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HOW INNOVATIVE ARE ENTERPRISES IN THE NIGERIAN INFORMAL SECTOR?

Project Background

The Informal Sector (IS) has contributed immensely to the economic growth of Nigeria. Around 7 out of every 10 active businesses in Nigeria are in the informal sector, and in combination, they employ 80% of all persons working in the private sector. The informal sector is so called because the business enterprises are not regulated or registered by the government at all levels (Federal, State or Local), and they typically operate on a small scale. The Nigerian informal sector has become robust in recent decades because many educated and experienced entrepreneurs operate therein.

The high entry rate into the informal sector has prompted extensive competition, which has created the necessity for each enterprise to improve or change the way they do business. Innovation occurs when an enterprise makes changes in what it does or how it does it. With the understanding that innovation is important for competitiveness, we set out to measure

innovation in the informal sector. We have implemented a survey of innovation in the formal sector since 2008 but this is the first time we will do it in the informal sector. Following South Africa, Nigeria is now the second African country that has started to systematically track innovation in its informal sector in Africa.

The Approach

We adopted a new questionnaire that was developed by the Centre for Science, Technology and Innovation Indicators (CeSTII) in South Africa. The questionnaire adapted the traditional Community Innovation Survey (CIS) instrument by specifically tailoring it towards the informal sector. This is because the CIS instrument used to measure innovation in the formal sector are inappropriate. The new questionnaire as well as the survey approach are based on the 'Local Innovative and Productivity System (LIPS)' framework developed by the research group known as RedeSist at the Federal University of Rio de Janeiro, Brazil. The framework assumes that some kind of system always exists around every production activity, however fragmented and unstructured it may be (Cassiolato et al., 2018).

We selected a total of one thousand two hundred (1200) enterprises from each of three cities across three geo-political zones of the country: Abuja (North Central), Ile-Ife (South



West), and Enugu (South East). The 1200 enterprises were spread across three major sub-sectors: Agriculture, Manufacturing, and Services. We translated the questionnaire into Hausa, Yoruba and Igbo, and deployed it via a web-based platform. Trained enumerators visited and interviewed the respondent enterprises, and entered responses directly into the web-based platform using a smart phone or tablet. We complemented the survey data with interviews of business owners and association leaders across 3 activities including piggery, saw milling and ICT/phone services. These were selected for their economic potentials (Box 1).

Box 1: Economic Potentials

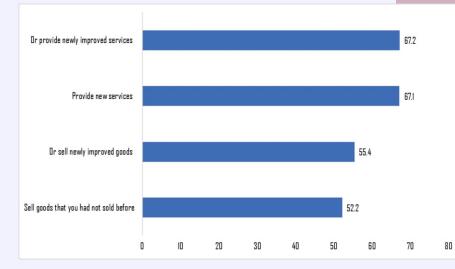
Piggery is a lucrative farming activity because pork is in high demand. One farmer told us, "no one with a pig farm that can do the work all alone, no matter how small, he will employ three to four people as workers". ICT/Phone repairs provides a significant avenue for capacity building and youth empowerment. We learnt from a business owner that "It creates a lot of employment. Like me, most of us in the association are graduates but no job. So it is a source of employment. Like I have some boys in my place now, they just finish school but nothing to do. It creates employment for them." Sawmilling produces an essential commodity to support the housing sector. A sawmiller noted that"If there is no plank seller, the building of houses will be difficult a little because there is no how you will do it that you will not use plank, no matter how neat it maybe".

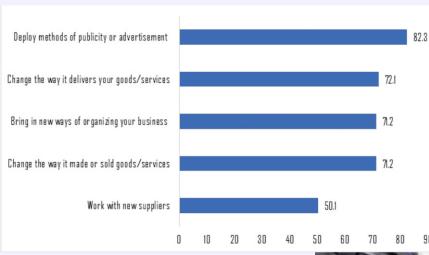
Main Innovation Types in the Informal Sector

The working definition of innovation is "a new or improved product or business process (or combination thereof) that differs significantly from the enterprise's previous products or business processes and that has been introduced on the market or brought into use by the enterprise" (OECD, 2018: 68). Figure 1 reports on activities that fit this definition in relation to products and services while Figure 2 reports on processes which the informal enterprises implemented between 2016 and 2018.

The Figures tell a four-part story. First, innovation is prevalent in the Nigerian informal sector. At least half of all the 1200 enterprises that we interviewed had implemented an innovative activity between 2016 and 2018. Second, the informal firms seem to be more likely to make changes in their business processes than they do in their goods and services (see Box 2). Third, the enterprises tend to create new products and services at about the same rate as they improve existing ones. For instance, 67.1% of the enterprises introduced a new service and 67.2% improved an existing service. Fourth, the overall rate of innovation is higher in processes than in products or services.

Figure 1: Goods/Services Innovation





Box 2: Main Types of Innovation

Process innovation seems to be more entrenched in the informal sector. According to a pig farmer, "sometimes ago when we rear pigs for 10 months or even a year, if they weigh 50 kg we will be happy. But now from 4 to 5 months, they weigh up to 50 kg, due to the feed that we are giving to them. Before they got to the tenth month, they weigh 100 kg, one year they will weigh more than 100 kg, so there is an improvement. We understand it better..."

A phone repairer said "when you deal with software, you must be online 24/7, so that you know when an update is available for popular models of phones. For example, iPhone, releases updates almost every month, if you use the previous one to work on it, you may be surprised that the phone can crash or the repair process may not succeed or the procedure may fail ".

A sawmiller spoke about changes made to their production process through the introduction of more sophisticated machines: "... some woods are being produced such that they can be assembled during milling and disassembled afterwards, packed inside motor vehicle)

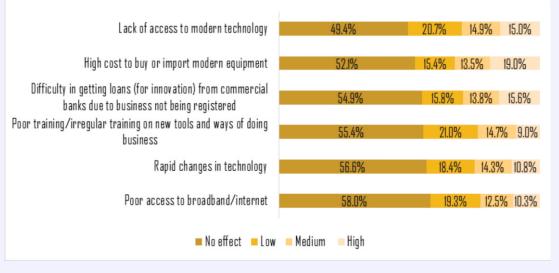
> and moved to another place,...now we can mill two loads trucks of wood per day, palm saw that uses electricity has been introduced,...and we now have a machine that pulls logs into the machine without the help of anyone which now makes cutting of logs into planks very fast, we have more than 300, it makes cutting of planks fast these days".

Major Barriers to Innovation

We asked the respondents to rate how much their efforts to innovate are hindered by a selection of factors. Figure 3 illustrates some the findings. Access to liquidity – though still a major problem – is not among the top two economic factors that hinder innovation in the informal sector. The top two economic deterrents are related to costs of modernisation. Box 3 and Figure 3 provide more details on the barriers to innovation.



Figure 2: Process Innovation



the more formal sources of knowledge(Box 4). Indeed, this suggests that a wide gap exists between the custodians of knowledge, policymakers and the business enterprises. There is the need to urgently bridge this gap with conscious efforts and active engagement to ensure continuous interaction among these 3 key elements. This will spur innovation and in effect results in wealth creation. employment generation and delivery of other public goods to Nigerians, especially the teeming youths.

Box 3: Barriers to Innovation

The barriers to innovation identified by the firms have economic, social and technological dimensions. For example, a participant has this to say "so many at times they broadcast on the radio, on television, on NTA that they have released a certain amount of money, it is the politician that cornered it, and they distribute it on man know man basis. For example, getting funds from Bank of Agriculture (BOA) is extremely difficult, the people that BOA is supposed to give money to really suffered before the gets fund. Even, most times, the fundi is usually not enough to be used on the farm".

An industrial leader in the informal sector identified poor internet services as a barrier. According to him, "there are many times you need to go online to get something done, you then realized that network is not available, you try to download something and due to poor connection, it just stops midway and all of that, that is very challenging".

Furthermore, the participants pointed out lack of recognition by government as a key barrier in saw milling citing that "the government doesn't recognize us, because if they make any promise on the radio, they will not fulfill their promises. For example, when they talk about farmers, they will say they provide things for them, but the money will be given to literate farmers".

Roles of Networks

Networks are important sources of information and knowledge for innovation. No single firm can have all the knowledge required for it to innovate. For this reason, interactions among different actors are beneficial. We asked the respondents to indicate how often they interacted with potential sources of information for innovation (Figure 4).

The top 3 information sources are market-based: customers, sources within the business (i.e. employees and apprentice) and suppliers. A sizeable proportion of firms also rely on business clusters, informal groups, and competitors as information sources for innovation. The least used sources are research organisations, universities and government. Clearly, informal enterprises in Nigeria are more likely to source for information within the market where they operate than from

Social media is the main pillar of digital marketing and now an important soft skill being sought after by many businesses and individuals. Social media comprises the utilisation of webbased platforms for information sharing, exchange and communications. Such platforms include Facebook, Twitter, WhatsApp, and Instagram, among others. Most of the firms that we interviewed use WhatsApp and Facebook for marketing and propagating their business but very few of them use Twitter for the same purpose (Figure 8).

Box 4: Roles of Networks

The informal firms acknowledge several roles of their trade associations. These roles cover several aspects including business support services, periodic seminars and training events, offering a networking platform, provision of legal support, offering financial assistance, acting as conduit for information flow and helping to manage conflict. Specifically, the leader of the piggery association noted that *"if the market is not how it was supposed to be or any challenge is about to happen, we will talk about it together to the extent that, we know how we will get the money if it concerns money, even if it were to sell goods, we send information around to all members to know whoever has matured animals for sale. We work as a team, if there is no such we can't stand like this".*

The leaders of the ICT group told us that "If you need anything, maybe you need some parts, you want to get some tools and all that, you can approach any member. We have a WhatsApp group where you can ask for assistance or help. So I have benefited from it...we don't limit it alone to the GSM, we broaden the scope in the sense that we do a lot of seminars both in our field and outside our field for them to gain more knowledge. Aside from our field, we enlighten them on the security aspect of phones, you understand, because, presently, there are security features attach to phones which are the security codes. So, we enlighten our members not to unlock phones with security codes. It's illegal. So a lot of seminars have been organized for members on many other areas, this has widen the scope of the members, and many more benefits; Yes. In terms of relationship, you meet a lot of people".

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Figure 4: Frequency of interaction with the key sources of information for the purpose of innovation

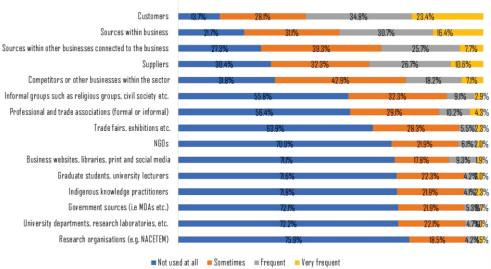
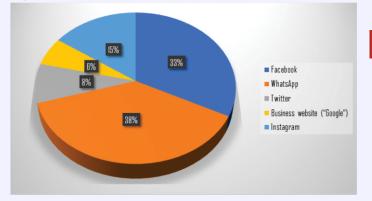


Figure 5: Use of Social Media



Sources of Funding

Viable business ideas can become valueless without adequate financing. Fewer than half of the respondent enterprises claimed to have received financial support for their business activities (Table 1). Most of those that received financial support got it from their own savings or from family and friends. Banks, cooperatives and, especially, government are hardly mentioned by the interviewees as sources of funding support (See also Box 5).

Table 1: Sources of Financial Support for business activities

| Did your business receive financial support? (N=831) | Frequency | Percent |
|---|-----------|---------|
| | 369 | 44.4 |
| If yes, who did you receive financial support from? (N=369) | | |
| Family/friends | 139 | 37.7 |
| Personal savings | 135 | 36.6 |
| Cooperative society | 35 | 9.5 |
| Micro finance bank | 32 | 8.7 |
| Commercial bank | 18 | 4.9 |
| NGD | 7 | 1.9 |
| Government | 3 | 0.8 |

Box 5: Government Support

The business owners emphasized that the government should give out money to those who need it with appropriate supervision. They also want the government to visit them; According to one piggery owner, "and they should supervise, not that just give the money. The beneficiaries should be visited to ascertain the genuineness of their request, how the fund will be utilised, and then agree on the payment plan, be it at the end of the year or after the sales. Government needs to monitor, supervise, and evaluate fund utilisation as well as provide advise to us..."

A sawmiller lamented that "Hem, to me, I have not seen any benefit received from the government by any member", another added that, "I think the only relationship we have with the government, for now, is tax payment. I don't know of other benefits...".

Policy Recommendations and Conclusion

- Our survey data suggests that innovation is generally common in the informal sector, but it is hindered by several barriers. Most of these barriers are amenable to policy. For instance, informal firms will benefit from enhanced access to technology access.
- In discussions about innovation, funding is a big deal. Informal firms receive little formal funding. Banks and government programmes need to be more responsive in this regard.
- Industry associations play more important roles than being mere pressure groups. Acknowledging and mainstreaming these roles into enterprise support programmes and policies will be beneficial in the immediate and long term.
- In general, poor monitoring of government support may be a key reason firms always complain of not receiving such support. There should be a strong monitoring and evaluation mechanism for addressing this challenge. This will have a two-fold benefit: support will more likely reach the intended target and the impact of the support can be monitored such that problems can be quickly diagnosed and addressed.

About NACETEM

NACETEM is an agency of the Federal Ministry of Science and Technology vested with the mandate of training and developing middle-to-high level manpower, conducting policy research in science, technology and innovation management and providing policy advisory services to all tiers of government & the private sector. NACETEM provides the critical knowledge support and constitutes the software component of the National System of Innovation.

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