

## USE OF TECHNOLOGY IN THE MANAGEMENT OF INFORMAL SECTOR ACTIVITIES IN DEVELOPING NATIONS

**Collins Nnamdi Nwokolo**

**Janet E. Oduko**

**Judith Uchechi Ujagbor**

**Judith Chinyere Uwaoma**

Department of Urban and Regional Planning,  
Akanu Ibiam Federal Polytechnic, Unwana,  
Afikpo North L. G. A., Ebonyi State.

---

### ABSTRACT

*The urban informal sector provides the bulk of the total internally generated revenue for city government of which it retains about 70% of inner-city employment in the country. From this affirmation and with the level of economy development it's evident that more can be achieved in (informal sector) when integrated with technology especially in developing nations. This is a qualitative research and the data for this study were obtained from secondary sources. The study was based on reviewed relevant literatures related to informal sector economy and how to leverage on technology to promote, provide and engage small and medium business owners (SME) in our local economy, especially across rural communities in Africa. This secondary data were sourced from published materials such as (relevant text books and journals, conference papers, etc.) and unpublished materials. Findings suggested that informal economy in Sub-Saharan Africa remains among the largest in the world. Furthermore, results suggested that more laid-off workers in the formal sector were gainfully retained in the informal economy. The study recommended that technology should be made affordable and available to SME businesses in the informal sector by government and the private sector economy, among other recommendations.*

**Key words:** Informal Sector, Technology, Economy, SME, and Sub-Saharan Africa.

### INTRODUCTION

The concept of the informal sector was born at a conference at the Institute of Development Studies at Sussex in September 1971. The term 'the informal sector' emerged from Keith Hart's paper on Informal Income Opportunities and the Structure of Urban Employment in Ghana" (Hart, 1973). Hart argued that the formal and informal sector were working in tandem, in which he identified the informal sector as characterized by self-employed individuals entering into enterprises that were small-scale, tending to focus on less profitable activities, with little access to credit for expansion. A number of definitions of the informal sector have been developed since then.

The characteristics of the informal sector seemed to evolve with time. Some of the previous criteria of membership of the informal sector are already out of context with the informal sector to date. Two of the conditions for membership of the informal sector set up by Sethuraman (1976) provided a good example. He argued that there was no fixed working hours in the informal sector. He also stressed that the educational background of the people involved was also low, with only six years of schooling. However, these criteria were no longer applicable to most of the informal sector operating in urban areas. This research calls upon the public and the private sector in developing countries to provide various incentives to help small enterprises acquire and use ICTs with minimal investment and operating costs. It further states that in order for informal sector enterprises to develop beyond their small-scale status, there is a need for better coordinated and effective government facilitative involvement. This can be done through the development of infrastructural facilities and an economic environment in which entrepreneurs can emerge, develop and grow. Even though small in scale, the informal sector has gradually come to be viewed as an important part of the private sector of the economy, it has shown some independence and does not suffer from a swollen workforce like the public sector, and it has survived without any subsidies or protection, nor any assistance from the government.

### **DEVELOPING COUNTRIES' INFORMAL SECTOR**

At first, the informal activities in the developed countries were produced from the top while in the Latin America was quite the opposite. Secondly, the process took place in a different structural context. There was no labor surplus in the developed countries and it was restricted to particular regions or groups. In the developing countries a labor surplus always existed and the informal sector was a response generated by the need to survive. It also served as a buffer for those who had lost their jobs during economic crises.

A surprising feature of the informal sector in West Africa is the existence of large, informal firms. This goes against the widely-held belief that informal firms are small, family-run enterprises. These small firms do exist. But they coexist with a smaller number of very large enterprises. Understanding this heterogeneity of the informal sector is crucial for designing appropriate policies. The existence of successful, large, informal firms is testimony to the entrepreneurial potential of West African economies. This drive is stifled, however, by weak business climates and lack of enforcement of regulations, which inspires and allows large informal operators to operate with near impunity.

There is therefore need to promote policies that assist small informal firms to improve productivity and raise incomes while enforcing fiscal and regulatory obligations for large informal actors by Government. The coexistence of large and small informal firms in Sub-Saharan Africa has important policy implications. Improvements in the business climate (reduced corruption, simplified government regulation and taxation, and better public services) are important for inducing both large and small informal firms to formalize and create more permanent jobs. In other respects, however, policy should differentiate between large and small firms.

In Nigeria and some part of African nations, the reality of employment in the informal sector includes both self-employment (home production and petty trading) and wage employment (casual labor, contract labor, and piecework). These undertakings in the informal sector are largely illegal, and elude the Government requirements such as registration, tax and health and safety rules. However, they do not always function secretly for this sector flourishes openly, and their unlawful status is as a result of a lack of harmonization between state agencies, lack of law implementation and other official impediments.

The size of their businesses combined with their sites differentiated these people as the informal workers. They were unlike other workers in the formal sector, and did not operate under the regulatory framework set by the Government. They were unacknowledged and therefore were not entitled to receive any benefits due to other formal workers and business entities.

## **THE CONTRIBUTIONS OF THE INFORMAL SECTOR**

The furthest noticeable contributions of the informal sector are in providing income generation activities, employment and cushioning the impact of economic crises, which is why some consider this sector as a buffer to the formal economy.

It has been common for officials, economists, experts in national and international finance and development planning to think that activities in the informal sector are too small to matter. Porte's (1994) stated that crude estimations suggested that the informal production sector accounted for 20 to 50 percent of employment in many developing countries (Cited in Levenson and Maloney, 1998).

The inequality between provinces and towns and the exceedingly high concentration of underdevelopment in rural areas of Nigeria have attracted many migrants to the urban areas. These migrants formed a large part of the informal workers.

It illustrates that this sector is able to provide employment for a lot of people, it is open for those who cannot find employment in the formal sector and those who intentionally want to work in the informal sector. Small scale businesses could absorb people from either the informal sector or the formal sector who wanted to start their own business. These businesses could provide employment, improve the livelihood and well-being of the people involved in it, generate income and cushion the impacts of the economic crisis for

the salesperson and their customers. Their contributions were beneficial for those who worked in the formal and informal sector alike.

Although, these petty businesses don't usually pay any tax to the Government, any money derived from these businesses would be spent in a formal establishment and hence would indirectly go to the Government. The income of the people working in the informal sector would eventually end up in payments for the services rendered by the Government. It would be spent one way or another in payment for development.

The informal sector is often considered as the activity of the poor, Hart (1973) argued that some activities in the informal sector generated very good incomes. A number of results like the ones found in China and Kenya (Daniels, 1999:59) showed that some activities provided higher incomes than those set as poverty lines. More than half of the laid-off workers in ten cities in China earned higher incomes from their informal activities than their previous jobs (ILO, 2002:21).

It has been argued by some that people worked in the informal sector because they had no other choice. The non-existence of the unemployment benefit in developing countries has made having a job a necessity. As employment in the formal sector was scarce, informal employment became an alternative. A good income derived from their business has enabled these small business owners to send their children to school and move into a better residence. Their businesses had not merely succeeded in maintaining their livelihoods, but had improved them significantly.

## **ICT IN INFORMAL SECTOR**

Technology is a significant factor in the provision of information for the increased sustainability, productivity and competitiveness for SMEs in management of informal sector activities. Information communication technologies (ICT) are tools that facilitate the production, processing and transmission of information, and through their

use information gaps in the business sector can be eliminated. ICT adoption has therefore been suggested as one of the ways to meet the various challenges that are faced by informal sector enterprises to boost their efficiency and competitiveness, for example by enabling them to sell products like crafts, decorations, carvings, jewellery and leather products to international markets.

Duncombe and Molla (2009:22) view the issue of ICT adoption for informal sector (small business enterprises) as a transitional process in which an enterprise eventually reaches greater formalization of processes and organization. The transition may also be accompanied by a move from a manual paper-based system to the use of ICTs for the processing of information, and telephony and computers for external communication.

ICTs also include the mass media, which are public means of communication characterized by their mass-reaching capacity (Olming and Mac Farquhar 2007:4). These are the radio and television sets which have been widely adopted in both the developed and developing countries and have a great potential to reach the low income business traders and workers. In most sub-Saharan African countries.

Taking hold of ICT opportunities in global networking would allow the African region to fight poverty and ignorance from all directions since they would be able to make use of the opportunities to trade beyond the local reach, thus expanding their markets and realizing more income. The region would also benefit by leapfrogging costly intermediate stages of development. Unfortunately, the existing infrastructure and socioeconomic, cultural and political situations pose major obstacles to introducing, implementing, and diffusing new technologies. The study further observes that politics are the greatest hindrances to the development of Africa's infrastructure and socioeconomic status.

Political leaders therefore need to understand the benefits of ICTs in order to lobby for an

enabling environment for ICT growth. Furthermore, the knowledge to apply technology to local settings needs to be developed and relevant infrastructural needs must be prioritized while equitable access to resources is promoted. The study also observed lack of umbrella institutions and formal information centers in Nigeria has also been observed to constitute a major handicap in the collection and exchange of relevant information by informal sector enterprises.

The use of ICTs has not been viewed as crucial tools by informal sector workers, mostly because of the inability to afford them and unawareness of the possibilities of information through the various forms of technology. While most informal sector workers do not have access to computer-based ICTs in Nigeria and other developing countries, they have had access to the relatively affordable mobile phones which they have extensively adopted and are using to facilitate business activities, and which have brought them significant benefits, such as savings in travelling and time. Mobile phone technology has also brought about a good deal of convenience and improved work efficiency in the SME sector.

## **CHALLENGES OF INFORMAL SECTOR IN NIGERIA**

When citizens cannot find job in traditional wage employment, the requirement for sustenance forces them to look for labour elsewhere. The alternative is mainly in the informal sector of the economy, where there is no minimum wage and workers are unlikely to pay taxes, have no holiday or labour rights, and frequently work in unsafe conditions. Most of the time, it is difficult for them to obtain microcredit since they lack economic stability and concrete employer-employee ties.

Agreeably, across the country, it is easy to notice street traders, artisans, vendors, Nano and micro-businesses, commercial buses, tricycles, and motorbikes (Okada riders) domestic workers, market traders among others all operating informally, broadly speaking you can easily see informality all



around the country. The informal economy has witnessed a massive expansion in the last two decades in Nigeria and the root causes of these include elements relating to the economic context in the country, decreasing levels of market regulation, weak policy frameworks, and socio-demographic drivers such as population growth, urbanization, rise in unemployment, widening inequality between the rich and poor, low-level education, including poverty. The key driver of the informal economy, however, is that such businesses in the sector do not need registration with any relevant government agencies.

There are multiple perspectives on the informal economy; some associate it with lost revenue, unfair competition, low productivity, human rights abuses, and environmental degradation; while others associate it with entrepreneurship, flexibility, and resilience. Overall, the informal economy is enduring; but suitable regulations and policies are required to improve the sector and introduce formalization. The decision for these businesses to formalize depends on the benefits that are derived from formalization over the risks of remaining in the informal economy. If the former outweighs the latter, only then does formalization seem like a viable option to the operators.

## CONCLUSION

This paper has observed that the development and status of the informal sector in Nigeria in relation to the sector's information needs and the ways in which ICT can be used in management of their activities. It has also looked at the concentration and use of ICTs in the sector and the extent to which they are used to meet the needs of informal sector enterprises. In spite of a lack of encouragement and support from the government, it has outgrown the formal sector in terms of job creation and as a source of livelihood for the majority of Nigerians.

The government also came to recognize that the informal sector cannot be ignored and has

made efforts to encourage its growth in the last two decades. In spite of these efforts, the sector lags behind in terms of the provision of facilities and infrastructure, and especially ICT support. Most informal sector enterprises and operators continue to use simple technologies and are yet to embrace sophisticated technology, with the exemption of the mobile phone which has been extensively adopted and widely used by Nigeria from all walks of life.

Access to computer-based technologies remains low among informal sector operators, the majority of whom do not have the necessary skills. It was also noted they lack awareness of ICT benefits, and are not able to afford them (ICTs). The study observed that most people in this sector continue to use informal methods in their search for information and are unable to access the necessary information, on such things as sources of finance and credit for businesses, and the right prices and markets for their goods. They rely on informal networks of information, especially friends and relatives, as well as customer reactions and their own experiences to start and run their businesses.

## RECOMMENDATION

Education and skill acquisition programs needs to be introduced and sponsored by the government to enable mass sensitization among informal sector workers. These long and short module programs will engage them to appropriately understand their various areas of business specialty and opportunities and to take advantage of it.

Health and safety guidelines and support schemes for informal workers should be paramount in promoting this sector. Thus, the Informal sector workers are highly vulnerable in getting infected as they mostly live and work in congested spaces and lack adequate access to water and clean sanitation. Hygiene and sanitation are critical in developing an economy.

Technology should be made affordable and available to SME businesses in the informal sector by government and the private sector. This will help in building, networking and new change direction of business and operating models that will transform the small business sector optimally as well as connecting to global trade, investment and opportunities.

The provision of early information and invest in building proficiencies. In the short-term, these should help SMEs adopt new working modes and digital technologies that respond to the new reality of COVID-19 and other health pandemic, such as teleworking, online retail or home delivery.

However, this requires some basic infrastructure in place (such as internet connection) and familiarity with digital platforms, along with consumer demand for such services. Less than 30 percent of the African population has access to the internet, compared to 90 percent in advanced countries and 60 percent in other developing countries. At the same time, mobile money services are on the rise amongst African small businesses, increasing productivity, turnover and revenues, and credibility.

## REFERENCES

- Adeyinka, S.A., Omisore, O.E., Olawuni, O.P. & Abegunde, A.A. (2006). An evaluation of the informal sector for the economic development of Nigeria: A case study of Lagos State. *Paper presented at the XXIII FIG Congress 'Shaping the Change', Munich (Germany), 8-13 October 2006.*
- Akinbinu, A. F. (1998). Liberalization policies and technological capability in the informal sector: A case study of the auto-repairing industry in Oyo State. *NISER Monograph Series no. 5. Ibadan: Nigerian Institute of Social and Economic Research (NISER), pp. 32-44.*
- Akintoye, R. I. (2008). Reducing unemployment through the informal sector: A case study of Nigeria. *European Journal of Economics, Finance and Administrative Sciences, Issue 11, pp. 97-106.*
- Apusigah, A. A. (2006). Transcending Gendered Economics: Grassroots Women's Agency in the Informal Sector of the Ghanaian Economy. *Ghana Studies, 9(1), 151-176.*
- Daniels, R. C. (2022). How Data Quality Affects our Understanding of the Earnings Distribution.
- Dierwechter, Y. (2002). Six cities of the informal sector—and beyond. *International Development Planning Review, 24(1), 21-41.*
- Dike, E. (1997). *Structural adjustment and small-scale industrial entrepreneurs in south-eastern Nigeria.* Geneva: United Nations Research Institute for Social Development.
- Dike, K. O., & Ekejiuba, F. (1990). *The Aro of south-eastern Nigeria, 1650-1980: a study of socio-economic formation and transformation in Nigeria.* University Press.
- Duncombe, R. and Molla, A. 2009. Formalization of information systems in Sub-Saharan African small and medium enterprises: Case of Botswana. *The African journal of information systems, 1 (2): 1-29.*

- Ezeah, C., Roberts, C.L., Watkin, G., Philips, P.S. & Odunfa, A. (2009). Analysis of barriers affecting the adoption of a sustainable municipal solid waste management system in Nigeria. *Proceedings of the 24th International Conference on Solid Waste Technology and Management, Widener University, Philadelphia, P.A., USA.*
- Gikenye, W. (2014). The status and development of informal sector and ICT access in Kenya. *Inkanyiso: Journal of Humanities and Social Sciences*, 6(1), 77-88.
- Hart, K. (1973). Informal Income Opportunities and Urban Employment in Ghana. *The Journal of Modern African Studies*, 11(1), 61–89. <http://www.jstor.org/stable/159873>
- International labour organizations (2002:21) in the informal economy of Cairo. *Comparative Studies in Society and History*, 45(3), 571-605.
- Levenson, A. R., & Maloney, W. F. (1998). The informal sector, firm dynamics and institutional participation. *Firm Dynamics and Institutional Participation (September 1998)*.
- Olming, K., & MacFarquhar, N. (2007). Lessons learnt from supporting mass Media to improve the business environment. *Geneva: International Labour Organisation.*
- Onyebueke, V., & Geyer, M. (2011). The informal sector in urban Nigeria: Reflections from almost four decades of research. *Town and Regional Planning*, 59, 65-76.
- Portes, A. (1994). Labor Standards, Development, and the Informal Economy. *Contrapunto: The informal sector debate in Latin America*, 113.
- Sethuraman, S. V. (1976). The urban informal sector: Concept, measurement and policy. *Int'l Lab. Rev.*, 114, 69.