Sources of Training in African Clusters and Awareness of ICTs: A Study of Kenya and Ghana

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Abstract

This paper is based on a research study designed to assess the impact and potential of Information and Communication Technologies (ICTs) in micro and small enterprises (MSEs) clustered in Kenya and Ghana; and to explore the effect of clustering on the ability of these enterprises to utilise ICTs effectively. The study focuses on types of training available in the clusters to understand how knowledge is shared or transferred and to examine the implications for the use of ICTs. The findings of the study show that most owners, owner managers and employees acquire skills within MSE clusters. It further shows that master craftsmen are the main agents of skill acquisition and upgrading, with formal training institutions and NGOs accounting for a minimal percentage. Training on ICTs was very limited.
# TABLE OF CONTENTS

1. INTRODUCTION 7
   1.1 LEARNING PROCESSES IN ENTERPRISES 7
   1.2 BACKGROUND TO CLUSTERS UNDER STUDY 8
   1.3 CHARACTERISTICS OF THE CLUSTERS UNDER STUDY 10

2. PROFILE OF RESPONDENTS 13
   2.1 AGE AND GENDER OF RESPONDENTS 13
   2.2 EDUCATION 13
   2.3 ENTERPRISE SIZE 14

3. LEARNING PROCESSES AMONG MSEs 15
   3.1 SKILLS LEVELS AMONG THE MSEs 15
   3.2 TRAINING PROVIDERS 16
   3.3 PARTICIPATION IN ICTs TRAINING 17
   3.4 INTER-ENTERPRISE TRAINING AMONG MSEs 19
   3.5 TRAINEES EMPLOYMENT 21

4. CONCLUSION 23

REFERENCES 25

THE UNU/INTECH DISCUSSION PAPER SERIES 27
1. INTRODUCTION

In the recent past, attention has been paid to the factors affecting the performance of small, micro and medium enterprises (SMMEs) in Africa (Liedholm, 1992; Oyelaran-Oyeyinka, 2003). In a few cases some work has been done on the way firms build up technological capability largely through training (Biggs et. al., 1995); and Oyelaran-Oyeyinka, (1997) who examined the learning strategies of enterprises in South-East Nigeria. King (1977), Velenchik (1995) and McCormick (1998) all examined elements of training, particularly apprenticeship.

This research project is situated within this tradition but we are also borrowing from the technological learning framework (Rosenberg, 1976; Teece and Pisano, 1994). The analysis in this paper is based on a research study into the impact and potential of Information and Communication Technologies (ICTs) in Micro and Small Enterprises (MSEs) clustered in Kenya and Ghana. The acquisition of technical and managerial capabilities to profitably use a new technology is done through the learning process.

This paper attempts to understand the learning process that enterprises adopt in their quest for better performance. The study seeks to answer questions concerning if and why enterprises have begun to use ICTs, and how effectively they have done so.

1.1 Learning Processes in Enterprises

Learning is crucial to enterprise growth and survival because it is the means by which capability is acquired. According to Dodgson (1991) firms build and supplement their knowledge bases about technologies, products and processes, and develop and improve the broad skills of their work forces through various learning processes.

The mechanisms of learning vary widely depending on the nature of the enterprise, its internal culture, the existing capability levels, as well as its reach into its immediate socio-economic environment. The literature identifies learning-by-doing (Arrow, 1962), learning-by-using (Rosenberg, 1976), and learning-by-interacting (Lundvall, 1988) among other forms. Interactive learning is partially through channels that are external to the firm, such as, universities, research laboratories as well as suppliers, customers and contractors. Interactive learning includes training in different areas of an enterprise’s operation. The absorption and optimal utilisation of a new technology often demand that an enterprise arrange training for relevant staff members.
In a study of entrepreneurs in the Nnewi cluster of Nigeria, Oyelaran-Oyeyinka (1997:74) identified seven channels of learning, which are:

a) The apprenticeship system of training;
b) On-site training at suppliers factory;
c) On-the-job training;
d) Expert contracting;
e) Support mechanisms provided by public institutions;
f) Learning through transaction with local and external agents; and
g) Learning by doing production and maintenance.

In the early stages most enterprises generally rely on the technical expertise of their suppliers. The knowledge and skills acquisition process continues with on-the-job training, as the employees that have had foreign exposure or training at supplier factories become trainers, while continuing to learn the technological processes involved. In some African clusters, such as Nnewi in Nigeria this is followed by expert contracting – another common learning channel. In some cases long-term relationships are developed between enterprises in the clusters and supplier factories, with payment being made for services rendered. In Nnewi where a large number of artisans are semi-literate and have not had formal technical training these initial technical instructions become extremely important (Oyelaran-Oyeyinka, 1997).

The widespread apprenticeship system is another important source of learning, particularly among the self-employed and sole-proprietor small enterprises engaged in crafts, repairs and maintenance (Velenchik, 1995). In this system, the apprentice pays for training or provides service-in-kind to the master in return for skills acquisition.

1.2 Background to Clusters under Study

Although agriculture continues to be the main economic driving force in most of Africa, other sectors such as manufacturing and services play an important role in accelerating this growth and contributing to sustainable development. Both the Kenyan and Ghanaian governments have designed national policies and strategies to lay the foundation for structural transformation necessary for industrialisation by the year 2020. In Kenya this strategy is documented in the paper ‘Industrial Transformation to the Year 2020’, which seeks to encourage the expansion of small, medium and micro enterprises (SMMEs) to address rising unemployment rates caused by civil servant retrenchments and the backlog of university graduates who cannot find ‘white collar’ jobs. In addition a large number of jobholders in the public and private sectors are forced
to supplement their income by establishing small businesses on the side. Similarly, the ‘Ghana Vision 2020’ programme aims to achieve middle-income country status by 2020. This involves the development of the requisite infrastructure, poverty reduction, enhancement of human resources and employment creation, in which SMMEs play a crucial role.

The importance of SMMEs in Africa is primarily attributed to their potential for transforming local economies into dynamic innovation systems. Other benefits include employment creation and the ease with which they adapt to market changes. Products from such enterprises are also increasingly popular locally because of their affordability. SMMEs cover small, medium and micro enterprises but this study focuses more narrowly on MSEs (micro and small enterprises) with an average size of three to five workers as these predominate in both countries (at least 97% of enterprises in the clusters studied are MSEs).

There are different types of clusters in the world and they can be categorized under the following in descending order in terms of development of the cluster (Oyelaran-Oyeyinka, 2003a):

a) The European archetypes;
b) Large-small firm clusters;
c) High-technology SME clusters;
d) Emergent less developed country (LDC) SME clusters;
e) LDC informal small enterprise clusters.

The LDC informal small enterprise clusters are the most commonly found in Africa. Unlike the European archetype, in which competition centres around quality, innovation and the speed of reaction to new market conditions, LDC clusters are less developed in terms of division of labour and specialisation and the presence of active public and private supporting institutions. These firms mainly compete on the basis of low wages, low labour standards, and access to cheap raw materials. However these clusters share the basic cluster attributes of sectoral and geographic concentration of small enterprises.

This clusters selected for the study: Kamukunji and Kariobangi in Nairobi, Kenya, and Suame cluster in Kumasi, Ghana share many of these characteristics. As the Suame cluster is much larger in size than any comparable cluster in Kenya, was the reason two smaller, but comparable clusters in Kenya (in terms of enterprise size and other contextual factors such as infrastructure, historical development and extent of government and non-governmental support activities) were studied.
Suame Cluster (also known as ‘Suame Magazine’) is located in the heart of Kumasi (northern Ghana). Kamukunji cluster lies within the inner part of Nairobi, 3km from the Central Business District (CBD). Comparatively poor people occupy this area and most work within the informal sector. Kariobangi is a rapidly expanding cluster about 15km to the east of Nairobi. Unlike Kamukunji cluster and Suame, no scholarly research has been done in Kariobangi cluster.

The average enterprise in the Suame cluster employs five workers. The main activities undertaken are manufacturing, vehicle repair, metal working, sale of engineering materials, sale of automobile spare-parts and sale of foodstuff. Enterprises in the Kamukunji cluster have two workers on average but sophisticated workshops employ around five workers. This study focused on the artisan firms at the heart of the cluster, although these are surrounded by diverse small businesses, including vehicle repair, sale of new and second hand clothes, and foodstuff. The second cluster in Nairobi, Kariobangi, has an average of three to five workers per enterprise. The MSEs specialise in a range of business activities, including tailoring, panel beating, woodwork, shoemaking, food processing, building construction, motor wiring, motor vehicle repair; welding and painting and woodwork.

1.3 Characteristics of the Clusters under Study

Two of the dynamic elements that characterise clusters are the intensity of networking and the types of technological learning that they undergo (Oyelaran-Oyeyinka, 2003). Oyelaran-Oyeyinka argued that small enterprises that possess the most basic technological capabilities are likely to exhibit limited domestic and probably very weak or no regional and global linkages. In such enterprises learning is through apprenticeship, and knowledge bases tend to be tacit and locked in within the craft-based sector (UNCTAD, 1994; Velenchik, 1995).

McCormick (1998) found that there were two types of workers in Suame: those that are mainly apprenticed to small enterprises (their skill levels are not discussed but the assumption is that they are not highly skilled) and a second group with higher level technical skills gained in large-enterprise apprenticeships and technical training institutes. It is mostly the presence of the latter that has supposedly led to the cluster producing some items that can compete favourably with imports. Furthermore, Suame’s vehicle mechanics manage to achieve greater efficiency than many small-enterprise clusters faced with a similar situation because they subcontract a great deal amongst themselves, which enables the small enterprises as a group to achieve basic scale
economies. The market for Suame cluster is mostly local. The concentration of vehicle repair enterprises in one location attracts customers and may explain the lack of advertising. This is boosted by Suame’s geographical location, on the main road between two capital cities, Accra (Ghana) and Abidjan (Ivory Coast). The products made here are also popular in other West African countries, such as Burkina Faso, Togo, Mali and Ivory Coast.

The artisans in Kamukunji (Kenya) cited a number of benefits for clustering, which include identification, co-ordination, and acquisition of skills. Identification is noted to be important for relating with both customers and other support agencies such as the government and donors. Clustering was also said to encourage networks - especially through trade associations – to solve collective problems, as opposed to each artisan working as an individual. The artisans are able to share product development ideas, marketing and jointly deal with issues of finance, security and organisation. Whenever an artisan does not have a clear product development idea, the artisan can refer the customer to another artisan or consult others within the cluster. In addition, the limited number of products manufactured in the cluster enabled easy coordination of activities.

Kenyans are cognisant of the concentration of metalworkers in Kamkunji. McCormick (1998:17) who did fieldwork in Kamukunji said “the way the artisans display their wares suggests that they are conscious of the marketing role of the cluster.” The World Bank funded Micro and Small Enterprise Training and Technology Program (MSETTP), popularly referred to as the Voucher programmes, designed to benefit only registered members of ‘Kamukunji Jua Kali Association,’ attracted a number of artisans to the association. In fact, there are many cases of MSEs working outside the cluster that ‘rush’ to be identified with the cluster to gain access to external support. This might well be an indication that the entrepreneurs are interested in further training.

The development of Kariobangi as a cluster has resulted from “pooling” effects. The majority of the entrepreneurs within this cluster received their training as apprentices in existing enterprises. Upon acquiring the skills, they established their enterprises thereby building the pool of enterprises. Kariobangi relies on the increased market access from the inhabitants of the nearby residential estates. There is also significant specialisation particularly in the fields of tailoring, food processing and paint manufacture. Learning and skills acquisition among the entrepreneurs occurs primarily through apprenticeship training. However, the participation of the entrepreneurs within this cluster in both government-supported and NGO-intermediated skills upgrading activities is also a notable technological upgrading mechanism.
In Kenya, programmes to boost the technological capability of MSEs are being implemented by technical training institutes, national universities and non-governmental organisations (NGOs). There are about 41 technical training institutes for craft and technician grades. The Kenya Industrial Research Development Institute (KIRDI) is involved in adapting technology for the MSEs. A broad number of NGOs such as ApproTEC, FIT Resources, and Kisumu Innovation Centre are involved in addressing the technological needs of the sector. However, the transfer and diffusion of technology is still hampered by a mismatch between supply and demand for technology, inadequate funding for technology development and underdeveloped investment capacities and learning mechanisms. In Ghana, the Intermediate Technology Transfer Unit (ITTU) in Suame and the National Vocational & Technical Institute provided most programmes.

Since there is a heightened debate on the role of ICTs for development, with many proposing that these technologies may be an answer to some of the constraints facing MSEs, it is useful to assess the role of clustering in speeding up the diffusion of ICTs. In this study our proposition is that ICTs, if effectively utilised, can enhance linkages by narrowing the information gap and thereby opening up learning and business opportunities for enterprises. Anecdotal evidence suggests that lack of access to external learning sources is the reason why many African enterprises are forced to rely on internal learning mechanisms within the clusters to build their technical capabilities, even when these internal sources are inadequate. Yet preliminary evidence from the study suggests that external training facilities are often available, but entrepreneurs do not seem to benefit from these opportunities for myriad reasons, the most common being lack of time and lack of money for training.

The introductory section above sets the basis for the rest of the paper, which is structured as follows. In the next section we examine the static profile as well as the evidence. We describe the profile of the respondents, gender, education and enterprise size. The learning processes are discussed in the following section drawing on training providers. Section four concludes the study.
2. PROFILE OF RESPONDENTS

2.1 Age and Gender of Respondents

A total of 360 respondents were surveyed in the study: 180 in Kenya and 90 in Ghana. The majority (80% in Kenya and 86% in Ghana) were male. An average of 76% of the respondents in the two countries are married. The sex distribution of the respondents in the study reflects a contextual bias within the studied clusters rather than a sampling bias as women were generally under-represented in the manufacturing and service sectors in both country clusters. The respondents had a mean age of 33.6 years in Kenya and 35 years in Ghana.

2.2 Education

In Kenya, educational attainment among the respondents was generally high with 57.2% having attained secondary level (9-12 years) education and 15.6% with tertiary qualifications (13 years and above). Slightly over one quarter (26%) of the respondents had attained an upper primary level of education. Similarly in Ghana educational attainment was considerably high at the basic school (upper and lower primary) with 69% of the respondents. Secondary school education in Ghana (23%) was lower compared with that of Kenya (57.2%). 2% of the respondents in Ghana had attained a tertiary level of education compared to Kenya’s 15.6%. In addition 6% of the respondents in Ghana and 1% in Kenya had little or no formal education.

Table 1: MSEs Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Kenya n=180</th>
<th>Ghana n=90</th>
</tr>
</thead>
<tbody>
<tr>
<td>None but literate</td>
<td>1 %</td>
<td>6 %</td>
</tr>
<tr>
<td>4-8 years</td>
<td>26.2 %</td>
<td>69 %</td>
</tr>
<tr>
<td>9-12 years</td>
<td>57.2%</td>
<td>23 %</td>
</tr>
<tr>
<td>13+ years</td>
<td>15.6 %</td>
<td>2 %</td>
</tr>
</tbody>
</table>

In addition to the higher levels of formal education in Kenya, at least 45.5% of the respondents had undertaken formal professional or vocational training in technical-oriented (64.4%), management (26.7%) and marketing (8.9%) disciplines. By contrast only 2% of the respondents in Ghana had followed professional courses or vocational training after formal training. The reasons for this were not studied in this project and it is potentially an area for further research.
2.3 Enterprise Size

In Kenya, the number of employees in the surveyed enterprises ranged from 1-20 with a mean of four. Most of the enterprises (58.9%) employed 2-5 employees while 21.7% were of own-account type. Owner managed enterprises were predominant in the trade (43.6%) and services (35.9%) sectors as opposed to manufacturing (20.5%). In absolute terms, the manufacturing enterprises had a higher number of employees than both the trade and services sectors.

Despite its generally informal nature, the Suame cluster in Ghana has some of the most mature MSEs in Africa. Suame cluster has over 9000 engineering enterprises manufacturing metal products and vehicle repair, and this figure continues to increase at a consistently high rate. McCormick’s (1998) study is one of the most comprehensive on Suame cluster but it did not give a true reflection of the number of enterprises because it excluded enterprises in the trade sector. Evidence from the current study shows that activities of enterprises in the trade sector include sale and supply of engineering materials, tools and spare parts to the metal workers and vehicle repairers. The MSEs in Suame have average size of six workers compared to four in Kenya.
3. LEARNING PROCESSES AMONG MSES

We examined, in a systematic way, the learning processes within the clusters and how respondents acquired their skills. In addition, we explored intra-organisational skills transfer with reference to the owners/managers of the enterprises. The key research question was whether owners transfer their skills to their employees.

3.1 Skills levels among the MSEs

In Kenya, a large proportion (80.6%) of the owners/managers of the MSEs were skilled in their respective business activities. The majority (71.9%) of the MSE owner/managers acquired their skills through on-the-job-training (apprenticeship) while 26.9% were trained in formal learning institutions. Similarly, in Ghana many of the enterprise owners, especially those in vehicle servicing and trading, were trained on-the-job through apprenticeship (74%) and only 16% through formal learning institutions. In Kenya, 5.5% and 1% in Ghana of the MSE owner/managers acquired their skills from previous formal employment. Some respondents developed their skills through self-learning and practice, (3.4% in Kenya and 8% in Ghana). 1.4% of the owners/managers in Kenya were brought up on the job and acquired their skills by experience compared to 1% in Ghana.

With reference to the employees, within the MSEs in Kenya, 59.4% were skilled in the various business activities. The majority (94.4%) of the employees acquired their skills through on-the-job (apprenticeship) training. A small number (8.3%) received their skills in formal learning institutions, through self-learning and practice (1.9%) and from previous formal employment environments (9%). In Ghana, 70% acquired skills on-the-job and 8% received the training through formal institutions. The rest of the MSE employees in Ghana acquired their skills through self-coaching. In general, MSE owner/managers were three times more likely to have acquired formal training in their business fields than were their employees. However, there were no huge disparities based on the percentages depicted for both countries. For example, only 2% more owners/managers in Ghana acquired their skills on the job compared to the Kenyan case. On the other hand, almost all the employees in Kenya (94.4%) acquired their skills through apprenticeship compared to about 70% in Ghana. One reason for this is there has been more availability of formal training initiatives and self-help courses available in Ghana compared to Kenya. This is probably because the Suame cluster is older, more established and the most
researched in Africa. As a result there have been a number of donor initiatives undertaken in this cluster.

### Table 2: Source of Skills for Owners/Managers

<table>
<thead>
<tr>
<th>Source of Skills/Training</th>
<th>Kenya</th>
<th>Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the job training (apprenticeship)</td>
<td>71.9 %</td>
<td>74 %</td>
</tr>
<tr>
<td>Formal Learning/training institutions</td>
<td>26.7 %</td>
<td>16 %</td>
</tr>
<tr>
<td>Previous formal employment</td>
<td>5.5 %</td>
<td>1 %</td>
</tr>
<tr>
<td>Self-learning/practice</td>
<td>3.4 %</td>
<td>8 %</td>
</tr>
<tr>
<td>Learning from experience/ brought up in the business</td>
<td>1.4 %</td>
<td>1 %</td>
</tr>
</tbody>
</table>

#### 3.2 Training Providers

Internal sources of skills development in the Kenya and Ghana MSE clusters focused primarily on the technical aspects (99.4 % and 90 % respectively), while management and marketing skills were insignificant in Kenya and accounted for only 10% of training in Ghana. In Ghana, the dominant skills training provider within the MSE clusters were the Master Craftsmen (90%) compared to Kenya’s 98.4%. In both countries, Master Craftsmen operating outside the MSE clusters and formal organisations were also important sources of skills training. Formal training institutions played an almost invisible role as skills providers within MSE clusters (0.6% in Kenya and 8% in Ghana). One reason is that stakeholders in training programmes have not developed the synergies required to make a real impact, for instance links between MSEs and formal training institutions. In addition, many people view formal education and training as an end and hardly apply the knowledge they acquire to its fullest potential. Some see formal education as a means to acquire a qualification and a tangible certificate.

External training for MSEs in Kenya was also technically oriented (97.6% of the respondents) compared to Ghana’s 90%. A mere 1% of Kenyan respondents (and none in Ghana) sourced externally to develop their management and marketing skills. However, a large number of the respondents (91.5%) in Kenya recognised the role of the formal learning institutions in skills acquisition for MSEs. Non-Governmental Organisations (NGOs) played a minimal role in the training of MSEs in the clusters (1% in Kenya and 2% in Ghana).
Table 3: Training Providers

<table>
<thead>
<tr>
<th>Training Provider</th>
<th>Kenya</th>
<th>Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal training institutions</td>
<td>0.6 %</td>
<td>8 %</td>
</tr>
<tr>
<td>Master craftsmen</td>
<td>98.4 %</td>
<td>90 %</td>
</tr>
<tr>
<td>NGOs</td>
<td>1 %</td>
<td>2 %</td>
</tr>
</tbody>
</table>

The internal and external skills training for MSE clusters lasted a year or less in Kenya. In Ghana, the duration was dependent on the ability of the trainee to learn and the availability of financial resources. Regular apprenticeships take 3 - 4 years on average, although a number of shorter training programmes are available for specific skills. Table 4 depicts the duration of skills training for MSE clusters in Kenya.

Table 4: Duration of Internal and External skills training for MSE clusters

<table>
<thead>
<tr>
<th>Duration of skills training</th>
<th>Internal training n= 172</th>
<th>External training n=115</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Less than 1 month</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>1 month to 12 months</td>
<td>249</td>
<td>80.8</td>
</tr>
<tr>
<td>12 months to 24 months</td>
<td>51</td>
<td>16.6</td>
</tr>
<tr>
<td>25 months to 36 months</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td>37 months and above</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>308</td>
<td>100</td>
</tr>
</tbody>
</table>

3.3 Participation in ICTs Training

Only nine MSEs in Kenya (6.1%) and 9.8 % in Ghana confirmed to have ever participated in a training programme on the use of ICTs (most related this to computer use). Formal training institutions were the dominant provider for such training for 77% of Kenyan respondents compared to 88 % in Ghana. For both countries the average duration of the training was 1-6 months. Except for one respondent, all the others received the training outside the MSE clusters in both countries.

55% of the respondents in Kenya followed proficiency training in computer packages such as MS Excel, MS Word and PowerPoint. Three of the respondents were trained on wireless and voice communication while two others received training in full secretarial duties. In Ghana, nine respondents were trained in MS Word, MS Excel and CAD for modern manufacturing. All respondents had to pay for their training. The costs varied according to the type of training and ranged from Ksh. 2500 (US$ 33) to Ksh. 48,000 (US$ 640) in Kenya. In Ghana the cost of the
MS Word, MS Excel and CAD packages ranged from KSh300,000 to KSh650,000 (US$ 35 to US$ 76). The reason for the huge variations in Kenya was due to high cost for the wireless and voice communication courses, which cost between US$ 480 to US$ 640. These courses were only available at the formal learning institutions.

In Kenya, eight of the nine (88%) respondents confirmed that the ICT training they received had been useful to their enterprises. Out of the 9 respondents in Ghana six (67%) found it useful, while the rest did not. In Kenya, five of the trainees were able to work independently and could keep business records effectively as a result of their training. Other benefits identified were improved understanding of different forms of communication and training of their employees on the use of computers. In Ghana, one respondent mentioned that the training useful for producing precise drawings for manufacturing. The Kenyan respondent who was disappointed with the ICT training he received noted that he did not apply the skills in his business (the manufacture of pool tables). He had undergone a three month computer training programme.

When asked if they would be interested in further training on the use of ICTs, nearly two-thirds (64.4%) of the MSEs in Kenya and 87% in Ghana responded affirmatively. Indeed, more than three-quarters (78.5%) of the MSEs in Kenya and 81% in Ghana had an interest in future training on the use of ICTs and expressed their willingness to pay for the costs of such training. The reasons given for this willingness to pay for training included the belief that training would help the MSEs improve on and update their technology and add to the value of the business. About one-tenth of the respondents insisted that any training for MSEs should be paid for in order to be sustainable. Some respondents were willing to pay for the training only if it would be provided within the cluster in order to enhance the quality of output from the cluster.

### Table 5: Reasons for the willingness to pay for a future training on the use of ICTs

<table>
<thead>
<tr>
<th>Reason</th>
<th>Ghana</th>
<th>Kenya</th>
</tr>
</thead>
<tbody>
<tr>
<td>To assist in improving and updating technology</td>
<td>52 %</td>
<td>62.6 %</td>
</tr>
<tr>
<td>It would add value to the enterprise and entrepreneur</td>
<td>44 %</td>
<td>34.8 %</td>
</tr>
<tr>
<td>Training should be paid for to be sustainable</td>
<td>1 %</td>
<td>11.4 %</td>
</tr>
<tr>
<td>To improve the quality of output from the cluster</td>
<td>4 %</td>
<td>3.4 %</td>
</tr>
</tbody>
</table>

In Kenya, the reasons cited by respondents unwilling to pay for the training were lack of funds (81.5%) and lack of understanding of the relevance of the training (14.8%). Among the Ghanaian respondents the majority (58 %) said they were not aware of an opportunity for ICT training. Again this can be attributed to their educational levels.
3.4 Inter-Enterprise Training among MSEs

In both Ghana (60%) and Kenya (52.2%), MSEs provided training to other enterprises or entrepreneurs within the cluster. In both countries also, the majority of the MSEs indicated that the training was primarily on technical skills - 95.5% in the case of Kenya and 80% in the case of Ghana. 65% of the MSEs in Kenya and 24% in Ghana charged fees for the training offered to other enterprises or entrepreneurs within the cluster while the rest provided training free of charge.

MSEs that do not charge fees primarily train family members assisting with the business while learning on-the-job. This was especially common in Ghana. In addition, some of the MSE owners in Ghana claimed that the trainees find it difficult to pay the fees. Therefore, the owners provide them with daily subsistence for meals and transport. Among enterprises that charged for training the cost ranged from €100,000 to €700,000 (US$ 11 to US$ 82) for the entire duration of the training, with most paying an average of €250,000 (US$ 29). Table 5 details the fees charged by MSEs in Kenya.
Table 6: Fees charged to other MSEs in Kenya (n=62)

<table>
<thead>
<tr>
<th>Amount of fees charged</th>
<th>Duration of training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 1 month</td>
</tr>
<tr>
<td>Ksh. 1 to Ksh. 4,999 (US$67)</td>
<td>12.5%</td>
</tr>
<tr>
<td>Ksh. 5,000 to Ksh. 9,999 (US$67 – US$133)</td>
<td>0</td>
</tr>
<tr>
<td>Ksh. 10,000 Ksh. 14,999 (US$133 – US$200)</td>
<td>5.4%</td>
</tr>
<tr>
<td>Ksh. 15,000 to Ksh. 19,999 (US$200 – US$267)</td>
<td>0</td>
</tr>
<tr>
<td>Ksh. 20,000 to Ksh. 24,999 (US$267 – US$333)</td>
<td>0</td>
</tr>
<tr>
<td>Ksh. 25,000 to Ksh. 29,999 (US$333 – US$400)</td>
<td>0</td>
</tr>
<tr>
<td>Ksh. 30,000 to Ksh. 34,999 (US$400 – US$467)</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4.7%</td>
</tr>
</tbody>
</table>
3.5 Trainees Employment

Nearly half (47.2%) of MSE trainees in Kenya received their training within their enterprise (on-the-job) compared to 37% in Ghana. Another 5.6% of respondents in Kenya were trained in the enterprise of the MSE trainer located outside the cluster compared to 30% in Ghana. One-half (50.6%) of the trainees in Kenya, and 33 % in Ghana, worked outside the MSE that provided them with the training but within the cluster. Roughly half of the MSE trainers in Kenya and Ghana reported that their trainees took up jobs in enterprises outside the cluster after graduation.

Table 7: Employment after Training

<table>
<thead>
<tr>
<th>Source of Employment</th>
<th>Kenya n=180</th>
<th>Ghana n=90</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSEs where training was received</td>
<td>47.2 %</td>
<td>37 %</td>
</tr>
<tr>
<td>Trainers’ enterprise outside the cluster</td>
<td>5.6 %</td>
<td>30 %</td>
</tr>
<tr>
<td>Other MSEs in the cluster</td>
<td>50.6 %</td>
<td>33 %</td>
</tr>
<tr>
<td>MSES outside the cluster</td>
<td>49.4 %</td>
<td>50 %</td>
</tr>
</tbody>
</table>

It is interesting that there were more employees in Ghana (30%) compared to 5.6% in Kenya who took up employment in the trainer’s enterprises outside the cluster, most of the Kenya trainees stayed within the cluster.
4. CONCLUSION

The findings of this study show that most owners, owner/managers and employees acquire skills within MSE clusters. It further shows that Master craftsmen are the main agents of skills acquisition and upgrading, with formal training institutions and NGOs accounting for a minimal percentage. Skills acquisition and training within the clusters takes between one month to one year and is comparatively shorter than training within formal institutions.

There was inter-enterprise training within the clusters covered, especially on technical skills with two thirds of enterprises charging for training. Most of the courses lasted between one to twelve months. In the case of Kenya especially, training was not limited to the clusters covered in this study, but trainees were sourced from other clusters as well as in the open market. It was clear that the majority of the trainees’ remained (or took up employment) in the MSEs where they received training or in other enterprises within the cluster.

It is evident that the MSEs mostly rely on their local markets and this may have an impact on their learning mechanisms. With the rise of ICTs, however, some are considering external markets and this could have an implication on learning methods. The data also shows that a very low percentage of MSE owner managers and employees respectively acquired ICT skills through formal learning institutions. This implies that any training designed for MSE on ICTs ideally should be carried out within clusters.

It is evident that NGOs played a minimal role in the training of MSEs in the clusters, (1% in Kenya and 2% in Ghana). Yet, it was expected that they would play a more fundamental role to fill in the gaps that are not covered by government programmes. Nevertheless, there is a clear need for improving the training programmes available in the MSEs. In light of this, NGOs that have received funding for training and capacity building programmes need to seriously evaluate their role in skills upgrading in these clusters.

Training on ICTs was very limited within the clusters. Only 18 respondents (9 each in both countries) had received some kind of training on ICTs. The duration of training was between one month and three years, in packages such as MSExcel, MSWord, Power Point, Wireless and Voice Communication, Full Secretarial, Typing and Office Management. All the training, except one in each case, was held outside the clusters and the majority of the respondents found the training useful, with at least half the respondents applying the skills learned. Among the new skills identified by respondents were keeping business records effectively, understanding different forms of communication, and training others on use of computers.
In spite of the limited number of respondents that had received ICT training a majority of respondents were keen to receive training on ICTs and to pay for the costs of training. They indicated that training would make them improve and update technology in their work, add value to their enterprises and improve the status of the cluster. Some respondents expressed the view that paying for training would make it sustainable. The few who were not willing to pay attributed it to lack of resources, or thought that the training will not be relevant to their business needs. A number of respondents; especially in Ghana, were merely ignorant of the existence of such training.
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