

Contextual Assessment of Adoption and Use of Information and Communication Technologies (ICTs) by Small Businesses in Lagos, Nigeria

Information and Communication Technologies (ICTs) have had significant transformative effect on how business is conducted within the context of the emerging information society. The phenomenal impact of ICTs is visible in every segment of human life. An example is that mobile phones reduce some information failures which constrain investment and business activities in developing countries. Different types of ICT solutions help enterprises to manage their resources more efficiently, access the information needed for better business decision-making, reduce transaction costs, and enhance their ability to bring products and services to customers.

Policy Brief

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Low levels of ICT Adoption by SMEs

The level of ICT usage by small businesses in Nigeria is significantly low, even when compared with what is obtainable in other African countries benchmarked by the World Economic Forum's annual Global Information Technology Reports's Networked Readiness Index (NRI).

Challenges to ICT Adoption by SMEs

SMEs are more likely to experience several challenges with regards to ICT adoption and implementation; such challenges may include reliability issues caused by infrastructural challenges, high cost of implementation of technologies and manpower gaps existing in the workforce.

Government Policy and SME ICT Adoption

Government policies should also influence ICT adoption among SMEs as an external source by designing policy initiatives that aid SMEs, apart from other factors such as the suppliers, clients and rival businesses.

Importance of ICT Adoption by SME Productivity

ICTs have been proven to have significant transformative effect on society, improving efficiency, eliminating physical barriers and enhancing quality of life. It has also significantly transformed how business is done over the years. This is also particularly useful for improved productivity of SMEs in Nigeria and sub Saharan Africa.

Introduction

ICTs offer higher benefit-to-cost ratios in all aspects of production, while simultaneously offering new ways to create value by better and more efficiently organising the use of natural, financial, and human resources. Nigeria is a major player in the ICT sector in Africa; the country has so far recorded significant achievements in the ICT sector of its economy, and has witnessed remarkably high growth in penetration rates and diffusion levels of ICT within the last decade. These modest achievements were attained in spite of the poor state of its infrastructural development. Internet, websites, fixed telephone lines and mobile phones are the most common technologies adopted by small businesses in support of their ICT enabled operations. Also, there are significant differences in the perceived usefulness and the ease of use of internet marketing among Nigerian consumers. This in turn, has an influence in determining small business preference for internet marketing over conventional media marketing. A qualitative approach based which was based on extensive interviews with owner/managers of the small businesses covered in the study was adopted, this allowed us to explore the broader trends of usage and also understand how and why certain usage patterns emerged. The qualitative interviews sought to explore and identify central themes on ICT adoption among SMEs. The interviews were particularly useful for getting the story behind the participant's experiences in usage of ICTs. For the country comparison, secondary data from the World Economic Forum's 2013 Networked Readiness Index was used to assess the ICT readiness of businesses in Nigeria

Results and Conclusion

Perceived ease of Use

A company's size, business model and information intensity needs are some of the factors identified that influenced its decision to adopt

ICTs as part of its business operations (Van Akkeren and Cavaye, 1999, p1081 cited in Manuelli et al. 2007). Factors such as literacy and mistrust of ICTs were also identified as important influencers of ICT adoption decisions. The competence of the owner and employees of the company also plays an important role in determining if the company would make ICTs an integral part of their business processes covering the four functional areas of ICT adoption: inventory, payments, general administration, and Communication and information systems. For payment based ICTs, observations were recorded during the study that supports the view that while the use of Point of Sale (PoS) terminals, and online payment for goods and services transacted through websites have relatively gained ground in Nigeria, the use of mobile money which is a relatively new concept in the Nigerian market was not observed as a means of payment at any of the 60 SMEs covered in the study. More needs to be done to encourage a deeper penetration rate for mobile money and other ICT based systems for settling financial transactions.

Perceived usefulness

The perception of how useful ICTs were to their business operations also play a critical role in determining the usage decisions among the business owner/managers interviewed in the cause of the study. About 80% agreed that ICTs were very useful to their business processes. ICT usefulness was generally acknowledged in terms of general administration and operations, and particularly for communication purposes and information gathering. This is clearly visible as mobile penetration rates continue to deepen significantly which was demonstrated by a Twinpine and iHubResearch of 2012 which put Nigeria's mobile penetration rate at 61%. Businesses rely heavily on the use of mobile phones and other mobile devices for reaching out to their customers and suppliers. Real time information exchange has become an integral part of everyday life either for business or social uses. Some of the owner/managers interviewed in the retail sector also indicated that they used the internet for information gath-

ering on new suppliers of goods and better price deals.

Reliability

Reliability issues especially with regards to ICT enabled financial transactions played in critical role in influencing peoples' decision to adopt ICTs. About 60% of the business owners/managers interviewed recounted one unpleasant incidence or another which related to PoS terminal transactions or purchases made online through websites. For the PoS transactions, issues such as poor network service which made payments through PoS machines frequently unavailable, another important issue identified was based on financial institution's clearance time required to move funds from customer to merchant account. Another important factor identified was the frequent electricity power cuts in Nigeria. This make firms to rely heavily on power generating sets as backup to the unreliable public power supply, thereby leading to higher costs of operations. The impact which this had on ICT enabled business processes was that companies would be forced to run their alternative power supply system for longer hours than they could afford, hence, leading many business owners to favour manual business processes which did not require electricity such as inventory, accounting and

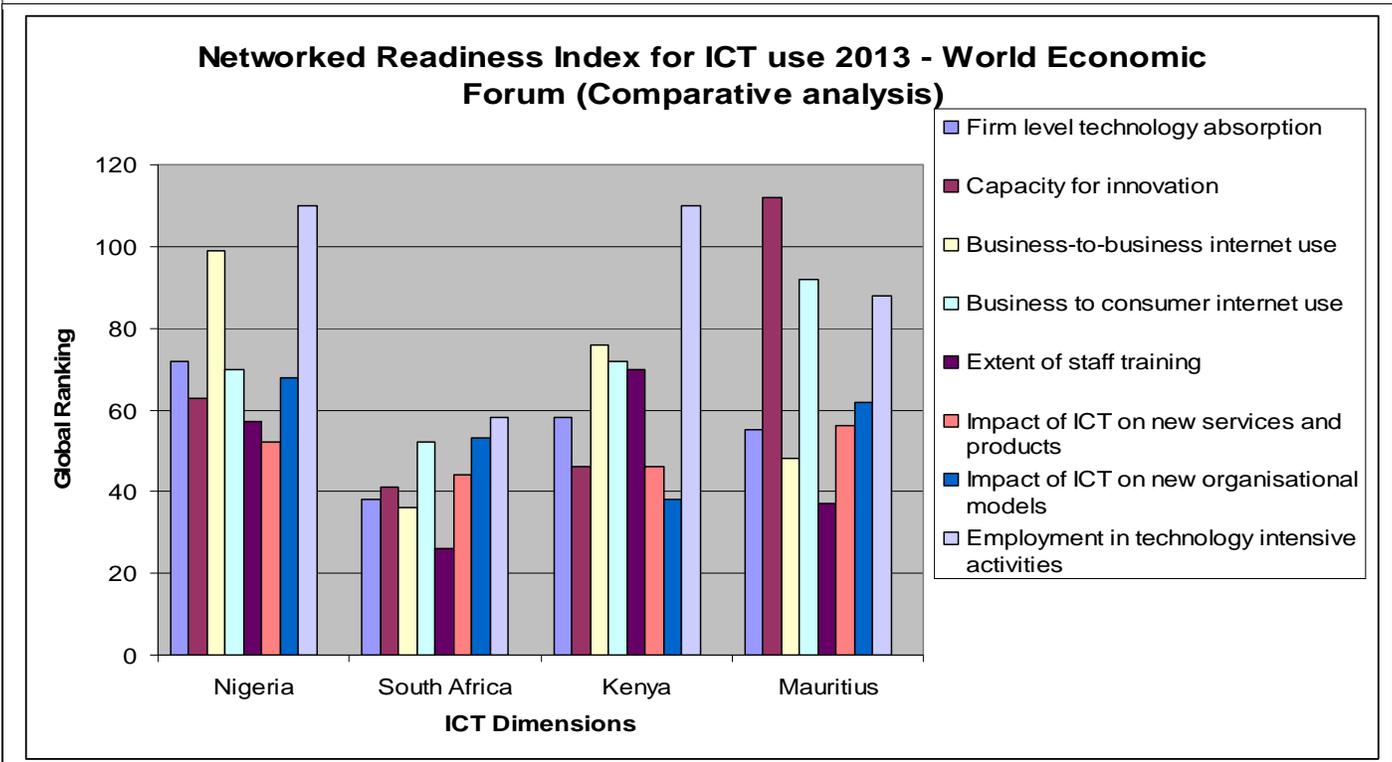
financial transactions.

The epileptic electricity situation is ubiquitous and chronic; it affected ICT usage decisions of all the owner/managers covered in the study. In terms of communication and information systems, ICTs received relatively high rating as about 70% of owner/managers interviewed were quite satisfied with ICTs as means of communication with clients and suppliers.

Country comparison

Data extracted from the 2013 Networked Readiness Index is analysed from two perspective; the first focuses on Nigeria's ranking on certain ICT usage/adoption dimensions as measured by the WEF, while the second part does a comparative analysis of Nigeria's global ranking when compared with other countries with similar socio-economic profile with Nigeria. The following graphs present the data in a visual format:

Table 3: Networked Readiness Index 2013 (Global Information Technology Report - WEF)



The graph above indicates Nigeria's performance on the 8 ICT dimensions used to rank country's performance on the scale. Four dimensions are of particular interest, they are: Firm level technology absorption; business to business internet use; business to customers' internet use; and extent of staff training. Nigeria trails behind the other African countries in those measures, while is also a tacit corroboration of what was observed during the interview sessions and visits to the business premises of the small businesses covered in the study.

secondary data from the 2013 Networked Readiness Index of the World Economic Forum. The results suggested that business owners/managers based on usage decision patterns on their perception to three key factors which are ease of use, usefulness and reliability. The factors had varying degrees of importance for individual owner/managers covered in the study. Generally, both the interviews and data from the NRI expose the low level of ICT adoption by businesses in Lagos which also doubles as the commercial hub of Nigeria

Conclusions

The paper sought to examine ICT adoption among small businesses in Nigeria. Using a qualitative approach backed up by

Policy implications

The policy implications of this are significant. Government strategy on increasing the innovativeness and competitiveness of the Nigerian economy globally needs to be fine tuned in context with the local realities and challenges faced by many of the businesses operating within the SME sector of the Nigerian economy. It becomes imperative for both the government and the private sector to go beyond the current policy framework on ICT for development to ensure that targeted interventions are made to encourage higher levels of ICT adoption at the business and enterprise levels of the Nigerian economy. This has become very crucial for a much more productive economic growth beyond the rhetoric of macroeconomic stability and GDP growth. The cashless

policy of the Central Bank of Nigeria would become more achievable if the gaps identified as source of the reliability factor which influenced ICT adoption especially as it relates to financial transaction is adequately addressed by ensuring that there is synergy among the relevant stakeholders rather than the traditional approach of government issuing policy statements and driving through their implementations without meeting the recipients at their point of need.

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