THE IMPACT OF MINNA TECHNOLOGY BUSINESS INCUBATION CENTRE ON THE DEVELOPMENT OF SMALL AND MEDIUM SCALE ENTERPRISES IN MINNA

BY

MAIKUDI, MOHAMMED ABDULLAHI
B(ENG) WATER RESOURCES AND ENVIRONMENTAL ENGINEERING
PGD/GST/168/2003/2004

A PROJECT
SUBMITTED TO THE POST GRADUATE SCHOOL
FEDERAL UNIVERSITY OF TECHNOLOGY MINNA
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF POSTGRADUATE DIPLOMA IN BUSINESS MANAGEMENT TECHNOLOGY, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGER STATE.

DECEMBER 2004

DECLARATION

I, Maikudi, Mohammad Abdullahi hereby declare that this project entitled The Impact Of Minna Technology Business Incubation Centre On The Development Of Small And Medium Scale Enterprises In Minna Is A Product Of My Own Research Work Under The Supervision Of Dr B.A. Ayanwale.

_____ _____

MAIKUDI, M. A DATE

PGD/GST/168/2003/2004

DEDICATION

This research work is dedicated to the Almighty ALLAH, who has been merciful unto me and also my lovely parent Mrs. Maryam Maikudi for the moral and financial support.

And to the memory of my late father Mallam Abdullahi Maikudi.

CERTIFICATION

This is to certify that this research work was carried out by

MAIKUDI, MOHAMMED ABDULLAHI (PGD/GST/168/2003/2004)

Under the supervision of Dr B.A. Ayanwale. And this meets the regulation for the award of postgraduate diploma (PGD) in Business management technology of the Federal University of Technology, Minna and is approved for its contribution to knowledge.

19/04/05

Dr. B.A AYANWALE — DATE

(Supervisor)

DR. S.K TSWANYA — DATE

(Head of department)

ACKNOWLEDGEMENTS

My gratitude goes to the Almighty ALLAH for his protection and mercy over me. Glory be to His name.

My sincere appreciation goes to my supervisor Dr B.A. Ayanwale who gave me all the necessary support and encouragement and taking time to read through this work systematically for successful completion. Also, I cannot but express my gratitude to Dr S.K. Tswanyan (H.O.D.) for the support he gave me while writing this project. I am particularly grateful to my lovely mother, Mrs. Maryam Maikudi and My sister Mrs. Aisha Maikudi:-Ahmed for their love, moral, financial and religious support during the course of the study. I must also appreciate the efforts of my friends and course mates for their assistance during the course of this project. I cannot also forget to appreciate the support given to me by Mr. A. Ndagi, Mr. Z. Tukura and other staffs of Minna technology business incubation centre.

ABSTRACT

Technology business incubation center are set up to provide a combination of a range of basic business information and service inputs in order that the entrepreneur can concentrate on the technology and business aspects to improve the chances of success of a new small and medium scale enterprise (S.M. E). This paper highlights the results of a research carried out to examine the impact of Minna technology business incubation centre on the development of small and medium scale enterprises (S. M .E. S) in Minna through the training of entrepreneurs. This study tried to make comparison of the problems of the entrepreneurs in Minna Technology Business Incubation Centre (MTBIC) and those that have graduated from the centre. Research questions were asked on the impact of MTBIC on the development of small and medium scale enterprises (S.M.E's) in Minna.

A total of 43 questionnaires were developed and given out to staff and entrepreneurs in Minna Technology Business Incubation Centre and entrepreneurs that have graduated from the center through simple random sampling method to elicit for further information and 26 were duly completed and returned. The analysis and interpretation of the data were carried out through simple percentages, mean and Chi-square (X^2- test) method of testing hypothesis.

The results shows that 25 entrepreneurs have been admitted by Minna Technology Business Incubation Centre 13 have graduated, 7 dropped out and 3 are still making appreciable progress and it can contribute more positively on the development of small and medium scale enterprises in Minna with adequate funding.

LIST OF TABLES.

CHAPTER ONE

1.0 INTRODUCTION

Technology Business Incubation Centre (T.B.I.C) is a programme of the federal ministry of science and technology, established to foster and nurture small and medium size enterprise in Nigeria to reduce the high mortality rate among small and medium size enterprise and to assist the host state actualize her industrialization dream by promoting and developing technology value added small and medium size enterprise engaged in the utilization of local raw materials within the state and the country at large.

The Technology Business Incubation is an initiative of the United Nations Fund for Science and Technology Development (U.N.F.S. T. D.) And was introduced to Nigeria by the United Nations Development Programme (U. N. D. P.) office in Nigeria which Was adopted by the Federal Ministry of Science and Technology on behalf of the Federal Government of Nigeria.

Hence three pilot Technology Business Incubation Centers were establish in the country at Agege, Lagos state, Kano , Kano, State and Aba ,Abia, State . The success recorded at the above mentioned pilot centers influenced federal government decision to establish Minna Technology Business Incubation Center along with Nnewi and Calabar centers. Presently, there are fifteen (15) Technology Business Incubation Centers (T. B. I. C.) Across the country and plans are under way by Federal Government to increase it to thirty seven (37) centers.

Minna Technology Business Incubation Center was established in April 1998 by the then first lady of the Federal Republic of Nigeria justice Fati Lami Abubakar. The Center Became operational in August 1998 with six (6) Incubator units and six (6) pioneering entrepreneurs (tenants). As at December 2003 the center have twenty-two incubators units with nineteen (19) entrepreneurs (tenants). The first set of entrepreneurs (tenants) were graduated on the 30th October, 2002.Two of the graduates performed excellently well in the areas of records keeping ,staff turnover, meticulous financial management, marketing and customer management, trade fair exhibition and in-house training participation, skill acquisition and sales turnover. Five of the graduates performed above average while three performed below average and two were dropped

from the programme due to their inability to cope with the vigor and understanding of the establishment and management of small-scale business.

1.2 TECHNOLOGY BUSINESS INCUBATION CENTRE

The Technology Business Incubation Center concept is a new dimension on entrepreneurship development programme which is a new system of nurturing technology value –added startup and already existing as small and medium scale industries.

This involves providing selected entrepreneurs with basic infrastructural facilities and services required to develop their ideas from conception through commercialization to the launching of new technology value added industries and revitalization of sick small and medium scale enterprise to become self –reliant.

1.3 OBJECTIVE OF TECHNOLOGY BUSINESS INCUBATION CENTRE

(1) To nurture and strengthen the growth and development of indigenous small and medium scale industrialist by accelerating the creation of locally owned technology value added enterprises thus creating employment opportunities for the unemployed Nigerians.

2. To accelerate the commercialization of the results of research and development (Rand D) which will reduce Nigeria dependence on foreign know–how and increase productivity in the industrial sector and enhance economic activities within the country.

3. To promote economic diversification through the creation of dynamic enterprise in the agro-allied, manufacturing sectors and information technology, which will help to reduce the country's dependence on oil as the only main source of revenue

4. To provide professional, managerial and technical skill training for small and medium scale industrialists which involves monitoring their business closely on their business plan, products design ,development, marketing and legal aids with the prospects of becoming financially self –sustaining.

5. To facilitate foreign technology acquisition, adaptation and transfer and to enhance upgrading and modernization of local indigenous technology.

6 To encourage skill acquisition among Nigerians in the various trades available at the center.

1.4 STATEMENT OF THE PROBLEM

Minna in recent times has witnessed' the springing up of small and medium scale Industries. This observation brought about the need to examine the contribution of

Minna Technology Business Incubation Center to the development of these industries through the training of small and medium scale enterprises (S.M.E) entrepreneur.

1.5 SIGNIFICANCE OF THE STUDY

This study will be beneficial to Minna Technology Business Incubation Center, entrepreneurs, banks such as Central of Bank of Nigeria , Nigeria Industrial Development Bank (N.I.D.B.) and government agencies like Ministry of Commerce, National Poverty Eradication Programme (N.A.P.E.P) , Small and Medium Scale Development Agency (S.M.E.D.A.N).

It is hoped that by this research the contribution of Minna Technology Business Incubation Centre to the development of small and medium scale businesses in Minna will be enhanced and that banks and government agencies will be favorably disposed to assist in the development of this small and medium scale businesses by providing loans and other incentives to this businesses.

1.6 RESEARCH QUESTION

The following are the research questions to be raise:-

(1) What are the problems faced by small and medium scale enterprises (S.M.E.S.) who are tenant in Minna Technology Business Incubation and those that have graduated from the centre

(2) What are the problems facing Minna technology business incubation centre?

(3) What is the number of graduates that have been trained by the centre?

What is the progress made by some of the graduates of the Minna technology business incubation centre?

1.7 OBJECTIVES OF THE STUDY

The objectives of the study are: -

1. To identify the problems faced by small and medium scale enterprises (S.M.E.S.) that are tenants in Minna Technology Business Incubation Centre and those that have graduated from the centre.
2. To evaluate the contributions of Minna Technology Business Incubation Centre to the promotion and development of small and medium scale enterprises in Minna.
3. To assess how far the Technology Business Incubation Centre Minna, has gone in achieving its mandate

1.8 SCOPE OF THE STUDY

The research work was restricted to Minna Technology Business Incubation Centre. Visits were made to selected small and medium scale enterprises within the town to assess how well they are doing.

1.9 LIMITATIONS OF THE STUDY

This research work was limited by finance and the time within which the research work was expected to be completed and non-availability of literature on the topic and as such there was little room for comparison of obtained data and information.

1.10 HYPOTHESIS

From the above mentioned research questions the following hypothesis is proposed:-

(1) **The Null Hypothesis**: -

H_0: The presence of Minna technology business incubation centre has no any significant impact on the development of small and medium scale enterprises in Minna.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 DEFINATION OF TECHNOLOGY BUSINESS INCUBATION

According to Lalkaka et al (1992) business incubation process can be defined as a system of careful nurturing of a now small business enterprise. They also pointed out that business incubators are in simplest term facilities established to support the creation and development of new technological ventures by providing affordable space, shared office services management and marketing assistance, and access to risk capital.

According to Minna Technology Business Incubation Centre, Technology Business Incubation is a programme of the Federal Ministry of Science and Technology, established to foster and nurture small and medium scale enterprises, reduce the high mortality rate among small and medium scale enterprise and to assist the host state actualize her industrialization dream by promoting and developing entrepreneurs engaged in the utilization of local raw material within the state and the country at large.

2.2 Form of Technology Business Incubators

Business incubators take many forms (Lalkaka and Ping, 1992). These are:-

1) **Innovation centre**: - these are generally focused on efficient application of technologies

2) **The Incubator without Walls**: - these depart from the accepted notion of business training and management expertise on an "out-patient "basis. Incubator staffs visit small business clients on a regular basis providing services in a decentralized fashion primarily in rural areas with widely dispersed population.

3) **The Full Incubators**: - These provide common premises and a full range of shared service to nascent entrepreneurs. It is well suited technological innovations. Management usually establishes rigid entrance requirements and exit stipulations to which the tenant is held throughout his stay in the incubator.

The full service incubator is the form of technology business incubator being operated in Minna.

2.3 ELEMENT OF TECHNOLOGY BUSINESS INCUBATORS

Lalkaka et al (1992) have pointed out that while incubators differ in type and financial structuring, in one form or another all share the following seven elements in common:-

1. Access to seed capital
2. Physical space
3. Shared services
4. Management
5. Tenant interaction.
6. Research and planning
7. Community support.

1. **Access to seed capital**: - Seed capital is necessary both to acquire or refurbish the physical premises for the incubator as well as to finance the tenants' start-ups. To this end, incubator developers and managers established contact with as highly diversified a range of financing institution as possible. These include everything from state and local development authorities to commercial banks and venture capitalist. Certain incubators have even established in –house seed capital funds.
2. **Physical space**: - Providing physical space for tenant is an important function of all incubators. Leases are prepared for varying durations consistent with the entry and exist criteria set by incubators. Space is normally provided at slightly below prevailing community rates. Some incubator use Graduated rent scheme that peaks at the exist as an incentive for the tenants to graduate.
3. **Shared Services: -** Shared office services and business development assistance are the two key characteristics that distinguish incubators from industrial parks and multi tenant developments. Shared office services provided by incubators are photocopying services, office equipment and furniture, conference facilities, receptionist, computer facilities, word processing, securing, business library and storage.

Business development services available through incubator management either internally or externally include accounting, marketing assistance, business plan preparation, computer training, legal services, government procurement, government grants and loans, business taxes, dept and equity financing, patent assistance, research and development assistance, and international trade advice.

4 **Management: -** Incubator management functions entail preparation of the entrance and exit requirements, maintenance of tenant quality, tenant development, promotional

activities to attract new tenants, and day-to-day administration of the incubator itself. A manager is responsible for the day-to-day operations of the incubator.

5. **Tenant Interaction: -** Tenants often face the same or similar business problems. The interactive environment of the incubator encourages them to solve the problem together. This often-creative interaction between tenants can and often does lead to cooperative arrangements such as joint research, mergers, joint ventures, and sub-contracting.

6 **Research Planning: -** Extensive research and planning are required to site and properly develop an incubator. The cultural, financial, political, and technological make up of the community must be fully understood in order to determine its orientation and the type of incubator. Most incubators are only established following the completion of detailed feasibility studies. It is through these feasibility studies that local business and community needs are identified.

7. **Community Support: -** The community plays an important role in servicing the incubator, providing the expert and consulting services required by the tenants. The incubator management works continually of services and to build support within the community.

2.4 BENEFITS OF TECHNOLOGY BUSINESS INCUBATION CENTRES TO THE ENTERPRENEURS AT THE CENTRES.

Lalkaka et al (1992) have pointed out that Technology Business Incubator Centers give entrepreneurs the opportunity to exchange experiences and are assisted with the preparation of sound business plans and financing proposals acceptable to targeted financial institutions.

Incubators, particularly those affiliated with technical universities and research institutions, serve to enhance the technological capacity of start-up enterprises by

providing companies access to research programmes, computer networks, and market intelligence, primarily through liaison agreements.

The Minna Technology Business Incubation Center brief stated that Technology Business Incubation Centers were developed to provide selected entrepreneurs with the basic infrastructural facilities and services required to develop their ideas from conception through commercialization to the launching of a new technology value added industry. The following are some benefits / 6 provided by Minna Technology Business Incubation Centre to the entrepreneur: -

1. The entrepreneurs are expected to remain under strict supervision of incubation period for three (3) years before moving out into the open competitive market and to allow for a continuous in-take of new entrants.
2. Common services provided by the centre to entrepreneurs includes business planning and counseling, research and development (R and D) assistance, secretariat support services, legal, proper records keeping, accounting and marketing aid.
3. Training of entrepreneurs to develop their managerial and technical skills through the regular in-house seminars and workshops while at the centre and to enhance their performances.
4. Provision of supplementary finance (seed) capital to the entrepreneurs while at the centre for the period of six (6) mouths to one (1) year to argument their capital base.

2.5 BENEFITS OF MINNA TECHNOLOGY BUSINESS INCUBATION CENTER TO THE NIGERIAN ECONOMY.

According to the Minna Technology Business Center, the Technology Business Incubation Center's contribution to the Nigerian economy includes: -

1. Promotion of industrialization of the country through small and medium scale enterprises.

2. Providing employment opportunities to unemployed youths and would be entrepreneurs.

3. Enhancing economic activities of the host state.

4. Facilitating rapid commercialization of research and development findings.

5. Empowerment of interested Nigerians through skill acquisition on small businesses.

6. Promoting the modernization of our local technology.

7. Encouraging the utilization of abundant local raw materials.

2.6 DEFINITION OF SMALL AND MEDIUM SCALE ENTERPRISES (S.M.E's)

There is no universally accepted definition of small and medium scale enterprises the world over. This is because a definition of what constitute a small-scale business should reflect level of technology within the economy, the development needs or objective of the economy and such other factors that are dictated by the social and cultural values of the economy of a country.

There is a need for a standard definition of small and medium scale enterprises within an economy. This need is paramount in the context of providing a frame of reference for the various agencies responsible for policy formulation and implementation in respect of small and medium scale enterprises (Sule, 1989,Atijosan and Olaoye, 1989).

According to the New Encyclopedia Britannica, Small scale businesses are defined as units of non-agricultural business enterprises below an arbitrarily determined size limit. The designation is established to serve as a guideline in carrying out government policies that aid smaller business firms in one way or another or that exempt such firms from certain regulations that apply to large firms.

An ambivalent attitude toward Small business is sometimes found in Asia, Africa and South America. It is often encouraged as a means of providing employment and encouraging entrepreneurship and middle class stability.

According to the third national development plan, small and medium scale enterprises can be defined as manufacturing establishments employing less than 10 people or whose investment in machinery and equipment do not exceed #600,000.00.

The Federal Ministry of Industry defined small and medium scale enterprises as those enterprises that cost not more than #500,000.00 including working capital. While the central bank of Nigeria monetary policy circular No 22 of 1988 defined small and medium scale enterprises as (excluding general commerce) as enterprises in which the total investment (including land and working capital) did not exceed #500,000.00 and or the annual turn over did not exceed #500,000.00 and or the annual turnover did not exceed #5.0 million. With the persistent depreciation of the naira however, the maximum size of capital investment has been raised to #5 million and turnover to #25 million since 1990.

The Federal Government of Nigeria, in its 1990 budget defined small and medium scale enterprises for purpose of commercial bank loans, as those enterprises with annual turnover not exceeding ₦500, 000.00 and for merchant bank loans, those enterprises with capital investment not exceeding ₦2 million (excluding cost of land) or a maximum of ₦5 million.

The National Economic Reconstruction Fund (NERFUND) on its part put the ceiling for small and medium scale enterprises at ₦10 million.

The companies and allied matters decree section 37b (2) of 1990 defined small and medium enterprises, as the one with: -

a. Annual turnover of more than ₦2 million.

b. Net asset value of not more than ₦1 million

And according to Inang and Ukpong (1992), Britain defined small and medium scale enterprises as that industry with an annual turnover of £2 million or less with fewer than 200 paid employees.

While in Japan, a small and medium scale enterprise is defined according to the type of industry. For instance, small and medium scale enterprises in manufacturing are defined as those with 100 million Yen as paid up capital and 300 employees. While those in wholesales trade should have 300 million Yen paid up capital and 100 employees.

The Committee for Economic Development of the United States suggested the possession of at least 2 of the following for a business to be considered a small and medium scale business.

They include: -

1. Operation is locally based. That is, Not nationwide (not having branches in major cities or towns).
2. Owners are also managers.
3. Organization is small within the industry.
4. Owners supply the highest percentage of capital or all.

However, according to Ndagi (2004) there is some danger in defining small and medium scale enterprises in terms of capital investment alone because of the inflationary effects on the cost of capital. The definition has to take into consideration other factors such as: -

1. Number of employees.
2. Turnover or gross sale value.
3. Financial strength and viability.

4. Relative size within the industry.

5. Initial capital outlay and whether supplied by the owner.

6. Comparison with past standards.

7. Independent ownership.

(8) Type of industry or business.

(9) Area of operation.

(10) Management often managed with ownership.

2.7 ROLE OF SMALL AND MEDIUM SCALE ENTERPRISES IN THE ECONOMY.

Obitayo (1991) summarized the role of small and medium scale Enterprises as follows: -

1. Small and medium scale enterprises constitute the very basis of the national economy.
2. Development of local technology.
3. Provide an effective means of stimulating indigenous entrepreneurship.
4. Greater employment creation per unit capital invested.
5. Mobilization and utilization of domestic savings.
6. Ensure the structural balance in terms of large and small industrial sectors, as well as rural and urban areas.
7. Ensure the supply of high quality parts and components and i8ntermediate products hereby strengthening the international competitiveness of manufactured goods.
8. Stimulate technological development and innovations.
9. Produce specialized items in small quantity to meet current and diverse demands.
10. Effective in subcontracting with large enterprises.
11. Increase efficiency by reducing costs and improving flexibility.
12. Capacity to expand export possibilities and substitute imports effectively.
13. Produce import substituting machinery and equipment
14. Copying duplication and multiplication).
15. Mitigate rural- urban migration.

Despite all the above listed roles, small and medium scale enterprises also face myriad of problems irrespective of their location both rural and urban

2.8 DEVELOPMENT OF SMALL AND MEDIUM SCALE ENTERPRISES

According to Marcum (1992) in many economies, larger companies enjoy a number of substantial advantages over small and medium enterprises (S.M.E.S). Among them, the ability to capture economies of scale in such areas as research and development (R and D), marketing, and distribution, relatively easier access to capital, lower costs for components and greater political influence. However, governments are beginning increasingly to recognize that in spite of the ostensibly inherent advantages of larger enterprises, it is socially beneficial for an economy to comprise smaller as well as larger ones. Advantages and preferences enjoyed by larger enterprises can be grouped into two categories: -

1. Scientific and technological, and
2. Financial.

However, after the examination of both the financial environment and the research and development system of the decentralized policy of the united state and the centralized policy France, we find that the in the case of the financial system:-

1. It is important to reduce direct state financing of enterprises to a minimum – to zero if possible – in order to shift criteria for raising capital away from political and toward economic consideration considerations.
2. Every effort should be made to encourage competition in the financial system not just among banks and other sorts of financial institutions and between banks and loans broad array of financial instruments now available for enterprises finance. This will increase the opportunities for worthy and viable enterprises to raise capital even if initial attempts to raise it from conventional sources fail.
3. Even in countries with foreign currency difficulties, it can be helpful to open financial markets to foreign financial institutions.

In so long as, countries with undeveloped financial systems can benefit from the diversity and flexibility of foreign markets, from the markets discipline they provide, and from the additional capital they can make.

As regards the research and development system, the overriding principles are a maximum possible reduction in the state micro-management, not only of the research and development institutions as well.

The priority in research and development funding should be given to universities and research and development institutions.

2.8.1 DEVELOPMENT OF SMALL AND MEDIUM SCALE ENTERPRISES IN NIGERIA.

The earliest attempt of the government to develop small and medium scale enterprises in Nigeria dated back to 1946 when the seasonal paper number 24 of 1945 on "A ten year plan of development and welfare for Nigeria 1946'' council on 7th February, 1946 (Osoba, 1987), due to the colonial economic arrangements and structures the could not materialize. Between 1962 and 1963, the Ford Foundation of U.S.A collaborated with the then Eastern and northern Regional government to establish

Industrial development centers for the purpose of promoting the development and financing of small and medium scale industry as well as rendering techno-managerial service to them.

Osoba (1987) explains that small-scale industry division that was set up by the Federal Government of Nigeria after the civil war obtained from the United Nations Industrial Development Organizations (U.N.D.P./U.N.I.D.O). assistance for its small-scale industries promotion programme. It commissioned various institutions like centre for Industrial research and development, (formerly I.R.D.U) to carryout surveys of small scale industries credit loan scheme in each state with matching grants from the Federal Government. It initiated the establishment of national advisory committee for the development of small-scale industries in Nigeria, which gives advice on issues of policy to the government on the development of industries (Anyanwu, 1989).

The second national development plan period of 1970-1975, the economy benefit from oil boom, costly industrial projects were undertaken. Private sector investment in manufacturing sector grew, through with less emphasis on small-scale industry.

In the 1975-80 development plan, government provided funds for small-scale enterprises research, created a small industry division and encouraged states to start small and medium scale credit scheme but with out monitoring. Hence there was mismanagement of the states small scale industries credit scheme.

During the fourth National development plan period of 1981-1985, the Nigeria Bank for commerce and Industry was charged with the responsibility to administer loans to small-scale industries. It was expected that the bank would inculcate discipline

into borrowers, assist better with project appraisal and offer advisory services to small industries.

The National Directorate of employment was established in 1986 to promote the development the development of small and medium scale enterprises (S.M.E.S). In appreciation of the problems confronting small and medium scale enterprises (S.M.E.s), the federal Government has always played an active role, particularly since 1980 in stimulating, small and medium scale enterprises (Obitayo, 1991).

And more recently the Federal Government of Nigeria also established the small and medium scale Enterprises Development Agency (S.M.E.D.A.N.) and National Poverty Eradication Programme (N.A.P.E.P), to assist in the development and financing of small and medium scale enterprises (S.M.ES).

2.9 THE MAJOR PROBLEMS OF SMALL AND MEDIUM SCALE ENTERPRISES

According to Dufour (1992) the major problems of small and medium scale enterprises (S.M.E.S) could be summarized with four Ms:-

1. Money
2. Markets
3. Management
4. Manpower

Increasingly, a fifth M – method, through effectively implemented technology – is creeping into their vocabulary.

In addition, significant opportunities and threats perceived by small businessmen are: -

1. Increased international trade and more intense competition from all sector of the global economy.
2. Technological progress in communications, computers, robotics and other fields hold significant opportunities. Alternatively, the application of new technology in small business may be hindered due to high to cost of complexity.
3. Strong links between small business and large cooperation's essentials.
4. Shortage of skilled workers combined with increasingly unwillingness of workers to relocate, and
5. Access to knowledge and information source of all kinds (commercial, governmental, technical and marketing) is becoming more difficult for small business.

6. In addition to the above mentioned problems, small and medium scale enterprises (S.M.E.s) face the following problems:-

INADEQUATE INFRASTRUCTURE

Meyanathan and Salleh (1994) explained that in most developing countries, their lands and infrastructures were provided for large-scale enterprises at subsidized costs, through industrial estate developed by government agencies as part of the industrialization drive.

The Minna Technology Business Incubation centre stated that most small and medium scale industrialist lack the required basic infrastructures like well equipped factory / workshop, support services etc. and where some or all of those infrastructures are provided, the initial cost of production, will be too high and the resultant effect is the high cost of the finished product which is far beyond the reach of many Nigerian's.

LACK OF MANAGERIAL AND TECHNICAL SKILLS.

Poor management as recognized by Obitayo (1991) has remained the major single factor that has crippled many small and medium scale enterprises in Nigerian and this usually result from poor control systems, improper keeping of financial records, lack of technical and economic counseling and imperfect markets.

The Minna Technology Business Incubation Centre also pointed out that the bane of small and medium scale enterprises in Nigeria has been identified to include inappropriate management of human and material resources, which sometimes leads to high incidence of business failure.

INADEQUATE FINANCE.

According to Obitayo (1991) small and medium scale enterprises suffer from inadequate working and thus have difficulty in finding their business operation especially purchase of raw material and at times, payments are held up by customers and that constitutes the cause of a large part of small industries financial difficulty.

Meyanathan and Salleh (1994) also stated that other commonly cited problems confronting small and medium scale enterprises (S.M.E.s) in most developing countries are inadequately and difficultly of obtaining finance due to the small size of firms, their lack of collateral and the conservative lending policies of financial institutions.

The Minna Technology Business incubation centre further stated that most small and medium scale enterprises (S.M.E.s) in Nigeria either lack finance, lack access to credit, possess insufficient finances to start – up or continue their businesses in spite of begin profitable business ideas or ventures.

LACK OF ACCESS TO THE REQUIRED MARKET (PATRONAGE).

The university partinian Malaysia (U.P.M.) and International Development Research centre (I.D.R.C.) survey found that most common marketing problems perceived by small and medium scale enterprises is their inability to generate adequate sales at high enough margins. About 60% of firms surveyed identified "not enough sales" and rough 55% identified "low margins" as their major problems. The study also showed that in general, small and medium scale enterprises do not have the capacity to undertake marketing functions in an organized manner. They neither have the expertise nor the resources to conduct any form of market research; sales forecasting or sales force training.

The Minna Technology Business incubation centre stated that marketing is the most important but difficult part of managing small and medium scale enterprises no matter how good the product is, failure to market it in the right and proper manner, it will fail to attract the needed attention for patronage.

2.9.1 MEASURES INTRODUCED TO ASSIST IN SOLVING PROBLEMS CONFRONTING SMALL AND MEDIUM SCALE ENTERPRISES (S.M.E.s)

According to Dufour (1992) some of the measures introduced to by the Canadian government since 1984 to assist small businesses include the following

(1) PAPER WORK REDUCTION ACTION PLAN :-

The action plans requires federal departments and agencies imposing paper work on small business to prepare annual paper work reduction plans that will be approved by cabinet and sub sequentially monitored

(2) FORWARD PROVINCIAL COOPERATION

To ensure greater coordination and communication between different levels of government, committee of senior official to formulate recommendations in a number of important areas for small businesses including financing, business management services, and technology transfer was established.

(3) SMALL BUSINESS CONSULTATIVE COMMITTEE

Six working group: - entrepreneurship, financing, innovation, market development, procurement and sub contracting and the small business environment were formed to assist small and medium scale enterprises (S.M.E.S)

(4) **SMALL BUSINESS STATISTICAL DATA BASE**

The federal government in conjunction with the province and private Sector is developing a specialized database on small businesses that will provide practical information such as business profiles and financial operating ratios.

(5) **PROCUREMENT POLICIES**

The federal government has launched a comprehensive programme to improve participation from the small businesses in federal government procurement as well as simplifying the suppliers' registration process.

2.9.2 **THE CONTRIBUTION OF TECHNOLOGY BUSINESS INCUBATION CENTRES TOWARDS REDUCING THE PROBLEMS FACING SMALL AND MEDIUM SCALE ENTERPRISES**

In realization of the above mentioned problems, the Technology Business Incubation centers conduct the following:-

1. Provide an integrated infrastructure called incubator unit at a heavily subsidized rate. The Minna Technology business incubation centre presently have twenty two (22) of such incubator units. While each units are equipped with 60 A and 30 A gear switches, pipe borne water, two ceiling fans 15A and 13A switches, seven(7) fluorescent lighting tubes and production space of about $40m^2$ and office space $18m^2$.
2. Enhance entrepreneur managerial and technical skills in various fields of management and production by organizing quarterly in house training workshop for the benefit of the entrepreneurs within and around Minna technology business incubation centre environment who have viable businesses but are not being incubated. They could be drawn from, N.A.C.C.I.MA, M.A.N members and N.A.P.E.P beneficiaries. The training is free and open only to those invited. The resource persons are drawn from the academia. Research institutes, financial institutes, agencies, banks and successful industrialist.
3. Provide supplementary finance called seed capital loan, which is short-term soft loan to the entrepreneurs at the centre to augment their capital base, enhance their production capacity and enhance their businesses to yield higher profit margins. Thus, this will enable them to become financially self-sustaining.
4. Complement the entrepreneurs marketing strategies by assisting them with marketing aids, counseling and planning.

CHAPTER THREE

3.0 METHODS AND METHODOLOGY

3.1 RESEARCH DESIGN AND PROCEDURE

Emory (1980) defined a research as "Any organized inquiry carried out to provide information for the problem. It is also a systematic design, collection, analysis and a report of data and finding solution to a specific problem at hand".

3.2 PRETESTING

The quality of the questionnaire was verified through a presetting exercise. Ten percent of the population was given questionnaires to fill. This is to ensure uniformity of responses and the number of misinterpreted questions.

3.3 COLLECTION AND SOURCES OF DATA

Primary data was collected through the use of questionnaires. Questionnaires were the principal instrument used to elicit the desired information from entrepreneurs as they are in better position to know the state of their business.

Direct observation was made on the study area to enhance confidence of the researcher in the quality of the data. Observations were made on the business location and basic amenities present in the study area.

While secondary data were collected from information obtained from books, journals and other published materials.

3.4 SELECTION OF POPULATION SAMPLES

The population of the respondents to the questionnaire consisted of 25 tenants (entrepreneurs) at Minna Technology Business Incubation Center and 13 graduates entrepreneurs from Minna Technology Business Incubation Center. Simple random sampling method was used.

3.5 DEVELOPMENT AND ADMINISTRATION OF RESEARCH INSTRUMENTS.

Two sets of questionnaires were designed for this study; one set was administered on selected samples of small-scale entrepreneurs in Minna who are tenants at the technology business incubation center. Another set was also as administered on a sample of small-scale entrepreneurs who have graduated from Minna Technology Business Incubation Center. Simple random sampling method was used. A total of 17 questionnaires were given out to tenants in Minna Technology Business Incubation Centre and 6 were duly completed and returned. And 9 questionnaires were given out to tenants that have graduated from the Minna Technology Business Incubation Centre and 6 were duly completed and return. And 17 copies of questionnaire were given out to staff of Minna Technology Business Incubation Center and 14 were duly completed and returned. They were randomly selected.

In the administration of the questionnaires, two methods were combined, that is personal interviews whereby the researcher asked respondents question from the questionnaires to pretest the questionnaires and responses were recorded in order to minimize misinterpretation of questions and allow for observation made which enhanced the interpretation of the data collected.

Self-administered questionnaires were also used. The questionnaires were left with the respondent and collected after a week. This was to give the respondents enough time to respond and fill the questionnaires. All in all,a total of 43 questionnaires were given out and 26 were duly completed and returned.

3.6 METHOD OF DATA ANALYSIS

The qualitative and quantitative methods of data analysis were employed for the analysis of the data.

3.7 QUALITATIVE METHOD

The qualitative method used includes: - summaries of the answers from the structured questionnaires. The essence was to enhance the database.

3.8 QUANTITATIVE METHOD

The quantitative methods involved the extraction of data from the qualitative process which was further analyzed using the following quantitative tools:-

1. Percentages
2. Mean.
3. Chi- square test (X^2-test) method of testing hypothesis.

CHAPTER FOUR

4.0 ANALYSIS AND INTERPRETATION OF DATA.

4.1 INTRODUCTION

The aim of this chapter is to analyze and present the information and data collected from the respondents. The method of analysis will be with the use of percentage, and chi- square test (X^2–test) method of testing hypothesis.

ANALYSIS OF RESPONSES

SECTION A

Section A of the questionnaire includes personal data of the respondents (entrepreneurs) i.e. both the tenants that are still in Minna Technology Business Incubation Centre and those that have graduated. Questions were asked about the sex of the entrepreneurs, age, marital status, education background, occupation, business address and the number years in business. What motivated the entrepreneurs into business, their source of finance, financial record keeping, the amenities available to them, and the problems facing their business were other questions asked the respondents.

TABLE 1: THE NUMBER OF QUESTIONNAIRE DISTRIBUTED AND RETRIEVED FROM RESPONDENTS

	Numbers Distributed	Numbers retrieved	Percentage of responses
Tenants in MTBIC	17	6	35.29%
Tenants that have Graduated	9	6	66.67%
Staffs	17	14	82.35%
Total	43	26	60.47%

The Table 1 above shows that a total of 43 questionnaires were distributed for this study and 26 were retrieved back with usable information (the return rate was 60.47%).

TABLE 2: GENDER CLASSIFICATION OF THE RESPONDENTS PERCENTAGE RESPONSES

Gender	Number of respondents			
	Tenants in MTBIC	Tenants that have Graduated	Tenants in MTBIC	Graduated from MTBIC
Male	5	3	83.35%	50%
Female	1	3	16.67%	50%
Total	6	3	100%	100%

From table 2, more male responded(83.33%)to the questionnaire for tenants in MTBIC than female(16.67%).while equal number of tenants that have graduated from MTBIC responded to the questionnaire that is 50% male and 50% female.

TABLE 3: - AGE GROUP OF THE RESPONDENTS

Age Group (years)	Number of responses		Percentage of responses	
	Tenants in MTBIC	Graduates from MTBIC	Tenants in MTBIC	Graduates from MTBIC
15-25	-	-	-	-
25-34				
35-44	2	-	40%	-
45 and above	3	6	60%	100%
Total	5	6	100%	100%

According to the table 3 above, ages 45 years and above have the highest percentage of responses both among the tenants in MTBIC (60%) and graduates from MTBIC (100%).people of

ages 25-34 years have the lowest percentage of responses among the tenants in MTBIC(40%).None of the respondent fall between 15-25 years and 35-44 years among the tenants in MTBIC. And none of the respondents fall between 15-25 years, 25-34 years and 35-44 yeas among graduates from MTBIC. These results revealed people of age 45 years and above are more among the entrepreneurs of MTBIC. These maybe as a result of their strong desire to be independent, create employment and render service to humanity.

TABLE 4: MARITAL STATUS OF THE RESPONDENT

Marital status	Number of respondents		Percentage of respondents	
	Tenants in MTBIC	Graduates from MTBIC	Tenants in MTBIC	Graduate from MTBIC
Married	5	6	83.33%	100%
Not married	1	0	16.67%	0
Total	6	6	100%	100%

The table 4 revealed that 83.33% of the respondents are married among the tenants in MTBIC while 16.67% of the respondents are not married, 100% of respondents among the graduates from MTBIC are married. Since most of the entrepreneurs are married, the ownership structure of the business could be said to be highly family centered.

TABLE 5: EDUCATIONAL BACKGROUND OF THE RESPONDENTS.

Educational Background	Number of respondents		Percentage of respondents	
	Tenants in MTBIC	Graduates from MTBIC	Tenants in MTBIC	Graduate from MTBIC
Primary education	-	-	-	-
Secondary education	3	-	50%	-
University Education	3	5	50%	83.33%
Others	-	1	-	16.67%
Total	6	6	100%	100%

The table 5 revealed that 33.33% of the respondents among the tenants of MTBIC have secondary education while 50% have university education. And 83.33% of the graduates from MTBIC have university education while 16.67% of the graduates have polytechnic educations.

Due to the high level of education between the tenant and graduates from MTBIC, they have a strong chance of acquiring and developing modern management techniques for their businesses

TABLE 6: YEARS OF EXPERIENCE OF THE RESPONDENTS IN BUSINESS

	Number of respondents		Percentage of respondents	
Years	Tenants in MTBIC	Graduates from MTBIC	Tenants in MTBIC	Graduates from MTBIC
1-3 years	1	-	50%	-
4-6 years	1	-	50%	-
7-10 years	-	1	-	25%
Above 10 Years	-	3	-	75%
	2	4	100%	100%

As shown in the above table, 50% of respondents among tenants in MTBIC have 1-3 years experience in business and 50% of the respondent has 4-6 years experience in business. While 25% of the respondents among graduates from MTBIC have 7-10 years in experience in business. And 75% of the respondents have above 10 years experience in business.

The entrepreneurs in MTBIC have only between 1-6 years experience in business, hence they may still require training in both production and financial management. While graduates from MBTIC have between 7-10 years and above experience in business. Thus, they may require only financial management training at the center.

TABLE 7: WHAT MOTIVATED THE ENTREPRENEURS INTO BUSINESS,

Motivation	Number of respondents and percentages												Number of respondents and percentages										
	Tenants in MTBIC												Graduates from MTBIC										
	Most important	percentage	More important	percentage	Important	percentage	Not important	percentage	none	percentage	Total respondents	Percentage total	Most important	percentage	More important	percentage	important	percentage	Not important	percentage	none	percentage	Total respondents
Desire to make profit	1	16.7%			3	50%	1	16.7%	1	16.7%	6	100%					3	50%	2	33.3%	1	16.7%	6
Unemployment			1	16.7%			1	16.7%	4	66.7%	6	100%			1	16.7%					5	83.3%	6
Desire to be independent	1	16.7%	4	66.7%					1	16.7%	6	100%	5	83.3%			1	16.7%		1	1		6
To create employment	4	66.7%	1	16.7%					1	16.7%	6	100%	4	66.7%	2	33.3%							6
To render service	5	83.3%							1	16.7%	6	100%	3	50%			2	33.3%			1	16.7%	

As indicated in the table 7 in the previous page, 50% of the respondents among tenants in MTBIC and 50% of graduates from MTBIC attributed the desire to make profit to be the important motivation for going into business. Only 16.7% of tenants in MTBIC and 16.7% of graduates from MTBIC were motivated into business due to unemployment. While 66.7% of the tenants in MTBIC and 83.3% of the graduates from MTBIC were motivated into business due to the desire to be independent. And 66.7% of the tenants in MTBIC and 66.7% of the graduates from MTBIC were motivated into business by the desire to create employment.

About 83.3% of tenants in MTBIC and 50% of the graduates from MTBIC were motivated into business by the desire to render services.

This implies that most of these entrepreneurs run their businesses for the purpose of rendering service, to be independent, to be self-reliant and to practice their chosen profession.

TABLE 8: SOURCES OF FINANCE FOR THE BUSINESS

	Number of responses		Percentages of responses	
Sources	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Government (only)				
Bank (only)				
Gifts from friends and relations.	1		16.7%	
Personal savings only	1	4	16.7%	66.7%
Selling family property (only)				
Gift from friends + personal savings +selling family property.				
Gifts from friends + personal savings	3		50%	
Bank loan + personal savings				
Gifts from friends + others		1		16.7%
Bank loan + personal savings + government		1		16.7%
Personal savings + selling family property.	1		16.7%	
Total	6	6	100%	100%

As indicated in the table above, 50% of the tenants in MTBIC set up their business with capital raised from gifts from friend sand personal savings, while 66.7% of the graduates from MTBIC mostly set up their business with capital from personal savings.

No entrepreneur make use of bank loan, this could be due to the demand for collateral by banks and high interest rates.

TABLE 9: ADEQUACY OF WORKING CAPITAL FOR THE RUNNING OF THEIR BUSINESS.

	Number of responses		Percentage of responses	
Rating	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Not adequate	4	4	66.7%	66.7%
Adequate	2	2	33.3%	33.3%
Very adequate				
Total	6	6	100%	100%

According to the Table 9 above, a high percentage of the respondents rate their working capital for the running of their business 'Not adequate' i.e. 66.7% among tenants in MTBIC and 66.7% among graduates from MTBIC.

Entrepreneurs need working capital for workers salary, purchase of equipments and raw materials. However, due to inadequate finances, they are not able to recruit capable and experienced hands into their enterprises.

TABLE 10: FINANCIAL RECORD KEEPING AND ACCOUNTS.

Do you keep financial Record	Number of responses		Percentage of responses	
	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Yes	6	6	100%	100%
No				
Total	6	6	100%	100%

From the table 10 above, 100% of the respondents among tenants in MTBIC said 'yes' that is they keep financial records and accounts.

This revealed that the entrepreneurs are in a good position to know the financial state of their businesses and puts them in a good position to access credit facilities from financial institutions.

TABLE 11: CONSULTANTS SERVICE USAGE.

	Number of responses		Percentage of responses	
Consultants	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Management Training	1	1	16.7%	16.7%
Marketing	2	1	33.3%	16.7%
None	3	4	50.0%	66.7%
Total	6	6	100%	100%

The table 11 above indicates that most entrepreneurs do not make use of consultancy services such as marketing and management training consultancy in their business. about 50% of

the respondents among the tenants in MTBIC do not make use of consultancy services and 66.7% of the graduates of MTBIC do not make use of consultancy services.

This could be as a result of inadequate finance to employ the services of these consultancies.

TABLE 12: ADEQUACY OF FACILITIES AT BUSINESS CENTRE.

Table A-C gives the state of infrastructure at MTBIC and locations of business of graduates of MTBIC.

A.

		Number of responses		Percentage of responses	
Facility	Rate	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Electricity	Not adequate		1		16.7%
	Adequate	4	4	80.0%	66.7%
	Very adequate	1	1	20.0%	16.7%
	Total	5	6	100%	

3

		Number of responses		Percentage of responses	
acility	Rate	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Vater	Not adequate		2		33.3%
	Adequate	4	2	80.0%	33.3%
	Very adequate	1	2	20.0%	33.3%
	Total	5	6	100.0%	100.0%

C.

Facility		Number of responses		Percentage of responses	
Road	Not adequate	1	1	20.0%	16.7%
	Adequate	4	2	87.0%	33.3%
	Very adequate		3		50.0%
	Total	5	6	100%	100%

The tables above indicate basic amenities that are problems of the development of small and medium scale enterprises (SME'S) at their locations. Findings in this section revealed that entrepreneurs frequently lack adequate public provided water, electricity and good roads at their production locations.

According to table A above, about 80% of the respondents among tenants in MTBIC mentioned electricity adequate and 66.7% of the respondents among graduates of MTBIC mentioned electricity adequate. However, they complained of occasional and frequent interruption of electricity supply at their business location.

Table B indicated that about 80% of the respondent among tenants in MTBIC mentioned water supply adequate and an average of 33.3% of the respondents among graduates of MTBIC mentioned water supply not adequate at their business location. While table C indicated that about 80% of the respondents among tenants in MTBIC mentioned road adequate and 50% of the respondents among graduates of MTBIC mentioned road very adequate at their business location.

The provision of basic amenities at MTBIC and location of business premises of entrepreneurs enhances the smooth running and production output of their business.

TABLE 13: SERIOUSNESS OF MAJOR PROBLEMS TO SMALL AND MEDIUM SCALE ENTERPRISES.

Problem	Number of respondents and percentages Tenants in MTBIC												Number of respondents and percentages Graduates from MTBIC											
	Most	percentage	More	percentage	Serious	percentage	Not serious	percentage	none	percentage	Total	Total percentage	Most	percentage	More serious	percentage	Serious	percentage	Not serious	percentage	none	percentage	Total respondents	Total percentage
Staffing (access to skilled workers and faithfulness of workers).	1	20					4	80			5	100%			2	33.3	1	16.7	2	33.3	1	16.7	6	100
Input supplies (Raw materials, equipments etc)			1	20	1	20	2	40	1	20	5	100			1	16.7	1	16.7	2	33.3	2	33.3	6	100
Competition			2	40	1	20	2	40			5	100					1	16.7	3	50	2	33.3	6	100
Low consumer demand	1	20			2	40	1	20	1	20	5	100	1	16.7	1	16.7			2	33.3	2	33.3	6	100
Basic amenities (e.g water, electricity, roads)			1	20			2	40	2	40	5	100					1	16.7	4	66.7	1	16.7	6	100
Finances	2	40	2	40			1	20			5	100	1	16.7	2	33.3	1	16.7	2	33.3			6	100
Land					1	20	2	40	2	40	5	100			1	16.7			2	33.3	3	50	6	100

The Table 13 previous page indicates the seriousness of the major problems facing small and medium scale enterprises (S.M.E'S).

About 33.3% of respondents among graduates of MTBIC mentioned staffing as a most serious problem facing them and 80% of respondents among tenants of MTBIC mentioned staffing as not serious a problem facing their enterprise. About 40% of the respondents among tenants of MTBIC mentioned input supplies not serious a problem to their enterprises and 33.3% of the respondent among graduates of MTBIC mentioned input supplies as not serious a problem to their enterprises.

And 40% of respondents among tenants of MTBIC mentioned competition as not serious a problem to their enterprises. While 50% of the respondent among graduates of MTBIC mentioned competition as not serious a problem facing their enterprises. 40% of the respondents among tenants of MTBIC mentioned low consumer demand as a serious problem to their enterprises and 33.3% of the respondents among graduates of MTBIC mentioned low consumer demand as not serious a problem facing their enterprise.

To 40% of the respondents among tenants of MTBIC basic amenities is not serious a problem to their enterprises and 66.7% of the respondents among graduates of MTBIC mentioned basic amenities as not serious a problem facing their enterprises.

Finance is a most serious problem to 40% of respondents among tenants of MTBIC and 33.3% of the respondents among graduates of MTBIC mentioned finance as a more serious problem to their enterprises. 40% of the respondents among tenants of MTBIC mentioned land not serious a problem to their enterprises and 33.3% of the respondents among graduates of MTBIC mentioned land not serious a problem facing their enterprises.

Some of the other areas mentioned by both the tenants and graduates of MTBIC as problems facing their enterprises include lack of transportation vehicles to convey their products

to consumers, lukewarm attitude of the government towards small and medium scale enterprises entrepreneurs and time factor i.e. lack of adequate time to dedicate to their business.

TABLE 14: SUGGESTIONS MENTIONED BY THE RESPONDENTS AS SOLUTIONS TO THEIR PROBLEMS.

	Number of responses		Percentage of responses	
	Tenants in MTBIC	Graduates of MTBIC	Tenants in MTBIC	Graduates of MTBIC
Usable responses	2	4	40%	66.7%
No responses	3	2	60%	33.3%
Total	5	6	100%	100%

From the table 14 above, 40% of the respondents among tenants of MTBIC suggested that basic amenities and access to loan facilities should be improved upon. And that the MTBIC should include in its curriculum, the training of staffs in dedication to duty.

66.7% of the respondents among graduates of MTBIC suggested the provision of transport vehicles to entrepreneurs by government, the employment of more staffs preferably those trained by them because of the unique local technology they may have and the creation of the time on the part of the entrepreneurs to face their business.

The above data and analysis of the data has been able to reveal some of the major problems facing tenants (entrepreneurs) in MTBIC and graduates of MTBIC.

SECTION B

Section B of the questionnaire includes data obtained from staffs of MTBIC. Questions were asked about the number of tenants admitted by MTBIC since inception, the type of training given to the tenants, the type of business the tenants specialize in, the problems facing MTBIC, other sources of funding apart from the government and the number of graduates from MTBIC.

The number of dropouts (those who could not complete their courses) and the number of graduates from the MTBIC who are making appreciable progress after graduation are some other questions asked the staffs.

4.2 ANALYSIS OF THE RESEARCH QUESTIONS.

Table 15: The number of tenants admitted till date by MTBIC.

Number of tenants	Number of respondents	Percentage of respondents
30	2	16.7%
32	5	41.7%
36	5	41.7%
Total	12	100%

The table above shows that 16.7% of the respondents among the staffs of MTBIC revealed that 30 tenants were admitted. Since inception of the center, 41.7% revealed that 32 tenants were admitted and another 41.7% revealed that 36 tenants were admitted by the center.

THE TYPE OF TRAINING GIVEN TO THE TENANTS AT MTBIC.

The staffs responded that the tenants are given training in record keeping, staff turnover, financial management, marketing, customer management, trade fair exhibition, sales turnover and skills acquisition. This is carried out through in-house training, seminars and workshops.

TABLE 16: THE TYPES OF BUSINESS THE TENANTS SPECIALIZE IN.

Types of business	Number of tenants
1. Ceramics production	2
2. Chalk production	1
3. Honey production	2
4. Animal production	2
5. Polythene production	2
6. Yoghurt production	2
7. Flour (beans, maize, Rice, Yam, soya, and plantain) production	5
8. Confectionaries (Bread, Cake etc) production	2
9. Laterite blocks, walls, and Roofing tiles production	1
10. Plantain chip production	1
11. Tie and dye production	1
12. Exercise books production	1
13. Metal fabrication Production	1
14. Juice production	1
15. Pharmaceutical production	1
Total	25

The Table 16 revealed that the staffs of MTBIC responded that an average of one entrepreneur was admitted in the businesses mentioned above and that a total of 25 tenants have been admitted till date by MTBIC.

This shows that MTBIC has impacted positively on the development of small and medium scale enterprises (S.M.E's) in Minna.

Table 17: THE PROBLEM FACING MTBIC

	Number of respondents and percentages											
Problem	Most important	Percentage	Most serious	Percentage	Serious	Percentage	Not serious	Percentage	None	Percentage	Total respondents	Total percentage
Funding	2	14.3	2	43	7	50			3	21.43	14	100
Road							5	35.7	9	64.3	14	100
Electricity							6	43	8	57.1	14	100
Water							1	7.1	13	92.9	14	100
Staffing							6	43	8	57.1	14	100
Remuneration					1	7.1	4	28.6	9	64.3	14	100
Motivational incentives or facilities	1	7.1	1	7.1	1	7.1	5	35.7	6	43	14	100
Facilities or Equipment used for conducting training.					2	14.3	6	47.3	6	44	14	100

The table 17 revealed that 50% of the respondents among members of staffs of MTBIC mentioned funding to be a serious problem to MTBIC, 35.7% of the respondents among staffs of MTBIC mentioned road as not being a problem to MTBIC, 43% of the respondents among staffs

of MTBIC mentioned electricity a not serious problem to MTBIC and 7.1% of the respondents among staffs of MTBIC mentioned water a not serious problem MTBIC.

And 43% of the respondents among staffs of MTBIC mentioned staffing not serious problem tom MTBIC, 28.6% of the respondents among staffs of MTBIC, 35.7% of the respondents among staffs of MTBIC mentioned motivational incentives or facilities a not serious problem to MTBIC. While 43% of the respondents used for conducting training a not serious problem to MTBIC of the problems listed in the questionnaire, funding is the most serious problem considered by staffs of MTBIC to be facing the centre.

TABLE 18: THE NUMBER OF GRADUATES FROM MTBIC TILL DATE.

Types of business	Number of graduates
1. Honey production	1
2. Tie and dye production	1
3. Chalk production	1
4. Ceramics production	1
5. Roofing tiles production	1
6. Shoes production	1
7. Bags production	1
8. Soap production	1
9. Maize flour production	2
10. Yoghurt, zobo production	1
11. Soya milk production	1
12. Animal feed production	1
Total	13

The table 18 above revealed that staffs of MTBIC responded that an average of one tenant graduated from the businesses mentioned above. And that a total of 13 entrepreneurs graduated from the centre since inception.

TABLE 19: THE NUMBER OF DROPOUTS (THOSE WHO COULD NOT COMPLETE THEIR TRAINING) FROM THE CENTRE.

Types of business	Number of tenants
1. Soya milk production	1
2. Spice production	1
3. Satellite dish production	1
4. Confectionaries production	1
5. Polythene production	1
6. Exercise book production	1
7. Chalk production	1
Total	7

The table 19 revealed that the staffs of MTBIC responded that an average of one tenant drop out from the centre from the business listed above, and a total of 7 tenants dropped out from the MTBIC since inception.

TABLE 20: THE NUMBER OF GRADUATES FROM THE CENTRE THAT ARE STILL MAKING APPRECIABLE PROGRESS, AFTER GRADUATION

Type of business	Number of graduates
(1) honey production	1
(2) tic and due production	1
(3) ceramic	1
(4) detergent/soap	2
(5) Zobo, kunu and yoghurt production	1
Total	6

The table 20 revealed that the staffs of MTBIC responded that an average of one graduate from each of the above listed business is still making appreciable progress after graduation from MTBIC, and that a total of six(6) graduates are still making appreciable progress after graduation from MTBIC.

After visits to the graduates from MTBIC that are based in Minna, only three (3) are established and making appreciable progress. One (1) each is involved in the production of honey, tie and dye and ceramics respectively

Among reasons that are attributed to the lack of progress by the graduates include:-

(1) Lack of access to credit facilities from banks due to stringent conditions of borrowing and payment like demand for collaterals.

(2) High interest rate on loan offered by banks to the entrepreneurs.

(3) Lack of the presence of and impact of the small and medium scale enterprises agency of Nigeria (S.M.E.D.A.N.)

TEST OF HYPOTHESIS

(1) The null hypothesis:-

Ho: The presence of Minna technology business incubation centre has no any significant impact on the development of small and medium scale enterprises in Minna

The alternative hypothesis:-

H_1: The recent development in the number of small and medium scale enterprises in Minna reflects the intact of Minna technology business incubation centre.

(2) The level of significance = $\acute{\alpha}$ =0.05

(3) The X^2 – test is the test statistics.

(4) Decision rule :- if X^2 computed is greater than X^2 observed we reject the null hypothesis [if $X^2_c > X^2o$ we reject Ho]

The contingency table	fo		
Number of tenants admitted	25	55.6%	
Number of graduates	13	28.9%	
Number of dropouts	7	15.6%	
Total	45	100%	

Where fo = observed frequency.

The expected frequency (Fe) is calculated by the formula:-

$$Fe = \frac{\text{Total}}{\text{Number rows}}$$

$= \frac{45}{3}$

$=15$

The X^2 –test is

$$X^2_c = \Sigma \frac{(Fo - Fe)}{Fe}$$

	fo	fe	fo-fe	$(fo-fe)^2$	$(fo-fe)^2/fe$
umber of tenants admitted	25	15	10	100	6.67
umber of graduates	13	15	-2	4	0.27
umber of dropouts	7	15	-8	64	4.27
				$\Sigma(Fo-Fe)^2/fe$	11.21

: $X^2_c = \Sigma \frac{(Fo - Fe)^2}{Fe}$

$= 11.21$

Calculation of degree of freedom (df):-

$df = (r - 1)(c - 1)$

Where r = number of rows in the response contingency table

c= number of columns in the response contingency table

$df = (r - 1)(c - 1)$

$= (3- 1)(2- 1)$

$= 2 \times 1$

$= 2$

From the X^2 – test table, at a degree of freedom (df) =2 and level of significance =ά= 0.05, the observed X^2 value is:-

$X^2_{2, 0.05} = 5.99$

$X^2 o = 5.99$

Decision rule; - if $X^2_c > X^2 o$ we reject the null hypothesis (Ho)

Decision: - since $X^2_c > X^2 o$ we reject H0

Therefore, we accept the alternative hypothesis: -

H_1: The recent development in the number of small and medium scale enterprises in Minna reflects the impact of Minna technology business incubation centre

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS.

5.1 SUMMARY OF FINDINGS

The basic objective of this study is to identify the impact of Minna Technology Business Incubation Center on the development of Small and Medium Scale Enterprises (S.M.E's) in Minna. The problems facing Small and Medium Scale Enterprises (S.M.E's) entrepreneurs, the problems facing Minna Technology Business Incubation Center, the number of graduates that have been trained by Minna Technology Business Incubation Center and the progress made by the graduates after training were also part of the objectives of this study.

The hypothesis put forward for the study generally emanated from the general objectives of the study. These could be stated as follows:

- **The Null Hypothesis: -**

The presence of Minna Technology Business Incubation Center in Minna has no any significant impact on the development of Small and Medium Scale Enterprises (S.M.E's) in Minna.

- **The Alternative Hypothesis: -**

The recent development in the number of Small and Medium Scale Enterprises (S.M.E's) in Minna reflects the impact of Minna Technology business Incubation Center.

The result shows that Small and Medium Scale Enterprises (S.M.E's) face the following problems: -

1. Lack of adequate working capital for running their business.

2. Lack of access to bank loans and credit facilities from financial institutions due to high collateral and interest rates.

3. The Small and Medium Scale Enterprises (S.M.E's) do not make use of consultancy services due to inadequate finance to employ the services of these consultancies.

4. Inadequacy of basic amenities at business locations, which can lead to ineffective performance of their business.

5. Other serious problems to the Small and Medium Scale Enterprises (S.M.E's) are staffing, low consumer demand, lack of transport vehicles, and time factor by graduates.

The result also shows that the major problem facing the Minna Technology Business Incubation Center is that of funding. And that, 25 entrepreneurs have been admitted by the center since inception, 13 entrepreneurs graduated from the center, 7 entrepreneurs dropped out from the training and only 3 entrepreneurs are still making appreciable progress after graduation due to lack of access to bank loans and credit facilities from financial institution because of high collateral and interest rate.

The alternative hypothesis was eventually accepted after due comparisons of computed values.

5.2 CONCLUSION

The result of this study is by no means conclusive. This study sought to identify the impact of Minna Technology Business Incubation Center on the development of small and medium scale enterprises in Minna. Through the review of related literature and responses of respondents among entrepreneurs both in Minna Technology Business Incubation Center and graduates of Minna Technology Business Incubation Center our findings shows that the impact of Minna Technology Business Incubation Center on the

development of small and medium scale enterprises (S.M.E's) in Minna though very low but the future of Minna Technology Business Incubation Center is bright.

We could conclude that the Minna Technology Business Incubation Center can impact more positively on the development of small and medium scale enterprises (S.M.E's) in Minna with adequate funding.

5.3 RECOMMENDATIONS

As a result of the findings of this study that the Minna Technology Business Incubation Center can impact more positively on the development of small and medium scale enterprises (S.M.E's) in Minna if it is properly funded. The following recommendations are proposed for consideration and adoption: -

1. Government and financial institutions should provide loans without security and little or no interest rates to entrepreneurs to cover the risk or start-up capital (seed capital).

2. The management of Minna Technology Business Incubation Center to attract new tenants into the center should embark upon vigorous enlightenment campaign and publicity.

3. Tenants' interaction should be encouraged by Minna Technology Business Incubation Center in order to encourage cooperative arrangements such as joint research, merger, and joint ventures after graduation from the center.

4. Government should put in place a deliberate policy to reduce the bureaucratic bottlenecks involved in getting permits to register a business and to have access to the basic amenities needed for the start-up and development of their businesses.

5. Effort should be made by the Minna Technology Business Incubation Center to encourage the local community who might not have high educational qualification but are involved in agriculture, which is the predominant occupation of the local

community. This should be geared towards the harnessing of the raw agricultural products into semi-processed or processed products, which could be sold locally or exported.

6. Government should encourage the establishment of private Technology Business Incubation Centers because they will be better managed and run. And financial institutions will be more favorably disposed to give them loans and credit facilities.

7. Government should provide space or land for the establishment of these incubators in order to stimulate and motivate the private sector to establish these incubators.

8. The universities and polytechnics should also be involved in the concept of Technology Business Incubation Centers in order to enable the entrepreneur to have access to serious research and development facilities and technological innovations.

9. The Technology Business Incubation Centers should be encouraged to participate in exchange and interaction programmes with other Technology Business Incubation Centers in more developed countries by allowing small and medium scale enterprises that already possess significant technologies to establish offices and businesses in the local Technology Business Incubation Center. The participating small and medium scale enterprise gains access to a new market and the incubator benefits from the interaction.

10. Government should increase funding to the Minna Technology Business Incubation Center in order to ensure the proper running and management of the center.

REFERENCES

Anyanwu, C.M. (1989), "Government financial policy in respect of small and medium Scale enterprises" being a paper delivered at the center for industrial research and development, Obafemi Awolowo University, Ile-Ife.

Atijosan, J.I. and Olaoye (1989), "Introduction to economic analysis" Obafemi Awolowo University Press Limited, Ile-Ife, Nigeria pp77.

Central Bank of Nigeria, Economic and financial Review volume 27 no 1 pp 59-61, 1989.

Dufour, P. (1992), Technology policy for small and medium enterprises: The Canadian experience. In Bhalla, A.S. (Ed) small and medium technology policies and options. Intermediate technology publication, 1992.

Emory, W. (1980), "Business Research Method", Richard D. Irwin publishing inc. U.S.A pp 5.

Federal Ministry of Industry, A review of industrial policy, incentives, guidelines and institutional framework Government Press Lagos, 1989, volume 27 no1, pp 59-61.

Federal Government of Nigeria (1981), second National Development plan, 1981-1985 (Federal Ministry of National Planning), Government Press, 1981, pp 1-18.

Inang, E.E. and Upkpong, G.E. (1992) "A review of small scale enterprises cred it delivery strategies in Nigeria" Central Bank of Nigeria : Economic and financial Review. Vol. 30, Number 4. December, 1992.

Lalkaka, R and Ping, H (1992), Nurturing Micro enterprises and technological

innovations through Business Incubation Process in Bhalla, A.S. (Ed) small and medium scale enterprises technology and options. Intermediate technology publication, 1992.

Marcum, J. (1992), "Centralized versus Decentralized policy toward small and medium enterprises". In Bhalla, A.S. (Ed) small and medium enterprises technology policies and options. Intermediate technology publication, 1992.

Meyanathan, S.D. and Salleh, I.M (1994), Malaysia: In economic development institute of the World Bank: Industrial structures and development of small and medium scale enterprises linkage. Examples from East Asia (Ed) by Meyanathan, S.D. World Bank Washington pp 23-61.

Minna Technology Business Incubation Center, Brief introduction of Minna Technology Business Incubation Center, 1999.

Ndagi, A. (2004), small Business Management. A pragmatic approach. Allanza international, Minna, 2004.

Obitayo, K.M. (1991), Government Industrial Policies in respect of small and medium enterprises in Nigeria. Central Bank of Nigeria. Volume 15, no 3 pp 33-42.

Onyeka, C.A. (1990), An introduction to applied statistical methods in the sciences. Nobem Avocation Publishing Company.

Osoba, A.M. (1987), Small scale industries and capital in: Towards the development of small scale industry in Nigeria Osoba, A.M. (Ed), N.I.S.E.R. Ibadan, Nigeria. Ros print Industrial Press, 1987, pp 16-21.

The new Encyclopedia Britannica. Encyclopedia Britannica inc. 1973-74, London.

University Partaniah Malaysia (1988), "Survey of technical skills training, International Development Research Center, Kuala Lumpur, pp 6-7.

COVERING LETTER

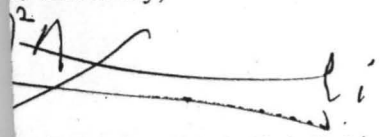
EAR SIR/ MADAM,

m a post graduate student in the department of general studies, federal university of technology, nna I am undergoing a research work on "**THE IMPACT OF MINNA TECHNOLOGY SINESS INCUBATION CENTER ON THE DEVELOPMENT OF SMALL SCALE SINESSES IN MINNA**".

e question asked in this questionnaire is meant to assist me in this study. I shall therefore be very teful if you can please give your unbiased opinion on the questionnaire it will strictly be used for academic purpose only and will be treated as very confidential,

nking you in anticipation of a good response.

rs faithfully,



kudi, Mohammed Abdullahi

A QUESTIONNAIRE ON THE IMPACT OF MINNA TECHNOLOGY BUSINESS INCUBATION CENTER ON THE DEVELOPMENT OF SMALL SCALE BUSINESSES IN MINNA.(SECTION A)

Instruction: please mark "✓" where appropriate among the alternatives.

1. Gender: male ☐
   Female ☐
2. Age group: 15-25years ☐
   25-34 years ☐
   35-44 years ☐
   45-and above ☐
3. Marital status: Married ☐
   Not married ☐
4. Education background:
   Primary education ☐
   Secondary education ☐
   University education ☐
   Other ☐
5. Occupation:
6. Business address:

7. How long have you been in business?
   (For entrepreneurs outside Minna T.B. I.C.)
   1-3 years ☐
   4-6 years ☐
   7-10 years ☐
   Above 10years. ☐
8. How long have you been in Minna T.B.I.C.?

9. What motivated you into this business? (Indicate or tick order of importance)

S/N	Motivation	Most important	More important	Important	Note important	None
I	Desire for profit					
II	Unemployment					
III	Desire to be independent					
IV	To create employment					
V	To render service					

9b. What other factors motivated you into business?

10a. What is the source of your finance for the business?

1. Government ☐
2. Bank ☐
3. Gift from friends or relations. ☐
4. Personal savings ☐
5. Selling family property. ☐

10b. What other source is your finance from?

10c. What percentage of your capital comes from each of theses sources.(tick which one is appropriate)

	Source	0%	1-5%	6-25%	26-40%	41-60%	61-80%	81-100%	100%
	Government								
	Bank								
	Gift from friends or relations								
	Personal savings								
	Selling family Property.								

How would you rate your working capital for the running of your business?

a) Not adequate ☐

b) Adequate. ☐

c) Very adequate. ☐

.a) Do you keep financial records and accounts?

Yes ☐

No ☐

b) If not, why

c) What other records do you keep?

Which of the following service do you use?

a) Management consultants ☐

b) Training consultants. ☐

c) Marketing consultants. ☐

d) None ☐

How adequate are the following facilities at your business?

	(a) . Not adequate	(b) Adequate	(c) Very adequate
Electricity	☐	☐	☐
Water	☐	☐	☐
Roads	☐	☐	☐

15 How serious are the following factors problem to your business?

(Tick the appropriate)

	Problems	Most serious	More serious	Serious	Not serious	None
1	Staffing (access to skilled workers and faithfulness of workers)					
II	Input supplies (raw material, equipment e.t. c)					
III	Competition					
IV	Low consumer demand					
V	Basic amenities e.g. water, electricity, roads)					
VI	Finances					
VII	Lands					

6. What other areas are problems facing your enterprise?

7. What solution do you suggest to the problems?

Thank you for your cooperation.

QUESTIONNAIRE ON THE IMPACT OF MINNA TECHNOLOGY BUSINESS NCUBATION CENTER ON THE DEVELOPMENT OF SMALL SCALE BUSINESSES IN INNA. (SECTION B)

I STRUCTION: PLEASE MARK "✓" where appropriate among the alternate among the ternatives.

1. What is the number of tenants admitted till date by Minna Technology Business Incubation center?
2. What is the type of training given to the tenants at the center?

3. What is the type of business the tenants specialize in?.

S/N	TYPE OF BUSINESS	NUMBER OF TENANTS

4. How serious are the following factors problem to Minna Technology Business Incubation center? (Tick the appropriate)

Problems	Most serious	More serious	Serious	Not serious	None
Funding					
Road					
Electricity					
Water					
Staffing					
Remuneration					
Motivational incentives or facilities given to staff e.g allowances for conducting training workshops and seminars.					
Facilities or equipments used for conducting training e.g. lecture halls e.t.c					

Other sources of funding apart from the government: -

6. What is the number of graduands from the center till date from the Minna Technology Business Incubation center?

S/N	TYPE OF BUSINESS	NUMBER OF GRADUANDS
0		

7. What is the number of dropouts? (Those who could not complete the course)

S/N	TYPE OF BUSINESS	NUMBER OF TENANTS
0		

8. What is the number of graduands of the center that are still making appreciable progress after graduation?

S/N	TYPE OF BUSINESS	NUMBER OF GRADUANDS

NAME OF OFFICIAL: -

DEPARTMENT: -

SIGNATURE: -