
Awareness of the Mobile Accounting Systems for Kenyan Small to Medium Enterprises (Smes): Case of Nairobi Urban

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Abstract: *This study sought to assess the awareness of Kenyan SMEs in Nairobi on the use of mobile accounting systems. In this study 11 subjects were interviewed in qualitative research, and 73 responses were received in the quantitative survey. Questionnaires and interviews were used as research instruments. Literature review was conducted to gain insights into the usage of the mobile application systems in the informal business operators in Nairobi, Kenya. Literature review showed that there were two main systems in use in Kenya – Usahibu and Quick books. The study showed that 72% of the respondents were not using any accounting application. Cost and systems functionality were found as the main factors that affected the level of systems uptake. The study identified a need for a mobile accounting application among the small informal business operators. It was recommended that further research be undertaken in order to get more general positions for whole country.*

Keywords: *Mobile Accounting Systems, Small Medium Enterprises*

1. BACKGROUND TO THE STUDY

The Small and Medium Scale Enterprise (SME) sector had an important role to play in economic development and employment creation in developing economies (Hallberg, 2000). Informal SMEs have proved to have higher profitability than formal ones and Information and Communication Technologies (ICT) were a major factor in increasing labour productivity, hence profitability (Esselaar et al 2008)

The Kenya Institute of Economic Affairs noted that Kenya's informal sector was about 33% of the country's economy, employing 77% of the country's workforce (Kenya Institute of Economic Affairs, 2012). It was also seen as a major employer for those out of the formal economy. The proceeds from this economic activity did not find their way into government tax net. Bringing this sector into the government revenue collection systems would mean that the sector would benefit from record keeping systems that would assist them accessing development funding as well as enable the tax authorities to widen tax revenue base.

According to the Communications Commission of Kenya (CCK) mobile phone penetration in Kenya was at 78% of the population (Communications Commission of Kenya, 2012). This meant that over 30 million people were using mobile phones. Extrapolating the same 78% to the informal sector indicates that 78% use mobile phones. This was a sign that technology awareness was therefore high in the informal sector.

2. STATEMENT OF THE PROBLEM

The problem that arose was whether the small-medium informal sector operators were aware of the mobile accounting systems when such systems would help them develop their businesses through better business management.

3. LITERATURE REVIEW

Global Perspectives (1999) collected data from twenty in-depth studies that compiled data from questionnaires and face-to-face interviews. The studies were carried out in New Zealand's SMEs. The results showed that companies had weak product development systems, managerial skills and strategies of technology adoption. Some of the new products were superseded by new technology within one year in the market. The companies suffered from cash-flow problems and technology adoption lagged behind international standards.

Chowdhury et al (2003) in their survey of 300 SMEs used the Cobb-Douglas production functions to calculate impact of ICT on labour productivity, market expansion and profitability. They found that investment in ICT had a negative impact on labour productivity and a positive impact on general market expansion. However, such investment did not have any significant impact on enterprises' return and any determination of enterprises exporter status. They suggested that lower productivity had to do with lower knowledge of the ICT assets that required high learning at the beginning. Additionally, they proposed that the indivisibility of ICT assets and high cost meant that they could be fully utilised across the labour force.

Lin and Wu (2004) carried out a study on computer acceptance and the factors that affected IT uptake in Taiwan. This was a survey of small and medium enterprises. Interviews were used to generate the data. One hundred and one firms were selected. The researchers found that there was a high computer usage for routine work and that perceived ease of use was affected by management support. Managerial support also influenced end-users. Perceived usefulness was found to affect systems usage.

Chacko and Harris (2006) investigated ICT developments in SMEs in the Asia-Pacific countries. They found out that the SMEs faced the problem of inadequate information, high adoption costs and poor understanding of economic knowledge. They had no resources to exploit available opportunities that enabled them to be active at the international markets. The opportunities allowed them to reduce communication costs and develop new production ideas.

Esselaar et al (2008) found contradicting results in their assessment and concluded that there was an increase in labour productivity and overall profitability for the SMEs that embraced ICTs. This research was conducted in 13 countries (Botswana, Cameroon, Ethiopia, Ghana, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zimbabwe). The authors contradicted the Chowdhury et al (2003) assessment on the basis of it having concentrated on the production factors as opposed to taking the overall business output including services. They made an observation on cost as a barrier to ICT adoption. Mobile phones were cheaper than computers, and are much easier to allocate between employees. They therefore presented a more viable entry tool into ICT adoption. In their conclusion, the authors noted that the biggest barrier to ICT adoption was the high cost of ICT.

Aker et al (2010) researched the impact of mobile phones on economic development in Africa. They note that despite the low level of infrastructure development in Sub-Saharan Africa, mobile phone penetration was growing. This produced opportunities for businesses to take advantage of this growth trend for better productivity. The authors however noted that there was a lack of documented evidence of the macroeconomic gains of the use of mobile phones.

Mwangi (2011) conducted research in Kenya to investigate what accounting means to small and micro traders, and what they used to record their transactions. The research found that most small traders kept simple paper records of debtors and creditors, while the rest of the information was relied on the trader's memory.

Cereola et al (2012) used questionnaire to collect data from SMEs top management members that had implemented open-source enterprise resource planning systems. The findings showed that the IT experience and knowledge of the management and the SME adoption capacity had a significant role in the company's ability to adopt the open-source enterprise resource planning systems. They also found out that the more aligned the system was to the SME business processes the greater was the opportunity to assimilate the technology and this resulted in higher levels of performance.

Zoto and Elmazi (2012) conducted a survey of 128 SMEs. They evaluated e-government services acceptance in Albania. Their aim was to assess their e-service readiness. The government encouraged

SMEs to implement technology advances so that they could compete locally and internationally. The study results showed that 40% of the SMEs used broadband technology, 20% had no broadband but were on the Internet and 26% had no Internet access. Fifty-nine owned computers and 5% used mobile devices. The SMEs raised some concerns. Twenty-eight were worried about the security of transactions done through e-government services and 21% were concerned with the speed and ease of use of the same services. Twenty percent were not satisfied with the service costs.

Walton & Donner (2012) conducted research into whether mobile phone internet access could replace public access computers, using teenagers in Cape Town as the study population. While this study was not related to informal sector business operations, the results gave some indication into answering the question of whether a phone can replace a desktop computer. The outcome of the research was that the phone acted as a complement to the public access computer by supporting everyday social literacies and messaging, while the PC provided facility for resource intensive operations and big document operations. When taken into a business context this suggested that perhaps mobile phones were still seen as tools for communication, not tools for business transactional processing. This then contradicted the position of Esselaar et al (2008) who suggested the mobile phone as a cheap tool for entering into the accounting application business.

Steinfeld et al (2012) examined the relationship between ICT usage and the benefits accrued by the company from membership in rural business cluster and the success of rural companies. A sample of 333 rural businesses was selected. They found a strong relationship between ICT adoption and benefits derived from the membership in business clusters, ICT adoption and self-reported business success and benefits derived from business clusters and business success open-source enterprise resource planning systems

Gikenye and Ocholla (2012) carried out a research in Nairobi, showed that only 0.3% of SMEs in Kenya used computers for record keeping. This was a sign that they had no management information systems to help them run their businesses despite high levels of technology penetration. They noted that “small size” and poor business performance and lack of proper premises for MSEs did not endear them to own and use computer-based ICTs. However, they all used mobile phone technology owing to its affordability, convenience and ability to save and transfer funds. A pilot survey conducted at Amboseli informal market in Nairobi showed that none of the 10 operators conducted, used accounting application systems. However, they were all found to be using mobile phones for communication. In 2011 a company called OTB Africa launched an application called Jamobi that provided accounting service for informal operators. A check of the application on its download page showed less than 10 users had adapted the system since its launch. This indicated very low uptake for mobile accounting applications and this was a gap that could be filled by a software application developer.

4. RESEARCH METHODOLOGY

The research methodology utilised was Mixed Method Research. Quantitative research was taken as the primary mode of research. Qualitative research was used to supplement the primary methodology. Qualitative research was time consuming so fewer participants interviewed. The researchers saw the need for generalising to the entire population and make quantitative predictions as well as reduce research bias out of the overall results. Quantitative research was therefore used in order to validate the data collected and qualitative research was employed as supplementary methodology.

Interviews were conducted by researcher through visits to the participants. The participants were allowed to conduct their normal business during the interview in order to keep them at ease and also observations were carried out. For this research, a self-administered questionnaire was also used to enable the users to fill it in their own time (Bala, 2005). The questionnaire was distributed to the participants by various means: post, courier and email. This had the advantages of easy delivery, lower cost and bulk dispatch.

5. RESULTS AND DISCUSSION

Analysis of results showed that none of the 11 subjects interviewed were found to be using electronic means of recording transactions. All were using manual records. Among these, 9 indicated that they were not aware of any system available to them to use in recording. Two indicated that they were

aware of a mobile payment solution that enabled recording of cash flow and cash balances. None were using computerised applications. This confirmed the findings of Global perspectives (1999) that concluded that New Zealand SMEs had weak ICT adoption strategies. Twenty-one of the 73 questionnaire respondents reported that they were using computerised accounting systems.

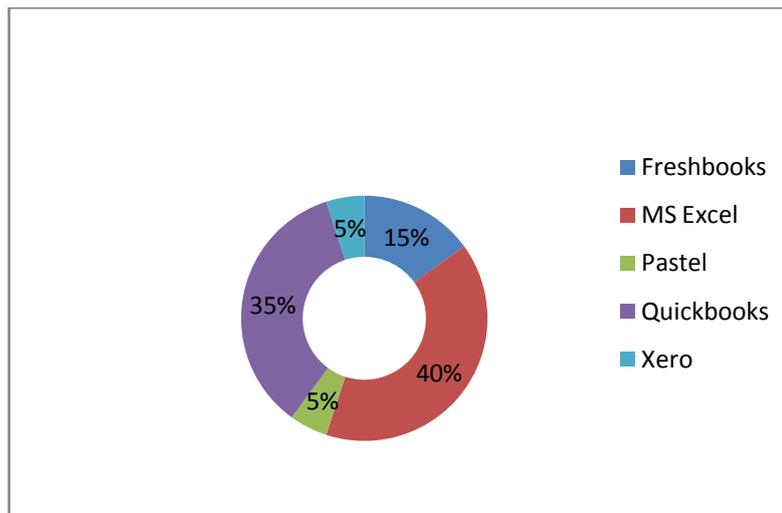


Figure 1. Systems in Usage

Figure 1 shows the systems that were used by the 21 questionnaire respondents that used computer systems. The most commonly used was MS Excel, followed by QuickBooks. Surprisingly there were no takers for the Usahibe software. MS Excel was seen a multipurpose system that lends itself to use in a variety of ways with little formal education. Lin and Wu (2004) had a similar finding when he concluded that Taiwanese SMEs had a high computer usage for routine work.

Stock Control was the main reason for software acquisition by 12 of the 21 respondents who use computer systems. The benefits accrued included stock control and theft reduction. A strong relationship between ICT and benefits was also found by Steinfield et al (2012).

The operators that used the manual systems faced two main challenges. They normally forgot to record some transactions. They also tended to lose transaction recordings leading to restarting the same process all over again. Time wastage was experienced during the process. This finding confirmed Chodhury et al (2003) who concluded that low knowledge of ICT assets had a negative impact on productivity.

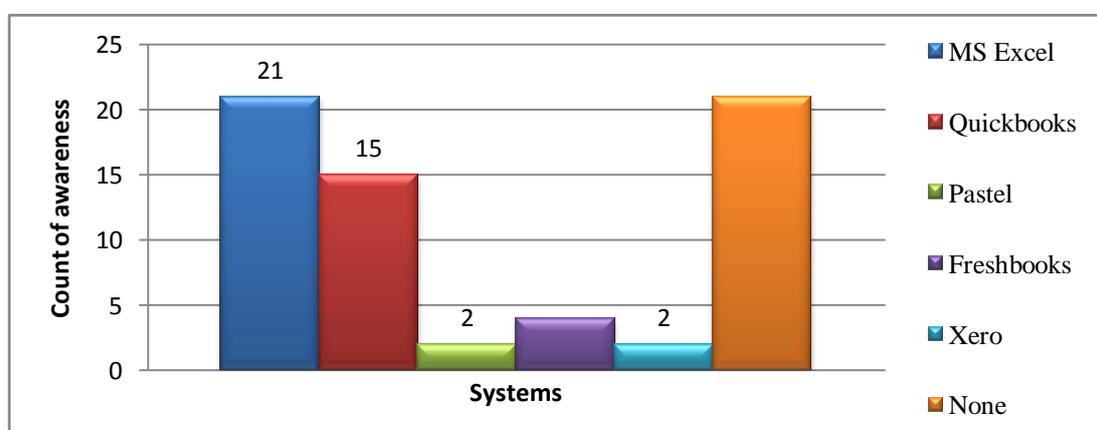


Figure 2. Systems Awareness

Figure 2 shows the level of awareness of computerised systems. The most commonly known system was MS Excel. MS Excel was noted as a commonly known system due to its versatility and ability to be adapted to many uses. However, an equal number were not aware of any system at all. Quickbooks was the next most known system. Some reported the perceived high cost of the system. The cost challenge was also a finding cited by Essalaar et al (2008). Other reasons given were: lack of suitable equipment like a computer or phone, not needed because of small operation, fear that it would

slow down servicing of customers, and preference for investing in stock instead of IT systems. Such challenges were also identified by Chacko and Harris (2006)

Observation was made of the selling process. It was indeed noted that when a continuous stream of customers was coming, the shopkeeper had to work very fast to keep up. In addition, the shop selling units were small values. On discussion with the operators they noted that they see low risk in the small value items, and would prefer recording of big value items that really drive loss or profit. This poor understanding of economic knowledge was emphasised by Chacko and Harris (2006).

Among these the primary reason for not using the systems was cost of the system. Not having the right tools and preferring to put in stock were additional reason at the top of the list. The three leading reasons were seen to be related because all were about allocation of the resources at hand.

The businesses showed that they had small income and had conflicting priorities. They therefore saw a mobile application as a luxury they could not afford. Aker et al (2010) noted that the mobile penetration was on the increase.

For them to take up the system, four main themes were identified as cost, records keeping, reports production and speed of operations. From the quantitative survey, two main factors were identified as determining future uptake and these were cost of the system and system functionality. Functionality was related to the features that were seen as critical in a new system, or were seen as missing from current system. Most of the respondents indicated willingness to take up a mobile application system if it were to become available.

6. RESEARCH FINDINGS

The following findings were identified:

- The Kenyan SMEs in Nairobi were not using mobile accounting systems. The accounting application systems were uploaded on PCs.
- Most of the SMEs were not using computerised accounting application systems.

7. CONCLUSION

Overall, the research revealed a willingness by small informal business operators to take up electronic transaction systems, whose uptake was determined by factors such as awareness, funds availability and system functions. There is therefore an opportunity for a developer to set up a viable business operation that addresses these factors.

8. RECOMMENDATIONS

It is recommended that a business or development company ventures into this space and help resolve this need that informal business operators have. The research found a need for an accounting system that is affordable.

It is recommended that the system should have the functionality that the small informal business operators are looking for. The system should be able to record the financial transactions of sales, purchases, debtors and creditors, in fast way that allows servicing of customers, and at the same time keep track of stock in all the transactions. These transactions should be visible through a simple set of reports.

It is further recommended that the system should be affordable to the small informal business operators. It should not cost more than 6000 Shillings once off, and should have a monthly running cost of less than 300 Shillings.

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