

Dynamics of Innovation in the Informal Settings

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Using first-hand data collection from enterprises in the informal sector and their stakeholders, this study argues that enterprises in the informal sector are innovative however their innovation activities follow a different undercurrent. The study puts forward that indicators for capturing innovation activities as well as the actors involved in innovation activities are very different from those identified in the literature as informed by the Frascati and Oslo manuals used for capturing innovation and innovation activities. Also, the nature of the relationship among the actors and stakeholders in the innovation system follows a soft (informal) approach. These alternative patterns include learning by doing, using, interacting, imitating, producing and searching for business innovation. The study also advanced the importance of tacit knowledge acquired through on-the-job learning, the traditional apprenticeship system, indigenous knowledge system, amongst others. Finally, the study identified a high prevalence of innovation in the informal sector in Nigeria.

Key words: *Learning, skills development, apprenticeship, training, on-the-job learning, innovation, microenterprises, informal sector, Nigeria.*

Introduction

What defines an entrepreneur is the ability to take advantage of opportunities to solve human problems. Solving human problems requires having the right knowledge and ability to utilise the knowledge to bring into being new goods and services. Hence, innovation represents a concealed engine used by every successful entrepreneur. Mainstream understanding of innovation is informed by the Frascati manual (OECD, 2015) and the Oslo manual (OECD, 2018). The Frascati manual considers innovation as an input, informed by expenditures on research and development (R&D) as well as personnel involved in R&D activities such as scientists and engineers with PhD degrees, the quantity and quality of R&D researchers, number of publications, and number of patents, amongst others. In scholarly literature and based on the interpretation of the Oslo Manual, innovation is seen as a process and as an

outcome (Witell et al 2016; Lundvall, 2016; Doloreux & Shearmur, 2016; Neumeier, 2017; OECD 2018). The innovation process involves capturing activities such as training, acquisition of patents and other technical know-how, acquisition of machinery, equipment, hardware or software, acquisition of buildings, feasibility studies, pilot plant testing, amongst others. These activities are supposed to lead to tangible outcomes referred to as innovation outputs (OECD, 2018). An innovation outcome signifies new or significantly improved products (goods and services) and new or significantly improved production processes/methods (OECD, 2018).

While these indicators are useful and are a robust understanding of knowledge (for innovation), they do not speak to the realities of the African continent. Indeed, the concept of knowledge and innovation has not been fully defined and explored especially with respect to the African continent. These innovation indicators provide a basis for understanding the quality of knowledge in the technologically advanced rich nations, but in Africa, there is need for alternative measurement of knowledge and a clearer understanding of how knowledge is perceived and interpreted. Because of the wide acceptability of these manuals, there has been a clear bias in the literature which has led to the assumption that very small enterprises, which constitute the major players in Africa's economy, are non-innovative. Hence, the informal sector has been excluded from national innovation surveys.

While the concept of the informal sector has been studied extensively in literature (Rakodi, 2016; Muchie et al. 2017; Medina et al., 2017; Coquery-Vidrovitch, 2018; Bryceson & Jamal, 2019) very little is recorded on what constitutes innovation activities in the informal sector, the key stakeholders responsible for innovations in the sector, and the relationships among these stakeholders. Although some recent pieces of literature have attempted to touch on some of these issues (Daniels, 2010; Konté & Ndong, 2012; Manyati, 2014; Kawooya, 2014; De Beer et al., 2014; Nguyen, 2015; De Beer & Armstrong, 2015; Guttentag, 2015; Charmes *et al.*, 2016; Kraemer-Mbula & Wunsch-Vincent, 2016; Tawodzera & Chikanda 2017; Oluwale *et al.*, 2017; Jegede & Jegede, 2018; Ogunjemilua *et al.*, 2020), these studies exclusively explored different concepts and frameworks in their studies without any particular level of coherence in the ideas, concept, variables and indicators compared to the business innovation surveys undertaken in the formal sector. Previous studies on innovation in the informal sector identified in literature adopted different frameworks with most of these frameworks being minor adaptations of the established theories and concepts originally designed and extensively used in the formal sector. This study reviews the concepts and frameworks used in previous studies and then builds upon them to explore the dynamics of knowledge and innovation in the informal sector by exploring specific sectors in Nigeria.

Conventional channels for skill acquisition include formal education and training, workshops, and on-the-job and are provided by universities, knowledge and training institutions, non-

governmental organisations, internal training in workplaces and from working closely with consultants (King, 2019). Skills development are necessary for secure employment or to upgrade existing knowledge. The informal sector is host to different knowledge sources (Singh, 2000; Malcolm et al., 2013; Rauf & Lovell, 2015). In the formal setting, technical knowledge and skills can be sourced from technical and vocational centres, universities and other training institutions just like in the formal sector (Jiménez et al. 2015; Peter-Cookey, & Janyam, 2017). Other channels of acquiring knowledge could be through on-the-job learning characterised through trial and error, which leads to a build up of tacit knowledge (Eraut, 2004). Other knowledge is gained via channels that include the traditional apprenticeship system with a duration close to that of studying for a degree through a higher education institution. Generally, knowledge and skills come as tacit knowledge in the informal sector (Scanlon et al., 2005; Ellinger, 2005) unlike in the formal sector that the knowledge may be quantified or codified in terms of certificates, diplomas and certifications (Singh, 2000; Malcolm et al., 2013; Rauf & Lovell, 2015). Also, learning and skills acquisition happens spontaneously rather than through formal processes (Eraut, 2004; Ellinger, 2005; Peter-Cookey, & Janyam, 2017).

Recent pieces of literature (Arza and van Zwanenberg, 2014; Peterson et al 2018; Habiyaremye *et al.*, 2019; George *et al.*, 2019) have expanded the definition for innovation beyond the introduction of new or significantly improved goods and services unto the market or potential users and implementation of a new or significantly improved production process within an organisation to simple combinations that will solve social problems of humans. Scholars (Cozzens & Sutz, 2012; Cozzens & Sutz, 2014) have found that innovation is not restricted to large corporations conducting research and development that have the capacity to implement innovations over a wide range of markets. Innovation has taken place once the new goods or services has been made available to potential users (OECD, 2018). Owing to this, literature has identified that innovation indeed occurs in the informal sector (see, for instance, the empirical studies by Jegede and Jegede, 2018; Ogunjemilua *et al.*, 2020; Jegede, 2020b; 2020b). Studies have also shown innovation in the informal sector does not occur in isolation but involves interactions with other actors in both the local and production system (Kratzer et al 2005; Taminiau *et al* 2009; Kruss & Gastrow, 2015; Kruss & Gastrow, 2017; Kraemer-Mbula, *et al.* 2019) such as universities, NGOs, self-help organisations, trade associations, communities, amongst others.

Till date, no national innovation surveys are known to have been carried out that includes the informal sector, or that was solely carried out in the informal sector. This is even though the informal sector represents about three-quarters of non-agricultural employment, and about 72% of total employment in sub-Saharan Africa (Jackson, 2016). For instance, in 2015, the National Bureau of Statistics (NBS) recorded that the informal sector accounts for as much as 41% of Nigeria's gross domestic product (NBS, 2015). The only data that can be found in

Africa that allows (at least in principle) for comparison between and among African countries is R&D surveys and business innovation surveys (AU/NEPAD 2010, 2014). Though these surveys are based on robust data, the R&D and business innovation survey data are not enough to describe innovation activity in Africa. Hence, the information on innovation in different scholarly works and in the national R&D surveys, as well as the national business innovations surveys, were only based on the formal sector which represents only a small aspect of sub-Saharan African economic activities. Hence, these studies posit that most data available on innovation in the informal sector in Africa are somewhat skewed, spurious and represents an incomplete view of the innovation landscape in Africa. Consequently, this study builds on previous studies emerging from developing countries, which provides evidence that micro-enterprises innovate despite their numerous challenges. It explores the dynamics of innovation in very small business in Southern Nigeria, focusing on three sub-sectors of the economy: agro-processing, clothing and ICTs. It takes a macro and micro view of the informal sector in Nigeria focusing on three sub-sectors, it explores the options of learning and knowledge flows, the modes of innovations and the extent of innovations in the informal sector in the three sub-sectors. The rest of the paper is organised as methodology, results and discussion, conclusion, and recommendation.

Methodology

The study covered ten cities in Southern Nigeria. The study involved collection of field data. The main research instrument was four sets of structured interviews. The respondents were stratified into four categories: policymaking/regulatory institutions (at the macro levels), trade associations/academic experts/non-governmental organisations/self-help organisations (at the meso level), employer and employees (at the micro-level). In all, ten cities interviews were conducted at the macro level consisting of key informants from government ministries, government agencies and extra-ministerial departments of government connected to the labour markets and informal sector. Another ten interviews were conducted on key informants at the meso-level, consisting of the leadership of selected trade associations, academics whose expertise is on industry and informal sector, microcredit institutions funding small business, self-help organisations and non-governmental organisations whose activities are targeted to small business development. While at the micro-level, thirty employers and thirty employees in micro-enterprises were interviewed. Hence, the total numbers of interviews stood at eighty (from four different interview guides). Multistage sampling was used. The first stage involved the purposive selection of 3 main sectors of the economy: manufacturing, services and agriculture. The second stage involved the purposive selection of a sub-sector in each of the three sectors were purposively selected. In the manufacturing sector, the study selected the clothing, textiles, apparel and garments industry/sub-sector. In the services industry, the study selected the information and communications technologies services sub-sector while in the agriculture sector, the study

selected the agro-processing sub-sector/industry. The third stage sampling involved the selection of ten enterprises in each sub-sector, with an approximately equal number of businesses registered and unregistered. The fourth stage involved selecting the owner of the business and an employee for an interview. The data collected was analysed, both quantitatively and qualitatively. The information elicited was transcribed into a spreadsheet on level-by-level bases (i.e. the ten macro-level interviews were separated from the ten meso-level interviews and from the 60 micro-level interviews). The sixty micro-level interviews were aggregated and analysed as a single unit. Data was interpreted largely on a qualitative basis; however, some results were presented in descriptive statistical tables. In this report, micro-enterprises have been used broadly to include enterprises from the formal sector and informal sector.

Results and Discussion

This section incorporates the discussion into the result section. The paper explores the implications of the data analysed for policymaking, practice and theory.

Macro View of the Informal Sector: Knowledge and Forces Shaping the Informal Sector in Nigeria

From interviews conducted on government ministries, departments and agencies at the federal and state levels, it was gathered that the labour market in Nigeria is regulated by frameworks such as national policies, state policies and sector policies. These policies are put in place to address challenges associated with the start-up of indigenous small firms, microenterprises and self-employment. Some aspect of the policies enhancing start-ups includes providing access to both public funds and providing access to public institutions that provide technical services to new entrants. Other aspects of the enhancing start-ups address education and training of employees in the formal and informal sectors. This was achieved through institutions like National Directorate of Employment (NDE), National Poverty Eradication Programme (NAPEP), National Economic Empowerment and Development Strategies (NEEDS), State Economic Empowerment and Development Strategies (SEEDS), amongst others. Other aspects of the different policies address bottlenecks associated with accessing funds (i.e. small firms and micro enterprises which have little or no access to loans from commercial banks due to lack of collateral and incorporation certificates). The strategies used to overcome these challenges were the establishment of microcredit societies, strengthening of micro-finance banks, provision of facilities from development banks such as the agricultural credit banks and the bank of industry, amongst others which provide funds (up to a critical amount) without collateral, with long repayment tenure and with low-interest rates. Other aspects of the policies were the promotion of technology adoption and diffusion in the informal sector. This was achieved through institutions like the different technical, and

vocational colleges (as well as allied institutions contributing to the promotion of TVET such as trade unions, professional associations, cooperatives, self-help organisations) spread across the length and breadth of the country, the National Directorate of Employment (NDE), the different states youth empowerment schemes such as the Osun State Youth Empowerment Scheme (OYES) in Osun State, Youth Empowerment Scheme (YES) in Oyo State amongst others, in southwestern Nigeria.

Also, from the interviews, eight out of the ten key informants selected for the interview thought that the main forces that shaped the local market generally in Nigeria include: regulatory agencies as reported by only of the respondents, policymaking agencies reported by three respondents, enforcement agencies reported by three out of the eight respondents, and tax revenue agencies reported by only one out of the eight respondents. Hence, it can be presumed that to a large extent, that the government controls/regulates the local market in Nigeria. The informal economy thus features indirectly in the Nigeria national policies. This may be directly linked to the fact that the informal economy/microenterprises employ a large proportion of the economy and since unemployment is one of the top priorities in Nigeria's national policy, the informal economy remains of interest to the government.

The information gathered also indicated a sharp difference between the earnings of enterprises in the informal economy compared with those in the formal economy. This is because employers in the formal sector are compelled not to pay employees below the national minimum wage while their counterparts in the informal sector are free to pay whatever they like to their employees, as they operate below the radar of government regulation. In addition, labour mobility from the informal sector to the formal sector was found to be quite low this was reported by more than half of the key informants. On the other hand, the respondents identified high mobility from the informal sector to a state of being unemployed. As much as seven out of the ten key informants interviewed at the macro-level thought that experience in the informal sector may not facilitate entry into the formal sector, but formal education up to senior secondary school (Matriculation/Grade 12) could facilitate easy entry into formal employment. However, most employment in the formal sector required high-level skills which most times are obtained through tertiary education.

In the informal sector, most of the employees acquire skills while on the job. All the key informants emphasised the importance of on-the-job training for skill acquisition in the informal economy. Only a few of the employees in the micro/informal economy have access to continuous formal education. Therefore, informal sector businesses make up for this skill/knowledge gap deficiencies through the traditional apprenticeship scheme. Apprenticeships in Nigeria's informal economy are regulated while professional/trade associations certify the skills acquired. Hence, apprenticeship serves as a viable access to securing employment in the informal sector.

Meso View at the Informal Sector (Agro-Processing, Icts and Clothing & Textiles Industries)

From the interviews conducted on academic experts, trade/industry associations, self-help organisations, unions and non-governmental organisations, it was found out that large corporations are often at the frontier of the selected sectors; they usually are the first to introduce new technologies. Small and Medium Enterprises (SMEs) are fast followers; they learn from the large firms quickly and respond to market pull (based on demand) and/or technology push (based on the window of technology opportunities). Micro/informal enterprises lag in terms of technologies and knowledge both in quantity and quality of their outputs. Most times they operate as suppliers of raw material for the SMEs and since the informal sector employs a large proportion of the population, they establish direct links to local value chains; their link to global value chains is not so defined however, evidence exists that these microenterprises sometimes act as suppliers to SMEs even though their principal market is the local market.

The average education level required to be engaged in the informal sectors (agro-processing, ICT and clothing & textile) varies greatly from enterprise to enterprise and from sector to sector. On average, and across the three sectors, five out of the ten key informants indicated Junior Secondary School (Grade 10), four indicated Senior Secondary School (Grade 12) while only one indicated tertiary education. The principal channel of building competence in these three industries was the traditional hands-on apprenticeship system i.e. learning by doing, using, interacting, imitating, producing and searching (DUIIPS). While the principal channel through which they overcome constraints was through collective action. These enterprises naturally form trade unions, self-help organisations and cooperative societies to gain formidable force to negotiate with government on issues of tax, as well as with suppliers of equipment, machinery and tools especially when it comes to importation. According to the key informants, these groups have established bargaining rights with government authorities and have recorded successes in negotiating tax, working conditions, access to credit facilities.. Other important roles were the informal knowledge networks/trade unions/collective action groups that play a role in the diffusion of knowledge and technologies among their members. However, these action groups do not play any role in recruitment and access to jobs. The study also gathered from interviews that the majority of these informal sector businesses leverage on indigenous knowledge to develop their own products in the three sectors. Also, it was gathered that some of these businesses are beneficiaries of government policies targeting microenterprises through training and skills development, access to credit, technology transfer and market promotion.

Microlevel View of the Informal Sector

The main business activities in the selected businesses are given in Table 1. The agro-processing sector was composed of small-scale animal husbandry (sheep and cattle), fishery, poultry and vegetable cultivation. Most of these businesses operate as family businesses, but in very few cases as a partnership. The ICT businesses were involved in repairs and maintenance of computer hardware, website designs and sales of computer and allied products. For the clothing & textile sector, the main activities were garment production (sewing), traditional clothes making (tie and dye) and sales of finished clothing materials (fashion homes and boutiques). The main reason while the business owners started off their businesses was to generate employment to earn income (Table 2). Majority of the selected business in the informal sector are regarded as micro firms because they had less than ten employees (Table 3). From observation in the field, the majority of the microenterprises were informal while most of the informal business operate on a micro-scale. Hence, the study observed a strong positive correlation between microbusinesses and informal businesses in the context of the three sectors selected in Southern Nigeria. However, being micro does not necessarily connote being informal. While the former is a size parameter (having employee size less than ten and having an annual turnover of less than five million nairas [approximately 14, 000 USD]), the latter is a legal parameter (being outside government regulation in terms of incorporation and taxation). For some reasons, the informal sector in Nigeria continues to grow. This may be as a result of the limited ability of the formal economy to absorb surplus labour (primarily dominated by youths aged between 15 and 50 years). Another reason could be because of the huge barrier to enter the formal economy by new entrepreneurs who have great ideas, but little or no capital to compete with established firms in the formal sector.

Table 1: The Main Business Activities of the Enterprises

Agro-processing	ICT	Clothing & Textiles
Poultry	Repairs and Maintenance	Garment production
Vegetable farming	Website Design	Processing (Design and dress making)
Fish farming	Networking	Services (Distribution, Marketing & Sales)
Animal Husbandry		

Table 2: Motivation for starting the businesses

	Per cent
Inheritance from parents	2.2
Passion for business	2.2
Retirement	2.2
To generate employment	89
To provide solutions	4.6
Total	100

Table 3: Number of employees

	Per cent
Less than 10	70
Between 10 and 50	30
Total	100

The majority (four out of every five) of the businesses, operated as a private business of the owner while one out of every five of the businesses operated a family business (Table 4). With most of these businesses run at the employer's premises (Table 5). The businesses make their employees function in multiple roles. Table 6 shows that about a quarter of the employees operated at the level of managers, professionals and technicians while most employees in the informal sector operate on a low skilled level.

Table 4: Type of Business Ownership

	Per cent
Private	80
Family Owned	16.7
Joint Venture	3.3
Total	100

Table 5: Place of work

	Per cent
An outside site	8.2
Clients premises	1.7
Employer's business premises	40
Employer's premises	46.7
My own home	1.7
Physical Place of work	1.7
Total	100

Table 6: Occupational Categories of Employees (Profile of Employees)

	Per cent
Managers, professionals and technicians	23.3
Clerical, sales and service workers	18.3
Craft, related trades and machine operators	40
Elementary trades	18.4
Total	100

Table 8 and 9 amplifies the link between business registration, employee working contract and informality. Table 8 shows that an approximately 40% workers were working with an undefined contract, about 12% had no contract at all, about 14% were on an apprenticeship contract, only about 30% had a clearly defined and definite contract. Table 9 shows that about half of the businesses were registered. It was observed that no business was completely formal while none was completely informal at the same time. The study had previously set out to capture “informality in businesses” as businesses that were not incorporated nor registered for taxation. While this definition holds, it only represents a narrow view of the concept of informality. The concept of informality goes beyond incorporation or being registered for taxation. For instance, some businesses were not incorporated, but some still pay taxes to the local authorities. It was also found out that the informal sector businesses pay value-added tax (VAT) on purchase of machinery, equipment and tools. Most informal businesses are registered and legalised under their different trade associations and through their various trade associations which are recognised by different provincial/state governments and are subtly regulated by the government. On the other hand, there were a lot of incorporated businesses whose employees did not have working contracts. Hence, employees do not have job security or good welfare conditions. Hence, such a workforce falls within the informal economy. This paper posits that formality or informality cannot be

measured on a binary code of “yes” or “no” instead, “degrees of (in)formality” will be a more appropriate approach to measure (in)formality in businesses. However, it remains challenging to implement the metric as there are many components to factor in to create the scale to measure “informality” from absolutely informal to absolutely formal.

Table 8: Employment Contract of employees

	Per cent
An undefined contract	38.3
A fixed term contract	25
A temporary employment agency contract	5
A seasonal employment contract	1.7
An apprenticeship	13.3
No contract	11.7
Refusal	5
Total	100

Table 9: Business registration

	Per cent
Yes	55
No	45
Total	100

Learning and Skills Development in the Informal Sector

Innovation activities follow a soft approach: It became apparent from study that the main innovation activities in the informal sector are largely dominated by what literature calls the “Doing, Using and Interacting” (DUI) approach. Conventional metrics for innovation like R&D expenditure and personnel did not hold for the informal sector businesses as well as the microbusinesses. On the contrary, these businesses innovated through alternative channels of learning such as: “learning by doing”, “learning by using”, “learning by interacting”, “learning by imitating”, “learning by producing” and “learning by searching”. It remains interesting to note that innovation activities in the informal sector is fluid, organic and happens through alternative means as against the conventional backdrop of variables provided in the standard manual for measuring innovation. Table 10 shows that majority of the businesses gave their employees autonomy by allowing them to solve work-related problems on their own, assessing the quality of the work they do, applying their own ideas while carrying out assignments, developing new ideas while doing their job, amongst others. Other strategies used by the businesses towards learning includes sharing information with co-workers, clients and suppliers of equipment. Other useful learning techniques involved

rotating the task and responsibilities amongst employees. All these activities foster linkage and spillover of knowledge among employees and businesses.

Table 10: Learning and Skills Development Strategies used by the Businesses

	Per cent
Solving problems on own	85
Assessing own quality of work	75
Meeting quality standards	90
Apply own ideas	88
Keep up to date with new products/services	97
Developing new ideas (product/services):	82
Sharing work info co-workers	92
Sharing work related information with your company's suppliers	83
Sharing work related information with your company's clients	87
Does your job involve rotating tasks between you and colleague	48
Do the tasks require different skills	58
Do you allow worker to decide by themselves on division of tasks?	45

Knowledge Flows among the Surveyed Microenterprises

There was strong knowledge flow in the informal sector and among microenterprises. It was observed that the nature of skills and knowledge indicators were very different from indicators such as patents, publications, number of PhDs, amongst others are conventional metrics for measuring knowledge as provided by the standard manuals. As observed from Table 11, the channels of knowledge flows include: learning from colleagues, competitors, suppliers of materials and equipment. Other viable channels include trial and error (learning by doing), training as well as through seminars, workshops, as well as through formal education (Table 12) and use of advanced technologies (Table 13). The businesses also gain new knowledge through the upgrade of existing technologies in use (Table 14). Generally, the nature of knowledge flows was traditional apprenticeship system, on-the-job learning, indigenous knowledge systems, flashes of insights, happy accidents, vagaries of realities, intuition/inspiration, amongst others.

Table 11: Channels of Knowledge Flows

	Per cent
Collaboration with colleagues in the same profession	9.7
Learning by doing	22.1
Learning new techniques in vogue	14.6
On-the-job training	19.5
Seminars & workshops	12.1
Training and upgrading/adopting new technology and innovation	22
Total	100

Table 12: Educational Level of the Most Senior Employees

	Per cent
No formal education	5
Primary	6.7
Lower Secondary	16.6
Upper Secondary	35
Post-Secondary (non-tertiary)	20
Tertiary Education	16.7
Total	100

Table 13: Types of Equipment Used

	Percent
Modern Technology	70
Traditional Technology	16.7
Traditional and Modern Technology	13.3
Total	100

Table 14: Frequency of Technology Upgrade

	Per cent
Weekly	10
Monthly	11.7
Quarterly	21.7
Annually	41.7
No response	5.1
When faulty	10
Total	100

Innovation Outcomes

Contrary to the perception that microenterprises are non-innovative due to their lack of expenditure in R&D and formal scientific knowledge. The study identified a high level of process innovation (71%) products innovation (67.7%) and organisational innovation (35.5%). However, innovations were mainly expressed as imitations, adoption and modifying high technology products to suit the market rather than radical innovations or innovation that were new to the country or sector. They represent the adaptations of established technologies in the formal sector.

Table 15: Innovation outcomes among the businesses

	Percent
New processes or technologies were there introduced?	71
New products or services were there introduced?	67.7
Changes on restructuring or reorganisation?	35.5

Conclusion

In conclusion, the study posits that Africa needs its own instrument for capturing innovation on the continent. First-hand information from field studies has shown that the instruments provided by the countries of the North are not adequate to capture the details of innovation dynamism on the African continent. Scholars interested in carrying out studies on innovation in Africa need to broaden their horizon and factor in the peculiarity of the African continent while developing and administering research instruments. Since it is only what is measured that receives policy attention, it is advised that scholars in Africa must ensure that the indicators feeding the policy process are a true representation of the innovation landscape in the African business sector. The study also found that the soft component of innovation explored in the informal sector such as the “Learning by Doing”, Learning by Using”, Learning by Interacting”, Learning by Searching” “Learning by Producing” and “Learning by Imitating” was important for innovation in the informal sector. This soft component of innovation forms part of the daily routine in the work pace in most microenterprises. The paper outlined that how daily work activity/business routine is organised go a long way in the build-up of capacity for skills and knowledge in informal business enterprises. The study also gathered that majority of the enterprises recorded that their daily job routine involves rotating tasks amongst employees, thereby fostering autonomy, knowledge and information sharing. Another important discovery in this study was the fact that the prevalence of innovations that represent adaptations or modifications of technologies was many folds more than the prevalence of innovation that was a result of the adoption of technologies. This is to say that the enterprises apply tacit knowledge and skills in the innovations. They adapt existing



technologies to soothe their local needs. Another finding worth noting was that the source of the knowledge and skills deployed in the informal sector was not really from codified knowledge and formal institutions as only about 35% of the employees had secondary school education and very few had tertiary education. The study also indicated that formality and informality in businesses were not absolute and would be best to measure informality on a scale.



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