Role Of Information And Communication Technology In Governance Of Micro And Small Enterprises In Makueni County, Kenya

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Abstract: The purpose of this study was to assess the role of ICT in the governance of micro and small enterprises (MSE) in Makueni County, Kenya. The use of ICT based solutions in supporting the development of MSEs was explored by analyzing the existing mobile telephony use of the enterprises. Technology-Acceptance-Modelling (TAM) techniques were formulated to establish perceived and real value of the ICT systems in improving the efficiency of the above activities with the goal to demonstrate good governance through the indicators of ease of raising capital, the efficiency of return on capital investment and the transparency and ease of payment of taxes, fees, charges applicable and rates payable of Makueni County government. This study adopted a descriptive research design. The population consists of all the MSEs in Makueni County, Kenya. The sample size of 100 MSEs was determined using convenience sampling. The primary data was collected through structured field questionnaires and secondary data through public government statistics and subject matter literature. The quantitative primary data was analyzed using descriptive statistics including frequencies, percentage, mean, standard deviation and correlational analysis. Based on the findings, the study concludes ICT based solutions have a role to play in the good governance. MSEs have potential to achieve further transparency, efficiency and responsiveness of business to enhance their profitability through utilizing ICT based solutions in relationships with all stakeholders. In addition, the Makueni County government could raise more revenue by improving their transparency and grow their tax base by seeking more efficient means of collecting taxes.

Index Terms: ICT, MSE, governance, mobile telephony, SME.

1 INTRODUCTION

Governance in the public sense relates to the provision of timely and sound service to the citizens of a country, or in a more general sense as stated by Bevir et al. (2013); all processes of governing, whether undertaken by a government, market or network, whether over a family, tribe, formal or informal organization or territory and whether through laws, norms, power or language or by World Bank (2002); the manner in which power is exercised in the management of a country's economic and social resources for development. In the process of public governance, responsibility and obligations flows both ways, that is, the government has an obligation to efficiently provide goods and services and an enabling environment to its citizens and in turn the citizens have an obligation to respect the strictures of government such as the law. Good governance can therefore be seen as the use of institutions, structures of authority and even collaboration to allocate resources and coordinate or control activity in society or the economy (Bell, 2002). In this study, small and micro enterprises (MSEs) entail enterprises composed of not more than 10 persons, which engage in commercial activity of a highly specific nature and for which capital investment and returns of investment is typically below the taxable bracket of the government (Aryeetey et al., 1994). The micro and small enterprises Act of Kenya, 2012 defines MSEs as those with less than ten persons for micro and between ten and 50 persons for small enterprises. Annual turnover should be less than 500,000Kshs per year for micro and between 500,00Kshs and 5millionKshs for small enterprises. World Bank, (2006), argues that MSEs typically engage in the following economic activities; selling fruits and vegetables, food operation, sale and processing, selling clothes and shoes (both second-hand and new), kiosk selling various items, water kiosks, small retailers or hawkers who sell cereals, home suppliers, fuels and other goods, small manufacturing, production, construction and repair of goods. In addition, MSEs display high adaptability to changing conditions, keeping low stocks, quickly adjust to changing demands of clients and are always competitively priced to stay in the market (Biggeri et al., 1999). In Africa, MSEs provide a large majority of employment and revenue generation ability (Liedholm et al., 1998). MSEs therefore represent an important source and beneficiary of sound governance. However, most macroeconomic studies consider MSEs economic activities as being below the threshold of data collection (Aryeetey et. al, 1994). Indeed it is very difficult to measure profits for such small-scale entrepreneurs, especially as most do not keep complete records (Mwangi, 2011). In the specific context of the change to devolved government structures occasioned by the Kenya Constitution 2010, County governments are pressed to improve their revenue generation activities to implement development programmes (Office of Controller of Budget, 2013). MSEs therefore could represent an additional source of revenue and econometric data for the County's economy (Makueni County Council, 2013) The technological advance in mobile devices is a major paradigm shift in which Africa has fully participated. To date, with a mobile penetration rate varying from 20% in Niger to almost 68% in South Africa and growing at a rate of 7% annually, the fastest growth in the world, financial transactions over mobile phones now accounts for 60% of annual GDPs. The strong growth in mobile financial transaction volumes has been not only a result of heavy investment and savvy marketing by major mobile operators (Cammer et. al, 2010), but by a uniquely psychological readiness of the African population to accept electronic currency (Mbogo, 2010). This readiness has driven the population to continue to accept electronic financial transactions in increasingly menial daily tasks such as grocery shopping, shoe shins etc. Indeed mobile providers and banks are collaborating to extend financial services such as general accounting and tax remittances to SMEs (Safaricom, 2013). It is noted the trust or lack thereof in general interpersonal monetary transactions remains very strong, rather the high trust and goodwill in the providers of the financial services is mainly what drives its growth (Morawczynski et al., 2009) The universal acceptance of electronic currency is good for any national economy, however, there is a ceiling below which the cost of the transaction is untenable, that is, the financial
provider’s profit becomes zero. Additionally, lower order transactions actually penalize the low income users who transfer lower average cash per transaction (Krueger, 2011). Transactions which fall below this profit threshold are still majority of the transactions carried out in Africa by MSEs. In some instances the microenterprise sector is viewed as illegal and its activities barred by the government (Amenya, 2007). This economy of itinerant trading in Africa is calculated to be up to 50% of the GDP (IEA, 2012). The informal sector or Jua Kali in Kenya for example, occupies 25% of the GDP and employs 77% of the population (95% in rural areas, 37% in urban areas). In contemporary terms this area of the market is referred to as the ‘long tail’ (Anderson, 2004). Where, if value of transactions carried out by business in Kenya plotted against their volumes, the area below the MSE average transaction size threshold is much larger than that above; a classic Pareto scenario or power law distribution (Newman, 2006). Consequently, due to the small transaction size little commercial interest or research has been done in this sector as, following economic returns; the focus has been firstly on potential profitability, rather than on service delivery and provision of valuable econometric data for government. Microfinance institutions have rallied efforts to alleviate poverty through low interest loans and financial advice and support. However studies indicate that the effect of microcredit only results in minimal economic development. Furthermore, many banks that target the poor realize low or negative profits. Malkin, (2008), explains this negative impact as follows: increased access to credit reduced the need for favor-trading within family or community networks and thereby enabled business owners to shed unproductive workers. Consequently, microfinance has been moving increasingly towards for-profit ventures that focus on relatively richer clientele. Further Ducas et al., (2009) concluded that MSEs only make a return on capital of about 5.5% a month where the proceeds from the enterprises are used to cope with unexpected health and family shocks. This study is restricted to Makueni County which is located South East of Nairobi City County and sandwiched between the Counties of Machakos, Kajiado, Taita Taveta and Kitui in the North West, South, South East and North respectively. It consists of 6 constituencies (Mbooni, Kilome, Kaiti, Makueni, Kibwezi West, Kibwezi East). It has a population of 884,527 (ranked 17th) over 8,009 km2 and average literacy 91.4% (72.7% primary and 14.7% secondary education). The main economic activity in Makueni is subsistence agriculture while the state of transport and urban infrastructure is underdeveloped with small urban centers having populations between 9,875 (Wote) and 2,505 (Machinery).

1.1 Statement of the problem
The role of ICT in governance for micro and small enterprises has been difficult to establish due to its low capital intensive, small transaction size and volume and general unregulated nature. Its position as the largest source of employment in Kenya has prompted efforts to foster and support it through microfinance and microsavings. However, studies show that the models of the microfinance have had a mid to low impact on capital raising and investments (Malkin, 2008, Ducas et al., 2009), indeed it is shown that other capital raising techniques such as Rotating Savings and Credit Associations (ROSCA), termed merry-go-rounds, have had a greater impact on MSEs, and the recent advances in mobile telephony based solutions for microsavings as opposed to microcredit may have an even larger impact (Dupas et al., 2012). Further, the low implementation of revenue generation laws through business taxes, fees, charges applicable and rate payable reduces County government access to revenue for development projects. All these challenges reduce transparency, effectiveness, accountability, efficiency and compliance with the law that is necessary for good governance The research into MSE financing and its impact are extensive and thorough. Attention should now to be drawn to the operational aspects of MSEs and their contributions to local development. Gikeny (2014) argues that ICT has the potential to transform business operations by enabling the rapid, reliable and efficient exchange of large amounts of information; reducing transaction costs; improving information gathering and dissemination, inventory and quality control; and improving the efficiency and customer services of organizations and businesses. This study attempts to further the research into the role of ICT in governance through mobile telephony with the aim to identify efficiencies of return on capital investment and the regulatory framework compliance for revenue generation.

1.2 Objectives of the study
The general objective is to establish the role of ICT in the governance in micro and small enterprises in Makueni County, Kenya. The specific objective is to evaluate the role of mobile telephony by micro and small enterprises in governance in Makueni County in Kenya.

1.3 Research question
What is the role of mobile telephony in micro and small enterprises in governance in Makueni County?

2 LITERATURE REVIEW

2.1 Theory of Good governance
Due to its qualitative nature, the measurement of governance is inherently subjective. According to the United Nations (UN), from a human development perspective, good governance has eight characteristics; consensus oriented, participatory, following the rule of law, effective and efficient, accountable, transparent, responsive, equitable and inclusive (UNESCAP, 2009). The World Bank on the other hand, with an economic perspective, defines good governance based on aspects of society, that is; type of political regime, process of the exercise of authority in the management of economic and social resources and capacity of governments to formulate policies and effectively implement them. For the specific case of the operations of an MSE, just like any other ongoing business entity, the theory of corporate governance also applies. This theory dovetails with the relationship links between stakeholders of an MSE as much of the contemporary interest in corporate governance is concerned with mitigation of the conflicts of interests between stakeholders (Goergen, 2012). In general, the approach to measurement of governance, in a governmental context, is divided into the groups of external assessments, peer assessments and self-assessments. External assessments are the most objective measure of the three and are thus examined in this study. A global external assessment based on a World Bank initiative reports aggregate and individual indicators from more than 200 countries for six dimensions of governance; voice and
accountability, political stability and lack of violence, government effectiveness, regulatory quality, rule of law and control of corruption. The World Governance Indexes are composite governance indicators based on 32 underlying data sources (World Bank, 2012). This report is available as the Worldwide Governance Indicators project with data drawn from; Surveys of households and firms, Commercial business information providers, Non-governmental organizations, Public sector organizations. The indicator of interest in this study is: Regulatory Quality: Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. The indicator included in this study in the form of ascertaining the level of observance of the County Government Finance Acts. This specifically relates to the taxes applicable to MSEs and the methodology of their collection.

2.2 Theory of Technology Acceptance Model
The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a particular technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably: Perceived usefulness (PU) - defined as the degree to which a person believes that using a particular system would enhance his or her job performance and Perceived ease-of-use (PEOU) - defined as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). Through specially formulated questions and interviews, the TAM approach establishes the external factors which impact the attitude of the users towards a particular technical product. This approach allows the researcher to empirically identify what features of the technical product need to be adjusted to be made more acceptable and useful to the user. The questionnaire design in this study applied the TAM approach in establishing what external factors would impact the need to use ICT based solutions.

2.3 Conceptual framework
The conceptual framework consists of dependent variable; governance with indicators of good County governance of the transparency and ease of payment for County taxes, fees, charges applicable and rates payable and the ease of capital raising and efficiency of return on capital. The Independent variable was mobile-telephony.

2.3.1 Mobile telephony
Mobile telephony is the provision of telephone services to phones which may move around freely rather than stay in fixed location. According to ITU, 2013, the mobile telephone penetration is 110% in the developed world and 50% in the developing world and growing at a rate of 6%. Kenya in particular has registered very strong growth of mobile telephony use over the last years; 31.2 million Kenyans have mobile connections in 2013. In this study mobile telephony refers to mobile phones which support SMS and has GPRS capabilities in addition to standard voice support. Noted in the background of this study, mobile telephony for communication use other than by voice is a recent phenomenon which has revolutionized interactions between people, in particular in developing countries where there land-line penetration was very low, less than 6%, compared to 28% in the developed countries (ITU, 2013). Mobile telephony itself has occasioned the use of simple applications for general consumer consumption such as microcredit and savings, money transfer, traffic alerts, the news, social networks etc. MSEs therefore may use mobile telephony as part of their business activities in cheaply and efficiently communicating with stakeholders in their supply chain. The extent to which they use their mobile phones has an impact on governance as business decisions are performed using this medium, such as confirming purchase or sale transactions and applying for microcredit and performing micro savings. This affects their efficiencies of return on capital investment and ease of raising capital. The penetration and ubiquitous use of mobile telephony will only increase in the developing countries as mobile service providers aggressively expand their geographical coverage for market share. With the growth of mobile financial transfer solutions, traditional banks have returned to the microfinance market through fully mobile based offerings, where account registration, transfers into and out are fully performed remotely (CBA, 2010). Nonetheless several studies have found microcredits to have a low impact on SMEs, indeed other capital raising techniques such as Rotating Savings and Credit Associations (ROSCA), termed merry-go-rounds, have had a greater impact due to non-existent charges rates and social-relationship forces (Dupas et al., 2012). The continued growth of electronic means to transfer cash has brought many socio-economic advantages; these include financial inclusion, enhanced economic activity due to the reduction in cash transfer costs, movement of money transactions from informal to formal channels, security and convenience (Agrawal, 2010). Thus mobile telephony contributes to good governance by making the interaction between MSEs and its stakeholders more efficient and transparent. As stated by Gikenye (2014), just like other businesses, informal sector enterprises need to develop contacts, check prices, display goods, enter into contracts, and use available information to start and sustain new business ventures. Information technology has the potential to link informal sector enterprises to local and international daily market prices for their products.

2.3.2 Measure of Governance
Governance and specifically good governance is dependent on contributory factors provided by MSEs and the County government. The County government should create regulatory policies and frameworks for the efficient provision of infrastructure and services which enable to MSEs to be setup and operated with minimum investment. MSEs on the other
hand have an obligation to comply with the regulatory frameworks on revenue collection and business licensing. One of the possible efficiencies that can be potentially achieved is captured in the concept of the "long tail". The term long tail is derived from the statistical heavy tail frequency distribution where the mean is skewed strongly positively due to the very large number of low values in the population size. The term was coined by Anderson (2004) to describe the retailing strategy of selling a large number of unique items with relatively small quantities sold of each—usually in addition to selling fewer popular items in large quantities. The classic use case was the Amazon Company's book selling service. In more recent times this concept has found some ground for application, research, and experimentation. It is a term used in online business, mass media, micro-finance (Grameen Bank, for example), user-driven innovation, and social network mechanisms (e.g. crowdsourcing, crowd casting, peer-to-peer), economic models, and marketing (viral marketing). The application of this theory in this study concerns the revenue raising potentialities by MSEs. By bringing the cost of paying County taxes, fees, charges applicable and rates payable to a negligible amount using ICT based solutions, the long tail, in this case the numerically larger number MSEs, will contribute more revenue than the existing SMEs and large business enterprises operating in the County. In this study the contributor factors, independent variables, are limited to the efficiency gains MSEs can achieve in return on capital investments using ICT based solutions to comply with the County Government Finance Acts. A further measure of governance can be taken on the level of awareness MSEs have with regards to the Acts which indicates transparency of information.

3 RESEARCH METHODOLOGY

3.1 Research design

This study adopted a descriptive research design of the role ICT has in governance in MSEs in Makueni County, Kenya. A descriptive research design methodology was selected as the objective of the study was to understand the existing situation of the MSEs, and from the data collected establish the dependency of the variables in situ using correlational analysis. Primary data collected was through structured field questionnaires and secondary data from public government statistics and subject matter literature. TAM techniques were formulated to establish perceived and real value of the ICT systems in improving the transparency, efficiency and responsiveness of the above activities with the goal to demonstrate good governance through the indicators of ease of raising capital, the efficiency of return on capital investment and the transparent and ease of payment of taxes, fees, charges applicable and rates payable for Makueni County government. The population of the study consisted of all the MSEs of Makueni County. According to the 2009 Census results, Makueni County has a population of 884,253 with 186,674 households, an average of 4.7 persons per household. The quantitative primary data was analyzed using descriptive statistics including frequencies, percentage, mean and standard deviation using the Statistical Package for Social Science (SPSS) software. This allowed for a better interpretation, conclusion and recommendation. The data is presented in the form of frequency tables that facilitated description and explanation of the study's findings.

4 RESEARCH FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.1 Research findings

The research targeted MSEs based on their identified industrial profile and geographical location. It then administered the questionnaire based on the variables identified in this study with the goal to establish the Perceived usefulness (PU) and Perceived ease of use (PEOU) of mobile telephony to determine its role in MSE governance. Comparative analysis were used to quantitatively establish the relationship between the mobile telephony and good governance in the form of ease of raising capital, efficiency of return on capital and the transparency and ease of paying County taxes and fees. Prior to analyzing the individual independent variables for dependencies, it was necessary to establish if the general variables of urban center, industry profile, sources of capital or gender had an impact on the profitability of the MSE. The correlational results indicated no significant relationship between the location of the urban center, industry profile, and sources of capital, gender and profitability. It was therefore assumed these general variables had no significant impact on the subsequent independent variable analysis.

4.1.1 Mobile telephony

The perceived usefulness (PU) of mobile telephony was a key independent variable in this study. As described in Chapter two, mobile telephony has the main medium through which ICT based solutions are disseminated and utilized in developing countries. The research findings established the relationship between mobile telephony and the independent variables and dependent indicators. From the findings, the perceived usefulness of mobile telephony was generally high for the relationship of the MSE with the supplier, and to a lesser degree, the perceived usefulness of mobile telephony with the customer. Interestingly, mobile telephony has no relationship with the dependent indicators of raising capital or in relation to the County government. It can therefore be inferred that mobile telephony though a key tool, was limited by factors such as cost of financial transactions, trust relationships and ease of use in the relations with customers and the County government. Table 1 summarizes the results of the correlation analysis between mobile telephony and the different variables

<table>
<thead>
<tr>
<th>Table 1 Correlation of Mobile telephony with variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables</td>
</tr>
<tr>
<td>Stock ordering from supplier (PU)</td>
</tr>
<tr>
<td>Stock payment to supplier (PEOU)</td>
</tr>
<tr>
<td>Customer orders (PU)</td>
</tr>
<tr>
<td>Customer payments (PEOU)</td>
</tr>
<tr>
<td>Stock tacking (ROI)</td>
</tr>
<tr>
<td>Knowledge of cash balance, creditor, debtor position (ROI)</td>
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<tr>
<td>Knowledge of profit position (ROI)</td>
</tr>
</tbody>
</table>

Dependent indicators

| Profitability (ROI) | .012 | .914 | 77 |
| Raising capital using mobile telephony | .096 | .353 | 96 |
| Transparency of government to start a business | .189 | .065 | 96 |
4.1.2 County governance
The County governance indicators established the impact the county government had on the operations of the MSEs. It established the potential of collecting taxes, charges and fees using ICT based solutions, in this case by mobile telephony. The findings established two main conclusions; the transparency of information from the County government is positively related to collecting taxes using mobile telephony and the tax burden is considered onerous when the collection methods are prohibitive. Table 2 summarizes the results of the correlation analysis between the County governance indicators.

**TABLE 2**
Correlation of dependent indicators

<table>
<thead>
<tr>
<th>County governance indicators</th>
<th>government</th>
<th>Transparen</th>
<th>Tax</th>
<th>Tax collectio</th>
<th>Pay</th>
<th>Pay tax using mobile telephony</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dependent</td>
<td>y of (2-tailed)</td>
<td>burden of government</td>
<td>collectio methods</td>
<td>using mobile telephony</td>
<td></td>
</tr>
<tr>
<td>Transparent government</td>
<td>Correlation</td>
<td>-103</td>
<td>.315</td>
<td>-100</td>
<td>.304</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Tax burden is prohibitive</td>
<td>Correlation</td>
<td>-100</td>
<td>.573</td>
<td>-100</td>
<td>.573</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Tax collection methods</td>
<td>Correlation</td>
<td>.328</td>
<td>.000</td>
<td>.328</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Using mobile telephony</td>
<td>Correlation</td>
<td>.304</td>
<td>.158</td>
<td>.049</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>93</td>
<td>93</td>
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</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed) **

**. Correlation is significant at the 0.05 level (2-tailed) **

4.2 Discussions
The research project was aimed to establish the importance of mobile telephony in relation to good governance of MSEs. In general, due to the low capital nature of the MSEs, the main source of capital was from individual savings and not from micro-finance institutions. This particular finding established that the effort to alleviate poverty through providing initial access to cheap loans may be displaced. Mobile telephony plays an important part in the activities of MSEs across all industry profiles, sources of capital and gender. However, the analysis shows the perceived usefulness of mobile telephony was generally high for the relationship of the MSE with the supplier, and to a lesser degree, the perceived usefulness of mobile telephony with the customer. From all the respondents came the general strong response that knowledge of cash balance, list of creditors and debtors and the profit margin was an important variable for the success of their business. The results established that there was little or no significant role of booking on the dependent indicators. This confirmed the literature review that little to no records was kept by MSEs. The respondents uniformly indicated that they did not need mobile telephony to raise capital and found the County government was not transparent in the information on the necessary taxes, fees and charges. The respondents also found the actual taxation burden or the method of tax collections not to be heavy. From the main findings; the transparency of information from the County government is positively related to collecting taxes using mobile telephony and the tax burden is considered prohibitive when the collection methods are prohibitive. The conclusion is that the more efficient the tax collection methods the County government utilized the more the MSEs would be willing to pay. Further, the more information the County government provided to the MSEs the more they would be able to raise revenue through taxes.

4.3 Conclusions
Based on the findings, the study concludes ICT has a strong role to play in the good governance of MSEs. Whereas the areas of MSE supplier relationship utilize ICT based solutions for efficiency, MSE relationships with customers and the County government do not. Thus MSEs have potential to achieve further transparency, efficiency and responsiveness of business to enhance their profitability. In addition the Makueni County government could raise more revenue by improving their transparency of tax, fees and charges and grow their tax base by seeking more efficient means of collecting taxes.

4.4 Recommendations
From the findings, discussion and conclusions of this study, the following recommendations are given; To encourage the uptake of ICT based solutions of mobile telephony, the cost of carrying out financial transactions must be made cheaper to accommodate low margin transactions. This will allow MSEs to perform more business activities using mobile telephony based solutions and thus create potential to drive at up their profitability. County governments must invest in ICT based revenue collection systems which increase the transparency of the taxes, fees and charges they collect. Further their goal should be to increase the tax base by reducing collection costs, rather than re-enforcing existing tax collection activities.

5 REFERENCES


