 2001; Bourgouin 2002). Other media sources like websites, e-mail, brochures and directories are other formal channels for information on business in many countries, but SMMEs are yet to make them significant sources of information. According to Miehlbradt (2002:20), in order for SMMEs to view newer technologies as trustworthy information sources, interventions must develop personal channels for information delivery. Miehlbradt (2002) notes that experience from other countries shows that business information services can be delivered on a commercial and profitable basis through a variety of media and mechanisms such as radio, business to business magazines, point of sale outlets, web pages and they are also embedded in other services or other commercial relationships.

#### 2.6.1.1.2 Training and research as a channel of business information

Training programmes for SMMEs are one avenue widely used by service providers to disseminate information. Not only is training an avenue for the introduction of new skills and innovations but it is seen as a more formalised source of information for SMMEs (Bourgouin 2002). Research according to Bourgouin (2002) involves information gathering by SMME operators through the entrepreneur's own observation and comparison of information like prices and undertaking of visits to other business centres and through personal experiences.

It is evident from the literature that providers are not effectively communicating the potential benefits of their services to SMMEs. They lack marketing skills. This then contributes to SMMEs lack of information about business development services (Miehlbradt 2002). The relationship between BDS organisations and SMMEs should be a two way process where both parties play a part in communicating needs and services.

## **2.7 WHAT IS THE LEVEL OF ICT UTILISATION IN THE SMME SECTOR?**

### **2.7.1 ICTs and the SMME sector**

ICTs are the “electronic means of capturing, processing, storing, and communicating information” (Heeks 1999:3). ICTs are seen as being synonymous with the Internet, and they refer to opportunities offered by the coming together of data processing techniques, electronic media, and telecommunications (Thioune 2003). There is often the distinction between old and new ICTs – old refers to radio and television and new to computers and specific data processing applications accessible through e-mail, Internet, word-processing and other data processing applications. Duncombe & Heeks (2001) believe that ICTs are merely a technology-based means of transmitting information, of enhancing knowledge, increasing productivity and creating new products and services but have no intrinsic value for development in themselves.

There is a large body of literature on ICTs on the one hand, highlighting their potential to developing countries (Avgerou 1998; World Bank 1998; Thioune 2003; and UNCTAD 2004) by improving the efficiency of business process and through development of new products and services, new business opportunities and markets. ICTs are also seen as having a role in improving business services, such as financial markets, training and the knowledge market. They can assist in improving the legal, regulatory and policy-making environment for SMMEs (Duncombe & Heeks 2001). On the other hand, writers like Montealegre (1999) and Qureshi (2003) point out that the technological progress is only

taking place in a few advanced industrial countries. Moreover, the technologies are not readily available; they have to be understood, absorbed and mastered. Instead the world is fast moving towards a “digital divide” that separates the rich nations from the poor ones (Baliamoune-Lutz 2003). Avgerou (1998) argues that investment in new technology does not lead to economic growth, and increase in information activities does not necessarily imply economic prosperity. Moyi (2003) agrees that there are other more critical constraints to information flow that deserve priority in developing countries like illiteracy, poor information and telecommunications infrastructure and many others. Heeks (1999:1) also agrees and points out that “serious inequalities exist that constrain the use of ICT based information by poor entrepreneurs”.

The constraints to increased ICT usage in developing countries are many and include: lack of physical infrastructure and affordable access to telecommunications; technology education and weak extension institutions; restricted local supply capabilities and access to international know-how; and low domestic demand due to underdeveloped public sector services and the lack of medium-scale and large scale firms driving ICT innovation. All these constraints and many more mean that ICT diffusion into the SMME sector is low (Duncombe & Heeks 2001). The success of ICT projects will depend not only on how these constraints are addressed but also on how they complement the local institutions and social networks that permeate the SMME sector. Avgerou (1998), Akpan (2003) and Moyi (2003) agree that continuing IT and telecommunications diffusion and emphasis on knowledge development activities are enabling far reaching structural changes in the world economy. Moreover the interest on ICTs and their role in SMMEs can also be linked to how they can contribute to poverty alleviation, given that ICTs are increasingly being seen as tools to fight poverty (Heeks 1999).

Existing research on transfer of Information Technology to developing countries has recognised the following: the need to develop skilled manpower, to learn from past mistakes of other countries, to use proven technologies and to employ consultants or develop international partnerships to import expertise alongside technology (Montealegre

(1999). The literature seems to address conditions and weaknesses in technology transfer, but as Montealegre (1999) argues, the gaps in the literature are on actions and behaviours and the lack of a comprehensive underlying theory to explain ICT transfer to developing countries. Akpan (2003:272) agrees that there are difficulties in making an argument about the utility of ICTs in the development projects of poor countries in the absence of empirical evidence that shows a connection between ICTs and socio-economic development. Duncombe & Heeks (1999) believe that most of today's research on ICTs is overshadowed by what they call "techno-centric" approach studies that make technology the starting point instead of information. The studies blame technical faults for information projects failure and yet there are other underlying causes that have not been adequately addressed such as information needs and practices.

## **2.8 THE STATE OF e-READINESS OF THE SMME SECTOR IN NAMIBIA**

e-readiness is an assessment of how ready a country is to participate in the networked world to become a knowledge society/economy. It is a sum total of numerous factors that determine the readiness in terms of areas deemed most critical for ICTs adoption (Kapurubandara et al. 2004; UNCTAD 2004). Government and the private sector play important roles in the e-readiness of a country by creating an environment that can support electronic commerce. Government is also involved in creating stable and supportive environments for developing new industries, enhancing global competitiveness of companies, promoting innovations and fostering their competition. According to Jutla et al. (2002:1), because of its significant potential, electronic business is now the focus in many countries and governments play critical roles in nurturing the e-readiness of various industry sectors.

Promoting the use of ICT by SMMEs in developing countries should be a major priority of national e-strategies – as a key instrument in the advancement of the information society called for by the World Summit for the Information Society (WSIS) (UNCTAD (2004). While the UNCTAD (2004) reports of recent surveys showing an increasing

number of SMMEs (in Thailand, Ghana, South Africa, Morocco, Nigeria, Senegal and Uganda) connected to the Internet as well as having a web presence on the increase, the adoption of e-business is, however, low. Developing countries face major challenges in terms of e-readiness in infrastructure development, the state of their economies, improvement of social and cultural environments, and nurturing business culture as well as improving the regulatory framework. Developing countries are still a step behind in comparison to developed countries. This puts them in a poor state of e-readiness (Kapurubandara et al. 2004:2).

To overcome the challenges of e-readiness, Jutla et al. (2002) present a conceptual model that creates a partnership between government, private sector, public sector departments and agencies, industrial and research organisations, public research players and educational institutions. In the conceptual model, Julta et al. (2002) propose that several dimensions like: knowledge and innovation, infrastructure and access, regulatory, trust and financial infrastructure, skills distribution, access to content and e-government leadership must be addressed by government to foster an e-readiness climate, especially to support the small, medium and micro enterprises.

In Namibia, the e-sectors are growing and so are government efforts towards e-governance in order to create an enabling environment (Stork & Aochamub 2003). Namibia's telecommunication system is modern and efficient. According to Stork & Aochamub (2003:9), the fixed line density (i.e. telephone per 100 inhabitants) increased from 3.11 percent in 1992 to 6.41 percent in 2002 and the number of installed telephones increased from 45 000 in 1992 to 121,413 in 2003. Beyene (2003:142) notes that 90% of the telecommunications network is on digital lines and the consensus among SMMEs was that the telecoms infrastructure poses no major problems to them. Namibia has an ICT policy framework in place and several other sectors' needs like education, health, industry and commerce are also being addressed. However Stork & Aochamub (2003) still see several limiting factors that are holding back more rapid ICT deployment in Namibia and these are:

- Lack of IT literacy and in particular in rural areas;
- High communication costs owing to monopoly by one telecommunications service provider;
- Under-utilised radio spectrum;
- Lack of e-commerce and e-banking legislation;
- Absence of a Namibian automatic clearing bureau for bank transactions; and
- Language barriers with respect to Internet content which is largely in English.

While ICTs have changed the way of life in Namibia, they have done so for relatively few Namibians (Stork & Aochamub 2003), including the SMMEs. Although the role of the state in the development of the SMME sector is clearly spelled out in various documents and policy frameworks (Namibia Vision 2030; NDP2), the same is not the case in the Draft e-Governance Policy for Namibia (2004). Government needs to address issues of e-readiness in support of this sector if it is to play a meaningful role towards the creation of a knowledge society/economy.

The literature shows that despite the efforts of many governments worldwide in both developed and developing countries to improve e-readiness, SMMEs are still at the very early stages of adopting e-business practices. Online provision of government information and services can increase the efficiency and coverage of public service delivery to small firms, and act as model user and standard setter for ICT adoption by small firms (OECD 2004). SMMEs' use of sophisticated e-business applications is not being measured in most countries, and evidence suggests that uptake of e-applications such as knowledge and content management is low (Jutla et al. 2002).

### 2.8.1 SMMEs and e-commerce

e-commerce is defined by the OECD (2004: 9) as “the sale or purchase of goods or services conducted over the Internet, with the goods and services ordered over the Internet and payment and ultimate delivery of goods and services either online or offline” The OECD’s broad definition includes transactions conducted over computer mediated networks, such as the Internet, EDI (Electronic Data Interchange), and interactive telephone systems.

There are two views on the adoption of e-commerce by small firms. Firstly, it is widely believed that, for small firms to adopt e-business and e-commerce strategies, benefits must outweigh investment and maintenance costs (OECD 2004:8). Beyond a certain level of connectivity (PCs, Internet access, online information and marketing) it is said that not all SMMEs will necessarily “catch up” with large firms simply because e-commerce may not bring large benefits and SMMEs will stay with traditional business processes. Secondly, it is believed that many Internet based services that are for the benefit of SMMEs are emerging and are affordable (Tanburn & Singh 2001; Duncombe 2004). According to the World Resources Institute (a clearing house for ICT projects for SMMEs globally), ICTs have proven to be a vital link in improving the efficiency and expanding the market reach for SMMEs as well as establishing new ways for them to obtain and make the most effective use of business information (World Resources Institute 2006: Online). Bourgouin (2002) found that there is an increased use of ICTs by rural tourism SMME operators in South Africa for making bookings and other vital business transactions. Many other case studies (Duncombe & Heeks 2001) also show that when the overall economies in which the SMMEs operate are growing so will the chances of increased use of Internet based services.

The lack of Internet technology diffusion and sometimes telephone access to the general population in many developing countries has hampered the take-off of e-commerce (Lee 2003). In Europe, barriers to e-commerce adoption have been seen to be the lack of ICT

competencies within the firms, and the non-availability and cost of appropriate interoperable small firms systems, inadequate network infrastructure and Internet related support services (OECD 2004).

## **2.9 HOW DO BUSINESS SUPPORT ORGANISATIONS DISSEMINATE BUSINESS INFORMATION TO SMMES THROUGH ICTs?**

The focus here is not on the diffusion of technologies to SMMEs; rather it is on how existing ICTs are used to effectively offer business information services to SMME sectors in developing countries.

### **2.9.1 BDS organisations and information dissemination through ICTs to SMMEs**

The impact of globalisation and technological change, and the emergence of the Internet are having a major impact on the type of support interventions, which are required by SMMEs and the way in which such interventions can be designed and delivered (Committee of Donor Agencies 1998). The interventions in Africa by business development services organisations are limited, and experience problems associated with the following (Louw 1996):

- Government regulatory aspects;
- Expensive telecommunications services;
- High costs of equipment for both small businesses and their support organisations, which are mostly NGOs or similar organisations;
- Lack of adequate technical support; and
- Poor Internet connectivity, especially in rural areas.

According to Lee (2003), Business Development Services (BDS) providing technology related services to SMMEs must meet their business needs or else they will have little reason to purchase the services or learn skills taught. In all cases, a clear sense of why technology needs to be leveraged and how it relates to business needs must be formulated at the outset of such initiatives.

In Namibia, Tjituka and Harris (2005) noted that the number of interventions and the number of agencies offering interventions in relation to the use of technology among SMMEs appear to continue at a low level. Service providers feel that it is low levels of perceptions among SMMEs, the cost of investment, import and maintenance costs and the effect of competition from South Africa that have contributed to low usage of ICTs. Tjituka and Harris (2005), however, feel that despite these shortcomings a case remains for much higher levels of support for SMMEs in relation to developing and managing the use of technology in their businesses. This can be achieved, for example, through the sharing of computer equipment, especially in small business parks.

While there are many opportunities to apply new technologies in the health, educational and agricultural information sectors, their role in the SMME sector is only emerging and it requires rigorous attention in order to fully address how ICTs can help this sector. As Heeks (1999:1) rightly points out “the potential contribution of ICTs to small enterprise development can only be assessed by first understanding current information needs and practices in such enterprises”.

## **2.10 HOW DO SMMEs USE ICTs TO ACCESS, STORE AND EXCHANGE BUSINESS INFORMATION?**

In seeking to understand the complex nature of ICTs and their requirements for successful use in the small-scale industry sector, this section reviews existing literature associated with SMMEs and ICT usage.

### **2.10.1 SMMEs and the use of ICTs in accessing, storing and exchanging information**

The review of the literature on business information needs of SMMEs has shown that the information most required by the sector relates to: finance, training, marketing, raw materials, government regulations, and business management services. Duncombe and Heeks (2001) doubt the extent to which these core business information requirements can be transmitted via computer-based ICTs. Moreover, there is little digitised content in most developing countries – from local institutions, government agencies, BDS organisations and NGOs.

Many ICT-based projects for the benefit of small, medium and micro enterprises are being planned or are in a pilot phase. Not many, however, have reached full implementation (Louw 1996). Addressing a World Information Technology Forum (WITFOR) conference), Emre Berkin, Chairman for Microsoft in the Middle East and Africa noted “SMMEs in African countries are still reluctant to endorse Information Technology (IT) as part of their growth strategies” (Mokgoabone 2005). Service providers can rightly blame themselves for this state of affairs and for not having shown the value of ICTs to SMMEs. They have also not raised awareness and showcased pilot projects. Much more research needs therefore to be carried out in order to understand the real ICT needs of SMMEs and how they want these tools for information gathering, processing and exchange in their businesses.

It has been observed that only large firms use microcomputers and computer software packages for strategy formulation and managerial decision-making process (Temtime et al. (2003:231). Kyobe (2004) observed a similar situation with SMMEs and IT utilisation in South Africa. He found out that “SMMEs utilise their IT resources mainly to achieve improvements in customer services and to reduce or avoid costs. And they do not use these resources to create links with suppliers and neither do they use them to differentiate products and services nor to enable innovations to a great extent” (Kyobe 2004:143).

Most applications, particularly in the small and medium sized firms, are restricted to basic transaction and word processing, which are inexpensive to automate and maintain. Moyi (2003) in a study of micro and small enterprises in Kenya shows that most respondents (40%) do not find IT useful. According to the study, besides the commonly cited constraints (access to credit, limited skills, poor infrastructure and limited markets); the small-scale entrepreneurs see further marginalisation because of the modern technologies. Kyobe (2004) also reports that inhibitors to the strategic utilisation of IT resources by SMMEs are due to: lack of skills and knowledge to employ IT competitively, poor IT/business planning, lack of resources to invest in IT, poor IT vision and leadership and uncertainty in the environment.

While some SMMEs benefit from rapid Internet growth by selling over the Internet or experimenting with new business models, others are barely interested in the medium (Sadowski et al. 2002: 75). Heeks (1999) points out that while both formal and informal information sources do not adequately address the information needs of the small entrepreneurs, the formal sources are dominated by “commercially-inspired data or trivia” especially the Web which he thinks is providing the poor entrepreneurs with a lot of “noise” in digitised form and which is too westernised. The other problem could be that most information delivery projects in Africa have been taken over by organisations that think they fully understand the needs of these operators. In order to encourage more sustainable use of ICTs by SMMEs the answers seem to lie in understanding the information needs and information behaviours of these operators.

The impact of IT on industrial development has not been studied intensively in Namibia despite technological progress made by organisations in Namibia since independence. The NEPRU (Stork & Aochamub 2003) report on “Namibia in the Information Age” is the closest to addressing issues of ICT usage in industry and commerce, but the report does not address the SMME sector. With regard to large industries, the report noted a large group of companies connected to the Internet and the use of various ICT based applications in information processing. However, the use of e-commerce is still very low and this is due to the fact that goods and services offered by particular enterprises are not

suitable for sale over the Internet and the majority of customers are not ready to buy over the Internet (Stork & Aochamub 2003).

## 2.11 THE DESIGN OF A BUSINESS INFORMATION DELIVERY SERVICE

The following section reviews some of the literature on, design, implementation and evaluation of business information services for SMMEs in developing countries.

### 2.11.1 User needs assessment

In carrying out needs assessment for an information project, Kinnell et al. (1994), International Trade Centre (1996), Committee of Donor Agencies (1998), and Heeks & Duncombe (2001) have recommended a number of issues in user assessment needs for consideration. These recommended issues are presented in the table below:

**Table 4: Approaches to the design of information services**

Issues	Factors considered
a) Why is information important in the SMME sector?	<ul style="list-style-type: none"> <li>Service providers have considered the importance of information and the effects of information poverty on small enterprises in developing countries</li> </ul>
b) What are the information needs of small enterprises?	<ul style="list-style-type: none"> <li>The information needs of the entrepreneurs must be understood so that the right information is supplied on demand.</li> </ul>
c) How do small enterprises use information?	<ul style="list-style-type: none"> <li>Is data that is being supplied being turned into information that can be turned into actions and decisions?</li> </ul>
d) Who provides information to small enterprises?	<ul style="list-style-type: none"> <li>While the social, business and institutional sources for information are recognised, service providers have aimed to link SMMEs to more sources and to a wider network</li> </ul>
e) What type of information do small enterprises use?	<ul style="list-style-type: none"> <li>The balance between informal and formal information has been recognised.</li> </ul>
f) What are the information management techniques/practices in SMMEs?	<ul style="list-style-type: none"> <li>What techniques do SMMEs use to manage both internal and external information?</li> </ul>

g) Can information be sold?	<ul style="list-style-type: none"> <li>When initial scepticism has been overcome, consideration should be made to charge for information services – to ensure sustainability of programmes especially in donor driven environments</li> </ul>
h) Major suggestions by SMMEs	<ul style="list-style-type: none"> <li>What other areas does the sector require to be tackled?</li> </ul>

Table 4 clearly illustrates factors that several writers have recommended in assessing user requirements in the planning and design of business information services. This is followed by a clear understanding of what information is and its role in an enterprise is the starting point. It is also recommended that the users' needs assessment stage include a review of the current services being provided and focus on: major deficiencies in terms of types of information that are missing and deficiencies in terms of geographical coverage of information, the major limitations in terms of quality, relevance and updating and limitations as far as access modes are concerned, the training needs expressed by information suppliers, major technical and ICTs assistance needs expressed by information suppliers, and major suggestions expressed by information suppliers (International Trade Centre 1996: 26).

In the area of utilisation of ICTs in information delivery and use by SMMEs, Heeks & Duncombe (2001: 6-10) have recommended the consideration of the following:

**Table 5: Factors considered for ICT inclusion in information delivery services**

Issues	Factors considered
a) What approach should be taken to implementing ICTs?	Consider taking a holistic or integrated approach
b) What ICTs can small enterprises use?	<ul style="list-style-type: none"> <li>Consider the use of:           <ul style="list-style-type: none"> <li>Fixed telephone/fax</li> <li>Mobile phone</li> <li>Electronic mail</li> <li>Internet and World Wide Web</li> <li>e-commerce</li> </ul> </li> </ul>
c) What ICTs are being used by SMMEs?	<ul style="list-style-type: none"> <li>Word processing</li> <li>e-mail and spread sheets</li> </ul>

	<ul style="list-style-type: none"> <li>• Web use is a little way behind in SMMEs</li> </ul>
d) What ICT support should be provided to different enterprises?	<p>Consider the following:</p> <ul style="list-style-type: none"> <li>• Non-ICT users</li> <li>• Non-IT users</li> <li>• Non-networked ICT users</li> <li>• Networked/Intensive users</li> <li>• And provide services accordingly</li> </ul>
e) What issues do “ICT intermediaries” face?	<p>Issues to be addressed about ICT intermediaries are:</p> <ul style="list-style-type: none"> <li>• Their identity</li> <li>• The question of sustainability</li> <li>• Opportunity costs</li> </ul>

Table 5 illustrates what service providers have considered in introducing ICTs as tools for communicating business information to SMMEs as well as tools for information processing within the enterprises.

The above clearly indicates the issues that have been considered in the assessment stage of the planning and design of a business information service to the SME sector, as well as the issues considered in introducing ICTs.

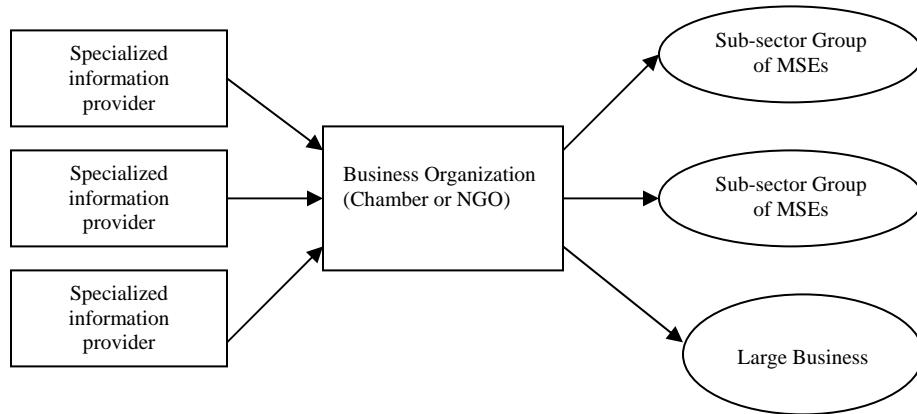
### 2.11.2 Design stage

According to the International Trade Centre (1996: 27) business information development programmes have to address specific problems in order to have a chance of succeeding. In many cases, the International Trade Centre (1996) observes that integrated programmes claiming to improve the overall business information situation are neither feasible, nor desirable. The ranges of SMMEs' needs are too wide and there are too many actors on the information market. The International Trade Centre has, therefore, recommended the formulation of a series of individual programmes dedicated to covering specific information needs and gaps (International Trade Centre 1996:27).

Miehlbradt (1999: [Online]) shows that information services have been offered together with other business development services because they offer a common customer benefit.

Furthermore, because of low information demand from SMMEs and the need to maintain financial viability, BDS information service providers have also focused on both SMMEs and large businesses. The provider either sources information directly from the Internet or works through other more specialised information providers (Figure 2). The model as proposed by Miehlbradt (1999) graphically illustrated in Figure 2, is made up of information providers, business support organisations, SMMEs/SMME sub-sectors and large businesses.

**Figure 2: Information Flow for an Business Information Service Provider**  
(Miehlbradt 1999: Online)



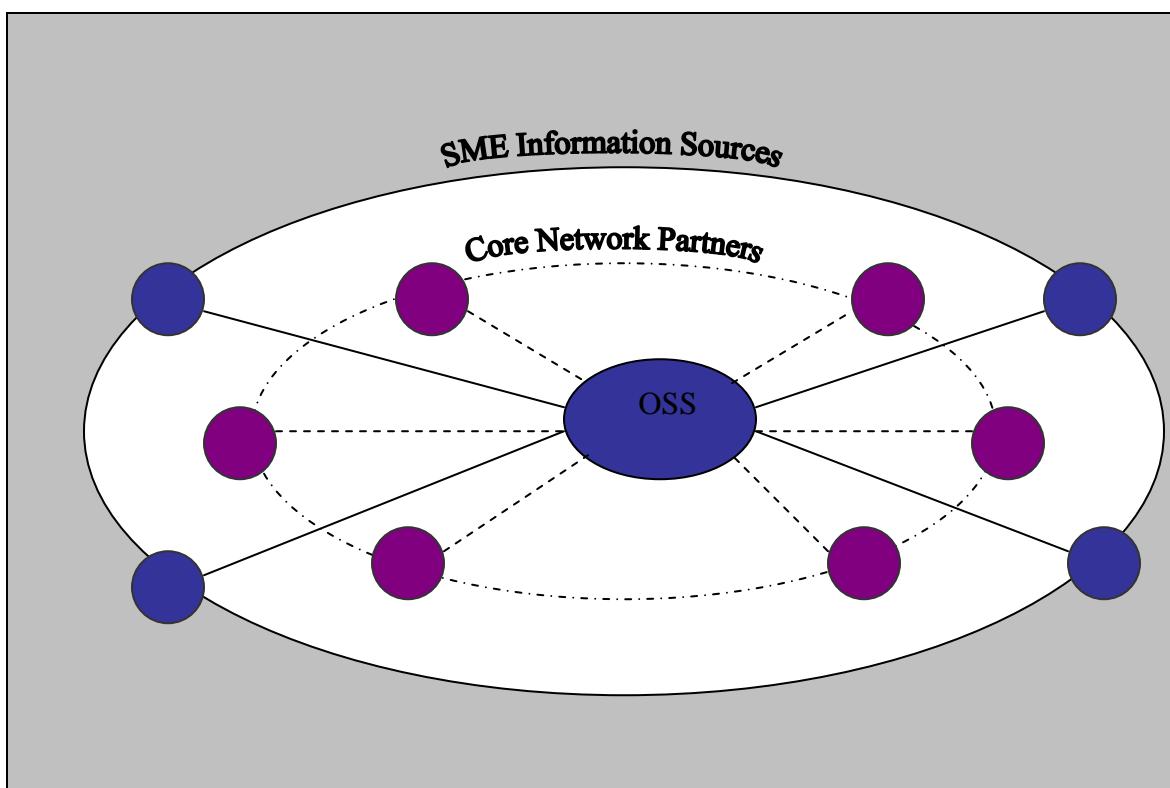
The functions of the various components of Miehlbradt's (1999) model are:

- Information providers of various types of business information to business service providers and they include commercial and development banks, government ministries or departments, business information brokers, marketing organisations, training and tertiary institutions, private and public companies.
- Business support organisations (chambers of commerce or NGOs) have a more direct link with the SMME sector as they are specifically set up to provide various services to this sector.
- SMMEs/SMMEs sub-sectors are the recipients and users of business information provided by business support organisations, and in some cases, they get information directly from information providers.

- Large businesses, because demand for business information from SMMEs is low, financial viability requires that an information service of this nature serve both SMMEs and larger businesses.

A second model is the networked business information service proposed by UNIDO (2003b). In this model, UNIDO proposes the establishment of networked business information solutions (BISnet) for SMMEs that link all relevant national and international information sources into a “One-Stop-Shop” (OSS). The OSS operates on a demand-driven and commercial basis, ensuring SMMEs’ trust and support through a strong local ownership of public and private sector business partners. Commercial operations also ensure the sustainability of the operation of the OSS (Figure 3).

**Figure 3: BISnet– the One Stop-Shop and its partners (UNIDO 2003b)**



The OSS, is a physical location (with regional or rural offices), where entrepreneurs can walk in for business advice and support. The OSS would host ICT training facilities for

individual and group training. The OSS will not store industrial and marketing information. Instead, it will have data bases on the location of information sources with a facility to access these. The institutions and or/initiatives that are linked will become network partners or nodes. This will ensure the ownership and accuracy of information available from respective nodes. UNIDO's approach in establishing an OSS follows four sequential steps of: SMME information needs assessment, development of a business plan, awareness building and identification of network partners, establishment of a commercially operating OSS and expanding into rural areas to enhance the national SMME information support infrastructure.

The OSS is conceived as a decentralised and demand-driven network. The building entities of the network are:

- A focal point - offices of the OSS linked with nodes of BisNet depending on the ICT infrastructure;
- Core partners - institutions that are involved in collecting, processing and disseminating industrial technology and/or market information;
- External nodes - national and international information sources, which operate as a window to the external world and provide the link to the institutions and international agencies in various countries dealing with industrial, technology and market information;
- Support services - to support the business information services and related services which have to be offered, such as business and ICT training and Enterprise Internet Solutions (EIS); and
- Rural extensions - expansion of the services to rural entrepreneurs as a second stage of the development of the BISnet by setting up Rural Business Resource Centres (RBRCs) that offer business information and advisory services, business

and ICT training, e-learning, www services including e-commerce, consultancy services, cyber café operations, teleworking (cooperation among enterprises based on digital provision of services (UNIDO 2003b).

The choice of a model in the design stage of business information services depends, to a large extent, on the specific conditions prevailing in a particular country. The design stage is the transformation of the identified user needs into desirable outcomes or action plans. According to Underwood (1990), the design stage focuses on the users of the services and takes the following into consideration:

- Operational issues – development of a planned approach to service development;
- Marketing programme – to reach out to the intended users;
- Human resources requirements – ensure adequate human resources to provide the service; and
- Technology requirements - specify technology requirements for the delivery and management of the service.

The mapping out of action plans may require further negotiation with the target groups to clarify delivery modalities (Wilson 2000).

### **2.11.3 Implementation stage**

According to Wilson (2000), an implementation stage involves the translation of plans into action, following the intended timetable, implementation of activities that make up the change or innovation. Programme ideas supported by clear needs have been widely circulated and strongly promoted among business information providers. They have been brought to the attention of governments and public or private BDS organisations. The

success of the programmes has largely depended on the existence of strong motivation, backed by a real (human, technical and financial) capacity to undertake and implement the desired programme (International Trade Centre 1996: 27). The effective delivery of information services for SMMEs will have to be based on a sound knowledge of their own mode of learning. The Committee of Donor Agencies (2001) points out that those SMMEs learn incrementally, from experience through trial and error. They also learn from their environment, particularly from peers, competitors, suppliers and customers.

#### **2.11.4 Evaluation stage**

Continuous evaluations and impact assessment measurements are necessary for an effective information delivery service in developing countries (Committee of Donor Agencies 1998). Evaluation of impact is regarded as an essential part of a project cycle (Bellamy 2000). Donor agencies have been working for common performance indicators and measurements methods for BDS provision over a number of years and this has resulted in a number of performance measurement tools (McVay 2001).

The Committee of Donor Agencies (2001) points out that systematic performance measurement provide a good basis for BDS organizations to improve the design of services in response to their clients' demands. The Committee of Donor Agencies (2001) identifies three categories of performance measurement, which are relevant in BDS service provision as:

- Client impact - in terms of changes in SMME performance (e.g., sales, value addition, profitability), or broader social and economic impact (employment, poverty alleviation, etc.);
- Institutional performance - according to indicators of outreach, cost effectiveness, and sustainability; and
- Market development – measured, for example, by the price and quality of services available, SMME awareness, trial and repeat usage, the level of

satisfaction of SMMEs, and the extent to which BDS providers are reaching previously underserved populations (Committee of Donor Agencies 2001).

It has been noted however that given the diversity of business development service it is difficult to define one standard. To address this challenge, donors have sponsored the development of a Performance Measurement Framework (PMF) for BDS programmes. The Performance Measurement Framework is an ongoing global initiative to identify valid, practical, and useful performance indicators for business development service (BDS) programmes that serve SMMEs (McVay 2001). The Committee of Donor Agencies (2001), however, still argues that there remain unanswered questions regarding the degree to which standardised performance indicators can be applied across BDS programmes with different objectives and instruments.

The literature on the design of business information services in developing countries is very limited and even more limited for the SMME sector in Africa. Although theoretical models for prospective designers of information services are more biased towards experiences in the developed world, they, give us a framework that we can modify to suit the conditions prevailing in developing economies.

The greatest challenge that governments and BDS organisations face in developing economies is to promote SMMEs for creating employment and alleviating poverty. Timely and accurate business information services have been identified as a major component in those development efforts. The delivery of such services should not be done on an *ad hoc* basis, but rather be part of systematic planning that involve the study of information needs and seeking patterns, a review of existing services and assessment of the role that ICTs can play in information delivery and use.

## 2.12 CONCLUSION

The literature review has addressed all the research questions posed in the study and what has emerged is that research on information needs and seeking patterns of SMMEs in developing countries is limited. On Namibia, the literature review also shows that very

little has been published. It also reveals that while service providers exist with an abundance of business information, SMMEs still face many problems in accessing it or that they are not aware of its existence.

It has emerged from the literature analysis that the design of business information systems should consider both the informal and formal systems that SMMEs use to access business information. Social and business networks have been identified as being important to small enterprises. Any information delivery programmes should consider their role as both sources of business information and communication channels.

The literature on ICTs shows that, while they have been hailed as tools to reduce poverty and spur economic growth there are still many infrastructure and resource problems to deal with in the SMME sector. This applies not only to the SMME sector, but also across economies. Equally important is the fact that ICT-based initiatives must acknowledge the significance of informal systems of communication for the transfer of information throughout the SMME sectors.

The next chapter addresses the research methods used to carry out the investigation into how a better understanding of the information needs and seeking patterns can contribute to a strategy for successful delivery of sustainable business information services in Namibia's SMME sector.