

The status and development of informal sector and ICT access in Kenya

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Abstract

This paper examines and discusses the status, development and growth of the informal sector, ICT access, and the information needs and seeking behaviour of informal sector workers in Kenya through literature review. It recommends more research to gain a deeper understanding of the context and information needs of small business enterprises in order to offer a strategic framework for appropriate intervention in providing information and ICT access for MSEs.

Keywords: Informal sector, ICT access, Kenya

Introduction

The informal sector plays a major role in its economic contribution to developing countries through the creation of jobs, production and supply of affordable goods and services and in the reduction of poverty. However, the sector faces many challenges, including limited access to markets and finance, lack of familiarity with new and changing technology, and lack of awareness, skills and understanding of ICTs (Mutula and van Brakel 2006:404; Opiyo and K'Akumu 2006:244).

In Kenya, Opiyo and K'Akumu (2006) and Orwa (2007) have observed that informal sector businesses largely operate with hardly any ICTs like fax machines, e-mail or the Internet, and the same has been observed in Uganda (Ikoja-Odongo and Ocholla 2004:54). According to Orwa (2007:3), most informal entrepreneurs do not know the law and their rights, which is not conducive to robust business decisions for proper growth. These challenges are responsible for the lack of sustained growth in the informal sector in Kenya (Migiro 2006:25; Opiyo and K'Okumu 2006). The global technological change in ICTs currently offers the informal sector an opportunity to tap into international markets, but the participants have to first embrace change and new ways of doing things if they are to benefit from such an opportunity (Hafkin and Taggart 2001:1).

In order for the sector to expand and reduce income disparities, it has to embrace changes in the global technological environment to reach international markets (Migiro 2006:40). Moreover, for this to happen there is a need not only for ICT awareness but also the acquisition of skills for ICT use, and putting the necessary infrastructure in place (Migiro 2006:40; Hafkin and Taggart 2001:1). However, one cannot help asking whether the micro and small enterprises in Kenya, which operate under very difficult conditions and which function more as survival outfits than profit-making organisations, will experience the paradigm shift that has been experienced in the developed countries.

Many research studies have been carried out in Kenya on the informal sector by Lundvall, Ochoro and Hjalmarsson (2001), Bigsten and Duverall (2004), Kimuyu (1997), and Ongile and McCormick (1996), to name a few, but much remains to be done on the diffusion and potential of ICTs in the informal sector in Kenya. Opiyo and K'Akumu (2006) have researched ICT application in one market centre in Nairobi; their focus was on the spatial design of buildings which would enable businesses to share ICT infrastructure. Migiro (2006) carried out research on the diffusion of ICTs and e-commerce adoption, but specifically in the manufacturing sector. The two research studies have focused on specific and specialised areas of ICT and the informal sector in Kenya and may not be applicable to a wide range of informal sector enterprises that exist in Kenya.

This study explored various sub-sectors in the informal sector with the purpose of investigating the use and potential of ICTs, examining the impact and problems in the sector, and making appropriate recommendations. Considering the economic potential of ICT adoption, the research was important in the preparation for possible intervention by the government and other organisations in the attempt to improve performance in the sector, which supports a large proportion of the Kenyan population.

The fact that a substantial amount of research has been done on the informal sector without focusing much on the use and potential of ICT adoption shows a general lack of awareness on the part of informal sector stakeholders about the importance of ICT adoption for information provision and its potential benefits. Considering that ICTs have been found to bring about positive changes in business elsewhere, the continued lack of awareness and interest keeps the productivity of the MSEs low, as well as the incomes and profits, making them unable to grow beyond survival outfits and remain less competitive than those which have access to the required business information. They are also not able to generate robust

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employment opportunities, and have therefore remained small, with hand-to-mouth existence, and are not able to afford new technology, which would help change their low productivity status.

This paper is informed by the diffusion of innovation (DoI) theory, Social Construction of Technology (SCOT) theory and Actor Network theory (ANT) that are discussed elsewhere (Gikenye 2012; Gikenye and Ocholla 2014) in greater details.

The status of the informal sector in Kenya

Despite their low profile status, MSEs in Kenya have played and continue to play a vital role in the economy by providing employment opportunities to a significant number of the population. Over seventy percent of the total number of people employed in Kenya were employed in this sector in 2008 and contributed eighteen percent (18%) to the country's GDP (GOK 2008:39). According to the 2009 Economic Survey, the informal sector created 433,500 jobs in 2008, which is 93% of the total 466,200 jobs created in the economy in that year, compared to the formal sector which created only 33,700 jobs. MSEs are therefore a major source of livelihood for a significantly large proportion of the population in Kenya.

In other African economies, MSEs' contribution to the GDP ranges from 15% to as high as seventy percent (70%), but despite this contribution, most MSEs remain undercapitalised and suffer from poor infrastructure, low use of technology, extremely competitive markets, and an unfavourable institutional environment (McCormick 2008:8).

The informal sector in Kenya covers small scale activities that are semi-organised and use low and simple technologies. The activities carried out include manufacturing, building and construction, transport and communication, community and personal services, and retail and distribution (GOK 2010:78). The people working in the MSEs are mainly young school-leavers who have not been able to secure jobs in the formal sector (GOK 2010:78). The ease of entry into the informal sector has made it a practical option for those who have left schooling and training institutions and found no alternative employment as well as those exiting from the formal sector due to layoffs and restructuring. Figures for 2009 reveal that Nairobi Province commanded the largest share in informal sector employment at 24.3%, followed by Rift Valley Province at 18.9% and Central Province at 15.8% (GOK 2010:78).

According to the 1993 National Baseline Survey, 98.6% of all micro, small and medium enterprises fall within the micro enterprises category, defined as businesses employing one to ten workers (Parker and Torres, 1994). Further information from the second national baseline survey 1999 (GOK *et al.* 1999) indicates that at least one third of the MSE start-ups do not survive the third year.

Development of the informal sector in Kenya

The report of the Director General of the 78th session of the ILO Conference (1991:9) provides a fitting summary of the prevalence of informal sector activities in urban centres all over the world:

Since the very beginning of urban civilization, towns and cities, in different parts of the world, have attracted people from rural areas who have attempted with more or less success, and often in a hostile environment, to carve out a niche for themselves in urban societies as craftsmen, tradesmen, hired labour or providers of petty services. The difference in today's informal sector activities, prevalent in developing countries, is its magnitude due to the phenomenal increase in population growth and the consequent growth of the urban labour force.

The prevailing situation is therefore not unique to developing countries; when the formal sector anywhere fails to absorb all the labour in the market it accelerates the emergence of informal sector activities. The difference between developed and developing countries lies in the number and size of MSEs, support by individual governments, and the success of the MSEs. Restructuring and adjustment programmes that were mainly introduced by international aid agencies in the 90s and beginning of the 21st century also increased the number of people moving to the informal sector in developing countries like Kenya. The sector has therefore become a sponge that constantly mops up ever-increasing excess labour.

Kenya seems to have more than its share of informal sector activities. The informal sector phenomenon is so common in the country that even people who are in formal employment usually have something to do on the side, just in case they get retrenched or decide to resign from employment and do some business on their own. Others want something that they can retire to since pension money may not be enough to survive on (Ndege 1990:23).

In the 1960s and early 70s, the informal sector mopped up the spill over of primary school graduates who could not be absorbed into the formal sector job market. Over the years, the situation gradually changed to include secondary school leavers and university graduates who increasingly failed to get jobs in the formal job market. The earlier expectations that formal education graduates would automatically find jobs in public or private formal sector organisations have proved to be unrealistic as employment opportunities have gradually shrunk.

Retrenchment in the 1990s and the 2000s has led many middle class people who were formerly employed in the formal sector to invade the informal sector, resulting in the opening of new specialised investments that are different from the simple survival outfits that are characteristic of hawkers and small traders (Ndege 1990:23). Working in the sector has therefore become an alternative occupation for some participants who have voluntarily ventured into the sector either to supplement their formal employment incomes or to invest in new ventures having resigned or been retrenched from formal employment (Alila and Pedersen 2001; Ndege 1990:23). According to the 1999 National Baseline Survey on informal sector enterprises (GOK *et al.* 1999:vii), there were about 1.3 million MSEs in Kenya that employed 2.4 million people in 1999. Their contribution to the Gross Domestic Product (GNP) was estimated at 18.4% and 97% of the enterprises were found to have fewer than ten employees, which confirms the small size of the operations. It is only following independence that the existence of informal sector activities appears to have been noticed. Informal sector activities could not find much expression in colonial Kenyan urban centres prior to the 1960s due to strict regulations that allowed only the colonialist-dominated economy to thrive (Ndege 1990:14). There is some evidence, however, to suggest that informal sector activities were going on, albeit not very visibly. King (1996:4) refers to the East African Royal Commission of 1953-1955, which addressed issues of restrictions and regulations on marketing and the provision of credit and licences that affected many aspects of colonial African life. The commission noted the clusters of settlements just outside the boundaries of all the main towns which formed important centres of African trade, albeit on a very small scale and without much feasible potential, but which represented the only development of African commercial enterprise.

While informal sector activities grew faster with the attainment of Kenya's political independence, the economy continued to be dominated by foreign interests through multinational corporations (Ndege 1990:14). It was not until 1972 that informal sector activities were brought into the open by the International Labour Organization's (ILO's) Employment Strategy Mission research report, which identified a sizeable potential for the sector and large numbers of people who were working outside formal sector jobs in this unregulated and highly competitive sector. This marked the beginning of the recognition of the informal sector ((Bangasser 2000:8; Alila and Pedersen 2001:1; King 1996:5; Abuodha 1989:4).

The ILO report popularised and brought into the open the term 'informal sector', but was not its originator. According to King (1996:7), the term 'informal sector' originated in Keith Hart's work among Frafra migrants from Northern Ghana who were working in Accra. The term was first used in a paper presented in a conference on "Urban unemployment in Africa" in Sussex in 1971, which viewed informal sector activities in a positive light and as a source of informal income opportunities rather than as an unemployment crisis.

The ILO Mission report on Kenya amplified this point when they viewed the informal sector as an innovative and productive, emerging and hitherto unrealised sector. This was followed by many academic papers written on informal sector activities in Kenya in the 1970s and 1980s, principally by the University of Nairobi's Institute for Development Studies (King 1996:7-8).

The informal sector was by then also seen as conveying the spirit of self-reliance that was emboldened in the Kenyan motto and self-help movement of 'Harambee' ('pulling together' in Kiswahili) as the social and economic driving force (ILO 1972: 225; King 1996:11). 'Harambee' means collective effort and embodies ideas of mutual assistance and joint effort in community activities that are geared towards self-help projects for self-reliance. In the context of informal sector activities, it is similar in its emphasis and bias towards self reliance and a bottom-up approach rather than the dependence on the top-down approach in economic sustenance.

Although 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 bloated workforce like the public sector, and it has survived without any subsidies or protection, nor any assistance from the government. Training in the sector is done according to an enterprise's requirements through apprenticeships, with the apprentices contributing to the costs of their training through their labour. It also functions as a training platform for future entrepreneurs and has displayed a remarkable capacity to absorb labour (King 1996:11).

The informal sector suffers from a poor public image and neglect, and has also survived harassment from government agents (King 1996:xiii; GOK 1986:54). The situation has not changed much; the government's efforts to help the informal sector remain largely uncoordinated and are yet to be felt by the sector's participants. The activities of the sector are highly vulnerable due to reliance on self-support and informal arrangements that operate independently of the institutions of modern economy (ILO 1991:5).

It was not until the mid-80s, more than a decade after the ILO (1972) study that recognised and popularised the informal sector, that the Kenyan government and donor agencies began to give attention to the sector. This was due to the failure of the formal sector economy, consisting of the formal private sector, the civil service and parastatals, to

expand and keep up with the increasing number of entrants into the job market in spite of having received a great deal of government support, protection and subsidies. The informal sector, on the other hand, showed potential for job creation (GOK 1997:50; King 1996: 15; Abuodha 1989:5).

McCormick, Mitullah and Kinyanjui (2003;1), King (1996;25) and GOK (1992:1& 40; 1989:162;164) have observed that the Kenyan government demonstrated its interest in the informal sector by the following:

- Restructuring the education system with an emphasis on vocational, scientific and technological development.
- Publishing the Sessional Paper No. 1 of 1986 on “Economic management for renewed growth” (GOK 1986).
- Publishing the Sessional Paper No. 2 on “Small enterprise and jua kali development in Kenya” in 1992.
- Encouraging the creation of flexible credit schemes.
- Encouraging informal sector enterprises to form cooperatives, through which they could obtain information and assistance on new technologies, get access to credit, purchase inputs, and market their products.
- Developing the sixth Kenyan Five Year National Development Plan (1989-1993) which devoted a sizeable section to the development of small scale and jua kali enterprises as a primary means of strengthening Kenya’s economy. It also recognised that there has been neglect in exploiting the full potential of the informal sector, and committed to bringing out this potential in order to meet the targets of employment and income generation for the country’s youth and school leavers.
- Encouraging associations of small enterprise entrepreneurs to promote the interests of its members through activities such as lobbying on behalf of members, training, promoting professional and social relationships among members, and conducting studies and surveys.

However, the above emphasises that the role of the government should be facilitative rather than interventionist. Experiences in Kenya and other developing countries have shown that sponsorship and protection of private enterprises through direct government intervention not only prove to be costly, but can also only involve a few enterprises. Very few government programmes that had enjoyed government support and protection had managed to stand on their own without continued and regular infusions of large sums of money from the government (King 1996:15, GOK 1989:10). In contrast, the informal sector developed independently, despite government neglect and sometimes active discouragement and harassment, and in doing so demonstrated that it was highly resilient (King 1996:12; Ikiara 1991:315).

Informal sector enterprises in Kenya have persisted as survival outfits against many odds because government efforts have not been properly coordinated to bring about positive change. According to the Sessional Paper No. 2 of 1992 on “Small enterprise and jua kali development in Kenya” (GOK 1992), after Kenya attained independence in 1963, the colonial rules which strictly discouraged informal sector activities were relaxed and substantial funds were spent on implementing government policies and programmes to build institutions aimed at promoting the informal sector. In spite of this, as Ikiara (1991:309) observes, it was not until the 1980s that the Kenyan government and donor agencies started showing some real enthusiasm in the sector and went on to laud it as crucial for renewed growth, and especially for job creation.

The support for the sector was still not consistent as evidenced by poor coordination among implementing agencies, and the fact that despite the enthusiasm shown in the Development Plan of 1989-1993, the following Five-Year Development Plan, which should have built on the previous one, did not make any mention of the informal sector or the jua kali (Ikiara 1991; 315). Ikiara further observes that it was also difficult to reconcile the earlier enthusiasm with the brutal demolition of informal sector settlements in the Nairobi city in 1990, which made a mockery of the declared government policy of making the informal sector play an enhanced role in the Kenyan economy.

The Sessional Paper No. 2 of 1992 also observed that many programmes were not based on adequate needs assessment surveys and that much of the growth of the informal sector remained spontaneous rather than a result of coordinated and effective government support. Moyi, Otieno, Mumo and Ronge (2006:3), McCormick (1992:1) and Ikiara (1991:312 & 318) agree that despite the importance of the informal sector in Kenya in job creation and its contribution to the GDP, its role can only be complementary rather than alternative to formal manufacturing and comprehensive industrialisation, because firms that remain very small can only slightly contribute to the development of technology and industry. They use the simplest technology available and even if they have innovative ideas, lack the capital and managerial skills to push them further.

Formal sector workers, as Ikiara (1991:312) has observed, are the main customers of informal sector goods and services and therefore the latter cannot operate in isolation from the formal sector. Furthermore, without a significant increase in the demand for informal sector goods and services, other forms of assistance (such as credit and infrastructure) may not ensure the sustainability of the sector. Generally, low incomes and poor economic conditions keep the demand for goods low, resulting in informal sector enterprises competing for a very limited market. There is a

need to widen the marketing of informal sector goods beyond their immediate surroundings (McCormick 1992:19; Ikiara 1991:312; ILO 1991:6; Yambo 1988:iii & 3).

Informal sector enterprises in Kenya have therefore continued to remain small, both in their operations and productivity, and have not graduated to medium scale enterprises, with over 90% of them employing 1-5 employees (GOK, Central Bureau of Statistics, International Centre for Economic Growth and K-Rep Holdings Ltd 1999:vii). The lack of role models, particularly among indigenous Kenyan enterprises, has also been pointed out as one of the reasons for their continued small status. The enterprises continue to remain the survival outfits for which they were originally created instead of growing and graduating to medium level enterprises. The development of effective and facilitative infrastructure by the government is required to make informal sector enterprises grow so that they would be able to provide more and better paying jobs as well as optimise technology and the adoption of ICTs (GOK 1992:5).

ICT access and use in the informal sector in Kenya

ICTs 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. Globalisation also compels businesses, including small ones, to adopt ICTs so that they can survive and compete in the global environment (Ongori and Migiro 2010:93; Moyo 2003:221).

ICTs also include the mass media, which are public means of communication characterised by their mass-reaching capacity (Olming and MacFarquhar 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, the deregulation of the media has catalysed a boom of private radio stations to accommodate the needs of information exchange for MSEs on policy issues concerning entrepreneurial operations and investigative reports, and implementation of government policies (Deng, 2009: 17). The ILO also considers the use of the mass media as a promise for reaching out to many small business workers for the improvement of the MSEs (Seeley 2004:iii).

The wide diffusion and use of radio and television is, however, limited by lack of widespread reach of electricity in developing countries. The radio, unlike the television, however, can use lead batteries which are widely used in developing countries in places where there is no electricity.

The computer-based ICTs like the Internet, further offer easy and instant interactivity and multimedia features (Olming and MacFarquhar 2007:4). The telephone (both fixed and mobile) also offer instant interactivity and money transfer services by mobile phone.

The radio and television, which are mass media means of communication, offer channels through which small enterprises can be provided with information on the services and products available to them as well as general business and market information; they can also provide platforms through which small businesses can exchange ideas, experiences and opinions for improved awareness and feedback mechanism to services and input providers, and policy and legislative issues (Olming and MacFarquhar 2007:9). Olming and MacFarquhar go on to add that the radio is the most important source of information in Uganda, with broadcasts in all the major languages of the country.

Despite the business potential attributed to ICT adoption, micro, small and medium scale enterprises which dominate the economies of developing countries do not have ICTs readily available to them, especially the computer-based ones, and the majority of those involved in informal sector enterprises lack awareness of their potential (Al-Gharbi and Ashrafi; 2010:1; Chiware and Dick 2008:147). ICTs seem like a far off and out of reach dream; many participants in the informal sector think the Internet is not relevant to them, possibly stemming from the general lack of awareness of its benefits. As Moyo (2003:221) observes, more critical constraints, such as illiteracy and poor information and telecommunications infrastructure among informal sector traders, deserve more priority. Small business enterprises continue to use simple tools and technology in their operations and thus remain small (Migiro 2006:35; Macdade and Springs 2005:18; GOK *et al.* 1999:47; McCormick 1992:1).

Technology is an important factor in the provision of information for the increased sustainability, productivity and competitiveness of MSEs. As Moyo and Njiraini (2005; 8) have observed, without access to technology, MSEs lack the capacity to increase their productivity and to be competitive in the local and global market. Literature on ICT adoption (Oletokun and Kebonye 2010: 43; Al-Gharbi and Ashrafi 2010:1; Ongori 2009; Ashrafi and Murtaza 2008:125; Kaynak, Tatoglu and Kula 2005:628) shows that ICTs have 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

organisations and businesses. The literature also shows that the Internet has brought about easier and cheaper ways of conducting businesses of all types and therefore offers equal opportunities to all users.

Kuuya (2010:8) has observed that the lack of culture and infrastructure for imported technology is more pronounced in Kenya's informal sector than in the formal sector. It has further been observed that informal sector enterprises also operate in an environment that hampers coordination and the transfer of technology (Moyi and Njiraini 2005:4; Moyi 2003:221; Jutla, Bodorik and Dhaliwal 2002:155; McCormick 1992:9).

There is also a lack of local content and orientation, which the traders can identify with since most of the ICTs have been developed by and for use in Western countries. However, Kaynak *et al.* (2005: 638) contend that small enterprises need to perceive that the benefits resulting from the effective use of ICTs will outweigh the costs. The authors call upon the government 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. They further state 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.

In contrast, Lal and Pecdily (2006:32), in their research on ICT adoption by SMEs in Mauritius recommend a complete overhaul of the small enterprise's entrepreneur mindset and more investment in capacity-building rather than just providing financial facilities or incentives to acquire or reduce the costs associated with ICT use. Duncombe and Molla (2009:22) view the issue of ICT adoption for small business enterprises as a transitional process in which an enterprise eventually reaches greater formalisation of processes and organisation. 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.

According to the government's planning documents, i.e. Kenya's National Development Plan for 2002-2008 and Vision 2030 Medium Term Plan for 2008-2012, the government of Kenya recognises that ICTs are the foundation of modern economic development and has made efforts to expand, modernise and improve the country's information sector through development and the implementation of policy and regulations aimed at attracting investment within the sector. The liberalisation of the telecommunications sector and the mobile cellular market is a case in point, as this has resulted in the widespread diffusion and use of mobile phones by Kenyans, including those working in the informal sector. Mobile phone operators have continued to expand their networks and have extended to offer highly successful and innovative mobile money transfer services.

In an attempt to reduce the cost of Internet access, the government has also invested in terrestrial and undersea fibre optic cables (2007-2008), as well as rolling out broadband wireless connectivity in rural areas (GOK, 2008b:25). Taxes on ICT hardware have been largely zero-rated to facilitate the stated government policy objective of universal access to affordable ICT services. Furthermore, in collaboration with ICT incubators with local institutions of higher learning at Jomo Kenyatta University of Agriculture and Technology, University of Nairobi, Kenya College of Communications Technology and Strathmore University, the government has implemented a project to assemble low cost personal computers for the local market, which also includes the informal sector. However, informal sector participants are too busy trying to make ends meet and need special attention for these efforts to trickle down to them.

The fact that most micro enterprises are started for survival purposes does not preclude them from growth and the entrepreneurial activity that is associated with ICTs. Concerted efforts are necessary to increase awareness and knowledge of the benefits of ICT adoption among all people in Kenya, including MSE traders, in order to increase productivity.

Small businesses should be encouraged to grow beyond the micro level towards medium scale enterprises in order to provide more jobs, improve the use of scarce resources, and open the way for technological development, including information and communication technologies. The failure of existing firms to grow large as new small ones continue to enter the market results in the proliferation of many stagnant small enterprises. This is the situation in Kenya and other developing countries where competition among the MSEs is stiff and the net income is too low to sustain them. If growth will benefit the economy, policy makers should ease the way by creating an enabling environment and providing information and the required infrastructure (McCormick 1992: 9 &19). As it currently stands, there are many Kenyans who do not have access to electricity because the government is yet to make electricity provision a reality to all, and also because they are too poor to make that reality happen on their own by moving to urban areas or connecting to electricity from the nearest point where it can be found.

The twin conditions of government ineffectiveness and poverty therefore continue to keep the informal sector in an almost stagnant state, where small enterprises remain small for lack of capital, infrastructure and managerial know-how, and fail to move to the next level of small and medium enterprises or even to the bigger formal enterprises.

The Sessional Paper No. 2 (GOK 1992:8) observed that many informal sector entrepreneurs are either unfamiliar with or unaware of available technologies. The government, through the appropriate institutions of research, industry and higher learning, can play a useful role by facilitating the provision of more information on technology options (King 1996; GOK 1992:8). 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. This would change their negotiating powers for the better, but a lack of resources, know-how and awareness preclude them from seizing these opportunities. It has been observed that East Asian countries like Taiwan have demonstrated that small scale enterprises can make a significant contribution to exports for example in curios, carvings, horticultural products, etc., given the appropriate environment (Moyi 2003:221; GOK 1997:53).

In the Sessional Paper No. 2 of 1997 (GOK 1997:71) on "Industrial transformation to the year 2020", the Kenyan government recognises that the provision of infrastructure, such as electricity and information facilities, falls within its major functions and responsibilities. The Kenyan government is committed to increasing public investment in the informal sector, but public resources are limited and infrastructure for the informal sector can only be as good as facilities in the rest of the country. The situation in the informal sector is a reflection of the poor infrastructural situation in the rest of the country, the difference being the divide between the elite and the poor (as in every society); the informal sector, as a survival outfit for the poor, lags behind the relatively more modern formal sector.

In order for informal sector enterprises to attain sustainable growth, they need to embrace changes in the global technological environment which would enable them to reach international markets through electronic commerce (e-commerce). However, e-commerce is facilitated by ICT tools such as the Internet, fax machines, mobile phones and computers. ICTs facilitate the production, processing and transmission of information, but since most of the MSEs are not able to afford ICTs and lack awareness, skills and understanding, they may not appreciate the value and benefits of e-commerce and may have no way of gauging these benefits. They may also not strive to connect to the Internet due to their lack of awareness of its existence and the connection to their businesses.

According to Adam (1996:1), seizing ICT opportunities of 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 realising more income. The region would also benefit by leapfrogging costly intermediate stages of development (World Bank 2000:153). Unfortunately, the existing infrastructure and socio-economic, cultural and political situations pose major obstacles to introducing, implementing, and diffusing new technologies. The World Bank (2000) further observes that politics and institutions 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 prioritised while equitable access to resources is promoted (World Bank 2000:153). Lack of umbrella institutions and formal information centres in Kenya has also been observed to constitute a major handicap in the collection and exchange of relevant information by informal sector enterprises (Powell 2003:31; Beyene 2002:145).

ICTs have 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 Kenya 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 MSE sector.

Information needs and seeking behaviour in the informal sector in Kenya

Information is a requirement for enterprise creation, growth and survival, especially in today's global business environment where information provision in general and business information in particular provides a good beginning for competitive advantage in business. Sharma and Bhagwat (2006:199) contend that information flow is the bloodline of any business unit, irrespective of its size and operations, and that an organisation's competency in information systems is key to its survival in today's business environment.

Research findings from an information needs assessment survey of a small business community in Zambia underline the importance of information as an empowering tool (Banda, Mutula, and Grand 2004:99). Banda *et al.* (2004:99) found that the ability of small enterprises to survive in an increasingly global environment is largely predicated upon their capacity to access and use information resources, and yet one of the most notable obstacles limiting the capacity of small enterprises is the lack of access to timely, relevant and adequate information for informed decision making. The study

found that the struggle to access information was mainly due to a lack of understanding and knowledge on how to obtain it efficiently.

Access to business information services has been identified as an area that needs attention from governments and business service providers if small enterprises in developing countries are to achieve sustainable levels of growth and development (Chiwere and Dick 2008:145). The availability of vital and relevant information and knowledge is critical for effective decision-making, especially knowledge of sourcing raw materials and markets for finished products (GOK 1989:167). Small enterprise operators also need information on available bank loans, sources of business finance, and small enterprise loan schemes, among others.

Many firms in developing countries, however, operate in an information poor environment due to a lack of business-support services and poor information technological structures (Oshikoya and Hussain in Chiwere and Dick 2008:145; Okello-Obura, Minishi-Majanja, Cloete, and Ikoja-Odongo (2007:2). Small enterprises also suffer from a lack of credit-related information because they are discriminated against as high risk and may not be included in the mailing list of potential credit units by banking organisations (Migiro 2006:2). Government bureaucracy and poor information structures have also been observed to constrain access to information. There is also a lack of awareness of ICTs which leads to the view that they (ICTs) are not necessary in the running of MSEs (GOK 1989:167).

In spite of the central role played by the informal sector in Kenya in employment creation, the production of goods and services, and in poverty reduction, they have scanty access to information. Moyi and Njiraini (2005:8) have posed the question: How much information is available to the sector? Moyi (2003:224) had observed in an earlier study that formal organisations and institutions that provide information in Kenya are very few and inadequately funded, with a limited capacity to address the problems facing the sector, with 75% of the people in the sector lacking access to such organisations and mainly relying on informal networks.

The situation in Botswana is similar; information seeking practices were found to be overwhelmingly informal and were characterised by a high degree of reliance on information obtained through the knowledge and experience of the business owner (Duncombe and Heeks 1999:5). In their research in Northern Uganda, Okello-Obura *et al.* (2007) likewise observed that economic agents operate in a business environment characterised by fragmented and incomplete information where an awareness of markets, technology, policy regulations and finance options is limited, with no proper information system in place for the efficient and effective access to business information by business enterprises.

Moyi (2003:227) and McCormick (1992:6) have also observed that the structure of production of small enterprises in Kenya is a crucial factor since the producers are fully occupied in the production process and are therefore reluctant to leave their workstations in search of information. It was found that the majority of manufacturing SMEs lacked awareness of the various sources of finance. Migiro and Wallis (2006:9) observed that small enterprises also lacked information and understanding of what was available due to fragmented financial information and lack of targeted awareness and educational schemes, and therefore ended up using family and friends to obtain information on sources of finance. Migiro and Wallis (2006:9) also found that modern ICTs were the least used channels to access different sources of finance, which they attributed to a low level of education and training, lack of computer skills, and a lack of awareness of the benefits and returns on investment.

Moyi (2003:227) and Ronge, Ndirangu and Nyangito (2002:41) contend that financial and market information is the most critical constraint to the development of the informal sector in Kenya. MSEs in Kenya are characterised by restricted access to technology and inadequate institutional capacity to support the adaptation and absorption of modern technological skills. The MSEs also suffer from a lack of information on existing technologies and their potential for increased trade; low levels of education and technical training for the majority of MSE operators; and inadequate financial capacity to acquire available technology and information. All these combine to lead to continued low productivity, poor quality and a limited range of products (GOK 2005:12; Moyi 2003:221).

Since resources and skills constraints prevent small enterprises from seizing the opportunities offered by new technologies, supportive mechanisms are required to mobilise them. However, currently there are limited efforts by the government, non-governmental and community-based organisations to offer business advisory services or other support mechanisms (Moyi 2003:221).

The Government of Kenya Sessional Paper No 2 of 2005 on "Micro and small enterprises for wealth and employment creation for poverty eradication" notes that the major constraint facing small enterprises in relation to information acquisition is their capacity to interpret and effectively utilise the received information. The Sessional Paper has also noted that the dissemination of information on legal and regulatory issues to the public and MSEs is poor, and that they have been inadequately sensitised about their obligations and rights. This makes it difficult for the MSE participants to factor in guidelines on policy and legal issues into their decision-making processes, resulting in their continuous harassment by law enforcement agencies. It also notes that without access to timely, simplified, reliable and relevant information on market

opportunities, technology and government regulations, the MSEs are not able to survive and grow in the fast-changing, increasingly globalised, and highly competitive market environment.

In the absence of proper and effective structures for information dissemination, the informal sector traders operate in a pervasive environment of informality. This, as Moyo (2003:226) has observed, may make them feel that they have markets within their social networks of family, friends and other members of the social group, and therefore not consider it important to go out in search of information for marketing and production processes. According to Moyo (2003:226), ignorance about where to get the relevant information may also make them settle for the most-readily available information sources in informal networks which they have always used, where trust and norms of reciprocity within close knit groups are entrenched, but which result in perpetuating low profits and their small sizes.

However, Gould, Gomez, and Camacho (2010:1), in their research on information needs in developing countries, observed that user information needs are satisfied in a variety of ways, and not always through public access avenues or using ICTs. They enquired how a community's needs could best be satisfied and whether ICTs can serve a community's needs better. In their research findings, they found that locally relevant content was essential to serve individual and community needs. Gould *et al.* (2010) recommended that information produced in local languages, and the knowledge of literacy levels, skills, user awareness, and available technology and training, including that of ICT use, should also be considered if new innovations are to be adopted and utilised fully.

Duncombe and Molla (2009:23), in their research in Botswana, found a large and unmet demand for formal information and the desire to move away from informal information systems. They called for a formalisation of information systems in sub-Saharan Africa.

Sharma and Bhagwat (2006:216) have also observed the traditional mindset that does not encourage small enterprises to invest in alternative information systems, but continue to use knowledge systems that are embodied in social networks at local level institutions. These coalesce into solidarity networks where information is shared about members' activities. Adam (1996:1) views it as ironic that in their struggle for survival, the informal sector entrepreneurs may have overlooked the need for information that could potentially provide more than mere survival. Ocholla (2006:2) has also observed that the prevailing lack of information is reminiscent of economically disadvantaged populations in developing countries where semi-illiterate people, lacking higher educational qualifications, were also politically disadvantaged. Most informal sector workers in developing countries belong to the information-poor, which translates to a double disadvantage of absolute poverty and information poverty.

Tan, Chong, Lin, and Eze (2010:24) have observed that since small enterprises represent an important segment of any economy, it would be timely for them to enhance their competitiveness not only locally, but also on the global arena. This can be achieved by embracing internet-based technologies in their businesses and by first understanding the benefits of ICTs. Small enterprises stand to gain through reduced transactions costs, information gathering and dissemination, and inventory and quality control from ICTs. When small enterprises are in a position to serve a large pool of customers, the rewards that they could accrue are huge and include increased earnings and economic returns, which are not only good for the enterprise, but for the country as well (Tan *et al.* 2010:24, Oletokun and Kabonye 2010:43).

In a study carried out in Nairobi among informal food sellers, Macharia (1998: 9) found that timely information is a very crucial element in the informal sector because it is on the basis of such information that a potential operator could go to the city council to apply for available premises. He disagrees with what has been described as 'ease of entry' by the ILO study, as business premises may not be open to those who are not members of a social network. He found that ethnic networks play a substantial role in the allocation of business premises, transfer of skills and technology, entry into this sub-sector, and in establishing markets. The ethnic networks were a barrier to the free flow of information and those without access or who were not members of such networks could not enter or start their businesses because they lacked the necessary information.

Macharia (1998:9) also observed that the concept of trust plays an important role in the worldview of informal sector operators and forms the basis of communication. Getting a licence for premises in the informal food sector (popularly known as food kiosks) was more important than having the capital to operate it, and if one did not come from the group that had the information on the available premises, the chances of getting the kiosk were remote (Macharia 1998:9). This further stresses the informality of the informal sector's information networks, and suggests that information in the informal sector may not be open to all who would be interested in going into business.

Macharia (1998:9) found that in the majority of cases co-ethnics told each other about available spaces where a new entrant could start operating her/his business and also went on to help the new entrant in settling down. In the absence of formal training institutions, this informality extends to skills acquisition, which is achieved through apprenticeships; apprentices get their sponsors through social networks, friends, and kinship members who are mainly co-ethnics and relatives.

Cross-ethnic and cross-family sharing of such information may occasionally or rarely occur between members of the same religious groups or churches. Ethnic networks can therefore be both facilitators of and barriers to information flow as long as they serve the above roles, since information is not freely exchanged and available to all. The social networks are spun by knowledge creators, who capture and circulate information within particular business communities, such as informal food sellers and metal workers. The local knowledge, therefore, belongs to and is controlled by the community (Moyi 2003:223; Macharia 1998:9).

Any intervention from outside the community (like the introduction of ICTs) would therefore depend on how well it interfaces with the local traditional communication channels and how it incorporates locally generated information. The adoption of an innovation can be greatly facilitated by properly identifying traditional communication systems through which members of the community acquire and diffuse their existing knowledge, and how the knowledge is shaped by their attitudes and practices (Moyi 2003:223). It is important to note that even while informal sector entrepreneurs may not have adopted ICTs in their practices, the entrepreneurs should be recognised as the producers of existing knowledge and information within their community, and this should be understood and blended with any incoming information to avoid alienation (Moyi 2003: 223; Koanantakool 2004:127).

The rapid adoption of mobile technology in African communities has occurred because the technology interfaces readily with informal oral African traditional channels of creating and circulating knowledge and information. Most traditional communities prefer information to be communicated orally to them by people closest to them like neighbours, colleagues, relatives and friends (Ocholla 2006:3). Therefore, in terms of adoption and integration into local needs, the mobile phone technology has been integrated better than other forms of technology, like the computer which have been around for longer.

To surmise, information that is frequently used by informal sector entrepreneurs originates from informal sources such as customer and competitor reactions, employee personal experiences, friends and relatives, which are all informal sources (Moyi 2003:223). Any intervention would need to take into account these local networks and build on them. Information originating from outside would need to be accommodated into the local matrix, relevant to the community's needs, and clearly understood by the community.

Conclusion

This paper has looked at the development and status of the informal sector in Kenya in relation to the sector's information needs and the ways in which these needs are satisfied. It has also looked at the diffusion and use of ICTs in the sector and the extent to which they are used to meet the needs of informal sector enterprises.

Since independence, the informal sector in Kenya has spontaneously grown over the years in response to the need for a significant proportion of Kenya's citizenry to earn their living in the absence of formal employment. 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 Kenyans. The government also came to recognise 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 ICT technology, with the exemption of the mobile phone which has been extensively adopted and widely used by Kenyans 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; they also lack awareness of ICT benefits, and are not able to afford them (ICTs).

They also 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.

The paper has therefore revealed that informal sector enterprises have continued to remain small as survival outfits and have not embraced modern channels of computer-based technologies for information access.

Literature reviewed from official and other sources has covered the development of the informal sector and its importance to the people and the economy of Kenya. There are gaps in the literature on the part that can be played by ICTs in the improvement and growth of the informal sector. This is despite the fact that ICTs have been found to play an important part in the growth of small enterprises elsewhere by opening up and expanding their markets and information flow, not just locally but also beyond the national boundaries. This study attempts to contribute towards filling the gap in literature on the importance and contribution of ICTs to the informal sector in Kenya.

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