IMPROVING DIGITAL LITERACY/INCLUSION AMONG SMALL AND MEDIUM ENTERPRISES (SMEs)

(A CASE STUDY ON THE CITY OF ABA)

- Research Report -

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Research report on

IMPROVING DIGITAL LITERACY/INCLUSION AMONG SMALL AND MEDIUM ENTERPRISES (SMEs)

Written by

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DEDICATION

This work is dedicated to God Almighty.

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Magnus/Joshua.
1.1 BACKGROUND OF THE STUDY

Digital technology has become an essential catalyst in the advancement of innovation, competitiveness, and expansion of Micro and Small Medium Enterprises globally. Unfortunately, it is arguable that digital technology in Nigeria has been fully leveraged for the improvement of basic manufacturing processes, distribution, and delivery of goods and services. The erroneous belief that Nigeria imports almost all her consumable goods, and that the few locally-produced ones are inferior to their foreign counterparts, is somewhat linked to our total embrace of crude modes of production and distribution of goods and services. With many benefits inherent in the global digital economy made possible by dynamic technological innovations, the seeming less advanced status of the Nigerian Small and Medium Enterprises requires scrutiny. Hence the need to ascertain the actual level of digital literacy and inclusion of SMEs and recommend ways to muster growth in these areas.

Aba, (Enyimba City as it is often called) is a commercial city in Abia State, South-East Nigeria and home to various industrial clusters of Micro, Small and Medium Enterprises. The city is comprised of two local government areas, Aba North and Aba South. Due to its industrial flair, the city is often regarded as the “Japan of Africa”. Aba is arguably the largest industrial hub of the South-Eastern region of Nigeria. With different market sectors, such as leather, garment, metal fabrication, woodwork it offers thousands of job opportunities, unofficially making it the Headquarters of Small and Medium Enterprises of Nigeria.

According to Mazi O. C Williams, (President of Leather Manufacturers & Producers Association of Abia State) the finished leather producers of Aba are made up of fourteen clusters with over Sixteen thousand members. It is also estimated that its garment industry directly or indirectly engages over fifty thousand members.

Aba’s status as a fascinating niche of manufacturing hub for clothes, shoes, belts and bags, metal works and fabrication, woodwork among many others makes it the desired choice as pilot for this research study.

According to Okwy Iroegbu-chikezie of The Nations Newspapers, the shoe making industry in Aba exports about one million pairs daily to African countries. This fact was also corroborated by Mazi O. C williams, who stated that on a daily basis trucks loaded with such products leave Aba for local and foreign markets.
Brief Definition of Terms:
Digital Literacy/Inclusion: The phrase ‘Digital Literacy’ was first popularised by Paul Gilster in his book, “Digital Literacy”, published in 1998. Deakin University’s Graduate Learning Outcome 3 (DU GLO3) defines digital literacy as using technologies to find, use and disseminate information. Adding the word “inclusion” to the phrase intends for digital literacy/inclusion to mean the ability of people to communicate for business and other purposes using digital innovations and technology. It refers to the ability to access information through digital facilities, in this case, using digital facilities for trading and enhancement of trade.

Small and Medium Enterprises (SME): The exact meaning of SME depends on who’s doing the defining. Depending on the country, the size of the enterprise can be categorized based on the number of employees, annual sales, assets, or any combination of these. It may also vary from industry to industry. The European Union has defined an SME as a legally independent company with no more than 500 employees. They are notable for their minimal number of employees.

Banji Oyelaran-Oyeyinka excellently bares the following interesting fact about SMEs in Nigeria:

- SMEs are businesses with a turnover of less than N100 Million Naira per annum and/or less than 300 employees.
- Studies by the IFC show that approximately 96% of Nigerian businesses are SMEs compared to 53% in the US and 65% in Europe.
- SMEs represent about 90% of the manufacturing/industrial sector in terms of number of enterprises. They contribute approximately 1% of GDP compared to 40% in Asian countries and 50% in the US or Europe.
- In Nigeria, SMEs are distributed by clusters within regions.

1.2 RESEARCH QUESTIONS

For the purpose of this study, the following research questions are formulated:

i) What is the actual level of digital literacy/inclusion of SMEs in Aba?

ii) Does the level of digital literacy/inclusion of Aba affects the production and profit margin of SMEs in Aba?

iii) Does the large number of SMEs in Aba represent business potentials for more investment in Aba?

iv) Is the impact of Hubs in Aba commensurate with funds expended at their disposal?

1.3 AIM AND OBJECTIVES OF THE STUDY

This study is designed as a knowledge building effort to analyze the various elements and dynamics driving or limiting the growth of small and medium enterprises in Nigeria, especially its interaction with digital technology, its potential, risks, implications and possible interventions to address them. It is also to ascertain the level of digital literacy/inclusion among SMEs and demonstrate in clear terms the business potential of technology in revenue generation for entrepreneurs and other big investors. Specifically, the objectives of the study are:

The objectives of the study are:

1. To identify and ascertain the level of digital literacy/inclusion among SMEs in Aba
2. To examine the potentials of technological investment in the SME community of Aba and the country at large.
3. To examine the impact of Technology Hubs to the business community of Aba.
4. To identify ways to boost sales and also enrich the standard and quality of Nigerian made
(Aba) products or services by creating more awareness to the made in Aba narrative.

5. To ascertain, analyse and examine Governments’ impact, innovation and technology adoption policy.

1.4 SIGNIFICANCE OF THE STUDY

The findings in this report will accurately present the true state of digital literacy/inclusion among the SMEs in Aba, highlight efforts and impacts of relevant stakeholders (Innovation/IT Hubs, Government, etc) in advancing technology-influenced growth of SMEs and showcase the potentials for investment and stakeholder intervention particularly in Aba, and Nigeria at large. Thus, it is believed that it would ultimately boost profit not only for SMEs but guarantee higher returns on investment for investors.

1.5 SCOPE OF THE STUDY

The scope of this study entails ascertaining by mostly data collection the actual state of digital literacy/inclusion of SMEs in Aba and then showing the potentials of investment in Aba.

1.6. RESEARCH METHODOLOGY

The methodology adopted in this study is the Quantitative Research Approach. This is because the Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon.

1.7 LIMITATIONS OF THE STUDY

The study, though a product of painstaking research, just like every other human endeavour, encountered some challenges, like unavailability of research materials during the documentation phase, time constraints, paucity of funds, apathy of some targeted citizens among others. Despite these pressing challenges, adequate time and resources were put in, in order to enable the study to have yielded results.

1.8 STRUCTURE OF THE STUDY

This work is divided into five chapters. Chapter one is the general introduction, chapter two gives a general overview of the selected industry focus of this research, Chapter three discusses the technological insights of Aba, Chapter four focuses on the current trends and challenges and finally chapter five has the summary of findings, conclusions and recommendations.
Remarkably, Aba has stood out as a business hub in southeast and south-south Nigeria for its age long affinity with trading and business transactions such as farm produce, leather works, garment designs, metal fabrication, auto spare parts, cosmetics and plastic products, among others. This chapter examines the potential of the leather and garment industries in Aba.

2.1 Finished Leather Industry
The leather production sector in Aba, which the city is famous for, mostly deals with converting unfinished leather to finished products such as bags, footwear, shoes, belts among other items. The production involves various processes from the conversion of animal hides and skin to leather and the conversion of these raw materials to finished products. The leather industry provides employment for over sixteen thousand artisans with many specialising in different stages of production, such as designing, patterning, cutting, skiving, stitching, peeling and finishing.

According to the President of Leather Products Manufacturing Association Abia State (LEPMAAS), Mazi Okechukwu Williams, the association has over 16,000 members with 14 structured clusters namely;

1. Ariaria Shoe Manufacturers Association
2. Powerline Shoe Manufacturers Association
3. United Shoe Allied Industrial Union
4. Omenmma Traders and Workers Association
5. Umuehilegbu Industrial market (AKA Bakkasi)
6. Aba North Shoes plaza
7. ATE Bag Makers Association
8. Belt Makers Association of Nigeria
9. Trunk Box Makers Association of Nigeria
10. Allen Industrial Market
11. Unity Bag Makers Association
12. Fancy Industrial Zone
13. Udokanma Traders & Workers Association
14. Umuechilegbu Bag Makers Association

With the over Sixteen thousand persons, including men and women, that make up the fourteen (14) clusters of the leather making industry in Aba, over one million pairs of shoes are being exported weekly to Nigerian markets and other African countries such as Ghana, Cameroun, Ivory Coast and Gabon even to the west.

The “A line, Power Line and Imo Avenue” just to mention a few, boast a wide range of finished leather products including, shoes, and bags produced through the ingenuity of Aba artisans.

According to Ken Anyanwu, the National Secretary of Association of Leather/Allied Industrialists of Nigeria (ALAIN) “more than 60 percent of new shoes...
worn in Nigeria come from Aba, but most Nigerians
do not know they wear Made in Aba shoes. Painfully, the Aba shoe industry is still heavily depend-
ent on manual and crude means of production. Although, some locally made machines are being phased out for modern ones commensurate to their meagre income. One of such machines is the Sole pressing machine which contributes significantly to the durability of shoes manufactured.

It could also be recalled that in 2002, Aba attracted the World bank’s attention which led to the visit of the then World Bank President, Mr James Wolfensohn accompanied by Dr. Ngozi Okonjo Iweala, who was the then Minister of Finance in Nigeria. Upon their visit, there was an enumeration of clusters and promises made to intervene in helping fix the huge infrastructural deficits. Till date little or nothing has been done in that regard. Perhaps this is responsible for the increasing rise in apathy amongst these clusters towards engaging on various initiatives aimed at helping them bolster their businesses. They vastly believe such might end up like previous initiatives which were used to lure them into giving out their personal and business data. This contributed to one of the many challenges encountered during data gathering for this study.

Recently the leather industry started receiving more attention following a campaign by the Governor of Abia state, Okezie Ikpeazu towards promoting Made in Aba products. This prompted the Federal government to prioritize the patronage of Made in Nigeria products through an Executive Order in 2018, which is directed Ministries, Departments and Agencies (MDAs) to secure and utilize locally manufactured products where available. Following this declaration, over 50,000 pairs of boots have been supplied to the Nigerian Army by shoe makers in Aba. Consequently, the Nigerian Navy, and allied agencies have also indicated interest.

In the quest for self-sufficiency and sustainabili-
ty, the Governor is keen on diversifying the state’s economy through this intensive campaign of promoting Made in Aba products especially for the leather and garment industries locally and internationally. This might not be the silver bullet but the effort is totally laudable. It is necessary that these processes are at par with evolving technological innovations which will improve the economic opportunities in the city and the country in general.

2.2 GARMENT INDUSTRY

It is common knowledge that garment or fashion industry promotes inter-ethnic ties and socio cultural values and practices of any society which is capable of contributing to economic growth, job creation, particularly among the youths and unity among diverse cultural groups.

Garment industries in Aba are made up of conglomerates which undertake making of clothes (shirts, trousers, traditional and English attire etc), sewing of curtains, and beddings, among other wears, that could be made from fabrics or textiles from unfinished to finished products. The streets of Aba are littered with tailors of every kind. Typically, 3 to 5 tailors could work together in a room during the day and through the night, in order to meet up with customers’ demands and make sufficient profit in the process.

The reputation of Aba, as a city with the largest concentration of micro, Small and Medium scale enterprises in West African sub region, was acquired through sheer display of ingenuity that culminated into local manufacturing of various products. While these artisans were busy churning out their products, they also lamented government’s neglect towards their welfare, like infrastructure, loan facilities and social policy to galvanize their efforts.

The current method of promoting them to the world to attract more investors can be enhanced
by embracing evolving digital technology which creates an enabling environment for ease of doing business.
Evolving innovations in digital technology immensely influences every aspect of human life and everyday activities. It has become a major driving force in business. Hence, improving small businesses without inclusive digital technology is unattainable. The need for developing innovative technological ideas that could help improve small businesses has never been stronger.

The Made in Aba Hackerton challenge in 2018 helped to create more awareness of the imperatives of patronizing locally made products. The project was aimed at growing the Small and Medium Scale industry through sustainable digital technology considering the vast economic opportunities available in the city, especially the leather and garment industries.

During our tour we visited tech hubs to assess the level of impact of various programs. We realised that the existing hubs were doing great in their various endeavours, to propel the advancement of technology in the city. More importantly, they also emphasized the need for more support from the government and investors to aid their amazing initiatives which are aimed at meeting up with social needs, while developing youths and businesses in the city of Aba via technology.

3.2 TECHNOLOGICAL HUBS IN ABA

RAD5 TECH HUB

Rad5 tech hub established in 2014, is a co-created thriving technology innovation and startup incubation hub with the objective to actively promote the economic growth of Aba, Nigeria and Africa generally.

They build capacity through technology, education as well as improving entrepreneurship that is affordable, scalable and above all sustainable to many young people as possible across the Niger Delta and South-east Nigeria. The hub provides space that can facilitate startups towards driving innovation through teamwork and mentorship that would positively contribute to technological solutions of societal problems.
According to the founders, John Nnanna Oji and Uguru Igwe, their mission is to raise a league of innovative thinking and problem-solving young people across Africa by building an all-inclusive community for Startup founders, Creative, and Software Developers by providing direct mentorship, workspace, and other key resources needed to scale.

KEY PROGRAMS & IMPACT
1. Rad5 Coding Bootcamp Program
2. Rad5 Startup Launchpad Program
3. Rad5 Startup College Launchpad Program
4. Teenhack Inclusive Project
5. Rad5 Tech Meetups & Masterclasses

Find link for details of RAD5 programs and impacts.

SPARK UP HUB

SSpark Hub is an innovative business/technology Center that is committed to building a community of problem solving individuals using technology as a catalyst. The aspiration of the Co-founders, Agu Stanley Ogunma and Godson Uruakpa Prince is for the hub to be a pioneer for change in thought leadership, and digital literacy across the vast spheres of human interactions.

Through their training at the hub, they strive to inspire, incubate and accelerate younger gems into greatness, through knowledge sharing and application. They also focus on preparing both the old and the younger generations to be suited as contributors of value in the fourth industrial revolution.

INNOVATION GROWTH HUB, (IGHUB)

Innovation Growth Hub is a business creative and technology Hub in Nigeria with locations in Aba and Onitsha. They are committed to fulfilling Sustainable Development Goals (SDGs) 4 and 8 which are, promoting lifelong learning opportunities, sustainable economic growth and decent work for all. This is done through startup incubation programs which ensure that profitable startups are empowered to solve problems, while providing employment digital and technology, by providing new and continuous education for individuals.

IGHUB has tutors in mobile Apps development, front end web development, back end web development, graphics and Digital Marketing (Netpreneur) to teach and equip youths in Aba in the tech industry.

IGHUB seems to be an outstanding hub amongst these hubs in Aba, because of their impact in developing tech savvy youths in Aba and helping to improve businesses digitally. They have also developed some E-commerce platforms capable of helping small & medium scale businesses grow like the IGMART, SalesBay, Ogwugo among other platforms.
CLINTONEL INNOVATION CENTER (CIC)

Clintonel Innovation Centre (CIC) is a solar powered STEM (Science, Technology, Engineering and Mathematics) Centre. CIC is Nigeria’s first Makerspace and hardware business incubator. Makerspace is a hardware-based technology hub.

CIC provides training, mentorship and equipping youths to create engineering innovations, build indigenous products and startup new businesses. CIC offers a range of services to both individuals and organizations such as training on:

- Product design and development
- 3D printing
- Startup business incubation
- Solar panel installation and maintenance.

Find Link for details of CIC programs and impact.

ABA L.I.F.E SKILL CENTER

A program by Paradigm Initiative Nigeria (PIN)

This is an extension of Paradigm Initiative Nigeria (PIN) in the pursuit of increased digital rights and inclusion among the digitally disadvantaged communities especially in rural areas. It is primarily aimed at reaching underserved youths everywhere in Nigeria. PIN is a social enterprise that works towards connecting Nigerian youths with information and communication opportunities on specific concern about the effects of unemployment and cyber crime among other vices that inhibits the positive contribution of young Nigerians to the nation’s economy.

Through several engagements with other civil society organisations, government, private institutions and international organisations, they have worked on ICT and Education in rural areas. Find Link for details of PIN’s Projects and impacts through their L.I.F.E (Life skills, ICT, Financial readiness Entrepreneurship) programs.

LEARN FACTORY NIGERIA

Learn Factory Technology is a hub where startups are empowered with the skills and tools to thrive and grow in a proper entrepreneurial ecosystem optimally through growing creators and software craftsmanship. They empower students with software skills to get IT jobs with a curriculum tailored to meet the demands of the 21st century software industry.

At Learn Factory, students are equipped to build Apps and create jobs by launching startups and SME so in turn they are capable of starting and managing their own businesses.

They also provide exposure through internships by broadening their horizon to gain industrial experience through hands on work.
These hubs in Aba virtually carry out similar programs on improving the technology ecosystem in the city, but more importantly for the younger generation. This is a laudable undertaking, but a lot needs to be done in order to accelerate these processes towards bringing their objectives to actualization, especially as it relates to improving the business opportunities in the city, bearing in mind the high level of digital literacy and inclusion among these clusters. It will be no surprise that when they are effectively engaged digitally, their work will gain global recognition and contribute to the economy of the state and Nigeria.

3.2 TECHNOLOGY ADVANCEMENT IN ABA

The advancement of digital technology has been amazingly rapid in the 20th and 21st century. With the innovation of electronic technology and machines every society is always looking towards creating and developing innovative ideas that could provide easier ways to live their lives.

During our research, two technological hubs and coalition of some tech enthusiasts caught our attention, Google Developer Group and ForLoop.

THE GOOGLE DEVELOPER GROUP (GDG)

GDG Aba is a coalition of technology enthusiast who intends to use Google Technology to touch and change lives in Africa by organising exhibitions, conferences, school competitions on technology, among other events, to inspire young developers. The goal is to bring together entrepreneurs who appreciate and desire to inspire using Google technology and APIs to learn from experts/professionals in the Technology ecosystem.

FORLOOP

FORLOOP is a structured community passionate about software development in Africa. This platform assembles young technology enthusiasts resident in Aba to advance communication and enhance knowledge sharing among members in the tech environment.

ForLoop uses their platform to educate and help business owners in Aba to set up business pages on social media websites to enable them create a customer base online. This is expected to boost sales and increase profit. So far this group is having better engagement with prospective customers. Although more needs to be done to build their capacity on digital skills for better impact.

With the activities of these technological Hubs and coalition of technology enthusiasts in the city of Aba, there is no doubt that with adequate support and redefined structured policy implementation through Public-Private Partnership (PPP) engagements with relevant stakeholders, there would be tremendous improvements in the advancement of digital skills and literacy in Aba both in business and well being.

3.3 GROWTH OF TECHNOLOGY AND SMEs IN ABA (GOVERNMENT POLICY FRAMEWORK)

A policy framework is a document that outlines a set of procedures or goals, which might be used in negotiations or decision making, to guide a more detailed set of policies or ongoing maintenance of a particular standard. It refers to principles and long term goals that are used as a basis for setting rules and guidelines in order to give overall direction to planning and development of an organization.

Based on our observation while in Aba, one tenth of the Aba population are artisans producing garments, leather products etc. One in six of these people is an employer of labour, though in an informal nature. It is our belief that if these manufacturers and traders adopt a formal approach like the use of industry software applications that can monitor payments, stocks, payroll and social media engagements, business processes will improve dramatically.
Industrial and commercial activities in Aba has strong potential for Nigeria’s economic growth, but the fact remains that there are two critical identified gaps which digital technology can address effectively - awareness and capacity building, in order to help the city achieve its potential as one of the clothing and leather materials manufacturing of the world.

3.2 GROWTH OF TECHNOLOGY IN LINE WITH SMEs IN ABA.

The Technological advancement in Aba with particular reference to small business owners leveraging on the evolvement in digital technologies to improve their businesses is at a slow pace. This could be attributed to the unavailability of enabling capacity, ignorance among the small business owners and apathy amongst these business owners because of unfulfilled promises from different organisations. The challenges are illustrated in the charts below as it relates to the garment and leather industries;

![Bar Chart](chart.png)

The above illustrations shows that Digital illiteracy, Access to the internet, time and lack of device are among the major challenges of the garment industry to engage in digital technology to improve their businesses.
There is an existing gap on tools and implementing strategies to advance their knowledge on the many advantages of the digital economy. This bottleneck could be attributed to the ignorance of these small business owners and lack of awareness/capacity on how the digital economy can immensely impact on their various business and their lives in general. Irrespective of the huge volume of work currently being carried out by the hubs these challenges mitigate their ultimate advancement.

Some of the ways to ameliorate the situation includes making provision for necessary gadgets at reduced prices with internet access, intensive skill training to develop their capacities. With these in place we can expect a paradigm shift towards improving their businesses technologically.

There is indeed hope for improvement in advancing technology among these clusters with the work of some Tech hubs in Aba and coalition of many Tech-
preneurs who are committed to developing the enormous potential in the city. It is also pertinent to note that during our interface with these various clusters, they declared their interest to embrace any evolution that can help improve access and other measures in boosting their businesses.

**GOVERNMENT POLICY FRAMEWORK**

Over the years, the Federal Government has implemented a number of macroeconomic policies, plans and strategies to diversify/revive the national economy through the development of other key sectors apart from the Crude oil industry. One of the key areas identified that could support the Economic Recovery and Growth Plan (ERGP) is the leather and finished leather products. But the question here is, how digitally engaged are these finished leather producers in using evolving technology to grow their small businesses and also create better awareness. This is the same for the garment industry, considering the fact that this research is focused on these two industries, particularly in Aba.

Marketing Aba or Nigerian made goods is often characterized by an inability to compete favourably with products from Asia and Europe. This is also compounded by the availability of second hand finished products that are sometimes believed to be better fashioned, better designed and of better quality.

This may have been the impression of many but they have developed more skills to have their products compete with their foreign counterparts both in look and quality.

The Aba finished leather and garments do not have state of the art production facilities to maximize production and take full advantage of available and potential markets. Previous attempts have also not been successful. However, these sectors have continued to export finished products to neighbouring West African countries where it has a level of competitiveness; this is also seen as a means to promote her indigenous brands. When it comes to finished leather and finished garment clusters in Aba, digital/technological innovation is very limited - the opportunities for improvement are enormous.

These sectors of SMEs are faced with many challenges in attempting to leverage on evolving technology to advance their small businesses, as well as broadening their potentials in the digital economy. This is principally caused by lack of access to information on trends, sector policy, neglect by the government and other business related issues.

For instance in Abia state, the government does not have an existing ICT policy, and effort to get one is yet to see the light of day. As a result, there is no coordinated strategy to support and grow innovation.

According to the Commissioner for SMEs in Abia state, Dr Gab Iboko, whose Ministry is not up to one year now, there are just two existing policies which are still in process towards improving the SMEs in the state thus,

- Free registration of the Small and Medium Enterprises.
- Establishment of Microfinance Banks to help facilitate loan assessment by these small business owners, considering the fact that funding has remained one of their major challenges.

For now as it relates to Information Communication Technology (ICT) policies, there are no existing policies, and no concerted effort to improve deployment of IT by government and businesses in the state. The government however has shown interest in working and supporting the hubs. There has also been talk about developing a policy and a strategy plan. Advocacy for actualizing these dis-
cussions can be driven by the hubs.

The Aba finished leather and garments do not have state of the art production facilities to maximize production and take full advantage of potential and available markets.

With the advances in home grown ICT solutions, products and services, it has become very important that key areas such as a Public-Private Partnership are effectively streamlined and optimized. This could be achieved through a partnership with the ICT private sector players like big technology companies, the hubs and related Government agencies in line with NITDA guidelines to develop sustainable policies that can enhance technological development of businesses and the state generally.
4.1. TECHNOLOGY TRENDS IN ABA

Nigeria’s technology space is becoming more interesting, and the commercial city of Aba is not left out due to the impressive efforts of emerging tech hubs in the city. More technology hubs are being established in the country, giving hope for transfer of knowledge and increased job creation in the states, ultimately leading to a better economy. According to Adeyemi Adepetun of the Guardian Newspaper, in 2018 Nigeria had about 50 technology hubs, up from seven in existence in 2012. The South West houses about 15; South East has two; South South is home to eight, while Northern Nigeria boasts of 12 hubs.

Interestingly, in 2019, the numbers may have doubled, because Aba solely boasts of five working hubs instead of two. Unfortunately, despite the lofty efforts of these hubs and their laudable initiatives discussed in Chapter three of this work, much is yet to be felt by the SME community of Aba. The community is yet to fully maximise the benefits of technology in boosting their businesses.

It is surprising that for over a thousand leather producers of Aba (respondents) surveyed only a fraction (7.8%) have email addresses. The remaining 92.2 % do not have email addresses and hence, do not enjoy the benefits associated with an electronic mail. For the Garment industry, out of 871 respondents who are garment producers in Aba, only a meagre 9% have email addresses as shown in the chart below.

For the garment industry, out of 1,026 respondents surveyed, our findings showed that only 10.03 % are digitally engaged. The chart below refers:
Whereas for the leather industry, our findings show that only 25.5% out of 1100 responses are digitally engaged.

The chart below shows that 98.7% of 1112 leather producers in Aba do not have their businesses verified by Google.

Disturbing as this may seem, from our findings it is clear that Aba and her entire SME community is ready and very eager to start engaging in the global digital economy. The leather and garments producers expressed their willingness to digitally promote their business.

The clear indication is that the prospect for improved digital inclusion is great in Aba.

4.2. CHALLENGES AND PROSPECTS OF TECHNOLOGY AND SMES IN ABA

As stated earlier, despite the willingness of most of the SME operators to digitize their operations and the present activities of the hubs in Aba, the impact is limited due to the capacities of these hubs which are private initiatives, and more often than not, it is self funded by the hub owners themselves and other private individuals. Government presence is hardly felt, except on few occasions, and when successfully attracted it is tied to a particular activity or program. There is the absence of a clearly defined government approach on Innovation and technology adoption, which would have properly guide and direct the government’s interventions and participation in ICT development.

4.2.1 INFRASTRUCTURE DEFICITS IN ABA

In an article published by SERI in 2014, Aba, the commercial nerve centre of Abia State was said to be lying prostrate, in utter ruins, in shackles, bruised and battered. “The home of creativity and haven of local technology, otherwise known as the Japan of Africa, is now defined by broken and ravaged streets as well as mountains of garbage, sometimes piled too close to human domestic life”. she stated.

A few changes may have taken place but regardless of the huge creativity which is quite glaring in Aba, accessibility to the market is quite worrisome, as a result of muddy and bad roads, poor signage identifying shops, coupled dreadful waste management system as most roads leading to and within the production lines/markets are very bad. Power supply is epileptic generally and other social amenities are barely available.
From our findings, these are some of the challenges of technology as regards boosting of SMEs in Aba:

» Lack of a viable innovation and technology adoption policy in Abia State

» High rate of digital illiteracy amongst the SME’s operators.

» Lack of funding/inadequate funding windows for the hubs to accelerate greater impact of their programs and projects. The emergence or existence of the technology hubs is a good strive, but their major challenges remains as their inability to access funds to enable them to acquire facilities and also to be consistent in various activities they are carrying out towards advancing technology around the region. From our findings, we noted that most of the programs of the hubs are self sponsored and hence their impact are limited to the funds available and provided by the hubs proprietors.

» Lack of electricity: From the interface with this clusters, they lamented bitterly that lack of adequate power supply has remained a big challenge, which affects their production, such as cost of fuelling generators, which is their source of power during production, and most of the times the harsh working condition is unbearable.

» Lack of access to the production lines/markets and lack of proper identifiable offline/online addresses of the production lines/markets.

» High cost of internet accessibility and training on software.

» Inadequate security to protect critical infrastructures and facilities.

» Lack of specific entrepreneurship targeted programs to boost the ICT capacity of the entrepreneurs and generate more profit.

4.3 PROSPECTS

To have a feel of the prospects of digital technology in boosting the growth of the small and medium economy of Aba, we find it necessary to present the impact of the hubs by the interns themselves. Here are the excerpts.

RANDOM RESPONSES ON THE IMPACT OF HUBS IN ABA

I can now make use of MS Office Suite, design and develop a website, graphics design, manage my time, communicate effectively and many more.

- Precious Okorie

It made me know many opportunities online and how to use computer, entrepreneurship skill.

- Nnamdi Ogbonna

I’ve learnt to develop websites, use social media softwares, apply safety online by safe online, and lots more.

- Trust Onyekwere

Before I joined paradigm initiative I was not able to operate computer but after this program I can confidently operate computer and also do some things with computer.

- Ezema Ikechukwu Davis
In the ICT classes, I have found out that there is no ramification of life that excludes digital media

- Daniel Christopher

It has really helped me in building template on design for the hub.

- Chikwado Nworie Emmanuel

I have been able to advance my web development skills and gain more exposure around the tech community.

- Akwa Peter Uchenna

It was really innovative.

- Marcellu Nwankwo

My thinking has been shaped from just being a developer to a business mined developer who solves real problems. I have been exposed to opportunities and events like SLUSH GIA Bootcamp 2018 for startups, Google conferences/events and StartUps South where I have either being a speaker or a delegate networking with top people in the industry.

- Amadi Promise

I have learnt a lot of things not only in mobile app development but knowing how to transfer my knowledge in other to assist newbie and also how to work as a team.

- Okechukwu Blondy Arinze

It has helped me acquire some business and innovation skills. The right attitude towards business. Being creative. I have the knowledge of designing a model too. I also know about peace, conflict sensitivity and peace resolution. I also know about customers relationship and lots more. I have gained enough general knowledge and also how to become both a leader and an entrepreneur combined with engineering works.

- Samuel Chinedum

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- Samuel Chinedum
It’s been great, I’ve learnt a lot, load calculation, determining the inverter size, battery capacity and pv module arrays, that will be suitable for an amount of energy consumption.

- Ukaegbu Obasi

Before I started the program I had little knowledge of entrepreneurship, but now I have learned how to manage time and also learnt many life skills, I also improved my knowledge on ms word and graphic designs now I can design beautiful graphic stuff.

- Evans ThankGod

I only used Mavis beacon on computer but i never knew that there was more to it until I joined paradigm initiative. I have learnt how to make use of Microsoft word, Microsoft Excel, PowerPoint Excel and Graphic design.

- Orji David Uchechukwu

I’ve been able to gain more WordPress skills making me maximise the features in my website and blog better than I used to.

- Osobu John

It has expose my learning to the modern technology development, and has enhanced ability to understand the concept behind the development. I have also learned that African is a potential continent for solar manufacturing company to invest in.

- Onuoha Emmanuel
5.1 SUMMARY OF FINDINGS

The findings of this research work can be summarised as follows

1. The commercial city of Aba is a host to hundreds of thousands of SMEs.

2. The leather producers’ cluster of Aba has 14 clusters with over 16 thousand members while the garment cluster has over 7 clusters with over Fifty thousand members.

3. Aba is a host to five technological Hubs with different activities and projects with various impacts on its business and technological ecosystem.

4. The activities, projects and programmes of the Hubs are mostly self-funded, hence with limited outreach and impact.

5. A greater number of the Aba SME operators are digitally lagged behind and have not keyed into the thriving digital economy, but show willingness to adopt technology if they have training, mentorship and support needed.

6. There is no clearly defined Innovation and Technology Policy in Abia State.

7. Access to the SME production lines/markets is hampered due to bad roads and lack of proper identifiable addresses.

8. Production is generally done with low tech equipment due to difficulties with access to finance and power supply, which limits the kind of machine that can be used.

9. There are vast untapped investment opportunities with guaranteed payback in Aba, the ICT and power sectors.

5.2 CONCLUSION

The SMEs is a veritable sector of any nation’s economy with an ability to eradicate unemployment, create profit, raise the standard of living of citizens and increase the nation’s GDP, hence any opportunity to boost SMEs should be embraced totally, with the promising benefits of digital technology. The need then arises for supportive ways to be created for SMEs to maximise these benefits in not just the city of Aba but the entire Nigeria.
5.3 RECOMMENDATIONS

1. There should be a deliberate intervention to eradicate the high digital illiteracy amongst Aba SME operators to enable them key into the global digital economy, and this could be done via advocacy and structured digital skills training that can help them engage digitally.

2. Hubs in Aba should design and focus on more projects and programmes that would directly affect the SME community of Aba.

3. The government of Abia State should endeavour to create and adopt an innovation and technology adoption policy. This can be done by the relevant government MDAs in partnership with private institutions like the PPDC, Paradigm Initiative and Ighub in line with NITDA guidelines with support from Tech giants and other investors. The policy should create access to government business for tech-SMEs.

4. Already identified tech hubs in Aba should be sponsored and supported for greater impact of their projects and programmes.

5. More tech Hubs should be established in Aba and the entire Abia State.

6. The SME clusters need committed government and financial institutions interventions to access loan facilities that will help to improve their production and invariably their businesses.

7. There is also an urgent need for more awareness and capacity building on enormous economic opportunities that has made Aba an outstanding commercial hub.

8. Public (Government) and Private (Companies and multilateral investments) intervention in infrastructures like power supply, access road construction and clear addressing to enable proper and concise identification of the production lines/shops, free internet and provision of automated machines is greatly needed in Aba.

9. SME clusters need to be encouraged on standard and branding of their products to boost customer acceptance and satisfaction.

10. Government Agency like Nigeria Export Promotion Council and other related agencies should also encourage the process by providing SME’s with necessary information and guidelines on the process and benefits of exportation.
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