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ENTREPRENEURSHIP, TECHNOLOGY & INNOVATION**IMPACT OF FINANCIAL LITERACY ON TECHNOLOGY USAGE DECISIONS****Fred Gichana Atandi* & Henry Bwisa****Jomo Kenyatta University Of Agriculture and Technology**E-Mail: fredatandi06@yahoo.com**Abstract**

More than ever there is a global concern to entrench financial deepening and access to previously ignored areas considered economically unviable where majority of the micro and small enterprises operate through provision of technology based financial products and services. Financial literacy has been appreciated as a means to an end by offering skills and knowledge to change attitude and attract more potential users of agent banking. The objective of this paper was to investigate the impact of financial literacy in equipping micro and small enterprises with skills and knowledge to make informed financial decisions. The methodology of study was experimental design which randomly assigned trainees to either treatment group and control groups. Data was collected using structured questionnaire and interview schedules. The findings of this study indicated that despite intense penetration of agent banking services in the rural areas its usage is still low. Other important findings were that the majority of MSEs don't trust the operation of this agents. The findings also indicated that financial institutions are still not serving the very poor in the society. The significance of the study finding imply that the uptake of agent banking in Kenya has not been well appreciated by the target beneficiaries who include among others the micro and small enterprises in the rural areas in Kenya who were expected to benefit from it and therefore will slow down the achievement of the millennium development goals where the country is expected to be technology based in offering goods and services to its citizenry.

Keywords: Financial literacy, Technology usage, Impact, Micro and small enterprises**Introduction**

According to Organization for Economic Co-operation and Development and International Network on Financial Education (2009), the United Nations organized a conference in New York to discuss the World financial economic crisis of 2007-2008 and its impact on development. Their report indicated that the crisis threatened the ability of many countries and entrepreneurs to confront issues such as poverty, hunger and diseases, in developing countries it led to rising unemployment and collapse of large financial institutions and the bailout of banks by national governments. The members states agreed to consider introducing financial literacy training as an important individual life skill in a majority of economies to mitigate a similar future crisis on governments, micro and small enterprises and the other vulnerable populations in the World economy.

Financial literacy helps to inculcate individuals with the financial knowledge necessary to create household budgets, initiate savings plans, acquire financial knowledge and skills that helps households to meet their financial goals, therefore, financial services providers have a responsibility to help MSEs in making informed financial decisions to promote consumer protection, public awareness, and influence attitude change and remove information asymmetry which denies MSEs an opportunity to fully appreciate their rights and responsibilities and any other information related to financial products access and usage (Greenspan, 2002).

The Governments of developed economies in G20 Summit recognized financial access as an accelerator to meet the Millennium Development Goals and the key to attaining this laudable goal is financial literacy. They argued that technological innovations are bringing both new customers, new service providers, a diverse array of retail outlets and diversification of financial products and services resulting in rich and complex choices for MSE to make compared to the early days of one size fits all and also increased access and better choices do not automatically translate into effective use. They argued that since MSEs are less experienced and the products they can choose from are more sophisticated, it may lead to negative outcomes due to institutional abuses or ill informed MSEs decisions and thus financial literacy training is an important tool to address this imbalance and help MSEs both accept and use the products to which they increasingly have access to . They argued that financial literacy can influence MSEs to contemplate moving savings from under the mattress to a bank savings account and later access a variety of financial products and use using technology to enhance their entrepreneurial growth(World Savings Bank Institute,2010) .

According to Vision 2030 development strategy for Northern Kenya and other arid and semi arid lands where West Pokot county is included (2008), formal banking system reaches few MSEs while the large number is served by semi-formal arrangements such as trust-based systems of money transfer within communities. The report proposed the financial services sector to promote financial service provision that are culturally acceptable in the context of the region, support the development of financial services products relevant to the needs of the region and which majority of the rural population who are very poor and illiterate but have adequate resources to enrich themselves. In 2005/2006 poverty estimates survey, poverty level in West Pokot county was 69.4 % and her resources includes land,water,wildlife, livestock, pasture, forests, minerals, medicinal plants, solar, wind energy, agricultural products like livestock products, maize and beans and commercial businesses mainly in market centers. The county has 2 commercial Banks namely Kenya commercial bank and Equity bank with agent banking services spread in the entire West Pokot county and 3 micro financial institutions namely Faulu Kenya, Kenya women finance Trust and Pioneer which finance MSEs and all these financial institutions are located at Makutano town(Kenya Integrated Household Baseline Survey district poverty estimates of 2005/06).This calls for financial literacy intervention to train the MSEs especially in the rural regions to use the available means of accessing technology based financial services through agent banking to start off or improve their enterprises, and also reduce cost of doing business by not travelling frequently to Makutano to receive the services they can access locally. Training is one of the factors that impact positively on growth of MSEs. Those entrepreneurs with larger stocks of human capital on financial literacy are better placed to adapt their enterprises to constantly changing business environments(King andMcGrath,2002).

Figure 1.1 Demonstrates the considerations that MSEs will make based on the knowledge and skills provided through financial literacy training before using finance based technologies.

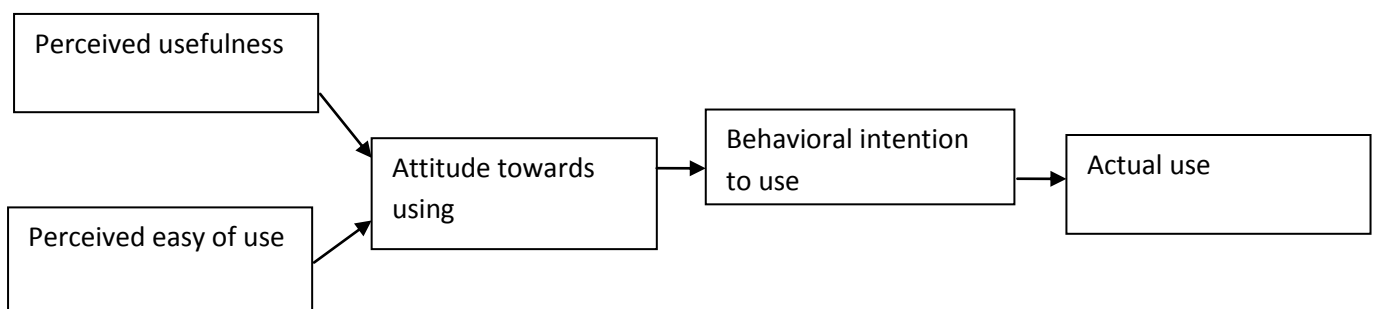


Figure 1.1 Financial literacy training on technology usage decisions.

Source: Davis (1989)

Financial literacy Training in Kenya

Seven financial partners namely, Teba bank from south Africa, SEWA bank from India, Pro Mujer from Bolivia, Equity Building society from Kenya, Al Amana bank from Morocco, CARD Bank from Philippines and Microcenter from Poland who first conducted a market research in their respective countries and identified priority topics to be included in the first financial literacy training curriculum design. They came up with topics like budgeting, debt management, savings, bank services, financial negotiations, young people, remittances, risk management, insurance and consumer protection.

In Kenya, Equity bank through Equity Group Foundation and MasterCard International implemented a curriculum based on four distinct topics namely; budgeting, savings, bank services and debt management. Budgeting module gives MSE knowledge and skills on setting specific future family and business goals. The module on savings provides skills on preparing a savings plan. The module on debt management provides knowledge on costs of accessing credit facility. The module on banking services compare and contrast bank products and imparts skills on using technology based financial products like ATM debit cards, and mobile banking at agency or at merchants and acquiring points and this is what formed the basis of this study (Microfinance opportunities, 2010).

Financial literacy program operates on quarterly basis, after every 12 weeks trainees graduate and new groups are enrolled for another new cycle of 12 weeks of training. The trainer prepared the following training schedule Pokot Central September 2010 to August 2011, Pokot South September 2011 to August 2012, West Pokot September 2012 to August 2013, Pokot North belonged to control Group while those from Central Pokot belonged to treatment group. The total number of groups in treatment group 75 MSEs and in control group were 60 MSEs and both of them continued to receive credit facilities from Equity bank. The treatment groups meet weekly and repaid their through agents at Sigor in Pokot Central 90 kilometers from Kapenguria Equity bank branch while the control group convened at Ororwo in North Pokot district, 120 Kilometers from Kapenguria Equity bank branch to repay their loans to their respective treasurers who have to travel to Kapenguria town to deposit their money at Equity bank branch.

Statement of the problem

A study conducted in Mexico by Monique Cohen (2010), evaluated the financial literacy program which was sponsored by Mastered Foundation, Micro finance Opportunities and Genesis Analytics which emphasized on branchless banking. The baseline findings indicated that 35% of customers used electronic banking cards and only 49% trusted this way of receiving funds, 65% of clients had never used an ATM, 45% did not know what a PIN was, 28% were illiterate, and 31% did not trust the pre-paid card. An evaluation conducted after offering financial literacy training indicated that 70% had no problems with the card, 93% plan on using their card for their next loan disbursement, the percentage of complaints was low as less than 1% of clients had concerns.

According to Equity bank end year report (2011) on the average daily agency transactions, the number of registered agents were 56, active agents in urban areas were 23, dormant agents urban areas were 3, active agents rural area were 10, dormant agents in rural areas were 9, number of agents closed in urban area were 3, number of agents closed in rural areas were 8, the average number of transactions from agent points in urban areas were 25 and the average transactions from agents from rural areas were 5. This study therefore sought to investigate whether the financial literacy training offered through Equity bank impacted positively on MSEs to use the technological innovations introduced by financial institutions like agent banking which uses electronic debit cards and mobile phones to access financial services especially from the far and rural areas in West Pokot County.

Objective of the study

The objective of this study was to investigate the impact of financial literacy in equipping micro and small enterprises with skills and knowledge and attitudes on usage of technological innovations from financial institutions.

Methodology

The methodology used in conducting this study was experimental design which utilized randomized sampling to identify the groups to belong to either treatment group or control group. According to Sebstad (2000), impact study is to identify changes that result from a program and therefore impact study aims at establishing a plausible association between changes experienced and participation in the program. According to Dimiter and Phillip (2003), experimental design usually employ pretest(baseline) and posttest(follow up) primarily for the purpose of comparing groups and/or measuring change resulting from experimental treatments. For purposes of this study the researcher used the illustration below to measure the impact of financial literacy for both treatment and control groups and comparing their outcomes within the same period and the gains in scores or differences in outcome was the impact which was attributed to financial literacy training.

- Y1 = Baseline % (Pre-test scores)
- T = Training in financial literacy (experimental treatment)
- Y2 = Follow up (Posttest scores)
- D = Y2 – Y1 impact (Gain in scores),

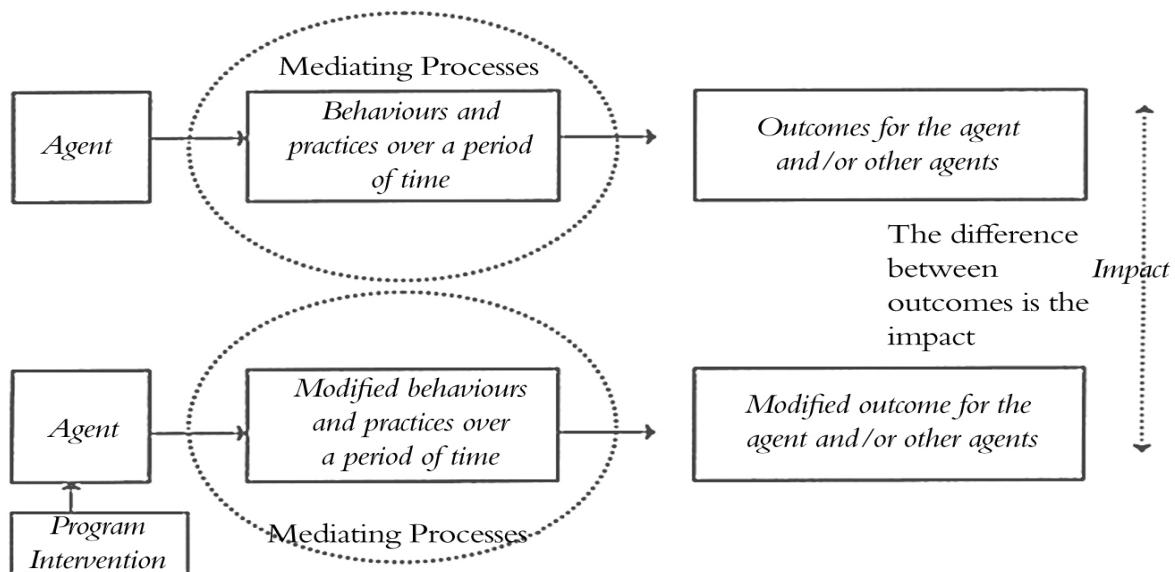


Figure 1. *The conventional model of the impact chain*
 Source: Hulme p. 82: 2000b (emphasis added)

Figure 1.1 The conventional model of impact chain

Significance of the study

The micro finance institutions, commercial banks, governments and nongovernmental organizations serving MSEs can benefit from this study by determining how they can redesign their training programs to motivate and equip the MSEs with the much needed technologically innovative skills to create long lasting relationship benefiting both of them thereby justifying their essentiality and it will also broaden level of thinking in financial literacy training to consider the appropriate training vehicles to offer financial literacy training.

Major Findings

Impact of financial literacy on usage of technology in treatment groups

The training on financial literacy module on bank services imparts knowledge and skills on various bank products and services MSEs will have too access to improve their entrepreneurial growth. From Table 1.1, at baseline ,2% of the MSEs have saved using technology, after training the number increased to 29% an increases by 27%. The number of MSEs who don't trust financial technology services increased by 2% from 95% before training to 97% . It was also revealed that 11% of the MSEs have repaid their loans at agent points ,the number increased from 2% to 13% . The study indicated that before training 98% feared using technology, after training the number reduced by 6% to 92% . The impact study revealed at baseline 15% MSEs were willing to be trained on financial technology and after training the number willing to be trained rose to 74% an increase by 59%.It was also revealed that at baseline level 3% of MSEs had achieved some specif goals using technology and after training the number rose to 7%.It was also found out that both at baseline and at follow up 100% of the MSEs thought technology based financial services was for the rich and literate. This study findings also found out that all the MSEs perceived finance literacy program as the marketing of bank services ,its not tailor made and it does not target the very poor and that the technology to be used is not user friendly.

Table 1.1 Baseline survey on impact of financial literacy training on usage of technology.

Usage of technology	Baseline%	Follow up (%)	Impact%
a)Have saved using technology	2	29	27
b) Don't trust financial technology services	95	97	2
c)Have repaid their loans using agent points	2	13	11
d)Fear using technology to access money	98	92	2
e)Willing to be trained to use financial technology	15	74	59
f)Achieved specific goals using technology	3	7	4
g)Believe technology is for the rich and literate	100	100	0
h) Financial literacy is a marketing bank services	100	00	0
i) Financial literacy is not tailor-made	100	100	0
j) Financial literacy does not target the very poor	100	100	0
k) Financial technology is not user friendly	100	00	0

Impact of not training financial literacy on control groups for 3 years

The responses received from trainees on bank services are captured in Table 1.2, at baseline 0% of the MSEs have used financial technology before in their businesses but at follow up the number

increased to 3%. The MSEs who don't trust financial technology services reduced by 3% from 99% at baseline to 96% . This study revealed that 0% of the MSEs have repaid their loans at agent points . The study also indicated that at baseline 100% feared using technology to access bank products and services and at follow up the number reduced by 3% to 97% . The baseline study also revealed that 82% of the MSEs are willing to be trained on financial technology and at posttest the number willing to be trained on the same reduced to 68% an reduction of 14 % .The study also revealed that 0% of the MSEs have not achieved any specific goal using technology. The study findings also indicated that all the MSEs in control group perceived financial literacy training on usage of technology based financial services a preserve of the rich and literate, it's a marketing drive for the bank services ,the training is not tailor made, it does not target the very poor and the technology to be implemented is not user friendly.

Table 1.2 Baseline survey on usage of technology by control groups

Usage of technology	Baseline (%)	Follow up %	Impact%
a)Have saved using technology	0	3	3
b) Don't trust financial technology services	99	96	3
c)Have repaid their loans using technology	0	0	0
d)Fear using technology to access money	100	97	3
e)Willing to be trained to use technology	82	68	14
f)Achieved specific goals using technology	0	0	0
g)Believe technology is for the rich and literate	100	100	0
h) Financial literacy is a marketing bank services	100	100	0
i) Financial literacy is not tailor-made	100	100	0
j) Financial literacy does not target the very poor	100	100	0
k) Financial technology is not user friendly	100	100	0

Discussions

Finance based technological usage is low amongst MSEs

When financial literacy was given to the group members in the treatment group they were expected to appreciate the importance of budgeting and savings and then the skills they received in banking services on the benefits of using technological innovations like prepaid cards and phone banking at agency points was to be used regularly to increase their access to their funds and also develop the habit of savings little by little using the agency banking close to them in their respective rural areas and to also repay their credit facilities to reduce on defaulting . By using the agency banking they will also reduce the cost of accessing their own funds and eventually increase their incomes from their businesses and for those who have not yet started businesses can also consider accessing credit facilities from banks because they will be having active individual accounts and at the same time will have accumulated enough funds to for business startup.

The results from the treatment group on technology usage indicated a some dismal growth while the largest number of MSEs were hesitant to uses technology, the results from the control group had even more meager change the numbers who were using technology based financial services. It can be noticed that financial literacy was more impactful on increasing the usage of technology based financial services and products. However, It can also be noticed that both groups perceived the trainer with some suspicion as marketers of the bank products and services of the financial institution they represented and that perhaps will explain to some extent why it was perceived that the program

did not targeted the very poor since they do not have any source of income to have active accounts to transact with the bank.

MSEs don't trust the financial literacy providers

The financial literacy training endeavored to familiarizes the trainees with the basics in financial matters and usage of latest technologies in financial circle. In treatment group despite the 12 weeks training MSEs continued to trust their own ways of money handling in terms of savings and face to face service received at the bank halls instead of using technological enabled tools to achieve the same service. This suggests that their costs of accessing financial services will continue to be high compromising their profits and therefore affecting their loan repayments. At the control group their level of trust was also too low implying that their usual ways of money management served them well and were not going to make a drastic change soon and therefore they will be walking long distances to Makutano where the brick and mortar branch is located to transact with the bank. Its also important to note at this point that financial literacy program introduced concepts and terms they were not familiar of and that kept them off the new technological innovations.

Financial literacy program excluding the very poor in society

The financial literacy training program was meant to be all inclusive by integrating even the very poor with their lack of or very minimal and irregular incomes can be active players within the financial system. The results received from the treatment groups indicated that all the MSEs perceived that the target group for the financial literacy was meant for the literate and rich people who can bank regularly for their accounts to remain active and benefit from bank and also the literate people who can have the skills to know how to use a prepaid cards and a phone at the agent points or access self services at the automatic teller machines (ATMs) and hence the financial literacy program was not tailored to the needs of the very poor but to serve the already existing customers and potential customers of the same characteristics but excluding the very poor and the same sentiments were shared by MSEs from control group

Conclusions

The usage of technological innovations in different spheres of live is one of the drivers of achieving the millennium development goals and vision 2030 in Kenya, therefore even as different players in economic development participate to achieve the same, the beneficiaries of the technological intervention have to be involved in designing and implementing a particular program which has to be user friendly and thus different areas will require unique tools and implementation strategies to achieve higher usage of the same due to expected high level of esteem and ownership anticipated from involvement of users at various levels. Ordinarily, the rural peoples ways of budgeting, savings and debt management need to be recognized and then enhanced to suit modernity over time. Otherwise with the current trend of low usage of technology based financial services in a country, MSEs who are diehards of their traditional ways of doing things will make it difficult to achieve the intended development goals.

To execute a successful financial literacy training program, you must win the confidence of the beneficiaries for them to implement it in their day today activities. The rural based MSEs have trusted ways of money management which have served them for many years and to change their thinking into other ways of doing the same things they are bound to refuse to change. It perhaps calls for the use of local trainers to handle them because they will be keen on observing their strongly held cultures and traditions to come up with new innovations without compromising their esteemed cultures and traditions and ensure compatibility of innovative technologies with old technologies.

Financial literacy training is program to impart financial knowledge and skills and change attitude of all MSEs who have stalled in growth and even contemplating to close down businesses as it provides life skills for all. The perception that it's a marketing program for the bank services ought to be demystified by the financial institutions by involving even the very poor in accessing some financial facilities even through their corporate social responsibilities so as to encourage the very poor to change their perception about this institutions through a strong relationship management. This is very crucial because the wrong perception scares the could be successful entrepreneurs.

Recommendations

This study puts forward the following recommendations for improvement of financial literacy training programs.

The providers of various financial literacy programs should consider implementing a program which fits the culture and traditions of the context targeted and avoid one size fits all because different MSEs have different experiences.

Financial literacy programs to achieve better results should be provided by neutral providers who may not have any other interest to derive from the program apart from benefiting the target beneficiaries.

The provision of technology based financial services must be preceded with the necessary infrastructures to make its implementation realistic like electricity, network connectivity, general improvement of local population literacy levels and identification of business opportunities and ways of exploitation for the entire population to be economically active and then can discern the relevance of financial literacy training and its influence in usage of technology based financial services and products.

References

- Bellini J.and Rumrill P.(2003), *Research in rehabilitation counseling*. Springfield,IL.
- CGAP. (2009). *CGAP Mobile Money Expectation Survey*. Washington, DC.
- Cohen, M. (2010),*Financial Literacy. Innovations in Rural and Agricultural Finance, 2020 Vision for Food, Agriculture and the Environment*. Focus Note 18. Washington, DC: IFPRI and the World Bank. *Inclusion: Views Of Low-Income Communities* (Forthcoming). Washington,DC: Microfinance Opportunities.
- Davis, F.D.(1989),*Perceived usefulness, perceived ease of use, and user acceptance of information technology*. MIS Quarterly, 13(3): 319–340
- Equity Bank.(2012),*Equity Bank end year report2012*.Nairobi.
- Greenspan, Alan. 2002. *Financial Literacy: A Tool for Economic Progress*.The Futurist, Vol. 36, No. 4. July-August. Pp 37-41
- Hulme,D.(2000),*Impact assessment methodologies for microfinance*. A review. A paper prepared for the virtual meeting of CGAP Working Group on Impact Assessment Methodologies.

- Kerlinger F.N. (1986), *Foundations of Behavioural Research*. New York; subject publications King, K. & McGrath S. (2002), *Globalization, Enterprise and Knowledge, Educational Training and Development*. International Review of Education, Vol. 50(1), 74-76(3)
- Kothari C.R.(2005), *Research Methodology: Methods and techniques*. Daryaganj, New Delhi; New age international(p) ltd.
- Microfinance Opportunities. (2010). *Internal Market Research Report*. FINO. Washington, DC.
- Mugenda O.M and Mugenda A.G. (1999), *Research Methods in social sciences*. New York Martins press.
- Nachimias N and Nachimias D.(1976), *Research Methods in Social Sciences*. New York. Martins press.
- Nelson, C. (2010), *Financial Education for All Ages, Innovations*. MIT Press Journal. Vol. 5, Issue 2. Cambridge, MA: Spring 2010
- OECD/INFE.(2009), *International Gateway for Financial Education*. Moscow
- Oso W.Y and Onen.D.(2005), *A general guide to writing research proposal and report*. A Handbook for beginning researchers Kisumu Option press.
- Peter Cartwright P. (1999), *Consumer protection in Financial services*. International Banking, Finance & Economic Law, Kluwer Law international.
- Proctor C. (2010), *The law and Practice of International Banking*. Oxford University Press
- Republic of Kenya.(2010), *Commission on revenue allocation report on county fact sheets*. Nairobi
- Republic of Kenya. (2011) ,*Report on Northern Kenya and other Arid Lands*. Nairobi. Sebstad, J. Cohen, M. & Nelson, C.(2010), *Building Financial Capabilities for Financial. USA*
- World Savings Banks Institute. (2010), *Financial Inclusion: How do we make it happen. USA*

INNOVATION ACTIVITY AND FIRM GROWTH ACROSS KEY SECTORS OF THE KENYAN ECONOMY

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Abstract

Kenya, like the majority of African countries, has been lacking an institutionalized national science, technology and innovation system of indicators to support evidence-based policy formulation, implementation and maintenance to support national development. The purpose of this study was to examine the innovation activity based on a set of core indicators to inform policies that will help Kenya configure the sectoral system of innovation in order to respond to socio-economic challenges. The study was based on the guidelines of the Organization for Economic Co-operation and Development (OECD) Oslo Manual (OECD, 2005). The study employed desk top research. The overall objective of the study was to build Kenya's capacity to develop and use innovation indicators in designing and implementing innovation policies and strategies for national development. The study was an attempt to probe the activity of innovation through the collection of data on various aspects of innovation in order to develop relevant innovation indicators and specific innovation policies for firm growth. This study established that most firms in Kenya have embraced innovation as a key driver of their competitiveness. The results of this study will contribute to increased knowledge about innovation in firms in order to devise appropriate innovation policies. The need for evidence-based policy processes is now gaining ground.

Keywords: Innovation activity, firm growth, core indicators, evidence-based policy

Introduction

In the pursuit of improved national socio-economic growth and global competitiveness, Kenya has come up with a national policy framework for science, technology and innovation. While the science, technology and innovation (ST&I) policy, provides a framework for a harmonized and co-ordinated approach to creating a robust knowledge-based economy centred on self-reliance and equitable development, it is currently not supported by an institutionalized system of ST&I indicators. Such an institutionalized system of ST&I indicators is necessary for measurement and assessment of the status and progress made in policy implementation, and for evidence-based formulation and review for relevant policies and strategies.

Statistical measures regarding research and development (R&D) and innovation are required to generate policy-relevant indicators to monitor progress of specific interventions and to support evaluation based on evidence provided by the indicators within the context of a national system of innovation (NSI). It is through proper monitoring and evaluation that relevant policy learning experiences will be achieved, which will lead to improvement of interventions and measures aimed at producing desired outcomes for the attainment of both the millennium development goals (MDGs) and the Kenya vision 2030 objectives. Comprehensive ST&I indicators are of paramount importance for continuously informing ST&I policy development in key sectors of the economy and hence support Kenya vision 2030 implementation.

The NEPAD-led African Science, Technology and Innovation Indicators Initiative (ASTII) programme as outlined in the Africa's Science and Technology Consolidated Plan of Action (CPA), among other things, aims to build the human and institutional capacities needed to produce common

internationally comparable indicators as tools for research and innovation surveys at national levels (AIO, 2010). The development of ST&I indicators in Africa was conceived in Johannesburg in 2003 during the first African ministerial council of science and technology (AMCOST I). The meeting resolved to “develop and adopt common sets of indicators to benchmark national and regional systems of innovation” (NEPAD, 2003). In 2005 during the AMCOST II meeting in Dakar Senegal, African countries adopted the recommendation to establish an intergovernmental committee or relevant national authorities to develop and adopt the use of common indicators in the production of the African innovation outlook (NEPAD, 2005). This led to the first meeting of the intergovernmental committee on science, technology and innovation indicators in Maputo, in 2007. The meeting recommended that, “African countries shall use the existing internationally recognized ST&I manuals and/or guidelines, particularly the OECD Frascati and Oslo manuals to undertake research and experimental development (R&D) and innovation surveys respectively (NEPAD, 2007).

The key question that needs to be addressed is how Kenya should effectively facilitate and promote innovation. This is a challenge in itself, and is even made greater by the need for the innovation to result in sustainable productive growth. The promotion should be done while taking into consideration that innovation does not happen in isolation but in a global, complex and dynamic system, that is non-linear in its response to policy intervention. Non-linearity in this case implies that a new policy intervention may not result in an expected outcome because of the feedback loops in the system that link it to other policy interventions, and framework conditions, in ways that are difficult to predict. Nevertheless, a reliable set of indicators generated in a sustainable and predictable manner will help alleviate the levels of uncertainty in the innovation ecosystem.

It is imperative to define and develop a set of core innovation indicators to provide the required ST&I performance metrics. ST&I indicators will be used in a broader way to support policy learning. Some of the specific uses of these indicators include: monitoring, benchmarking, evaluation, foresight, provision of information about firm growth and as a basis for further analysis that may lead to policy development.

Following a review of the current national system of innovation (NSI), the new ST&I policy and Bill, seeks to effectively entrench ST&I into the national production system by putting in place measures for strengthening the NSI. Reliable indicators will therefore further assist the country to configure and shape the pathway of the NSI and hence ensure competitiveness of the outcomes anticipated from the system. This can be achieved through various approaches such as, a country deciding upon a set of indicators which are relevant to policy objectives and once agreed, targets can be set supported by relevant policies and programmes to attain them (Gault, 2010).

The study is an attempt to probe the activity of innovation through the collection of data on various aspects of innovation in order to develop relevant innovation indicators and specific innovation policies for Kenya. These indicators will then enable key stakeholders to understand the state of the national innovation system and its capacity to deliver the intended results so as to address the components that need attention. Specifically, the study is designed to: develop and cause the adoption of internationally comparable innovation indicators; build human and institutional capacities to collect innovation indicators; inform the country on the state of innovation; and provide both qualitative and quantitative data on innovation at firm level.

The concepts and definitions presented in this study have been adopted from guidelines developed by the OECD and documented in the Oslo Manual (OECD, 2005) in the Kenya innovation survey report (2012). The statistical unit for the study is the enterprise which refers to a business, company or firm and can range from a very small concern with only one or two employees to a much larger and more

formal business or firm. Innovation according to the Oslo Manual is “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations”. The minimum requirement for an innovation is that it must be new or significantly improved to the firm. A common feature of an innovation is that it must be implemented, which implies that it must be brought into actual use in the firm’s operations, and further connect to the market for wealth creation.

Innovation is a concept with varying definitions depending on the field of study and social theories (Goldsmith & Foxall, 2003). However, according to most definitions, innovation refers to the creation of new, better or more effective products, processes, technologies, or ideas that are accepted by markets, governments and society. Innovation encompasses two basic ideas: novelty and commercialization or diffusion to varying degrees depending on who is defining it. The aspect of novelty or improvement is crucial to the concept, as well as acceptance by the affected subsystems of society for example consumers, users and government among others.

There are four broad levels of novelty of innovation defined in relation to the firm and the market in which the firm operates. These levels in ascending level of novelty are as follows: new to the firm, new to the market of the firm in Kenya, new to the competition of the firm in Kenya and new to the world. New to the firm is the minimum entry level for an innovation. A product, process, marketing method or organizational method may already have been implemented by other firms, but if it is new to the firm, then it is an innovation for that other firm. Firms that first develop innovations can be considered as drivers of the process of innovation. Many new ideas and knowledge originate from these firms, but the economic impact of the innovations will depend on the adoption of the innovations by other firms as is the case with the M-PESA mobile money transfer application.

An innovation is new to the world when the firm is the first to introduce the innovation for all markets and industries, both domestic and international. New to the world implies a qualitatively greater degree of novelty than new to the market, and this is the desired level to ensure competitiveness and sustainable economic growth. The important role placed on knowledge and learning has made innovation policies to focus more on research and economic development in the private and public sectors (Lundvall, 2007).

Methodology

The study was based on the guidelines of the OECD Oslo manual (OECD, 2005). It was designed according to the methodological recommendations for community innovation surveys (CIS) 2006 provided by Eurostat, the statistical office of the European Commission. The CIS 2006 is the standard adopted by ASTII for innovation surveys in all African Union countries. The studied firms were randomly selected in Nairobi city, Mombasa city, Nakuru town, Eldoret town and Kisumu city. Depending on the size of the firms, different respondents were tasked to fill in different parts of the questionnaire.

The questionnaire was based on the one that was used by CIS version 6 and the Oslo manual. The questionnaire was divided into eleven parts as follows: general information of the firm, product (goods or services) innovation, process innovation, ongoing or abandoned innovation activities, performed innovation activities and expenditures, sources of information and co-operation for innovation activities, effects/objectives of innovation, factors hampering innovation activities, intellectual property rights, organizational and marketing innovation and specific innovations.

The international standard industrial classification of all economic activities (ISIC) revision 4 was used to prepare the target population of firms across all the economic activities. The individual

categories of the ISIC classification aggregated into 21 sections were populated by firms based on their main economic activities and appropriately placed in respective divisions to achieve fair representation in each category. All firms listed on the Nairobi securities exchange (NSE) in February 2012 were included as part of the core target firms. The yellow pages of the Nairobi and upcountry postal directories and individual firm websites were used to obtain the contacts of the firms. The physical address was particularly important in organizing the targeted firms into clusters for efficient and effective coverage.

The sampling frame consisted of all registered firms, public/private universities and public research institutions, national polytechnics and non-governmental organizations. The firms were randomly selected by ISIC sector from the frame. A total of 194 firms were selected in Nairobi and its environs while 99 firms were selected upcountry as follows: Mombasa 25 firms, Kisumu 25 firms, Eldoret 24 firms and Nakuru 25 firms.

The field study personnel had a letter of introduction to deliver to firms selected for the innovation study. The letter gave a brief description of the study and requested the firms to co-operate by completing the accompanying study questionnaire. In this study, the questionnaires were received from the field, recorded and edited in preparation for data capture. The census and survey software programme (CSPPro) was used for data capture, editing, validation and tabulation. The statistical package for social sciences (SPSS) was used for further analysis and tabulation. In developing the data capture system, certain controls were in-built to check the characters entered after which validation was done in preparation for the production of frequency tables and in readiness for data analysis. This study covered business firms in Nairobi, Mombasa, Kisumu, Nakuru and Eldoret. A total of 293 firms were targeted in this study. Out of these, 160 firms completed and returned the questionnaires, thus representing a 54.6 percent overall response rate

Results

These results are a reflection of the national innovation ecosystem across key sectors of the Kenyan economy. These results will inform various policy interventions at a national level to enhance Kenya's innovation capabilities and overall competitiveness. This can be attributed to the use of development approaches that have not factored in the need for measurement of ST&I activities in order to achieve socio-economic transformation (NEPAD, 2010). Indeed, it is only in the current development blueprint, Kenya vision 2030 launched in 2008, that ST&I is recognized as the key foundation or enabler for sustainable development. Kenya, alongside an increasing number of other African countries has been implementing the African Union NEPAD-led ASTII. The results will contribute to increased knowledge about innovation in firms in order to devise appropriate innovation policies.

The study identified 17 different sectors by main innovation activity in 2008 and 2011. The different sectors by main innovation activity included: agriculture, forestry and fishing; mining and quarrying; manufacturing; electrical activities; water supply; construction; wholesale and retail trade; transportation and storage; hospitality; information and communication; financial and insurance activities; professional services; public administration and defence; education; health; arts, entertainment and recreation; administrative and other support activities. The total number of employees in the different sectors in 2008 and 2011 were 66,874 and 76,567 respectively, total number of employees with a degree were 13,115. Based on the number of employees in the sectors by main innovation activity in 2008 and 2011, it was evident that the main employers in order of size were: financial and insurance with 15,099 and 16,275 employees, employees with a degree were 4,555; manufacturing with 11,053 and 12,623 employees, employees with a degree were 761;

education with 7,874 and 9,791 employees, employees with a degree were 4,440; and agriculture, forestry and fishing with 5,941 and 5,966 employees, employees with a degree were 315.

Employees of the four main sectors accounted for 65.4% of the total employees of the firms sampled. In each of these sectors, the employees with at least a university degree provided the largest proportion of the likely human resource involved in innovations either directly or indirectly between 2008 and 2011. The results are such that about 5.3% of the employees in agriculture, forestry and fishing sector had a university degree, 6.4% for manufacturing, 50.3% for education and 28% for finance and insurance. Ideally, these sectors have great potential for leading the country to sustainability in terms of wealth and employment creation through increased innovation activities within the sectors. Considering the responses in terms of employment, innovation activities and resulting turnovers increase for the sectors between 2008 and 2011, it was evident that the financial and insurance, manufacturing, education and agriculture sectors were key participants in innovation.

A comparison between turnover changes from firms with product and process innovations and those firms that did not innovate revealed that the former category reported higher turnover changes in absolute terms. These firms were also found to have employed higher numbers of graduates by the end of 2011 than those that were not undertaking product and process innovations. The likelihood of innovation in firm grows with the number of graduate employees and so will be the resulting turnover. It was also observed that some non-innovative firms had higher proportions of graduate employees than those that were innovating. The high presence of graduates in non-innovating firms indicates that this human resource is either being under-utilized or is untapped.

A comparison of turnover changes in the period 2008-2011 between innovative and non-innovative firms did indicate that innovative firms were responsible for over 90% of the turnover in both product and process innovation. By sector, financial, ICT and manufacturing were leading in turnover changes among the sectors that were innovating. These sectors were also the leading ones in turnover changes among the non-innovating firms, but the percentage turnover changes were much lower.

The results of the study indicated that 89.9% of the firms that responded reported to have successfully implemented innovations thus translating to an innovation intensity of 89.9%. In terms of the specific types of innovation, 70.9% of the firms had implemented product innovation, 92.4% of the firms had implemented process innovations while 85.4% of the firms implemented organization and marketing innovations. In terms of novelty of innovations recorded, 15.8% of the firms studied indicated to have introduced innovations that were new to the Kenyan market. A total of 20.9% of the firms indicated that they introduced both product and process innovations in the Kenyan market. Only 1.9% of the total respondents had successfully implemented innovations that were new to the world, thus achieving the highest degree of novelty.

Considering the product innovation, the manufacturing and wholesale sectors were the most active under innovation of new or significantly improved goods. In the service innovation, education and manufacturing sectors led in reporting new or significantly improved services. All the other sectors recorded scores of below 10% for product innovation. About a third of the product innovations in manufacturing sector, 29.7% were developed by own firm while about another third of the innovations were either through modification or in collaboration with other enterprises.

Among the firms that reported to have successfully implemented innovations, 92.4% of them had implemented process innovations. The manufacturing sector posted 38.2% for new or significantly improved production methods. This was followed by the education sector at 9.0%, professional

services at 7.9% and financial services at 6.7%. Both health and hospitality sectors had the least at 1.1%.

Process innovation activities involving logistics, delivery or distribution had major players in the manufacturing at 27.8%, education at 10.1% and financial at 10.1% sectors. Electrical and water supply sectors had the least each at 2.5% innovations related to delivery or distribution. A similar trend in supporting process innovation activities was observed where manufacturing sector recorded the highest innovation at 33.7% while the least innovations were within the electrical at 3.4% and water supply at 2.2% sectors.

A third of the firms in the manufacturing sector developed their own process innovations. In the manufacturing 27.6%, financial 13.8% and wholesale 13.8% sectors, process innovations were mainly developed by own firms in collaboration with others. A quarter of the process innovations in the financial and water supply sectors and half of the process innovations in the manufacturing sector were developed by other firms.

Organizational innovations captured belonged to business practices, work responsibilities and decision making and external relations of firms. Firms from the manufacturing sector reported a 37% implementation rate of their business practices. On the other hand, they implemented low levels of work responsibilities and decision making at 6% and external relations at 6%. Forty nine percent of firms from the education sector reported to have implemented work responsibilities and decision making innovations, 22% implemented external relations and 9% implemented business practices innovations.

Marketing innovations captured in sampled firms included changes in the design or packaging of the firm's products and sales or distribution methods. Firms in the manufacturing sector had a high level of innovation activities. Out of the studied firms, 27.7% implemented design or packaging changes to their goods, while 36.1% implemented innovations in regard to their sales or distribution methods.

Innovation activities may be related to any scientific, technical, organizational, financial or commercial activities, including investment in new knowledge that leads to, or is intended to lead to, the implementation of innovations. The innovation activities measured by the study included, among others, the acquisition of machinery, equipment and software, intramural R&D, outsourced expenditure on acquisition of R&D and the acquisition of other external knowledge. The most innovative enterprises acquired new machinery, equipment or software as part of their innovation processes. Intramural R&D was the second most important innovation activity with almost half of all innovative enterprises spending money on R&D.

In all sectors, the bulk of innovation expenditure was devoted to the acquisition of new machinery, equipment and software and was equivalent to about 2.2% of the expenditure by all enterprises and 39.7% of the turnover of innovative enterprises. Intramural and outsourced R&D accounted for 0.7% of the turnover of all enterprises and 1.3% of the turnover of innovative enterprises. The manufacturing sector had the highest proportion at 23.5% of innovative enterprises undertaking continuous R&D, followed by the professional services sector at 15.7%. The education and wholesale sectors had the third highest proportion of enterprises undertaking continuous R&D at 9.8%. In total, 32.5% of innovative enterprises undertook R&D on a continuous basis, while 17.1% of innovative enterprises undertook R&D occasionally.

Financial support included tax credits or deductions, grants, subsidized loans and loan guarantees but excluded research and other innovation activities conducted entirely for the public sector under contract. The results indicated that 40.4% of the studied firms reported to have received financial

support from foreign governments and/or other foreign public sources. The national government provided financial support to 30.8% of the firms. National funding agencies like the national council for science and technology supported 23.1% of the firms. The local government supported only 5.8% of the studied firms.

The manufacturing sector had the majority of firms at 32.5% with ongoing innovation activities for product or process innovations by the end of 2011. It was followed by education at 11.7%, professional services at 10.4%, financial and other sectors both at 9.1%. The electrical sector had the least respondents at 1.3% with innovation activities still going on. The manufacturing sector reported the highest abandoned innovation activities, at 40%, between 2008 and 2011. This was followed by the financial and other sectors which both had 10% while the hospitality sector had 7.5%. The sectors with the least number of firms abandoning innovation activities during 2008 to 2011 were the wholesale, water supply and health sectors at 2.5%.

All innovative enterprises experienced problems with certain innovation activities during the period 2008 to 2011. Concerning these problems, 34% of the innovative enterprises reported abandoning innovation activities during the concept stage, while 31% indicated that they had abandoned innovation activities that had already begun. Innovation activities were seriously delayed in 50% of the innovative enterprises.

A number of factors likely to influence the implementation of innovation activities were identified as cost, knowledge, market, others and no need to innovate. For the firms who gave a high degree of importance to hampering factors, cost factors were most important at 39.3%, followed by market factors at 23.1%. Other factors at 14.2% and knowledge factors at 13.0% were less influential. A mere 2.8% felt there was no need to innovate. Within the cost factors, the high costs of innovation and lack of funds within the enterprise group were reported as the most prohibitive while in market factors, it was the ease of imitating the innovation as well as market dominance by established enterprises.

Intellectual property rights (IPRs) regimes are known to stimulate innovation activities within institutions and among individuals. Registration of patents and intellectual property assets enhances returns on rights issue as well as licenses. Firms that secure patents, trademarks and licenses benefit from innovations directly and are more likely to deliberately focus on innovations as a central activity. The proportions of the studied firms that had IPR issues, about 12.9% reported to have secured a patent in Kenya as compared to 21.4% of firms that got it from outside the country. The most likely reason why firms prefer getting patent rights outside the country is because they would like to benefit from the international markets. Likewise, only 14.2% of the firms studied registered an industrial design as compared to 27.5% of firms that had registered trade mark. On use of IPRs, only 7.9% reported that they had made use of the IPRs. The reason why more firms do not use the rights may be attributed to unwillingness to invest in the patenting process due to high cost and also lack of knowledge regarding the use and benefits of intellectual property rights.

According to the results, sources within an enterprise or enterprise group were highly rated. Out of the firms that indicated internal source as their source of information, 65.6% ranked this as a source with high degree of importance for innovation activities. Market sources comprised of suppliers, clients or customers, competitors and consultants. In this category, it was indicated that clients or customers were the most important source of information for innovation activities in firms. Clients or customers were recognized to be of high degree of importance by 62.9% of the firms which indicated use of this source of information. This is compared to suppliers, competitors and consultants whose

recognition as high important source of information was recorded as 47.5%, 36.3% and 18.5% of the firms, respectively.

This study indicated that knowledge-based institutions including universities or other higher education institutions and public research institutes were not highly rated as important sources of information for innovation activities in the firms that participated. Universities/higher education institutions and public research institutes were considered to be sources of information for innovation activities of high degree of importance by only 16.4% and 20.5% of the firms, respectively.

Other cross cutting sources categorized as conferences, trade fairs and exhibitions and scientific journals and trade /technical publications were not relied on as highly important sources of information for innovation activities by firms in this study. In fact, the scientific journals and trade publications were highly relied on as important sources of information for innovation activities by 29.5% whereas professional and industry associations were highly relied on by 27% of the firms.

Most of the firms studied, indicated that there is high co-operation in innovation activities with partners in other enterprises within their enterprise group who are located in Kenya. Suppliers, clients/customers and consultants located in Kenya were also significantly cited by various firms as select co-operating partners for innovation activities. However, competitors, universities/higher education institutions and public institutions were only indicated by only a few of the surveyed firms as their select type of co-operating partners.

Innovation partnerships were mainly from within Kenya with limited linkage to partners in the rest of Africa and Europe in that order. About 17% of the firms reported that customers were their most valuable co-operation partner in their innovation activities, while 12% reported that suppliers were the most valued. It should be noted that a non-response rate of 50% was obtained for the most valuable co-operation partner in their innovation activities.

The study interrogated the level of importance of objectives for products and process innovations introduced by the innovative firms. Among the various objectives, the objective rated as most highly important was improving quality of goods or services, which was cited by 69.2% of the firms. Other objectives which were cited as highly important included: increase in goods and services, 61.7%; improve flexibility for producing goods and services, 61.2%; increase capacity for producing goods and services, 61.0%; improve working conditions on health and safety, 59.7%; increase market share, 57.5%; and enter new markets, 53.0%. In comparison, reducing production costs per unit output and replacing of outdated products or processes were not considered as highly important objectives for innovations, with each rated at 45.8% and 47.5% respectively.

The effects of innovations were classified as follows: product-oriented effects; process-oriented effects and other effects. For product-oriented effects, improved quality of goods and services was cited as the highly important level of success of outcomes by 66.4% of the firms. In comparison increased range of goods and services by 47.9%, increased market share by 43.1% and entered new markets by 36.2% were ranked to be of high importance.

On the other hand, the process-oriented effects were not cited as a highly important level of success of outcomes with the most important effect being increased capacity of production or service; indicated by 56.7% of the firms as of high importance to the level of success of outcomes. Improved flexibility of production or service provision were rated at 48.7% while reduced production costs per unit of labour, materials and energy were rated at 45.8%. Other effects including: reduced environmental impact at 35.0%; improved working conditions on health and safety at 50.8%; and

met government regulatory requirements at 60.3%, were also cited to be of important level of success of outcomes.

Discussion

This study indicates that most firms studied are now conscious of the importance of innovation. According to the global competitiveness report 2011-2012, Kenya's innovative capacity is ranked 52 out of 142 economies. There is need for Kenya to upscale this potential through institutional reforms. In broad terms, this innovation potential is influenced by the scope of R&D, which determines the stock of inventions and innovations to be commercialized; the quantity and quality of human resources available for R&D, which depend on the number of universities and research institutions, and quality of education; regulatory and institutional environment conducive to innovation, including stable property rights; independence of the judiciary; transparent and simple rules, and low costs governing the registration and operation of enterprises; and the wide use of information and communication technologies. These factors taken into consideration influence the business climate in which the innovation-based enterprises operate, and thus determine the demand for innovation (UNECE, 2012).

The study further shows that there is limited number of firms involved in product innovation or having innovations that are new to the world. Therefore the number of positive spin-offs will be minimal as well as level of global competitiveness. This leads to limited range and quality of products available to the country. Kenya therefore needs to spur local innovations by applying relevant strategic measures and maintaining a well-balanced adoption of imported innovations or improved goods and services.

From the findings of the study, it is clear that there exists a high level of innovation in the manufacturing sector, whereas other key sectors like education, ICT, health etc. recorded low innovation rates. The presence of more innovations in the manufacturing sector is perhaps an indicator for tight competition for new markets in the region, which requires the firms to undertake continuous product and process developments. Many firms in other sectors studied indicated not to have or implement innovations. This could be attributed to various factors including: lack of incentives to be innovative, lack of capacity, cost of innovation due to various factors and firms' consideration of the innovations available being disruptive. It was also noted that some firms felt there was no need to innovate, probably for the same aforementioned reasons.

Most firms across board recorded as having their innovations developed within the organization and as sourcing for new ideas mainly from clients and suppliers. This kind of scenario does not encourage collaboration, with a view of pooling and sharing scarce resources, unless innovation-sharing relationships with clients and suppliers are formalized as a start. The manufacturing firms recorded a higher degree of shared ownership but many of their innovations were owned by the individual firms. On one hand knowledge-based institutions including universities and research institutions, which are expected to be sources of new knowledge and innovations, recorded low shared ownership of innovations.

As shown in this study, there is a link between innovation activity and a firm's turnover. It is therefore important for the government to put in place mechanisms to support the performance of innovation activities to enhance the innovation intensity in all sectors of the economy. In general, 32.5% of the innovative firms undertook R&D on a continuous basis while 17.1% of the innovative firms carried out R&D occasionally. According to Cohen et al. (2002), the investment in firms' own R&D as well as in innovation management facilitates the comprehension of the results of externally

performed R&D on the one hand, and implementation of the resulting technological opportunities, on the other.

Internal or market sources such as customers, suppliers, consultants and competitors were rated by most firms as their most important sources of ideas for their innovations while universities and public research institutions were the least important sources. This is an indication of weak linkages with the knowledge-based institutions that are expected to play a leading role in driving innovation within the country. A similar observation has been made by Eurostat that raised the question of why innovative enterprises do not make more use of knowledge generated by universities and public research institutes and asked whether the research generated by such institutions is too theoretical to be applied for industrial purposes, or whether public research is too expensive for industry to afford (European Communities, 2007). Utilization of public procurement can raise R&D intensity in industry and stimulate the development of research and innovation-intensive products and services. This is a catalytic action different from the usual supply of research and development services through grants or contracts (European Commission, 2006).

The results of the study have shown that there is limited public financial support for innovation activities in Kenya. It is worth noting that direct measures of innovation support are likely to lead to the development of relationships between government, industry and third parties such as higher education institutions. Majority of the firms indicated not to have received any form of financial support from national/local and/or foreign sources of funding. This situation has however greatly affected the level of innovation in Kenya. In a recent study carried out in Spain, it was found that public financing produced stronger positive effects on R&D in small firms than in large ones. At the same time, the results were better in low-technology industries such as timber or light industry than in high technology sectors. The study argues that public financing induces small and medium enterprises (SMEs) to perform research that would not have been carried out in the absence of such funding (Gonzalez & Pazo, 2008).

Co-operation in the education sector is a common practice as indicated by the results. However, most business firms are not practicing co-operation on innovation activities probably due to fear of losing IPRs. This calls for strengthening of the IPRs regime to guide engagement of firms in collaborative innovation activities. This will lead to regulated wealth creation while utilizing IPRs inherent in innovations. It was further established that there exists low levels of intellectual property assets. More awareness creation on IPRs issues needs to be done and local enterprises encouraged to apply and register intellectual property assets to benefit from the rights and spur innovation. Despite its limitations as a measure of local technology generating efforts or innovations, there is now much consensus on the fact that patents are a good and convenient indicator of this activity (Mani, 2007).

Conclusions

The results of this study have highlighted important trends in regard to the innovation capacity of Kenya. This study established that most firms in Kenya have embraced innovation as a key driver of their competitiveness. The culture of innovation is taking root in the country. The linkages within the system are weak. Knowledge-based institutions are not actively involved as a key information source for innovation. This has a significant impact on the country's effort to become a knowledge-based economy. The actors in the national system of innovation should take advantage of the enthusiasm among firms to enhance co-operation for mutual benefits. The stakeholders of the innovation process – research institutions and producers, as well as regulatory government agencies – have to establish links and collaborate, enabling the process of innovation and commercialization to function. There is need to create awareness among innovation actors to work in a systemic manner because innovation

does not occur in isolation and that benefits arising out of successful innovation have profound effects beyond their origins.

Despite existence of positive trends with respect to innovation, there is still need to conduct a more comprehensive study, possibly involving a much larger population of firms in order to accurately capture these trends. Nevertheless, the results of the study could be used to make initial policy recommendations based on the emerging trends. It will also be a basis to engage actors in the national system of innovation to use the results to evaluate their performance and make appropriate adjustments based on the evidence presented.

Recommendations

The study has therefore proposed the following ten policy recommendations for consideration in order to stimulate economic growth through innovation. The government to: (1) put in place mechanisms for implementing tax incentives to support high technology innovations; (2) provide for better coordination of the various actors in the national innovation system to address the existing disjointed efforts especially among the core players; (3) improve the business environment especially the cost of doing business; (4) involve key players in industry and academia in innovation studies; (5) develop a policy framework for supporting and sustaining innovation in priority sectors of the economy; (6) encourage the adaptability and application of ICT in innovation; (7) identify and recognize firms that excel in innovative activities as a part of the process of promoting innovation; (8) initiate national programmes to tap and develop human resources for innovation; (9) support and expand innovation hubs/centres for different categories of innovation; and (10) develop a policy on entrepreneurship to focus on enterprise pre-start-up, enterprise start-up and enterprise post start-up as a source of wealth and employment creation, innovation and economic growth.

References

- African Union-New Partnership for Africa's Development (2010). *African outlook*. Pretoria: AU-NEPAD.
- Cohen, W.M., Nelson, R.R., & Walsh, J.P. (2002). Links and Impacts: The Influence Public Research on Industrial R&D. *Management Science*. 48(1), 1-3.
- European Commission (2006). Public Procurement for Research and Innovation. *European Commission Expert Group Report*. EC JRC. Spain.
- European Communities (2007). Community Innovation Statistics: Weak link between innovative enterprises and public research institutes/universities. *Statistics in Focus: Science and Technology*. Sergiu-Valentin Parvan. Eurostat.
- Gault, F. (2010). *Innovation Strategies for a Global Economy: Development, Implementation, Measurement and Management*. Ottawa: IDRC.
- GOK (2007). Kenya Vision 2030. A Globally Competitive and Prosperous Kenya.
- International Goldsmith, R.E. & Foxall, R.G. (2003). *The Measurement of Innovativeness*. In: Shavinina, L.V. (ed.). *The Handbook on Innovation*. Oxford: Elsevier Science.
- González, X., & Paso, C. (2008). Do Public Subsidies Stimulate Private R & D Spending? *Research Policy*. 37, 371-389.

Lundvall, B.A. (2007). *Working Paper – National Innovation System: Analytical Focusing Device and Policy Learning Tool*. Ostersund: Swedish Institute For

Growth Policy Studies.

Mani, S. (2007). *Innovation Surveys in Developing Countries: What can we learn from it for Public Innovation Policies?* Unu-Merit, Maastricht, Netherlands.

Ministry of Higher Education, Science and Technology and Kenya National Bureau of Statistics (2012). *The Kenya Innovation Survey Report*. Nairobi.

NEPAD (2003). *Declaration of the First African Ministerial Conference on Science and Technology*. Pretoria: NEPAD.

NEPAD (2005). *Resolutions of the Second African Ministerial Conference on Science and Technology*. Pretoria: NEPAD.

NEPAD (2007). *Decisions of the First Meeting of the African Intergovernmental Committee on Science, Technology and Innovation Indicators*. Pretoria: NEPAD.

OECD/Eurostat (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*. Paris: OECD.

United Nations Economic Commission for Europe – UNECE (2012). *Fostering Innovative Enterprises: Challenges and Policy Options*.

ROLE OF QUALITY AND QUANTITY IN DETERMINING ACCESS TO MARKETS BY AGRO-PROCESSING GROUPS IN EMBU COUNTY

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Abstract:

Agro-processing and value addition of agricultural commodities is key towards commercialization of agriculture, for income generation, wealth and employment creation, poverty reduction and ensuring food security. In view of this the government of Kenya has put emphasis on agro processing by micro and small farmer group food-processing enterprises. Meeting food safety standards will widen access of processed food products to market outlets like supermarkets and export markets, that earlier posed a threat to these enterprises. Additionally, the seasonality and perishability of most farm produce limits their ability to ensure continuous supply of required quantities to these markets. This study aimed to evaluate the contributions of quality and quantity in determining access to markets by micro and small farmer group food-processing enterprises in Embu County. An exploratory approach was adopted, using a descriptive survey. The instrument for this study was a questionnaire. One hundred and twenty four (124) group officials from a sample of forty two agro-processing groups were extensively surveyed to ascertain contributions made by quality and quantity in determining access to markets by these enterprises. Statistical Package for the Social Scientists (SPSS) was used for data analysis. The study indicated that majority of the consumers do not specify the quality of the products they consume and coincidentally were members of the very processing groups. This called for a need for the sensitization on the requirement and meeting food safety standards if they were to reach larger markets and satisfy the legal requirements. A majority of the respondents stated that seasonality and perishability of raw materials was the major hindrance to supplying sufficient quantities to their consumers. This called for the need to empower and sensitize processing groups on bulking and safe storage of produce after harvests

Key words: quality, quantity, food-processing, market access.

Introduction

All over the world, about 500 million poor people run profitable Micro and Small Enterprises (MSEs). MSEs account for a substantial part of the economy. In Kenya, they contribute to 18.4% of Gross Domestic Product (GDP), which is double that from medium and large manufacturing sector, (ROK, 2005) and further accounted to 6.5 million jobs which is seventy four (74%) percent of total employment in 2005. MSEs contribute a lot to the economic growth of the country, technology and innovation development, a source of foreign exchange, a market for other countries, employment creation, back and forward linkage to other industries and alleviation of poverty, (Hisrich, et al, 2009).

Entrepreneurial ventures evolve over time through various stages from start-up, development and growth through to decline and closure Hisrich et al (2009). The enterprise changes its characteristics in each of these stages in a way that often requires different skills, structures and resources to manage them. Growth is an important concern for the modern enterprise, and industry as focus has shifted more towards solutions, not only products. Rabelo and Speller (2005) alluded that innovation,

product development, and global awareness are essential in this new focus. There are several reasons for this strategy: macro economic trends are apparent, globalization of the world economy, the move to dynamic supply chains, modularization of business processes, and the trend towards ever changing networks of buyer/supplier relationships.

Ibrahim and Goodwin (1986) asserted that entrepreneurial behavior and managerial skills of owner-managers are key success factors in small business. Other studies have shown managerial skills in the form of operational managerial requirements like production, sales, and finance are the most important constraints faced by small business (Garikai, 2011). Entrepreneurial skills are not part of managerial skills (Harper, 1994). In fact, entrepreneurship is beyond management and not all managers are entrepreneurs (Garikai, 2011). Still on the same note, not all entrepreneurs are managers. Entrepreneurship is the ability to seek out opportunities and then turn them to profitable businesses (Garikai, 2011). Huck and McEwen (1991) identified entrepreneurs' competencies in management, planning and budgeting, and marketing as most crucial for the successful operation of a small business. According to Snell and Lau (1994) more management competencies are required for growth in small organizations compared to larger organizations.

Gupta and Cawthon (1996) alluded that employees of small organizations especially managers require the most training. Innovativeness, know-how, creativity, and managerial competence are important for success in small business (Wijewardena and Tibbits, 1999). These qualities enable the entrepreneur to thoroughly analyze the market and develop a product that fills the gaps in customer needs.

Many governments all over the world have emphasized development of programmes aimed at targeting the entrepreneur himself (Webster, 1991). Studies carried out in Tanzania and Kenya demonstrated that thirty (30 %) percent of Micro Enterprises (ME) survive to their third anniversary (Selejio 2002; Mduma and Wobst, 2005). They argued that one of the reasons for the high mortality rate and loan default is the attitude of entrepreneurs towards risk caused by access to credit. Credit stimulate entrepreneurial attitude which favor risky undertakings with high returns.

Statement of the problem

World over, the phenomena of micro and small farmer group food-processing enterprises is increasingly growing and it's argued that entrepreneurship is the key to success in sustainable growth of these enterprises (ROK, 2010). According to the Kenya Central Bureau of Statistics, 2004 agro-processing is progressively the largest manufacturing sub sector accounting for 13 % of total manufacturing output. Value addition particularly that involving small scale food processing, represent potential source of livelihood for many poor people in Sub-Saharan Africa. The overall potential of agro-processing is huge as it can: increase the value of crops and thus yield higher returns; expand marketing opportunities; improve livelihoods of people; extend shelf-life of commodities; improve palatability of commodities; enhance food security; overcome seasonality and perishability constraints; and empower women who are often involved in agro-processing (Mhazo et al, 2003). Research studies have shown that the main problem facing SMEs in Africa is lack of access to markets, information, finance and government support (Indarti and Langenberg, 2004). This is because SMEs use the traditional ways of marketing (Indarti and Langenberg, 2004), which

do not give rise to high levels of revenue and product recognition in the current competitive environment (Garikai, 2011)

The Government of Kenya has over the years invested in programs and projects that offer financial services, technical training and agro-processing equipment to facilitate the performance these micro and small farmer group enterprises (ROK, 2004). According to end of program evaluation reports, most of the agro-processing equipments remain idle or underutilized (ROK, 2008) and most of the funded agro-processing enterprises are unable to ensure sustained supply of adequate processed and quality food commodities to markets beyond their localities (ROK 2012). This research aimed at evaluating the contributions of quality and quantity in determining access to markets by Micro and Small farmer group food-processing enterprises in Embu County.

Objectives of the study

The general objective of this study was to evaluate factors determining access to markets by micro and small food processing farmer group enterprises in Embu county. The specific objectives of this study were to evaluate the role quantity of product and quality of product in determining access to markets by micro and small farmer group food processing enterprises. The research study tried to answer the following questions what is the role of quantity of product and the role of quality of product in determining access to markets by micro and small farmer group food processing enterprises?

Importance and justification of the study

In their report, “Marketing access and agricultural product marketing” (A. Lothore at el 2009) alluded that agricultural output on the African continent as in other regions, is characterized by irregularity due to the annual and even multi-annual seasons of biological processes and their subordination to disease and climatic changes. As a general rule, however, agricultural systems are dependent on the weather, on the climate, the time period of biological growth process, and the perishable nature of numerous agricultural products. The supply of agricultural products is thus characterized by instability, both in quantity and quality. This leads to an absence of spontaneous adjustment of supply to meet demand for agricultural products and to instability in pricing (agricultural markets have always been unstable).

Processing and post-harvest packaging of agricultural produce helps micro and small farmer group food processing enterprises benefit from the added value, access other markets (local or export markets), acquire necessary processing resources to avoid hasty sales at low prices at harvest time and to gain some time in order to sell the products later when prices are better. These activities often aim at improving profits by obtaining higher prices due to improved negotiating power (given the higher volume of product supply), timing of sales (through storage and deferred sale), geographical location of sales (transportation of the products to find new buyers and markets).

Quality of a product and its quality improvement activities is considered as a catalyst necessary to start an economic chain reaction (Deming 1986). Improving quality leads to decreased costs, fewer mistakes, fewer delays and better use of resources which in turn leads to improved productivity which enables a firm to capture more of the market which enables the firm to stay in business which

results in providing more jobs (Summers, 2006). Gupta (2004) alluded that quality is an important strategic dimension and a key competitive weapon that cannot be ignored by any corporation.

The Kenyan economy has remained predominantly agro-based since independence with the manufacturing sector remaining an integral part of the country's development strategies. The national agribusiness strategy (ROK 2012) emphasizes putting markets at the centre of all production, processing, product development and packaging as the first strategy capable to bring about a highly productive and efficient agribusiness sector, competitive both locally and internationally and able to absorb and creatively employ large numbers of the underemployed rural people, reduce poverty and food security.

There has been a lot government emphasis on agro-processing and value addition by micro and small farmer group enterprises (ROK 2008, ROK 2012) but limited research has been carried out on the role of quantity and quality in determining access to markets by these enterprises.

The research findings will be useful to policy makers regarding policy formulation for creating an enabling business environment, researchers will use the findings as a pointer for further research while SMES will use the findings to enhance business performance.

Scope of the study

This study was undertaken in Embu County, Eastern province, Kenya. The researcher selected Embu County as a study site because he has worked in the County and is thus familiar with the environment. The county is near the researcher's place of work and thus will lower the cost of research and there are many groups that have been facilitated to undertake agro- processing. The study area has both a rural and urban setting, thus the results obtained can be extrapolated to other Counties in Kenya. The research used a sample size of 44 drawn from a list of 88 Farmer groups undertaking agro- processing in the County. The study concentrated on farmer groups with a membership of between five and fifty. These enterprises are group owned and operating in semi-formal and informal sectors.

Literature review

Several researches have been undertaken by various scholars on factors influencing performance of MSEs as indicated in the literature reviewed. The following issues were cited namely role of quantity and quality of product in determining access to markets. Review of the various scholarly works done in various part of the world helped in unraveling the puzzle surrounding performance of MSEs. Figure 2.1 below is drawn on the basis of the forgoing constructs.

In view of the existing literature review, the research questions will be answered using the variables outlined in the conceptual framework below.

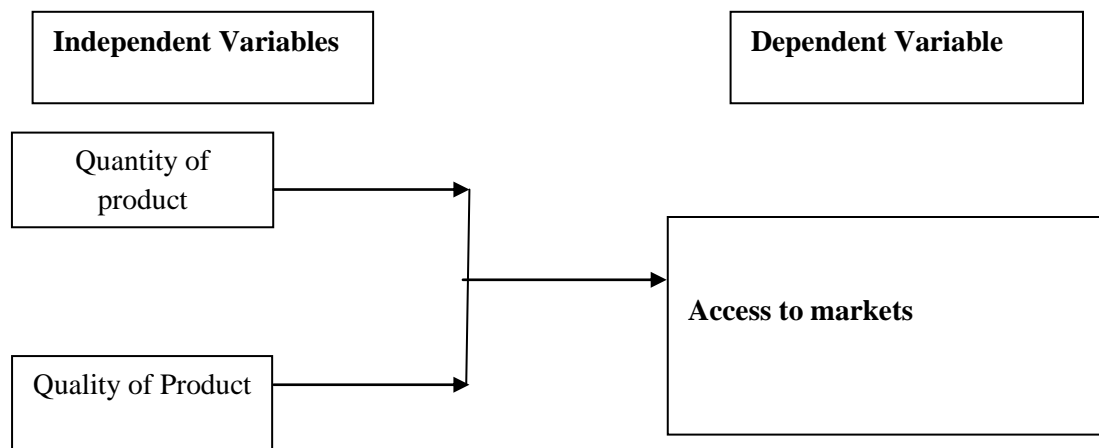


Figure 2.1: Conceptual framework

Access to Markets

The ability of an enterprise to effectively dispose its merchandise serves as an avenue for increased growth. Stable access to markets and marketing brokers, as well as the ability to overcome barriers to entry into a specific industry is crucial in enhancing entrepreneurship and MSEs success (Nasser et al, 2003; Rogerson, 2001a: 117; Finmark, 2006, 2003: 37) while inadequate access to profitable markets inhibits entrepreneurship (Clover and Darroch, 2004).

SMEs use the traditional ways of marketing (Indarti and Langenberg, 2004), which do not give rise to high levels of revenue and product recognition in the current competitive environment (Garikai, 2011). Limited access to export opportunities negatively influence growth of enterprises (Tustin, 2001). Geographical location of an enterprise has implications to access to markets and other factors such as labor, finances, infrastructure and distribution logistics (Berry, 2002).

Research design

This research used qualitative research design (Kothari, 2004). The researcher endeavored to describe the issues as they were presented by the respondents and applied qualitative techniques to analyze the data

Target population: The focus was on 88 agro- processing farmer groups in Embu County. The sampling frame comprised of all farmer groups undertaking agro-processing and value addition and with a membership of between five and fifty and have been in operation for a period not less than one year.

Sample size: The general statistical law of small numbers, which states that as ‘n’ approaches infinity, observations greater or equal to thirty (30) approach normal distribution, was considered (Wayne, 1991). A sample size of forty four (44) respondent groups (50% of the sample population) was selected using stratified random sampling. The farmer groups which were studied are those that have been in existence and in operation for more than one year.

Sampling technique and sample size: Stratified random sampling technique was applied to select the sample size from the population list (sampling frame) of eighty eight (88) agro-processing groups provided by the Ministry of Agriculture in the County. The strata were based on the type of produce

being processed namely; dairy and honey, fruits and vegetables, cereals, root crops and oil. Each stratum was selected with respect to its percentage in the population. After determination of the strata size simple random sampling was used to arrive at a sample of forty four (44) respondent groups. From each of the respondent groups, three officials ie the chairperson, the secretary, the treasurer or any other member of the committee were thoroughly interviewed to correlate the information provided.

Data collection methods

The researcher used a structured questionnaire, to collect primary data. The questions were structured in such a way that they will enable the researcher address the research objectives and the variables in the conceptual framework. The questions were pre-coded to enable computer analysis of the data obtained Kothari, (2004). The researcher works in Embu county and therefore to avoid bias, trained data collection assistants were recruited to administer the questionnaire.

Pre-testing of the instrument was carried out on four (4) farmer groups who were not included in the study sample. This helped in removal of vague questions, detection of deficiencies in the tool and assessed whether the method of data collection was appropriate (Mugenda and Mugenda, 2004). Pretesting of the tool and analysis of the data obtained helped the researcher gauge the reliability of the data that was to be collected.

Data analysis

The researcher endeavored to present data analysis and findings. Data analysis was guided by the research objectives. The data is presented in both descriptive and inferential statistics. Data is analyzed in terms of demographics, quality and quantity of products in relation to access to markets, and challenges of access to these markets.

Demographic analysis.

The respondents' demographic data was analyzed in terms of categories of farm produce processed, gender, age, marital status, level of education, legal form and age of business. Conclusions were derived and made based on the data that was obtained.

The conclusions indicated that most of the micro and small farmer agro-processing enterprise were based on cereals, root crops and legumes, are started and operated by people in the middle age bracket (40-60years) but few survive to the age bracket. The results further indicated that indicated that majority of the members and officials have only a primary school certificate which is the minimum basic education required to operate a business successfully. The data also shows that a majority of the group members engaged in agro-processing enterprises are females, the businesses have been in operation for over six years which past their incubation period, are all partnerships.

Types of market, quantity and quality specification

Table 4.1 points out that eighty-two point four (82.4%) percent of the respondents sell their produce to group members, fourteen point three (14.3%) sell to the local shops, two point four percent (2.4%) sell to the local community and only zero point eight percent (0.8%) to schools.

Table 4.1 Consumers * Meet Specification Cross tabulation

		Meet Specification		
		Yes	No	Total
Consumers Group Members	Count 82.4%	50	36	86
% Within Consumer		58.1%	41.9%	100.0%
Local Shops	Count 14.3%	15	19	34
% Within Consumers		44.1%	55.9%	100.0%
Schools	Count 2.4%	0	1	1
% Within Consumers		0%	100.0%	100.0%
Local community	Count 0.8%	3	0	3
% Within Consumers		100.0%	.0%	100.0%

Among the one hundred and twenty-four respondents, fifty-nine point three (59.3%) said that their consumers did not specify the quality of products they consumed, the rest forty-point seven (40.7%) specified quality. The indication here is that most local consumers are not keen on the quality of goods they consume. As a consequence these agro-processing groups lack the motivation to produce high quality goods that would enable them reach wider markets. The implication is that the entrepreneurs produce at a very small scale to only meet local market demand.

Table 4.2 Challenges to meeting quantities demanded.

Obstacles to meeting market demand						
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	N/A (Meet demand).	consumer 32	35.2	35.2	35.2	
	Seasonality of materials	of raw 45	49.5	49.5	84.6	
	Demand for keep fluctuating	customers 13	14.3	14.3	98.9	
	Inappropriate machinery	1	1.1	1.1	100.0	
Total		91	100.0	100.0		

The respondents stated seasonality of raw materials (49.5%) as their major hindrance to accessing markets, fluctuation of consumer demand as fourteen point three percent (14.3%) and inappropriate machinery as one percent (1%). Thirty-five point two percent (35.2%) met the customer demand in their local markets. These results imply that there is need for the agro-processing groups to procure and safely store produce to be processed at harvest time.

Summary

Discussions in chapter four revealed that quantity and quality of processed products access to markets have an influence on determining access to markets by micro and small farmer group food processing enterprises. An analysis of demographic data revealed that most of these enterprises are owned women majority of who have primary and secondary level certificates. Majority of these enterprises have been for over six years and have gone beyond incubation period. The entrepreneurs

operating these businesses have only the basic minimum level of education required to run a business which influences business performance. Further it has been deduced from the survey that these businesses operate at a very small scale, evidenced by their narrow consumer base, constituting mostly their group members. Further still, these consumers fail to specify the quality of goods they demand, which does not auger well with the agro-processing groups, as they lack motivation to produce high quality goods that would reach wider markets. It has also come out that one of major challenges facing these enterprises is seasonality of raw materials which limits them to ensure constant and adequate supply of processed products to the market.

Conclusions

From the results it shows there is need for the government to formulate an entrepreneurship policy that would attract educated out of school youth into micro and small food processing enterprises so as to broaden the skilled and innovative human resource base required to turn this subsector into a viable commercial enterprise. The policy should also lay emphasis on practical entrepreneurship education from primary, secondary through to tertiary education institutions.

Recommendations

There is a need for extension providers to sensitize the micro and small farmer group food agro-processing enterprises on the requirement and need to meet food safety standards if they were to access larger markets outside their localities. There is also need for the government to come up with a strategy to empower and sensitize processing groups on bulking and safe storage of produce after harvests. The government through the State Department of Cooperative in the Ministry of Industry and Enterprise Development should explore ways of merging these micro and small farmer food processing enterprises into larger commercial farmer organizations that access larger markets and benefit from economies of scales.

References

- De la Torre, A., Peria, M. & Musinga, M. (2008). Bank involvement in SMEs: beyond relationship lending. *The World Bank development economics research group & Latin America and the Caribbean region*.
- Hallberg, K. (2000). A market- oriented strategy for small and medium enterprises. International Finance Corporation Discussion Paper 40.
- Harper, D. A. (2003). *Foundations of Entrepreneurship and Economic Development*. London: Routledge.
- Hisrich, R. D., Peters, M. K. & Shepherd, D. A. (2009). *Entrepreneurship*. MacGraw- Hill Custom Publishing, Great Britain.
- Kalantaridis, C. (2004). *Understanding the Entrepreneur: An Institutional Perspective*. England: Ashgate.8
- Kirzner, I., 1997. Entrepreneurship Discovery and the Competitive Market Process: An Austrian Approach. *Journal of Economic Literature*.35(1), 60-85.
- Nafziger, E.W., 1997. *African Capitalism: A Case Study in Nigerian Entrepreneurship*, Hoover Institution Press, Stanford University, Stanford, California.

Republic of Kenya. (1986). Sessional Paper Number 1 of 1986. *Economic Management for renewed growth*. Nairobi: Government Printer.

Republic of Kenya. (1992). Sessional Paper Number 2 of 1992. *Small Enterprises and Jua Kali Development in Kenya*. Nairobi: Government Printer.

Republic of Kenya. (2005). *Economic Survey Nairobi*: Government Printer

Republic of Kenya. (2005). Sessional Paper Number 2 of 2005. *Development of Micro and Small Enterprises*. Nairobi: Government Printer

Republic of Kenya. (2008). *Eastern Province Horticulture and Traditional Food Crops*. Nairobi

Republic of Kenya. (2012). *National Agriculture and Livestock Extension Project Completion Report*. Nairobi.

CONTRIBUTIONS OF JUAKALI ASSOCIATIONS IN PROMOTING GROWTH OF MICRO AND SMALL ENTERPRISES IN BUNGOMA TOWN

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Abstract

In recent years, various local voluntary associations have emerged to advocate on behalf of micro and small businesses, capitalizing on the skills and strategies their leaders and members have acquired overtime to improve the management of their associations and enhanced benefits for their membership. These associations which have been formed are uniting and organizing the informal sector comprising of micro and small businesses in order to represent their members and other stakeholders including the government. The main objective of this study was to determine and examine the contributions made by Juakali associations on the promotion of enterprise performance in terms of growth among member enterprises. The study applied a descriptive survey design; the target population was 250 MSEs operating within Bungoma town who are members of the Juakali association. Data collected was mainly quantitative in nature and was appropriately analyzed using descriptive statistics. This study applied the simple random sampling technique to select 70 MSEs owner-managers. Also correlation analysis was used to analyze the relationship between the variables. The results of this study were presented in both tabular and graphic formats. The study concluded that protection of members from government harassment, improved access to property and infrastructure, provision and access to credit, improved access to business development services and creation of other services like healthcare facilities were significantly associated with the contributions of Juakali Associations. The study recommends that Juakali associations and membership should undertake capacity building on the group norms and changes in the business environment.

Key Words: Juakali Associations, Promoting, Growth, Micro and Small Enterprises.

Introduction

Interest in development of entrepreneurship and small enterprise in Kenya, gained momentum as a possible remedy to the stagnation of economic development and the unemployment problem since the late 1960s and the early 1970s. Although there were attempts by the Government to develop entrepreneurship soon after independence, the International Labour Organization report of 1972 highlighted the absence of an enterprise culture in Kenya's indigenous inhabitants. It was noted that most of the businesses were owned by non-Kenyans of Asian or European origin with only a few African business men most of who could be found in the informal petty trade sector.

In recent years, encouraging examples of local voluntary associations have emerged to advocate on behalf of informal businesses and encourage the growth of the sector. Several of these associations have capitalized on the skills and strategies their leaders have acquired over time. They have subsequently improved the professionalism of their organizations and enhanced benefits for their membership. The associations serve to protect their members from government harassment, to improve access to business services, and to create other benefits, such as healthcare facilities, credit facilities, common utilities, cost saving services and provision of markets and market information. Yet perhaps the most important function of the associations has been to unite and organize the

informal sector, giving it a single clear voice that truly represents the JuaKali to the Kenyan government.

Sessional Paper No. 2 of 1992 on Small enterprises and Juakali Development in Kenya provided a comprehensive framework for the promotion of small enterprises and Juakali Development in Kenya. It was geared towards improvement on policy and regulatory environment, gender specific issues, policy measures to improve access to credit facilities and measures to improve provision of non-financial promotional programmes. To that end MSE Act was passed in 2012 with an aim of revolutionizing the provision of credit to the sector by regulating the registration and operation of financial institutions involve in extending financial services to MSE including Micro Finance Institutions. Sessional Paper No. 2 of 2005 on development of micro and small enterprises for wealth creation and poverty reduction, the government was to encourage universities, polytechnics, technical institutions and other MSE support organizations to develop certified demand driven courses on entrepreneurship and business management in order to improve and promote the acquisition of entrepreneurial development programmes in schools and other training institutions in order to develop a widespread enterprise culture.

Many Kenyans consider the JuaKali to be the predominant – and most important – economic sector in Kenya, the one in which they all work. This is not far from the truth. To protect themselves from government abuse and improve the conditions under which they operate, JuaKali businesses have banded together and formed their own associations. These associations, of varying size and institutional capacity, play a key role in pushing for measures that enhance market functions and provide direct benefits to individual members. Currently, there are over 600 registered JuaKali associations in Kenya, with a further 300 JuaKali associations awaiting registration (MOL, 2012). These associations work in the community to identify problems, propose solutions, and act on them. Although each association is different and works at the local level to serve the needs of its members, they serve a number of basic functions towards the growth of micro and small enterprises.

Statement of the Problem

Realization of full potential of the MSE sector is key to achieve the aspirations of Kenya Vision 2030. This can only be true if the country address MSEs competitiveness and its integration within the national economic grid. Most informal sector associations in Kenya, however, do not have the capacity to address the problems that their members face. Many exist in name only, hold infrequent meetings, and do not keep proper records of their members. In addition, their personnel lack leadership and financial skills. The MSEs association including Juakali associations are expected to play major role and this study is being conducted to identify these roles. Juakali associations act as a bridges between developing agencies and the MSE, but the government has not recognize and taken a keen interest on the role played by them.

Research objective.

The research objective was to determine as to whether Juakali associations has resulted in improved enterprise performance in terms of growth among member enterprises.

Micro and Small Enterprises.

To understand the informal sector situation in Kenya we have to put it in the particular context of the Kenyan polity/economy. According to the Micro and Small Enterprise Act 2012:

i) Micro enterprise means a firm, trade, service, industry or a business activity whose annual turnover does not exceed five hundred thousand shillings, which employs less than ten people and whose total assets and financial investment shall be as determined by the Cabinet Secretary from time to time. They includes; the manufacturing sector where the investment in plant and machinery or the registered capital of the registered capital of the enterprise does not exceed ten million shillings, the service sector and farming enterprise where the investment in equipment or registered capital of the enterprise does not exceed five million shillings.

ii) Small enterprise means a firm, trade, service, whose annual turnover ranges between five hundred thousand and five million shillings, employs between ten and fifty people, and whose total assets and financial investment shall be as determined by the Cabinet Secretary from time to time, and includes; the manufacturing sector, where the investment in plant and machinery as well as the registered capital of the enterprise is between ten million and fifty million shilling; and service and farming enterprise, where the equipment investment as well as registered capital of the enterprise is between five million and twenty million shillings.

The Micro and small Enterprise in Kenya plays an important role in the economic development of the country and provide one of the most important prolific sources of employment creation, income generation, poverty reduction and development of industrial base. According to the Economic Survey published by Kenya's Central Bureau of Statistics in 2012, employment within the sector increased from 7.942 million persons in 2008 to 9.272 million persons in 2011, and to 10.5 million people in 2012 accounting for 82.5% of total persons engaged in employment outside small scale agriculture and pastoralist activities. The sector also created 591.4 thousand new jobs in 2012 compared to 587.2 thousand jobs created in 2011 constituting 89.7% of all the new jobs created in 2012. Despite role played by the sector, it continues to experience many binding constraints that have inhibited the realization of its potential. The sector contributes 20% of the gross domestic product and provides goods and services, promotes creativity and innovation, and enhances entrepreneurial culture. (Economic Survey 2013)

Associations

According to The Micro and Small Enterprise Act 2012, "association" means a group of not less than thirty five micro and small enterprises registered under this Act for the purpose of accessing common services and mobilizing resources for the development of aforementioned enterprises. Currently (2009), there are about 600 JuaKali Associations consisting of more than 100,000 member artisans spread across the country (again an element of decentralization). Representative associations of entrepreneurs and enterprises have an important part to play in providing solidarity for their members, as well as promoting advocacy and voice of issues of particular interest to members. When combined with apex organizations, such as national associations of employers, the representative associations can influence policies affecting their sector, and provide a range of business advisory and support services for members.

Enterprise development does not take place in isolation. It takes place within and alongside a whole series of public, private and voluntary policies, structures, organizations, institutions and initiatives, which both help and hinder the establishment and growth of enterprises. In recent years, however, there have emerged encouraging examples of local voluntary associations becoming true advocates on behalf of informal businesses. While these associations faced tremendous disadvantages in establishing a basic level of organization, they are the best qualified to speak for their membership. From the analysis, the following conceptual framework was developed by the researcher to determine the challenges and how they impact or influence small and micro entrepreneurs:

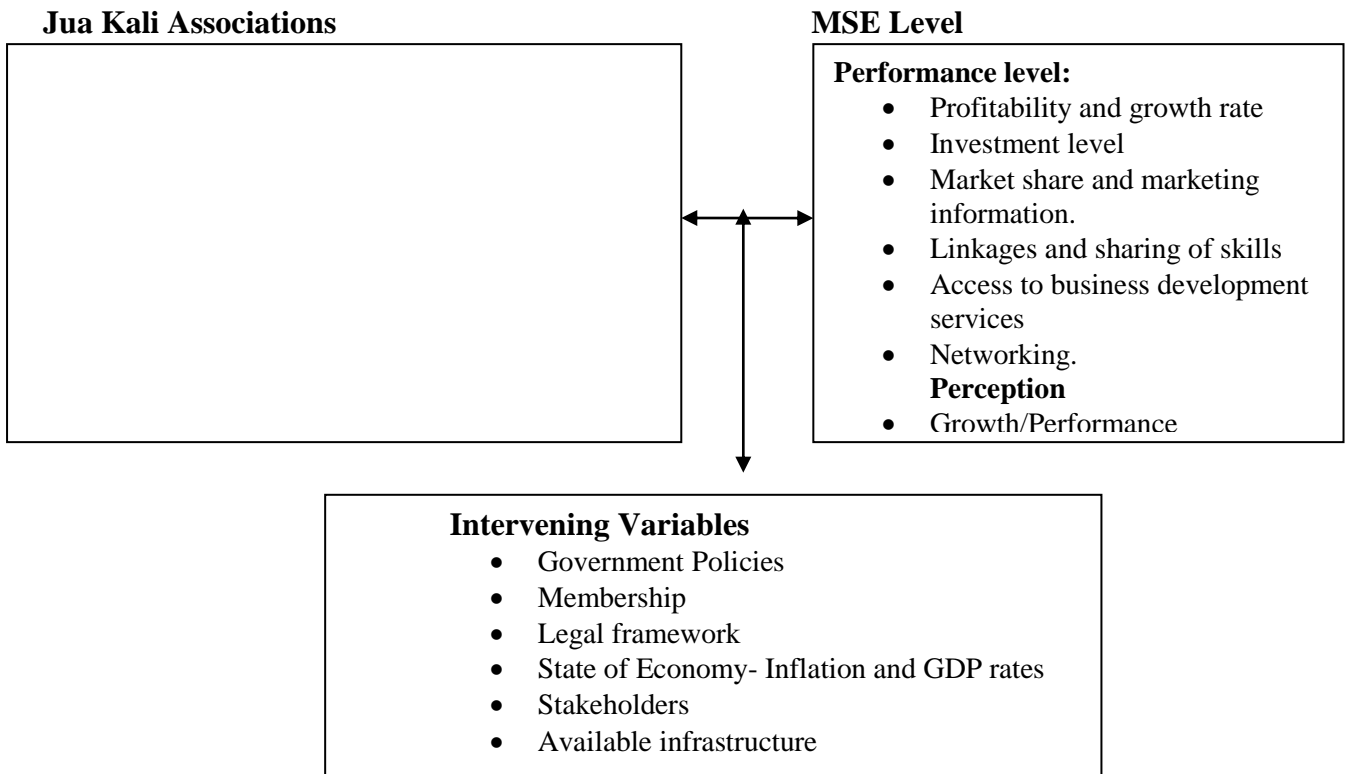


Figure 1: Conceptual Framework

Research Methodology

Survey research design was adopted for this study. This design is a self-report study which requires collection of quantifiable information of a sample (Kothari,2004) and seeks to obtain information that describes existing phenomena. This research design had been chosen because the objectives of the study required an in-depth understanding of the roles of Juakali Associations towards the growth of micro and small enterprises

Model Specification

Entrepreneurial growth level is a function of support services + a + e

Where a= the Constant

e = an error term

$$\text{Entrepreneurial growth level } Y_1 = a + B_1X_1 + B_1X_2 + \dots + B_nX_n + e$$

$$= a + B_2X_1 + B_2X_2 + \dots + B_nX_n + e$$

B1, B2, and Bn refer to the controlling variables on which the entrepreneurs have no power to change. Example the government and other stakeholders support.

X1, X2 and Xn are the independent variables representing the contributions by the Juakali associations on the growth. Examples are protection of members from government harassment, improved access to property and infrastructure, provision and access to credit, improved access to business development services and creation of other services like access to credit, provision of money saving activities, common utilities, provision of healthcare facilities, provision of markets and market information.

Study Population and Sample

The study constituted an analysis of the role of BungomaJuakali Association toward the growth of enterprises whose owners are its members. This formed the target population for study. According to Mugenda and Mugenda (2003) the target population is defined as that population to which a researcher wants to generalize the results of a study. Members were conducting any form of trade. These are manufacturers, trade or service providers. The population of the sample composed of men and women of all ages. Initial survey established the ownership and membership towards the association. Survey took into consideration of a sizeable number of entrepreneurs which formed the sample.

Sampling Techniques and Sample Size

A simple random sampling technique was adopted in order to come up 70 entrepreneurs who constitute the sample under study from the 250 members of the association. This method provided units for observations to represent the entire population under study and ensured that each member of the target population had an equal chance. The selections of the tools applied are guided by the limitations of the study as well as the objectivity of the study.

Data Collection Techniques

Data was collected using both primary and secondary sources. Primary sources were done through conduction of the questionnaires. Questionnaires comprise of both open and closed-ended questions and were conducted on one to one interview between the researcher and the respondents. Questionnaires are collection of items to which a respondent is expected to react to usually in writing (Oso and Onen, 2005).Secondary data were collected by examining publications both published materials in micro enterprise documents, workshop reports , journal, academic materials and other published books.

Data Processing and Analysis

Data analysis is examining what has been collected in a research and making deductions and references Kombo (2004).The data so analyzed seeks to fulfill research objectives and provide answers to research objectives Bryman and Cramer (1997).The data generated from questionnaires are recorded, coded, numbered and classified under different variables for easy identification and then summarized in an answer summary sheet using SPSS. Measures of central tendency are used to describe groups of data and chi-square test used to analyze data. Quantitative data that are derived from the questionnaires responses can be analyzed using Pearson`s product moment correlation techniques from the SPSS package. The research findings are presented in the form of tables, frequency tables and graphs while the qualitative aspects can be presented as text.

Major Findings

Ownership and Management.

The research sought to determine the ownership and management of the enterprises covered in the sample. The data was collected using closed ended questions to gather general information about the respondents. This was analyzed through frequencies, percentages and graphs. Within the sample of the 70 respondents we had both men and women entrepreneurs. It`s important to note that during the research, it was confirmed from the respondents that having their businesses run by the employees in

their absence posed a great threat to the business growth since the employees could not be fully trusted in terms of accountability and sound governance.

Table 1.1 No. of respondents in the sample

Sex/Validity	Frequency	Percentage	Cumulative %
Female	22	31.4	31.4
Male	48	68.6	100
Total	70	100	

Return Rate

This is the proportion of questionnaires that were returned and filled during the study in relation to total number of questionnaires expected to be filled. In this study, the research required administration of questionnaires to seventy respondents who were members of Bungoma Juakali Association. Not all the questionnaires were administered and completely filled hence the return rate was not 100% as expected but 93% return rate. These respondents had their shops closed or had only an employee available at the time of conducting the interview.

Table 1.2 No. of Questionnaires returned

Sex/Validity	Frequency	Percentage	Valid %	Cumulative %
Female	20	31	31	31
Male	45	69	69	100
Total	65	100	100	

Education Level of the Respondents

The research was also conducted to indicate the level of education of the respondents. The research revealed that a large number of respondents are averagely educated and therefore informed. From the data it's revealed that 36% are of secondary level, 16 % have college level and 6% are undergraduates. Only 7% of the respondent had not completed primary education and 3% had no formal education

Duration respondents have been in business

The findings received indicated that 33% of the business is aged between 6-10 years, 20% less than five years old and cumulatively 40% are over 10 years old.

Duration of respondents being members of the association.

From the findings below its noted that majority of the membership is not very old in the association. This may indicate an influx of membership due to some motivating factors from the association. It can also be attributed to the important roles played on the membership as well as their businesses. It can be seen that 67% of the respondent are not more than 10 years old in the association.

Major findings on contributions of the JuaKali association to the enterprises.

The research also sought to reveal major contributions of the Juakali association towards and small enterprises owned by the members. Information was sought on protection of members from government and benefits received by the respondents which have resulted into improved enterprise performance in terms of growth.

Discussions

The objective of this study was to determine as to whether Juakali associations has resulted in improved enterprise performance in terms of growth among member enterprises. The findings of the study indicated that members of the associations have chances of having their enterprises experienced improved performance. This is in terms of quality products and services, improved turnover, proper management, increased market and reduces costs on certain services. Some of these issues may not be addressed as individual enterprises but only through the association for example access to property and infrastructure or use of a common facilities whose price may be beyond a single entrepreneur. Therefore the association is there to improve the performance of individual member enterprises. But it is widely recognized that micro and small enterprise profit in developing countries is very challenging to measure (Meads 1994, Daniels 2003).

There is a big significance of being a member of the Juakali association. The significance here is measured by the membership and activeness of being a member. You must be a bona fide member in terms of registration, monthly contribution and meetings attendance. Most of the respondents admitted that the more you are active the more your enterprise benefit from the role of Juakali association. From the study, we discovered that education level, years of membership and even years of being in business are not barriers to access of services from the association.

A part from independent variables indicated, it was realized that Juakali association plays a major role in the lives of majority of entrepreneurs. They transform the thinking and attitudes of the entrepreneur. Wide and large they also offer additional services to micro and small enterprises like, provision of a wide range of information and services nobody else can easily provide in a range of communication methods, provide specialist advice particularly of technical or legal and commercial nature to members at no cost, undertake specific projects which benefit members or the industry as a whole, facilitate the opportunity for members to network with their peers at conferences, exhibition and other events whilst they are learning about issues which may affect their businesses, provide immediate updates regarding changes in industry technical standards, policy and news which are disseminated to members and offer of commercial services to members through negotiated deals with approved suppliers.

Business is about risk-taking; collective action is about risk alleviation. Through collective action, business associations create additional competitive advantages and a better business environment to improve economic performance. Most Juakali associations appreciate the benefits of good association governance and member services, and have taken action to improve in these areas. Moreover, they have shown remarkable success to date in mounting a united grassroots advocacy campaign on behalf of members

Conclusions

The Kenyan informal sector usually operates on small-scale, locally and at a subsistence level. They have fewer employees (especially home-based enterprises), they operate for a shorter period, and have poor access to water and electricity and few sell outside the establishments where the

entrepreneurs live. (World Bank, 2006 p.32). Most enterprises are still complacent with this scenario. The association is changing all these. For the business associations, there is a need to further develop their services and better promote themselves so that members can understand the range of benefits that are on offer to them as entrepreneurs. It's clear therefore that association plays important role in the improvement of performance of micro and small enterprises.

Recommendations

The researcher recommends that:

More should be done to improve on training and mentoring through designing of an Enterprise Development Training programme targeting members of Juakali associations

Now that The Micro and Small Enterprise Act, 2012 is now in place, mechanisms of delivering the policies affecting the sector should be immediately actualized.

There should be more collaboration between the various association affecting different sectors. This will enable the MSEs achieve a better and bigger effort in their marketing of their products, improved competition and promotion of technological exchange and improved skills on individual members.

There should be more focus on the secondary education where technical and vocational training should be done to develop artisans, entrepreneurs and managers for the informal sector in both rural and urban centers.

Linkages between the MSEs should be developed especially within the associations to enable better operation, coordination and collective benefits.

BDS providers should link up, develop products and mechanisms to ensure that their services are accessed and taken up by entrepreneurs who are members of the association.

Support organizations should identify market segments and market opportunities and collaborate with Juakali associations so that entrepreneurs can access these more lucrative markets.

Networking events for entrepreneurs should be established by the associations to enable them to share experiences and marketing information.

There is a need for structures and safe and secure market areas through which entrepreneurs of associations can be able to market their products and services, e.g. incubators, display venues, market stall and trade fairs.

There is need for the government to work towards streamlining coordination of institutions implementing MSE activities. This will promote institutional structures necessary for effective policy design, implementation and monitoring of MSE activities for the benefit of the associations and entrepreneurs as well.

References:

Government of Kenya: *The Micro and Small Enterprise Act 2012*: Government Printers

Government of Kenya: *Sessional Paper No. 2 of 1992 on Small Enterprise and Jua Kali Development in Kenya*

Government of Kenya: *Sessional Paper No. 2 of 2005 on Development of Micro and Small Enterprise for Wealth Creation for Poverty Reduction*

International Labour Organization, (2006) *“Employment, Incomes and Equity: A Strategy for Increasing Productive Employment in Kenya”* (Geneva: ILO,).

Kenneth King: *Jua Kali Kenya (1996): Change and Development in an Informal Economy, 1970-95* (London: James Curry, 1996) 25.

Kenneth King & Simon McGrath (1999):-*Enterprise in Africa- Between Poverty and Growth*. Intermediate Technology Publications Ltd, London –UK

Kenya National Bureau of Statistics: *Economic Survey 2009*, Government Printers- Nairobi

Kothari C.R (2005): *Research Methodology: Methods and Techniques*. Daryaganj, New Delhi; New Age International(P) Ltd. thari C.R (

Nteere Kennedy (2012), *Entrepreneurship- A global Perspective*. Kenhill Consultants, Nairobi

Olive Mugenda & Abel G. Mugenda(2003):- *Research Methods- Quantitative and Qualitative Approaches*- Acts Press, Nairobi

Oso W.Y and Onen. D (2005): *A General Guide to Writing Research Proposal and Report .A Handbook for Beginning Researchers*. Option press and Publishers, Kisumu

CHALLENGES EXPERIENCED BY MICRO FINANCE INSTITUTIONS IN GIVING FINANCIAL CREDITS TO MICRO SMALL ENTERPRISES IN THE INFORMAL SECTOR. A SURVEY OF MFIs IN KISUMU CITY, KENYA

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Abstract

Microfinance is defined as a development tool that grants or provides financial services and products such as very small loans, savings, micro-leasing, micro-insurance and money transfer to assist the very or exceptionally poor in expanding or establishing their businesses. It is mostly used in developing economies where Micro Small Enterprises(MSEs) do not have access to other sources of financial assistance (Robinson, 1998).This paper tends to analyse challenges experienced by Micro Finance Institutions(MFIs) in giving financial credits to Micro Small Enterprises to the informal sector, in kisumu city, Kenya. Specifically, the study sought to: establish effects of MFIs in the empowerment of MSEs in Kisumu city, determine practices employed by MFIs in offering financial credits to MSEs in Kisumu city and, to establish challenges experienced by MFIs in extending financial credits to MSEs in Kisumu city. The study adopted a descriptive study approach since this allowed for the study to define variables as they are on the challenges experienced by MFIs in extending financial credits to local MSEs in the informal sector. Kisumu city has 1200 registered MSEs, who seek financial credits from 40 available MFIs. By use of simple random sampling, data captured were presented in both figures and tables. Despite their immense contributions in facilitating financial credits to MSEs, MFIs are faced with various challenges, among them: incapacity to extend the same, high rate of loan defaulters, stringent MFIs set collaterals to the disadvantage of majority MSEs. The study recommends; enforcement of collaterals to cater for loan defaulters, MFIs to extend trainings to MSEs so as to make realizable investments. The study was however met with the following resistance: un-willingness of research informants to attend to the research instrument due to fear of the unknowns. This study is significant to major stakeholders with insights on how to improve on the extension of financial credits to MSEs, and how effectively they can manage loan defaulters. For the academicians, the findings of this study could act as abasis for future reference.

Key Words: Micro Finance, MSEs, Entrepreneurship and Sustainable Development

Introduction

The significance of Kenya's micro and small enterprises (MSE) activity has continued to grow since the sector was first brought to the limelight in 1972, (ILO, 1972) as the only viable means in tackling poverty and unemployment. This can only be achieved once Microfinance institutions (MFIs) avail affordable financial credits to the informal sector.

The informal sector is unorganized, unregulated and mostly legal, but unregistered. As observed by Todaro (1997), the massive additions to the urban labour force by this sector do not show up in formal modern sector unemployment statistics. The bulk of new entrants to the urban labour force create their own employment or work for small scale family owned enterprises as a means to eradicating poverty by enhancing sustainable development. Hence according to Sethuraman (1981) the informal sector consists of small scale units engaged in production and distribution of goods and

services with the primary objective of generating employment and income, notwithstanding the constraints on capital, both physical and human, and the technical-knowhow.

According to the Poverty Reduction Strategy Paper (PRSP) of 1999, a large number of Kenyans derive their livelihood from the MSEs. Therefore, development of this sector represents an important means of creating employment, promoting growth, and reducing poverty in the long-term. However, in spite of the importance of this sector, experience shows that provision and delivery of credit and other financial services to the sector by formal financial institutions, such as commercial banks has been below expectation. This means that it is difficult for the poor to climb out of poverty due to lack of finance for their productive activities. Therefore, new, innovative, and pro-poor modes of financing low-income households and MSEs based on sound operating principles need to be developed (Adera, 1988).

The Government of Kenya recognizes that greater access to, and sustainable flow of financial services, particularly credit, to the low-income households and MSEs is critical to poverty alleviation. Therefore, an appropriate policy, legal and regulatory framework to promote a viable and sustainable system of microfinance in the country has been developed via the proposed Deposit Taking Micro Finance Bill (Basu, 1998).

Research Problem

Studies have been carried out in this field but they have all focused on different issues. Wanjiru (2000) and Agala-Mulwa (2002) have focused on issues affecting staff productivity and job satisfaction in Micro Finance Institutions. Rukwaro (2001) carried out a survey on credit rationing by Micro Finance Institutions and its influence on the operations of small and micro enterprises. The study carried out by Mokogi (2003), Economic implications of lending of Micro Finance Institutions on MSEs, however little has been done on Challenges Experienced by Micro Finance Institutions in giving Financial Credits to Micro Small Enterprises in the Informal sector. a Survey of MFIs in Kisumu city, hence why to undertake the study.

Study Objectives

This paper analysed challenges experienced by Micro Finance Institutions (MFIs) in giving financial credits to Micro Small Enterprises to the informal sector, in Kisumu city, Kenya. Specifically, the study sought to: establish effects of MFIs in the empowerment of MSEs in Kisumu city, determine practices employed by MFIs in offering financial credits to MSEs in Kisumu city and, to establish challenges experienced by MFIs in extending financial credits to MSEs in Kisumu city.

The Concept of Microfinance

Microfinance is not a new development. Some developed countries as well as developing countries particularly in Asia have a long history of microfinance. During the eighteenth and nineteenth centuries, in a number of European countries, microfinance evolved as a type of the informal banking for the poor. Informal finance and self-help have been at the foundation of microfinance in Europe. The early history of microfinance in Ireland can be traced back to 18th century. It is a history of how self-help led to financial innovation, legal backing and favourable regulation, and creating a mass microfinance movement.

Microfinance is defined as a development tool that grants or provides financial services and products such as very small loans, savings, micro-leasing, micro-insurance and money transfer to assist the very or exceptionally poor in expanding or establishing their businesses. It is mostly used in

developing economies where MSEs do not have access to other sources of financial assistance (Robinson, 1998). In addition to financial intermediation, some MFIs provide social intermediation services such as the formation of groups, development of self confidence and the training of members in that group on financial literacy and management (Ledgerwood, 1999).

Evolution of the Micro Finance sector in Kenya

Microfinance is not a new concept. It dates back in the 19th century when money lenders were informally performing the role of now formal financial institutions (Germidis et al., 1991). The Kenyan Micro finance sector is one of the oldest and most established in Africa. It can be traced back to the early 1970's after the seminal ILO report in Kenya in 1972 (ILO, 1972, AMFI, 2003). The demand for Microfinance services continues to grow every day. The formal Microfinance Industry serves about 3 million clients through 3 main segments (NGOS, SACCOS and banks). The banking industry only serves about 10% of the population of people who need financial services. The Microfinance industry serves only a third of the remaining 90%. So the unmet demand for financial services is growing by the day.

Micro-credit programs are able to reach the poor at affordable costs and can thus help the poor become self-employed (Concern Worldwide, 1999). Critics argue that the small enterprises supported by micro-credit programs have limited growth potential and so have no sustained impact on the poor. Instead, they contend, these programs make the poor economically dependent on the program itself (Bouman and Hospes 1994).

Entrepreneurship

According to Hisrich, et.,al(2005), in almost all of the definitions of entrepreneurship, there is agreement that we are talking about a kind of behavior that includes: initiative taking, the organizing and reorganizing of social and economic mechanisms to turn resources and situations to practical account, the acceptance of risk or failure.

Entrepreneurship is the dynamic process of creating incremental wealth. The wealth is created by individuals who assume the major risks in terms of equity, time and/or career commitment or provide value for some product or service. The product or service may or may not be new or unique, but value must somehow be infused by the entrepreneur by receiving and locating the necessary skills and resources.

Sustainable Development

Sustainable development is a complex and evolving concept. Many scholars and practitioners have invested years in trying to define sustainable development and envisioning how to achieve it on national and local levels. Sustainability is fundamentally about adapting to a new ethic of living and creating a more equitable and just society through the fair distribution of social goods and resources in the world (Darlow, 1996). It is a concept based on integrating socio-cultural, environmental and economic considerations (Rao, 1996)

Key Challenges affecting MFIs in the execution of their mandate to informal enterprises in Kisumu city

As in many other countries in sub-Saharan Africa, the performance of formal financial institutions and credit programmes in Kenya in terms of alleviating the financial constraints of the smallholder sector has met a lot of criticism. The criterion of creditworthiness, delays in loan processing and

disbursement, and the government approach to preferential interest rates, resulting in non price credit rationing, have limited the amount of credit available to smallholders and the efficiency with which the available funds are used (Atieno,1994).

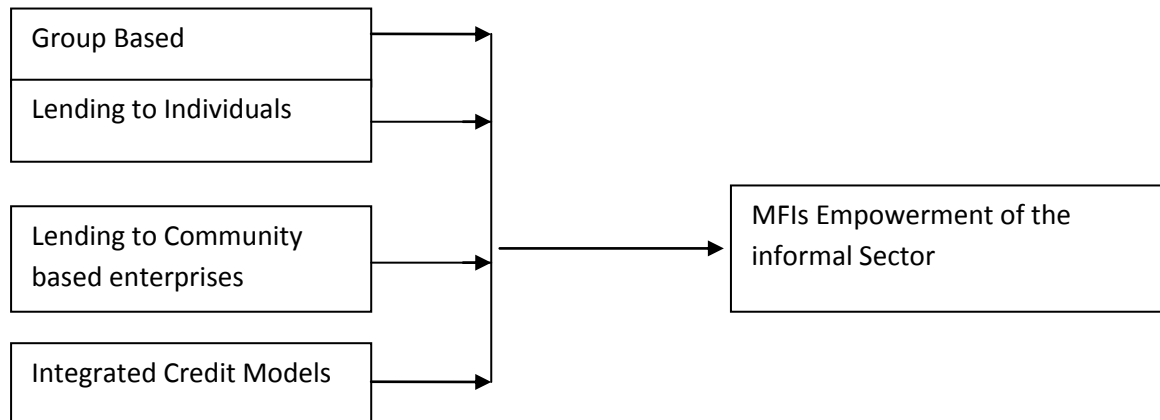


Figure1: Conceptual Framework

Methodology

The study adopted a descriptive study approach since this allowed for the study to define variables as they are, on the challenges experienced by MFIs in extending financial credits to local MSEs in the informal sector in Kisumu city. According to statistics available, Kisumu city has over 1200 registered MSEs, who seek financial credits from 40 available MFIs. In achieving the study objectives, all the enlisted MFIs were included in the sample, who were then systematically randomly sampled.

Results

One of the most important challenges facing Kenya today is creation of sufficient employment opportunities. However, the MSE sector is expected to generate significant employment opportunities given affordable financial credits. According to Economic Survey done in 2008, employment in the public sector declined by 3.4% in 2007. While MSEs have tended to absorb large numbers of unemployed people, they themselves are not able to generate reasonable remunerated long-term jobs.

The microfinance sector in Kenya has faced a number of constraints that need to be addressed to enable them to improve outreach and sustainability. The major impediment to the development of microfinance business in Kenya is lack of specific legislation and set of regulations to guide the operations of the microfinance sub-sector. Microfinance institutions in Kenya are registered under eight different Acts of Parliament namely: The Non Governmental Organizations Co-ordination Act, The Building Societies Act, The Trustee Act, The Societies Act, The Co-operative Societies Act, The Companies Act, The Banking Act and The Kenya Post Office Savings Bank (KPOSB) Act. Some of these forms or registrations do not address issues regarding ownership, governance, and accountability. They have also contributed to a large extent to the poor performance and eventual demise of many MFIs because of a lack of appropriate regulatory oversight. This has had a bearing on a number of other constraints faced by the industry, namely: diversity in institutional form, inadequate governance and management capacity, limited outreach, unhealthy competition, limited access to funds, unfavourable image and lack of performance standard. (Besley, 2004)

Effects of MFIs in the Empowerment of MSEs in Kisumu city

Micro finance institutions are set up in order to finance small and micro enterprises, which are excluded from traditional banking practices (Dondo, 1999). NGOs and the government have in the past sought to reduce poverty by intermittently providing the poor with needed goods and services. The failure of these programs to address the root of the problem brought the need to confront poverty on a sustained basis by enabling affordable financial environment (Khandker, 1998).

The impact of MFIs on offering credit can be economic, socio-political or cultural and personal or psychological. A number of studies have been carried out to ascertain the impact of credit programs offered to the informal sector. Some of the variables that have been investigated as indicators are improved or increased production, fixed assets, working capital, inventory, credit availability and its use, level of purchases and sales, net profit, organization of the work place, locale improvement, additions to work place that enhance productive capacity (Otero, 1991).

Practices Employed by MFIs in Offering Financial Credits to MSEs in Kisumu city

There are four major approaches for providing credit to small enterprises in Kenya: group-based minimalist credit schemes, lending to individuals, lending to community based enterprises, and integrated credit models (Aleke Dondo, 1994). According to Bennett (1994) and Ledgerwood (1999) MFIs offer their clients who could be below or slightly above the poverty line a variety of products and services the most prominent being financial.

Table: 1 Practices adopted by MFIs in extending Financial Credits to the Informal Sector in Kisumu City

Practises	Number of MFIs	Percentage
Group Based	16	40.0
Lending to Individuals	04	10.0
Lending to Community Based	14	35.0
Integrated Credit Models	06	15.0
TOTAL	40	100

Findings in Table 1 indicates that majority of MFIs in Kisumu city, prefer giving financial credit to members of the informal sector who are group based. This is clearly depicted by 16 (40%) of the study respondents. However, some MFIs prefer the Integrated Credit Models as a measure for consideration before extending financial credits to beneficiaries in the informal sector.

Conclusion

Despite their immense contributions in facilitating financial credits to MSEs, MFIs are faced with various challenges, among them: in-capacity to extend the same, high rate of loan defaulters, stringent MFIs set collaterals to the disadvantage of majority MSEs. Notable disadvantages of the formal financial institutions are their restriction of credit to specific activities, making it difficult to compensate for losses through other forms of enterprises, and their use of traditional collateral like land. There is need for a broad concept of rural finance to encompass the financial decisions and options of rural economic units, to consider the kind of financial services needed by households, and which institutions are best suited to provide.

Recommendations

MFIs in Kenya need to be supported by all the major stakeholders in enacting legislation which could mandate them to fully engage in offering affordable financial credits in both the formal and informal sectors. This once done, could put Kenya in the same levels as those other countries which have excelled in supporting entrepreneurship. The study recommends; enforcement of collaterals to cater for loan defaulters, MFIs to extend trainings to MSEs so as to make realizable investments.

References

- Adera, A. (1988). "Agricultural Credit and the Mobilization of Resources in rural Africa." *Savings and Development* XI(1): 29-73.
- Agala-Mulwa, J. (2002), "A survey of the relationship between training and development programs and job satisfaction in micro finance institutions in Nairobi", Unpublished MBA Project, University of Nairobi
- Aryeetey E., H. Hettige, M. Nissanke and W. Steel. (1997). "Financial market integration and reforms in Ghana, Malawi, Nigeria and Tanzania". *World Bank Economic Review*, vol. 11, no. 2: 195–218
- Aryeetey, E. and C. Udry. 1997. "The characteristics of informal financial markets in sub-Saharan Africa". *Journal of African Economies*, supplement to vol. 6. Number 1.
- Aryeetey, E. and F. Gockel. 1991. "Mobilising domestic resources for capital formation in Ghana: The role of informal financial sectors". AERC Research Paper No. 3.
- Atieno, R. 1994. "Institutional credit lending policies and the efficiency of resource use among small-scale farmers in Kenya". *Studien zur Ländlichen Entwicklung*, number 46, LIT Verlag Münster-Hamburg.
- Basu, K. (1989), "Rural credit markets: the structure of interest rate, exploitation and efficiency", in Barkhan, P. (Eds), *The Economic Theory of Agrarian Institutions*, Clarendon, Oxford,
- Bouman, F. J. A. and Hospes, Otto. Eds. (1994), *Financial Landscapes Reconstructed: The Fine Art of Mapping*. Boulder, Colo.: Westview Press.
- Besley, T. (2004), "How do market failures justify interventions in rural credit?", *The World Bank Research Observer*, Vol. 9 No.1, pp.27-47.
- CGAP (2003), Focus Paper number 24: "Is Microfinance an Effective Strategy to reach the Millennium Development Goals?" Consultative Group to Assist the Poorest, pp 1-2
- Daniels, L., C. Donald Mead and M. Musinga. 1995. "Employment and income in micro and small enterprises in Kenya. Results of a 1995 survey". KREP Research Paper No. 26. Nairobi
- Dondo, A.C., (1999), "The status of Micro finance in Kenya. Paper presented at the Annual conference on "New development Finance", 27 September to 1 October 1999", Goethe University of Frankfurt

- Germinis et al. (1991). Financial systems and development: What role for the formal and informal sector? OECD development centre, Paris
- Hiderink H., Lucas P. Kok M. 2009. Beyond 2015: Long term development and millennium development goals. Netherlands environmental assessment agency
- Hisrich, Robert D., Michael P. Peters and Dean A. Shepherd, (2005). Entrepreneurship. 6 ed. New York: McGraw-Hill Irwin, 2005.
- (ILO) International Labor Organisation (1972), "Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya". Geneva: International Labour Office.
- Khandker, Shahidur R. (1998), Fighting poverty with micro-credit: experience in Bangladesh. Oxford, University Press.
- Kimandi, F.R. (2002), "A survey of the segmentation practice of Micro Finance Institutions in Kenya", Unpublished MBA Project, University of Nairobi
- Lawson, R.M. (2005) African Entrepreneurship and Economic Growth, a case study of the fishing industry of Ghana. Accra: Ghana Universities Press.
- Mokogi, J. G. O. (2003), "Economic Implications of lending of Micro finance institutions on MSES" Unpublished MBA Project, University of Nairobi.
- Mudiri, J.L (2003), "Credit Management Techniques applied by financial institutions offering Micro credit in Kenya", Unpublished MBA Project, University of Nairobi.
- Otero, Maria (1991), The Solidarity Group Concept: Its Characteristics and Significance for Urban Informal Sector Activities. ACCION International.
- Patterson, Okafor & Williams (2006) "Globalization and employment Generation" Evaluating the impact of trade on Aggregate employment in Nigeria's In Industrial Sector" NES 2006 Annual Conference Nigeria.
- Pedesaan dan Kebijakan Pengembangannya(2006) Dalam Jurnal Analisis Kebijakan Pertanian. Volume 4 No. 2 Juni : 146 – 164.
- Republic of Kenya. 1994. 1994/96 Development Plan. Nairobi: Government Printer.
- Robinson Marguerite S (1998): The Paradigm Shift From credit Delivery to Sustainable Financial Intermediation, In Mwangi S Kimenyi, Robert C Wieland and D Von Pischke (eds), 1998, Strategic Issues in Microfinance. Ashgate Publishing: Aldershot.
- Rukwaro, M.W. (2001), "Credit rationing by Micro Finance Institutions and its influence on the operations of small and micro enterprises", Unpublished MBA Project, University of Nairobi
- Sethuraman, S.V (1981).The urban informal sector in developing countries: Employment, poverty and environment, Geneva.
- Schmidt, R.H. and E. Kropp. 1987. "Rural finance guiding principles". GTZ, Eschborn.

- Wanjiru, Rose. (2000), “Factors that influence productivity of credit officers in Micro Finance Institutions”, Unpublished MBA Project, University of Nairobi
- Zeller, M. and M. Sharma (1998), “Rural Finance and Poverty alleviation” Washington, DC. USA: International Food Policy Research Institute (IFPRI).

ENTERPRENEURIAL FACTORS AFFECTING TECHNOLOGY ADOPTION BY AGRO-PROCESSING ENTREPRENEURS IN KENYA:.**L.W.Mwangi* & G.S.Namusonge***Jomo Kenyatta University of agriculture and technology**E-Mail:Lydia_mwangi@yahoo.com***Abstract**

Small scale food processing activities represent a potential source of livelihood for many poor Kenyans. As increased production is envisaged, there is need to proportionate improvement in agro processing industry. The general objective of the study is to determine factors affecting technology adoption by micro and small agro processing entrepreneur in Kenya and the paper emphasized on effect of inadequate techno-preneurship skills .Case of Kandara District, Murang'a County. The paper also reviewed what other scholars have said. The conceptual frame work of the study was also laid out indicating clearly independent variables that affect the technology adoption. The research focused on approximately 60 small and micro agro –based entrepreneurs who through stratified random sampling 30 of them were sampled. The results show that most of the entrepreneurs had not received trainings on entrepreneurship skills, which in return affects the adoption of technology by agro-based entrepreneurs. . This finding will be significant to policy maker, the agro-processing entrepreneurs, and prospective researchers. The paper also provide the recommendations which could be used to improve technology adoption by agro-based entrepreneurs including government and technology incubators and other stakeholders to value technology cheaply and to enhance capacity building of entrepreneur and their employees in order to enhance their technology adoption

Key words: agro-based entrepreneur, technology, adoption, techno-preneurship skills**Background of the Study**

In the world over 200 million people run non profitable micro and small agro-processing enterprise and have often singled out access to technology as the major hindrance to growth and competitiveness (Robinson,2001).Many governments worldwide have emphasized development of programmes aimed at targeting the agro processing entrepreneurs (Webster,2003). Adoption of improved and validated food processing technologies, enforcement of good standards of quality and hygiene and regulatory instrument may assist local small- and medium scale agro-industries to compete favorably in the market place. However research has shown that a number of factors may constrain the ability of small and medium scale agro based enterprise to effectively manufacture and market processed food products. The purpose of the study is to develop and present a detailed but clear picture of what the Small agro processing systems require to effectively manufacture ,the main area of interest including considering agro processing technologies, linkage with research and extension farmer empowerment, policy implements gender issue and government vision. There is very limited training offered to administrator as a basic knowledge on equipment handling and maintenance, formal training on food processing techniques.

Jomo Kenyatta University of Agriculture (Mahazo et al 2003) has provided most of the training support for small-scale food processors. Agro processing entrepreneurs face numerous constrains including poor equipment back up service regarded by dealers, shortage and high cost of equipment and spares, limited access to the information from extension services knowledge of specific regulations and legist ration governing food safely and hygienic in Kenya market forces and prevailing economic environment, favor more downsizing of large-scale processing system and

upgrading small-scale processing industries. Development technology center of the Ruiru ATDC reported limited awareness of Kenyans market uptake to equipments like solar driers (Nazare, 2005). This background shows that there are factors that affect the development of agro processing small entrepreneur technology adoption which require investigation.

Problem statement

Agro processing is progressively the largest manufacturing sub sector accounting for 13 per cent of total manufacturing output according to central bureau of statistics 2004. Value addition particularly that involving small scale food processing, represent a potential source of livelihood for many in poor people in sub-Saharan Africa through overcoming perish ability and seasonality of commodities and enhancing food security (Mahazo et al,2003). In ideal situation micro and small enterprise are supposed to be provided with appropriate technology and adequate institutional capacity to support adaption and absorption of modern technologies skills (RoK, 2005).information about technology should be easy be accessed, legal government policies should be known to all entrepreneurs and should be favorable and all the entrepreneurs should be equipped with adequate techno-preneurship skills.

Currently many small value adding enterprises use low level technology in terms of production tools and processing methods that are not standardized, hygiene is not assured and product quality is variable these is as a result of many factors including inadequate information, set policies, inadequate techno-preneurship skills among others . The overall result is poor quality and increased unit cost of production. (Gallat, 2007, Mohammed & Kiiru, 2004). While many studies on technology adoption by agro-processing SMEs have been conducted in many parts of the world, information to this field is limited in Kenyan context and Kandara district in particular .This study endeavored to fill in the gaps and explore whether the cited concerns in other parts of Kenya are influencing the SMEs in Kandara hence the need for the study.

Objective of the study

To determine the factors affecting technology adoption by micro and small agro-processing enterprises in Kandara District of Murang'a County. Specifically to determine the effect of techno-preneurship skills in technology adoption by agro-processing entrepreneurs

Justifications of the study

Small scale farming in Kenya rarely provides sufficient means of survival in many rural areas. It is therefore imp active to explode alternative income generating opportunities to support poor families who can longer feed themselves from the land base activities and some household are looking forwards to activities such as food processing as a means to enhance the livelihood from a limited area of land, Small scale food processing activities represent 60% of the lab our force and represent a potential source of livelihood for many Kenyans. The greatest potential in small scale agro-based industries is in fruit and vegetable processing as much horticulture produces experiences problem in marketing of produces therefore adoption of improved and validates food processing technologies enforcement of good hygienic and regulatory instrument may assist local small—medium-scale agro-industries to compete favorable in the market place. This finding will be significant to the government of Kenya, Non Governmental organization and donor when fixing prices for small scale enterprise. It will also be helpful to policy formulator and key stakes holders when designing and implementing the programmes. The findings will also benefit the entrepreneur who sees agro processing as an opportunity to understand it before taking it up. The findings will also assist the agro-processing entrepreneurs in understanding the areas of intervention for purpose of

entrepreneurial development and also will act as a reference document for prospective researchers, entrepreneurs and key stakeholders.

Literature Review

Adoption of improved and validate food processing technologies enforcement market. Factors like access to credit (Chaka sea, 1996),lack of technology capability and the unendurable supply of raw material (Mosha 1993) and poor market amongst have constructed to development of small industries . Although development of agro-processing equipment has been conducted in agricultural institutional existing results to private sector (entrepreneurs) has been very poor. This is very limited to training offered to administrator as basic knowledge on equipment handling and maintenance formal training on food processing techniques high cost of equipment back up service by dealers, limited access to the information from extension services knowledge of specific regulation and registration governing food safety and hygiene and is prohibited. The essence of this is to study the various factors that affects technology adoption by small agro based SME’s.

Conceptual Framework

The conceptual frame work illustrates which independent variables affect technology adoption which is the dependent variables .there being many variables that affect technology adoption by agro-based entrepreneurs the researcher concentrated her studies on access to information, policy and regulatory frame work and technopreneurship skills as independent variables affecting technology adoption as a dependent variable.

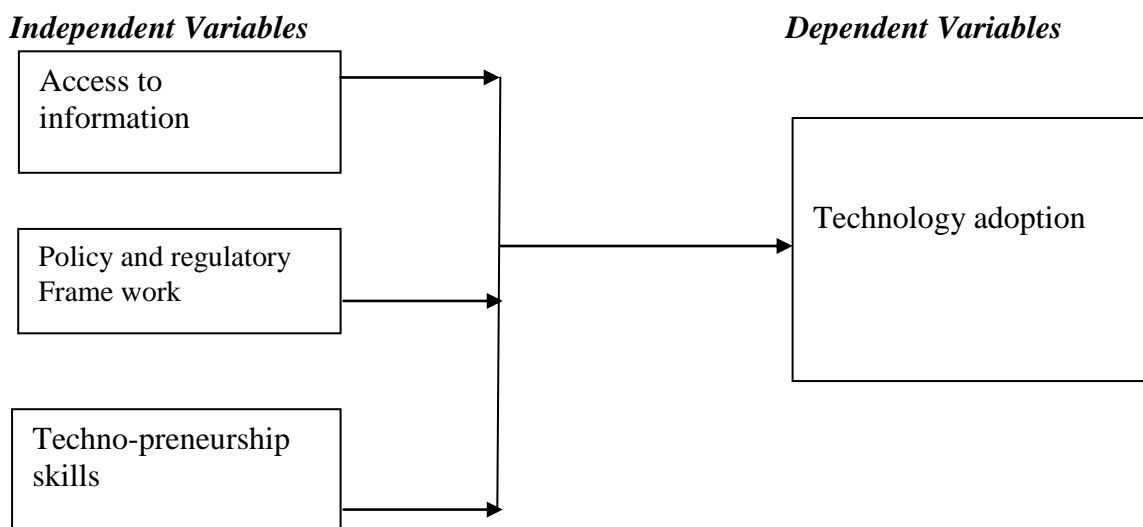


Figure 2.1: Conceptual framework

Techno-preneurship skills in Relation to technology adoption

Techno-preneurship is basically all of the competences and commitment of the people within an organization i.e. their skills, experience, potential and capacity. These competences may relate to Schumpeter’s constructive destruction (Hisrich, et al 2009) access to critical resources or contacts internal management of the business or external strategic management and networking, dealing with potential business threats or opportunities. These competences are dynamic and vary from time to time and stage of entrepreneurial development. Human capital is very crucial in assessing an

organization ability to acquire technology. This is due to the moral hazard (De la Torre et al 2008). Entrepreneurship is the basic economic development and growth (Harper, 2003). It causes continuous disequilibria in the market that creates opportunity for value creation in the market and effect firms, responsiveness to new market conditions (Kirnzer, 1997). Micro- entrepreneurs have certain characteristics like, age education gender and managerial ability which affect their skills knowledge and attitude (Van Praag, 2005). This behavior can be modified through the effect of credit and social support on self- efficacy, locus of control and thus personal agency belief is improved (Svendsen and Svendsen, 2004; Kalantaridis, 2004).

Research on the relationship between level of education and profitability of business has received mixed reactions. Mead (1999), in his conclusion argued that completion of primary level of education has no significance influence on the performance of a business. However, he found out that despite lack of acquiring small education having no significant bearing on the profitability of a business going beyond a certain threshold is associated with significant difference in profitability. In many enterprises, they lack basic qualification and many opt for cheap labor and the expense of qualified personnel who could implement quality program in the business.

The top management of the firm, who are comprised of the owners of the business, may not see the need for high-qualified managers to run the business and therefore such businesses are difficult in implementing agro processing support management. Literature also shows the importance of entrepreneurial skills and the study wants to know to which extent it affects SMEs technology adoption.

Methodology

Research design: A descriptive research design was used in the study (Kothari, 2002).

Target Population: The target population included all small agro based entrepreneurs found in Kandara district who are dealing with agricultural Products especially on fruits and vegetable cereals, industrial crops and livestock products. The accessible population was sixty (60) agro based entrepreneurs

Sampling frame: The researcher got a list of all registered and unregistered agro based value adding small scale entrepreneurs from District agriculture office (department of home economics) District social services office and District livestock products office and cooperative office from Kandara district .

Sample and sampling techniques: The population in our case is infinite and the sample unit is agro processing &value additions SMES from Muranga county Kandara district. The sampling technique which was used was stratified random sampling

Table 3.1 sample size per strata

Subsector	Total	Sample
Livestock products	24	12
Fruits and vegetables	18	9
Industrial crops	12	6
Cereals , roots and tubers	6	3
Total	60	30

Data collection methods

Primary data was collected using open ended questionnaire, observation and discussion. Secondary data was obtained from the records. This was collected from the library and also from the internet. The data about the past performance of the agro-based industry was collected from District Agriculture office, District livestock office, District co-operative office, District gender and social services office in Kandara district and also from individual or group records that the entrepreneur is affiliated to. The researcher administered the interview. For pilot testing sampling was done randomly; Six (6) members were interviewed where some changes were made on the questionnaire before the actual survey.

Data analysis and presentation

Microsoft excel was used to analyze data. The data was presented using tables and percentages as was found appropriate for each set of data. The analyzed data was converted into descriptive statements and or inferences about relationships.

Research findings and discussion

The data was analyzed in terms of demographics and techno-preneurship skills.

Demographics

The respondent's demographics data was analyzed in terms of age, level of education, legal form of business, and conclusions were derived based on the data that was obtained.

Age: The study shows that forty nine (49%) percent are in the age of 21-40 year brackets, forty (40%) percent are in the age of 41-60 years and eleven (11%) percent are of age 60 and above. The result shows that most agro based enterprise have been started by youth since they are attractive to the youth in terms of labor Intensity, profit generated and technology accessibility by the youth.

Level of education: seventy (70%) percent of the enterprise are owned by 'O' level graduates. seventeen (17) percent are owned by certificate of primary education while ten (10) percent and three (3) percent by the entrepreneurs have bachelors and master and above degrees respectively. The results show that more than half agro- based entrepreneurs are by 'O' level graduates. The research implied that entrepreneurs required some minimum level of education to manage and adopt a technology in agro- based enterprise.

Legal form of business: Shows that seventy (70%) were sole proprietors twenty (20%) percent were partners and ten (10%) were private companies. The result indicates that most of entrepreneurs have not embraced the spirit of togetherness to broaden their capacities in terms of technical expertise, innovation and resources mobilization

Number of years in business: Forty nine (49%) percent of the respondent have been in operation for a period between zero and five years. Thirty (30%) percent have been in operation for between six and ten years where twenty one (21%) percent of the respondents have operated for more than ten years. This result implies that most of the agro-based value adding entrepreneurs have not exceed business incubation period.

Techno-preneurship skills

Relationship between technology adoptions and number of employees

Fifty seven (57%) percent of the respondent had between one and five skilled employees, while thirty two (32%) percent had between six and ten employees, eight (8%) percent and three (3%) percent had eleven to fifteen and sixteen to twenty employees respectively. The results show that most of the enterprises are having low level of skilled manpower. This in turn affects the technology adoption negatively.

Relationship between entrepreneurship training obtained and technology adoption

The study shows that the respondents trained in business management were thirty three (33%) percent, in financial management twenty (20%) percent, technology innovation and human resource management seven (7%) percent, while thirty three (33)percent had not been trained on entrepreneurship skills. The result indicates that most of the entrepreneurs had not received trainings on entrepreneurship skills. The result indicates that if the entrepreneurs received the entrepreneurship training they would use of training to improve business, train others hence a higher rate of technology adoption..

Use of the entrepreneurship training acquired

Out of 20 entrepreneurs who had received the entrepreneur training fifty percent (50%) had used the training to train others, fifteen percent (15%) had used to change business and thirty five (35%) had used to improve their business. The result indicates that if the entrepreneurs received the entrepreneurship training they would use of training to improve business, train others hence a higher rate of technology adoption

Rate of the effect of techno-preneurship skill to technology adoption

The study shows that sixty (60) percent of the respondents were highly affected by inadequate techno-preneurship skills in technology adoption, while thirty three (33) percent were moderately affected and twenty seven(27)percent were lowly affected .this implies that inadequate techno-preneurship skills affect the adoption of technology by agro-based entrepreneurs.

Summary

Discussion of data and findings revealed that Techno-preneurship skills have an influence technology adoption. Analysis on demographic data indicated that the number of years in operation and the level of education has an effect in technology adoption though it has not been established which is the minimum level of education to technology adoption. The respondents were of the opinion that the more qualified an enterprise employees are the high the likelihood of adopting the technology. This affected negatively their chances of adopting the technology. There was evident that most of the respondents had not received trainings on the entrepreneur skills and this adversely affected the technology adoption.

Conclusion

The results shows that if the entrepreneurs are trained on the entrepreneur skills they would make use of training and this adversely affected the technology adoption. Most of the respondents are aware of the cost of equipments and maintenance, but they are not aware of the costs associated to technology

adoption hence makes it difficult for the entrepreneur to make a rational decision as far as technology adoption is concerned. A high percentage of respondents felt that they are highly affected by inadequate techno-preneurship skills.

Recommendations

The government and technology incubators should value technology cheaply. The Government and other stakeholders should enhance capacity building of entrepreneur and their employees in order to enhance their technology adoptions

Reference

- Histich R.D., Peters, M.K. & Shepherd,D.A, (2007). Entrepreneurship. MacGraw-Hill Custom Publishing, Great Britain.
- Kimenyi L.N. (1995). Kenya's experiences in promoting smallholder vegetable in the European markets ,Africa and urban studies
- Kirzner I. (1997). Entrepreneurship Discovery and the competitive Market Process: An Austrian Approach *Journal of Economic Literature*
- Kothari,CR.(2004).Research Methodology ; Methods and Techniques. New Delhi: New Age International Publishers.
- Mugenda O. M. & Mugenda A.G (2003) Research Methods. Quantitative and Qualitative Approaches. Act press Nairobi.
- Namsonge G.S, (2007). Entrepreneurial Finance and Micro, small and medium enterprises Innovations in Kenya, Proceedings of 2006Jomo Kenyatta University of Agriculture Technology, Scientific, Technological and industrialization conference , JKUAT– 'Harnessing scientific and technological synergies for innovation and Rapid industrialization'
- Republic of Kenya. (1992) Sessional Paper Number 2 of 1992. Small Enterprises and Jua Kali Development in Kenya. Nairobi Government Printer
- Schumpeter J. (1934). The theory of Economic Development. Cambridge M.A. Harvard University press

EFFECT OF COLLABORATION ON MANUFACTURING SMALL AND MEDIUM ENTERPRISES (SMES) PRODUCT INNOVATIVENESS IN KISUMU

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Abstract

This study investigated the effect of Collaboration on manufacturing SMEs product innovativeness. Using a cross sectional survey design with a sample size of 126, a six-predictor logistic model was fitted to the data to test whether collaboration has a statistically significant effect on product innovativeness of manufacturing MSEs in Kisumu Town. The model prediction success was 70.6% (71.4%) for High Product Innovativeness and 69.8% for Low Product Innovativeness. Three predictors (search for new product ideas, externally source product/market information, and research institutions / universities partnerships) were significant and positive predictors of product innovativeness. Their EXP (B) values were >1 indicating that when raised by a unit, the odds ratio of the SMEs being able to manufacture innovative products rose by values equivalent to the EXP (B). It is concluded that collaboration enhances SMEs' product innovativeness. The researchers recommend the promotion of collaborations for purposes of sharing information/ accessing the diverse knowledge base on new product design, development and production.

Key Words: Collaboration, SME, Product innovativeness

Introduction

If collaboration agreements are good instruments for developing and sustaining technological capability to manufacture innovative products, it follows that the choice of technological partner is crucial (Nieto & Santamaria 2007). In fact, significant differences exist among types of partners and these can determine how the collaboration is managed and what kind of innovation can be achieved (Whitley 2002). In particular, there are significant contrasts in how firms cooperate with potential innovative partners such as suppliers and customers, but also with agencies in the innovation system such as universities, and research institutions that have specific kinds of resources and know-how (Moyi & Njiraini, 2005). The entire set of collaborative activities established then becomes a network. All collaborations differ in importance and intensity, and firms build up and maintain only those relationships which are valuable to them (Gemunden et al, 1996).

Analyzing the relationship between type of partner and expected benefits for MSE innovativeness, then, would be interesting. Vertical collaboration with clients and/or suppliers allows a firm to gain considerable knowledge about new technologies, markets, and users' needs

(Whitley, 2002). Therefore, this collaboration has a significant impact on both product and process innovation and is particularly important for firms that tend to focus on a smaller set of businesses (Miotti & Sachwald 2003). As this kind of focus is typical in small firms, SMEs commonly use their suppliers and clients as a valuable source of technological information. Many innovations by small firms, then, are based on off-the-shelf technologies, concepts, and/or resources offered by supplying industries (Verhees & Meulenber 2004). Consequently, suppliers may play a more active role in stimulating innovation by trying to influence the small firm's innovation decision. Meanwhile, the relationship between product innovativeness and market intelligence makes client information a key resource for innovation in small firms (Verhees & Meulenber 2004).

According to Branzei and Vertinsky (2006), innovative firms will actively scan external sources of knowledge, seek diverse partnerships and learn. This external idea sourcing may prove particularly critical in situations where relevant skills tend to be dispensed among highly specialized players (Rodriguez, Fernandez, & Martins, 2007).

The Problem

Despite the widely held view that collaboration plays an important role in fostering incipient industrial development, especially in poor regions (Nieto & Santamaria 2007; Schmitz & Nadvi, 1999) and also enhance the ability to innovate (Frisillo 2007). Little is known of the effect that collaboration has on product innovativeness among manufacturing MSEs in developing countries such as Kenya. In order to remain competitive, MSEs do need to continually improve and enhance their product innovativeness (Salavou & Avlonitis, 2008). Most of the manufacturing MSEs in Kisumu Town seem to be manufacture similar products and target the same market, but their product innovativeness levels seem to be low. This has resulted in an increased inter-firm rivalry since firms are competing for not only customers but also skills supply in the labour market. This therefore underscores the importance of undertaking a study on the effect of collaboration on product innovativeness among manufacturing MSEs in Kisumu Town, Kenya. The paper is organized as follows. Relevant literature is reviewed and synthesized, followed by research methodology. The results are then presented along with discussion. Finally, conclusions and implications are discussed.

The objectives of the study

The general objective was to determine the effect of clustering on product innovativeness among manufacturing MSEs in Kenya. Specifically, the study sought to:

1. To determine the effect of business partners on product innovativeness among manufacturing
2. To determine the effect of university/research institutions collaboration on product innovativeness among manufacturing MSEs

Literature Review

Product Innovativeness

Ali, Krapfel and LaBahn (1995) defined product innovativeness as the uniqueness or novelty of a new product to the customer. According to Van de Ven (1986) product innovation refers to the development and implementation of a new product in the adopting firm or markets. Similar to Rogers' (2003) innovation characteristics of a new product (relative advantage, compatibility, complexity, observability, and trialability), product innovativeness refers to the radicalness, uniqueness, and meaningfulness of a new product. Based on the review of existing literature, this study operationalizes product innovativeness as the propensity of a firm to innovate or develop new products that meet and / or exceed customers' expectations or the extent of unmet market needs as reflected in its uniqueness in comparison to similar products offered in the market.

Collaboration between SMEs and Business Partners

Business partnerships are generally perceived as a mode of steady collaboration among vertically integrated firms. As opposed to spondaic occasional relations of firms, partnerships result in an increased trust and more efficient coordination of activities (Navickas & Malakauskaitė, 2009). The main incentives to form partnerships are the possibilities to: reduce operation costs, increase

personnel qualifications, better access to specific information, broad supply of labour force (Pavlovich & Akoorie, 2005) ; easy access to capital resources, improved technological base, enhanced innovation , creating new products, increased sales and competitiveness as well as complement one another (Najib & Kiminami, 2011). Since innovation is influenced by collaboration, it may be advantageous for manufacturing MSEs to maintain their close “cooperative competition” to continue their innovativeness.

Hypothesis 1: Collaboration between manufacturing MSEs and business partners has a positive effect on a firm’s product innovations.

Collaboration between MSEs and University/research institutions

University/research institutions are leaders in the knowledge spillovers and knowledge transformation critical to product innovation (Gao et al., 2008). Owing to their outstanding advantage of technical resources and capacity, they improve and create new knowledge and excellent technology (Moyi & Njiraini, 2005). . University/research institutions play a lead role in the cluster innovation, generating new knowledge and technologies, attracting researchers, investments and research facilities, enhancing other firms R&D activities, stimulating demand for new knowledge and creating and capturing externalities. University/research institutions use external knowledge to a greater extent than firms operating in the cluster, by leveraging on their intellectual and social capital, they can act as “technological gatekeepers” for the whole region, thus enhancing the absorption of new information into the cluster and facilitating its internal dissemination.

Lan and Zhangliu (2012) aver that the collaboration between enterprises and university/research institutions is an important type of knowledge creation and knowledge transfer. Gao et al., (2008) posit that firms can obtain new scientific knowledge as well as technological knowledge through university/research institutions collaboration. So, the innovation advantage of enterprises cluster is closely related to the interaction and cooperation between enterprises and university/research institutions. As a headstream of knowledge and the supplier of professional personnel, university/research institutions promote the knowledge, information and technology transfer and diffusion by education, training and R&D cooperation. So, the industry-university-research institute collaboration play an indispensably role in the development of novel products. Hence, the study hypothesizes that:

Hypothesis 2: Collaboration between manufacturing SMEs and university/research institutions has a positive effect on a firm’s product innovations.

Research Methodology

Design and data collection: This study adopted a cross-sectional survey design, to provide a numeric description of the fraction of the population – the sample -through data collection process, using a questionnaire and observation guide at one point in time, with the findings being generalized to a population (Creswell, 2009).

Population and Sample: The focus of this study was at the firm level with the unit of analysis being the manufacturing SME. The sampling frame were all manufacturing SMEs registered and licensed within Kisumu town as contained in the Official Registry of SME Associations of Kisumu, (2011), The sample size was determined according to Krejcie and Morgan (1970) survey table of samples that recommend a sample size of 196 for a population 342, at 95% confidence with 5.0% margin of error. Purposive sampling was then used to select the 136 respondent owner-managers.

Data Analysis: Of all the 142 questionnaires returned, only 126 were found usable and included in the analysis. Data analysis was conducted in the SPSS version 20 using binary logistic regression because the dependent variable of study was dichotomous. Odds ratios estimated from logistic regression analysis were used as measures of effect.

Results

Effects of Collaboration on Product Innovativeness

A six-predictor logistic model was fitted to the data to test the research hypotheses. The results are presented in Table 4.1.

Table 4.1: Results of Logistic Regression Analysis: Effects of Collaboration on Product Innovativeness

Predictor	β	SE β	Wald's χ^2	df	p	Exp(B)
Partner with other firms	.214	.170	1.597	1	.206	1.239
Rarely benchmark	.255	.174	2.153	1	.142	1.291
Search for new product ideas	.616	.201	9.374	1	.002*	1.852
Externally source product/market information	.664	.197	11.326	1	.001**	1.943
Research / universities partnerships	.399	.159	6.281	1	.012*	1.491
No partnership in design/dev/testing	-.096	.169	.326	1	.568	.908
Constant	-6.523	1.659	15.454	1	.000	.001
Test			χ^2	df	p	
Overall model evaluation						
-2 Log likelihood			132.500			
Score test			42.173	6	.000	
Goodness-of-fit test						
Hosmer- Lemeshow			7.658	8	.468	

* $p < .05$, ** $p < .001$

When product innovativeness was regressed on the collaboration variables, the Hosmer–Lemeshow (H–L) was insignificant $\chi^2 = (8, N = 126) = 7.658, p = .468$, suggesting that the model was fit to the data. The overall model was significant ($\chi^2 = 42.173, p < .001$) with a -2 log likelihood value of 132.500 and pseudo-R2 values ranged from .284 (Cox and Snell R2) to .379 (Nagelkerke R2), indicating a moderate relationship between prediction and product innovativeness. Overall prediction success was 70.6% (71.4%) for High Product Innovativeness and 69.8% for Low Product Innovativeness. The exponentiated, Exp(B), values in Table 4.1 indicate the change (increase > 1, decrease < 1) in the odds of observing the outcome of interest (product innovativeness) for every one unit change in the predictor variable, holding all other variables in the equation constant (Hosmer & Lemeshow, 2002).

The Wald criterion indicate that search for new product ideas a positive significant ($p = .002$) predictor of product innovativeness. The odds ratio, Exp(B) for search for new ideas is 1.852 meaning, that as the search for new product ideas increases, the odds of the MSEs manufacturing innovative products increases by a factor of 1.852. This finding confirms Kaminski et al. (2008) assertion that collaboration with other firms significantly increases MSEs’ innovativeness. Such interactions provide firms with product ideas or information transfer, and learning about production activities critical to developing innovative products (Walsh et al., 2009).

Similarly, externally source product/market information is a positive significant ($p = .001$) predictor of product innovativeness. The odds ratio, $\text{Exp}(B)$ for externally source product/market information is 1.943, meaning that as the external sourcing of product/market information increases, the odds of the MSEs manufacturing innovative products increases by a factor of 1.943. These results partially support H1. This finding confirms study by Kaminski et al. (2008) that collaboration with other firms significantly increases MSEs' innovativeness. The availability of information about such important market variables as prices, supply and demand, etc, is crucial to manufacturing MSEs product innovativeness (Walsh et al., 2011).

Likewise, research institutions / universities partnerships is a positive significant ($p = .012$) predictor of product innovativeness. The odds ratio, $\text{Exp}(B)$ for research institutions / universities partnerships is 1.491, meaning that as the research institutions / universities partnerships increases, the odds of the MSEs manufacturing innovative products increases by a factor of 1.491. Thus H2 is supported. The findings resonates with Lan and Zhangliu (2012) that as a headstream of knowledge and the supplier of professional personnel, university/research institutions promote the knowledge, information and technology transfer and diffusion by educating, training and R&D cooperation thus playing an indispensably role in the development of novel products.

Lastly, there were insignificant relationships between partner with other firms ($p = .206$), rarely benchmark ($p = .142$) and no partnership in design/development /testing ($p = .568$) with product innovativeness.

In the light of the foregoing results, the logistic regression model can be fitted in the form of the following equation:

$$\text{Logit}(\text{Product Innovativeness}) = - 6.523 + .214\text{Partner} + .255*\text{rabenchmark} + .616*\text{prodideas} + .664*\text{Extprdinfo} + .399 * \text{univ} - .096* \text{nopatdesign}$$

If the modeled variables are assigned algebraic notations such that Product Innovativeness becomes Y, Partner becomes X1, rabenchmark becomes X2,, prodideas becomes X3, Extprdinfo becomes X4, univ X5, and nopatdesign becomes X6 then the above equation can be rewritten as:

$$\text{Logit}(Y) = -.523 + .214X1 + .255X2 + .616X3 + .664X4 + .399X5 - .096X6 \dots\dots\dots(1)$$

Equation (1) will have the straightforward interpretation that reflects the significant positive influences of search for new product ideas, externally source product/market information, and research institutions / universities partnerships on the probability of MSEs manufacturing innovative products.

But, these results cannot be taken to infer that bench marking and partnership with other firms are not important. What one can safely infer is that the results probably only highlight the strong influence of search for new product ideas, externally source product/market information, and research institutions / universities linkages. When manufacturing MSEs do not benchmark or partner with other firms especially in design/development /testing, they cannot be expected to produce innovative products.

These results indicate that MSEs in Kisumu town do collaborate significantly to a large extent. This is a positive finding because collaboration is an important element of product innovativeness. The finding supports the view of Waits (2000) that it is necessary for firms to collaborate, and work with other institutions to meet their needs and their interests. The MSEs in Kisumu Town have adopted

this strategy. Within the cluster, MSEs tend to cooperate not only with other firms in the same cluster but also with potential innovative partners such as suppliers, customers, universities, and research institutions that have specific kinds of resources and know-how. This is also what Moyi and Njiraini (2005) recommend. The study is in agreement with Gao et al., (2008) that university/research institutions should play a lead role in the cluster innovation, in generating new knowledge and technologies, attracting researchers, investments and research facilities, enhancing other firms R&D activities, stimulating demand for new knowledge and creating and capturing externalities. Such knowledge should be passed on to MSEs through collaborative programmes to enhance product innovativeness.

Nonetheless, as Gemunden et al., (1996) posit, the entire set of collaborative activities established might become a network and MSEs collaborations differ in importance and intensity. MSEs must build up and maintain only those relationships which are valuable to them. This study supports the views of Branzei and Vertinsky (2006) that MSEs need to actively scan external sources of knowledge, seek diverse partnerships and learn since the external idea sourcing may prove critical in situations where relevant skills are dispensed among highly specialized players. The study has established that MSEs in Kisumu do collaborate with other firms in their endeavour to manufacture innovative products.

Conclusions

This study investigated the effect of collaboration on product innovativeness of manufacturing MSEs in Kisumu Town with a view to generating appropriate mix of collaboration strategies for the improvement of their product innovativeness. This was in relation to MSEs lack of continual improvement and enhancement of their product innovativeness. The study concludes that collaboration does enhance external acquisition and transfer of product information /knowledge thus contributing to MSEs product innovativeness.

Recommendations

Despite its limitations, this study contributes substantially to academic knowledge and practice, in addition to highlighting key areas warranting future investigation. At the national context, the study generates appropriate mix of collaboration strategies and contribute to policy efforts towards enhancing the manufacturing MSEs' product innovativeness and hence competitiveness.

The researcher recommends the setting up of MSEs collaboration policies that promote inter-firm interaction and alliances with university/research institutions for purposes of sharing information/ accessing the diverse knowledge base on new product design, development and production. Such alliances and the direct contact with entrepreneurs in the same field will reduce risks and durations of the innovation process because of direct or informal information transfer between firms and university/ research institutions, hence enhanced product innovativeness.

Areas for Further Research

Future studies replicating this study across multiple industries and sectors using a larger sample would increase the understanding of MSE collaboration concept. The study did not investigate firm-specific factors influencing product innovativeness in relation to collaboration, such as absorptive capacity or similar firm-specific factors that may influence firm ability to translate information into innovative products. Therefore, this is a line of investigation that future research should embrace.

References

- Ali, A., Krapfel, R. Jr., & Labahn, D. (1995). "Product innovativeness and entry strategy: impact on cycle time and break-even time." *Journal of Product Innovation Management*. 12 (1), 54-70.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative and mixed methods approach* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc
- Folta, T.B., Cooper, A.C. & Baik, Y.S. (2006). "Geographic cluster size and firm performance." *Journal of Business Venturing*. Vol. 21 No. 2, pp. 217-42.
- Frisillo, D. (2007). "An analysis of a potential cluster in an energy sector of Albany, NY." *Journal of Business & Industrial Marketing*. 22 (7) 508–516
- Gao, S., Xu., K.. & Yang, J. (2008). "Managerial ties, absorptive capacity, and innovation." *Asia Pacific Journal of Management*. 25:395–412. DOI 10.1007/s10490-008-9096-1
- Hosmer, D. W. & Lemeshow, S. (2002). *Applied Logistic Regression Analysis*. U.S.A: Sage Publications Inc.
- Kaminski P.C., de Oliveira A.C., & Lopes T.M., (2008), "Knowledge transfer in product development processes: a case study in small and medium enterprises (SMEs) of the metal-mechanic sector from São Paulo, Brazil", *Technovation*, Vol. 28 (No. 1/2), pp. 29–36.
- Lan,W. & Zhangliu W. (2012). "Research on Interactive Learning, Knowledge Sharing and Collective Innovation in SMEs Cluster." *International Journal of Innovation, Management and Technology*, Vol. 3, No. 1. Pp 24-29
- Miotti, L., and F. Sachwald (2003). "Co-operative R&D: Why and with Whom? An Integrated Framework of Analysis," *Research Policy* 32, 1481– 1499.
- Moyi, E. & Njiraini, P. (2005). "Towards Technology Models for MSEs in Kenya: Common Principles and Best Practices." The Kenya Institute for Public Policy Research and Analysis (KIPPRA) Discussion Paper No. 51
- Najib, M. & Kiminami, A. (2009). "Innovation, cooperation and business performance: Some evidence from Indonesian small food processing cluster." Pp 76-96 pdf. www.emeraldinsight.com/2044-0839.htm. Retrieved 2/04/2012
- Navickas,V. & Malakauskaitė, A. (2009). "The Impact of clusterization on the Development of Small and medium-sized Enterprise sector." *Journal of Business Economics and Management*. 10(3): 255–259 pdf .www.jbem.vgtu.lt. Retrieved on 24/03/12
- Nieto, M. J., and L. Santamaria (2007). "The Importance of Diverse Collaborative Networks for the Novelty of Product Innovation," *Technovation* 27, 367–377.
- Pavlovich, K. & Akoorie, M. (2005). "Cluster analysis: Mapping the Nelson seafood industry." The University of Auckland: *Business review*. 7 (2) pp 55-63 pdf. Retried 13/04/12
- Rodriguez, C. S., Fernandez, E. M., & Martins, F. V. (2007). "Innovativeness and network competence: an integration and empirical examination." University of Minho, Portugal – undated retrieved 23/6/12 .

Rogers E.M. (2003). *Diffusion of Innovations* (4th edn). Free Press: New York.

Salavou, H. & Avlonitis, G. (2008). “Product Innovativeness and Performance: a Focus on SMEs.” *Emerald* Vol. 46 No. 7, pp. 969-985. www.emeraldinsight.com/0025-1747.htm retrieved on 7/7/11.

Verhees, F. J. H. M., & M. T. G. Meulenbergh (2004). “Market Orientation, Innovativeness, Product Innovation, and Performance in Small Firms,” *Journal of Small Business Management* 42(2), 86–91. Whitley, R. (2002). “Developing Innovative Competences: The Role of Institutional Frameworks,” *Industrial and Corporate Change* 11, 497–528.

THE IMPORTANCE OF ENTREPRENEURIAL INNOVATIONS ON SMES' MARKET COMPETITIVENESS: A CASE STUDY OF THIKA TOWN

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Abstract

This study aimed at exploring the innovativeness of SMEs in relation to product innovation, process innovation and market orientation. It was argued that product innovation in SMEs usually was not the development of a new product by the small enterprise itself but rather the adoption of a concept developed by customers or third parties. A descriptive research design was used for the study. Instruments used were; questionnaires, personal interviews and observations to collect data from the respondents. Sequential sampling on the basis of the business type was conducted. The data was subjected to descriptive statistical analysis. The results showed that elements of a small firm's market orientation drive product and process innovation. It appeared that customer market intelligence stimulates product and process innovation. It was evident that the customers' needs and wants keep changing and thus were the main drivers of firm innovativeness. Innovations differed in terms of the degree to which firms introduced practices that depart way from past practices. Some innovations introduced relatively marginal changes to an existing product or process. Some of the significant ways in which innovativeness featured were development of new principles that replaced older ones, modern packaging of products, improved features and benefits. Others included the introduction of information communication technology (ICT), advancement of knowledge and skills and continuous learning of the changing environment. The main innovations noticeable were incremental innovations and modular innovations. Incremental innovations were represented by minor improvements or changes to the elements of an existing product or organizational technologies and practices. Modular innovations were represented by significant changes in elements of products, organizational practices and technologies. Many enterprises encouraged these innovations which yielded immediate market share or productivity gains. This created a competitive advantage over the others. If effectively planned and managed, innovations were crucial to the economic success of an enterprise.

Key words: Product innovation, Process innovation, Market orientation.

Introduction

Innovation is the development of new customers' value through solutions that meet new needs, inarticulate needs, or old customer and market needs in value adding new ways. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments, and society.

It is also defined as "an organization's overall capability of introducing new product to the market, or opening up new markets, through combining strategic orientation with innovative behavior and process" (Wang and Ahmed, 2004).

The introduction of innovative new products and services is critical for organizational survival and success (Damanpour 1991). The process enables firms to increase market share and market value (Chaney and Devinney 1992), improve performance (Roberts 1999) and enhance survival (Banbury and Mitchell 1995), and adapt to the market context in which they are embedded (Brown and

Eisenhardt 1995). The process has also been noted as instrumental in creating new markets (Burgelman 1991) and raising visibility and legitimacy among customers and competitors (Schoonhoven, Eisenhardt, and Lyman 1990). It is widely accepted that organizational knowledge is vital to the innovative aspects of new product and service development (Atuahene-Gima 2003; Atuahene-Gima and Li 2004; Deeds, DeCarolis, and Coombs 1999; Katila 2002; Katila and Ahuja 2002; Keller 2001). Firms accomplish innovation by translating internal knowledge and knowledge spillovers from other entities into new products or services (Katila 2002).

Within this broad area, entrepreneurial firms herald unique considerations about the emergence and existence of opportunities to create new products and services (Murphy 2010; Shane and Venkataraman 2000). The utter novelty of entrepreneurial venture offerings affords performance in competitive markets, which makes the identification of new opportunities essential (Ardichvili, Cardozo, and Ray 2003).

The most voluminous of these streams emphasizes the knowledge, skills, abilities, competencies, and other human performance characteristics that fall into the realm of human capital theory (Becker 1964; Schultz 1959).

According to Drucker (1985:17), 'innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service.' For this research innovativeness was defined as 'the propensity to innovate' or 'the propensity to adopt innovations'. It was a personal trait, as well as an aspect of a firm's culture.

There appears to be strong empirical evidence that successful entrepreneurs are more innovative than non-entrepreneurs (Mueller& Thomas, 2001:58, Gurol&Astan, 2006:28, Stewart et al, 2003:27). Lack of innovations in a SME may lead to stagnation in growth, irrelevancy and eventually call for forced exit of an enterprise. Market competition requires innovativeness and creativity. The study therefore aimed at investigating how SMEs have embraced entrepreneurial innovations and their importance in the market competition in Thika town.

Objectives

To investigate the innovativeness displayed by SMEs in Thika town.

Specific objectives

- I. To investigate product innovativeness.
- II. To investigate process innovativeness.
- III. To investigate market orientation.

Research questions

- I. Is product innovativeness displayed by the SMEs?
- II. How is the process innovativeness displayed?
- III. How SMEs are oriented in the market?

Justification

Recent developments in the business environment have increased the pace of product innovation in firms (Baker and Hart 1999; Kotler 2003; Wind and Mahajan 1997). Technological developments, particularly in information and communication technology (ICT), such as internet and mobile

phones, have changed business practices. Markets have become more global and interconnected, which has increased competition. Changing Life styles have made consumers more interested in and sensitive to new products.

To remain competitive, firms swiftly need to take advantage of new technological opportunities to serve their customers and to respond to changes in customer needs and tastes. Increased competition, shortened product life cycles, continually changing customer needs and tastes, and growing technological opportunities to serve customer needs explain the increasing importance of product innovation to firms (Cooper 1993). Governments and businesses explicitly acknowledge the importance of innovation. "Every sector and activity needs to be constantly initiating, refining and improving its products, services and processes" (European Commission 2002).

Literature Review

Product Innovation

Zaltman, Duncan and Holbeck's (1973) seminal work on innovation in organizations discusses innovation as the process of developing the new item, innovation as the new item itself, and innovation as the process of adopting the new item.

Product innovation as the item itself (new products) Zaltman, Duncan and Holbeck (1973) describe the new item itself as "the outcome of the development process, the new or improved product, service, process, management technique and so on". Products that are marketed include physical goods, services, experiences, events, persons, places, properties, organizations, information and ideas." This definition shows the diversity in products and therefore in new products.

Research on product innovation has addressed different aspects of the product (e.g. benefits, features, design, technology, services, quality, packaging, and/ or customer needs. Whether a product is considered to be an innovation depends on whether it is perceived as new by an individual or by other units of adoption (Rogers 1995). However, it should be clear whose perspective on newness is considered (e.g., the customer, the firm, the market, the scientific community, the industry, or the world). Booz, Allen & Hamilton (1982) score new products on a 'new to- the-company' dimension and on a 'new-to-the-market' dimension. Garcia and Calantone (2002) propose a strict classification with the labels 'radical innovation', 'really new' and 'incremental', signifying diminishing degrees of product newness.

Process Innovation

A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software.

When firms started to pay attention to their innovation process in the 1960s to 1980s they commonly used a "phased review" process to break new product development into more manageable stages (Cooper, 2008). Each stage was managed by a particular function. This had the unintended effect that departments felt little responsibility for the overall development. Consequently many projects never finished while others took considerably longer than planned. In the 1990s, firms therefore introduced more robust idea-to-launch systems, which continued to structure the process in separate phases. Probably the most widely known system is Product Development Institute's Stage Gate® (Cooper et al., 2002, 2005; Griffin, 1997). A Stage Gate process is a blueprint for managing the new product development process. The overall process is broken down in a series of stages in which information is gathered, integrated, and analyzed.

Once the work in a particular stage is completed, a gate is reached where go/kill decisions are taken based on predetermined targets. The result is a more holistic approach with improved efficiency and effectiveness in many firms.

More generally speaking, scholars see three main reasons why innovation processes in new product development integrate: (1) market orientation, (2) the integration of knowledge, and (3) changing capabilities.

Market orientation / innovativeness

Market orientation has been characterized as a culture of the organization that requires customer satisfaction be put at the center of business operations (Liu et al, 2002) and therefore produces superior value for customers and outstanding performance for the firm (Day, 1994; Narver and Slater, 1990). Customer needs and expectations evolve over time and delivering consistently high quality products and services and responsiveness to changing marketplace needs become important for the success of firms (Jaworski and Kohli, 1993). Responsiveness to changing market needs often calls for the introduction of new products and services together with innovation capacity for a firm. Market orientation has also been described as the implementation of marketing activities designed to satisfy customer needs better than competitors are able to satisfy customer needs (Martin and Grbac, 2003). While there is some variability in conceptualizations of market orientation, it typically focuses on three components; 1) customer focus, 2) competitor focus and 3) interfunctional coordination (Celuch et al., 2002). All conceptualizations have an operational focus on information gathering, information dissemination and the ability to behaviorally respond to what is received (Baker and Sinkula, 1999).

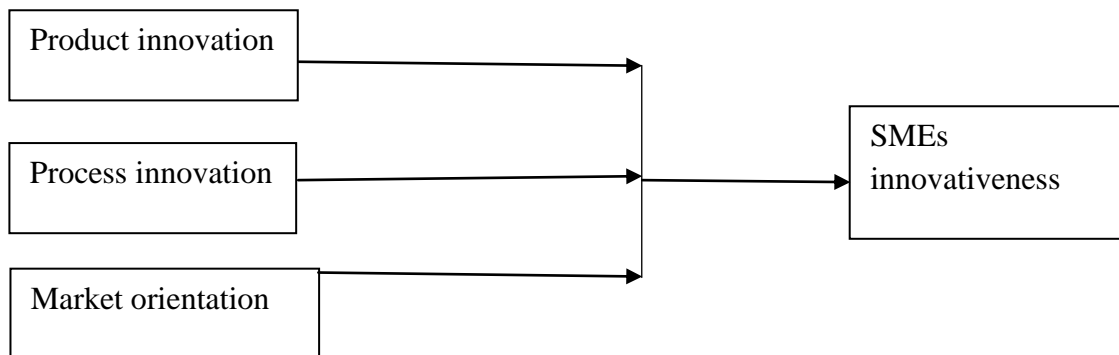


Figure 1: Conceptual Framework

Methodology

The research focused on SME’s situation and environment. A list of enterprises within Thika town was used as a major resource tool. A descriptive research design was used in this study and in particular, the case study research design.

The population included enterprises that were in different lines of industries, which fall in small and medium sized category. To establish an exact number of enterprises was not possible due to lack of credible records available for registration. The researcher therefore aimed for one hundred and fifty business units. The target population included entrepreneurs within central business district. From the population indicated above, a sample of 50 units was drawn. Sequential sampling based on type of

business was conducted. Sequential sampling was used to determine a sample. The primary data included- personal innovativeness characteristics; pro-activeness, receptivity to new ideas, firms adaptive style, firms culture, values and norms, market focus, learning orientation and communication. Personal interviews; this method was used to compliment the questionnaire.

The Secondary data was obtained through literature review of any other relevant research on SMEs innovation. Data analysis used Statistical Package on Social Sciences (SPSS) was used to analyze for descriptive characteristics. The data was presented using pie charts, graphs, and tables as was found appropriate for each set of data.

Research Findings and Discussions

Response rate

The study targeted 50 respondents in collecting data. In this case, one enterprise was counted as a single respondent. From the study, 41 out of the 50 sample respondents cooperated making a response rate of 82%.

Product Innovation

Type of product: In studying the type of the company, it sought to know whether the respondents dealt with real estate, clothing and design, insurance, phone and electronic accessories and chemist.

Customers demand: The study sought to establish if the respondent met the customers demand. From the findings all the respondents who filled in the questionnaire indicated that they met the customers' demand. This shows that the customers were satisfied with their products.

Complaints from customers: The study also sought to establish if the entrepreneurs' got complains from their customers in the delivering as well as providing the after sales services. 73% stated that they did not receive major complains from their customers. However, 27% stated that they received complains from their clients.

Products require further improvements: Majority of the respondent (68.3%) indicated that their products did not require further improvements, while only a few (31.7%) indicated that their products required further improvements. Those who affirmed that their products needed further improvement indicated that they wanted to do so to increase their competitiveness in the market

Market Orientation

Customer rating: The study sought to find out how customers rate the value of the correspondent products relative to those their competitors. Majority (83%) of the SMES' are good compared to those of their competitors, only 17% of the SMES' inferior products over their competitors.

Online deliveries: The study also sought to establish if the SMES 'in Thika town made on-line deliveries. The result indicated that most respondents from the real estate made more online deliveries compared to the other sectors.

Customers' response: The study also sought to know how customers' responded to the correspondents firms. From the findings, 90.5% of the respondent stated that the response was quick from the customers. On the other hand 7.1% stated that the response was instant. This indicates that the products offered by these sectors are satisfactory.

Repeat customers: The study also sought to know whether the respondents whether the respondents had repeat customers. From the findings, 97.6% respondents said that they had repeat customers. 2.4% did not respond to that question. This indicates that the customers liked their products.

Fund allocation: The respondents were asked whether they allocate funds in the budget for promotion and advertisements. 28 out of 41 responses reported that they allocated funds for advertisements and developments which ranged between 5% to 30% of their budget. On the other hand 13 out of the 41 respondents reported that did not find the need to allocate funds for advertisements and developments.

Promoting of products/services: The study also sought to establish whether the respondents clients promoted their products. In this case all the respondents indicated that their customers promoted their products. This indicated that the clients were satisfied with the respondents' product.

Process Innovation

Redesigning the flow of work : he study sought to establish if the correspondent redesign his or her flow of work by use of information communication technology. From the findings, (51.1%) of the respondent indicated that they did not redesign their flow of work by the use information communication technology as compared to 48.8%.

Time taken to serve customers: The entrepreneurs were asked to indicate at what extent they have improved on time customer take to get served. The result indicated that most (19 out of 41) respondents indicated that they have fully improved on time taken to serve customers. On the other hand 17 respondents out of the 41 had implemented it halfway, while 5 out of the 41 respondents had done it quarterly.

Methods of delivering services/goods: The study also sought to evaluate how well the methods of delivering goods or services are. In evaluating this, the researcher asked whether the methods were poor, good, very good or excellent. In response to this 61% reported that their methods were very good. On the other hand 32% of the respondents indicated that their methods were good, while 7% reported that their methods were excellent.

Frequency of reviewing programs: The respondents were also asked to indicate how often they reviewed their programs. With this regard, most entrepreneurs who dealt with real estate preferred to review theirs quarterly compared to other entrepreneurs. On the other hand more entrepreneurs from the clothing and design sector preferred to do it semiannually. Electronics and phone accessories preferred doing it monthly.

Training of employees : The respondents were also asked to state whether they trained their staff on new techniques methods. 71% of the respondents indicated that they trained their employees on new techniques methods. 29% of the respondents indicated that they did not train their employees on new techniques because they saw no need to do so.

Research and development: The findings relating to whether there was a strong emphasis on research and development in the firm of the respondent were; 58.5% of the respondents emphasized on research and development while 41.5% did not emphasize on research and development although most of them want to be ISO certified.

ISO certification: Asked whether they had any intention of getting ISO certification in future, the respondents answered yes or no. 25 out of the 41 respondents wanted to be ISO certified in future

while 16 enterprises did not want to. This indicates that most of the entrepreneurs want to become big companies in future with ISO certification.

Summary

From the analysis of the findings the main three objectives of the study were established. The results showed that elements of a small firm's market orientation drive product and process innovation. It appeared that customer market intelligence stimulates product and process innovation. It was evident that the customers' needs and wants keep changing and thus were the main drivers of firm innovativeness. Innovations differed in terms of the degree to which firms introduced practices that depart way from past practices.

Some innovations introduced relatively marginal changes to an existing product or process. Some of the significant ways in which innovativeness featured were development of new principles that replaced older ones, modern packaging of products, improved features and benefits. Others included the introduction of information communication technology (ICT), advancement of knowledge and skills and continuous learning of the changing environment.

Conclusion

The study examined SMEs of different lines of industry and therefore, it was thought to give a representative conclusion about entrepreneurial innovativeness of SMEs in Thika town. The three categories of innovations revealed some degree of newness from customers, market and firm's perspective. There were little of both scientific and industrial innovations. process innovations were as a result of market pull innovations and not technology push. Innovations were geared towards meeting customer's satisfaction and market competition. The main innovations noticeable were incremental innovations and modular innovations. Incremental innovations were represented by minor improvements or changes to the elements of an existing product or organizational technologies and practices. These innovations were aligned with existing organizational skills and capabilities. Modular innovations were represented by significant changes in elements of products, organizational practices and technologies.

Many enterprises encouraged these innovations which yielded immediate market share or productivity gains. This created a competitive advantage over the others. If effectively planned and managed, innovations were crucial to the economic success of an enterprise.

Recommendations

SMEs need to be more proactive in responsiveness to new customer's needs and wants. This will enable them to remain competitive in the market and always relevant. There should be a lot of emphasis on research and development in firms so as to nurture organizational culture on entrepreneurial innovations. This will provide some grounds for further architectural and radical innovations and therefore, producing new products in a regional or global market. SMEs need to allocate funds to more experimentations and risk taking when trying out new products, services or markets. This will encourage creativity, learning and innovating, while discouraging the status quo. The government and/ or financial institutions should provide business environments for more workshops and seminars on innovations and perhaps encourage entrepreneurs through incentives and rewards.

Research on innovations is a very wide subject. The study did not capture an in depth inquiry on innovations but a general overview. The study therefore recommends that, the three variables such

as; product, process and market can be singled out and an in depth inquiry conducted. The study was limited to SMEs only. Further studies can be conducted on big companies and/ or industries and more so focus on industrial and technological innovations.

References

- Ardichvili, A., R. Cardozo, and S. Ray (2003). "A Theory of Entrepreneurial Opportunity Identification and Development," *Journal of Business Venturing* 18(1), 105–123.
- Atuahene-Gima, K. (2003). "The Effects of Centrifugal and Centripetal Forces on Product Development Speed and Quality: How Does Problem Solving Matter?," *Academy of Management Journal* 46(3), 359–373.
- Atuahene-Gima, K., and H. Li (2004). "Strategic Decision Comprehensiveness and New Product Development Outcomes in New Technology Ventures," *Academy of Management Journal* 47(4), 583–597.
- Banbury, C., and W. Mitchell (1995). "The Effect of Introducing Important Incremental Innovations on Market Share and Business Survival," *Strategic Management Journal* 16, 161–182.
- Becker, G. S. (1964). *Human Capital*. Chicago, IL: University of Chicago Press.
- Brown, S. L., and K. M. Eisenhardt. 1995. Product development: Past research, present findings, and future directions. *Academy of Management Review* 20 (2): 343–78.
- Burgelman, R. A. 1991. Intraorganizational ecology of strategy making and organizational adaptation: Theory and field research. *Organization Science* 3 (2): 239–62.
- Chaney, P., and T. Devinney (1992). "New Product Innovations and Stock Price Performance," *Journal of Business Finance and Accounting* 19, 677–695.
- Cooper, A. C., J. Gimeno, and C. Woo (1994). "Initial Human and Financial Capital as Predictors of New Venture Performance," *Journal of Business Venturing* 9, 371–395.
- Deeds, D. L., D. DeCarolis, and J. Coombs (1999). "Dynamic Capabilities and New Product Development in High Technology Ventures: An Empirical Analysis of New Biotechnology Firms," *Journal of Business Venturing* 15, 211–229.
- Katila, R., and G. Ahuja (2002). "Something Old, Something New: A Longitudinal Behavior of Search Behavior and New Product Introduction," *Academy of Management Journal* 45(6), 1183–1194.
- Roberts, P. (1999). "Product Innovation, Product-Market Competition, and Persistent Profitability in the U.S. Pharmaceutical Industry," *Strategic Management Journal* 20, 655–670.
- Schoonhoven, C. B., K. M. Eisenhardt, and K. Lyman (1990). "Speeding Products to Market: Waiting Time to First Product Introduction in New Firms," *Administrative Science Quarterly* 35, 177–207.
- Shane, S., and S. Venkataraman (2000). "The Promise of Entrepreneurship as a Field of Research," *Academy of Management Review* 25, 217–226.

INFLUENCE OF CUSTOMER FOCUS ON THE PERFORMANCE OF SMALL SCALE ENTERPRISES IN UASIN-GISHU COUNTY

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Abstract

The study sought to determine how customer focus influenced the performance of small scale enterprises at Kapsaret location of Uasin-Gishu County. The research had a quantitative approach and used survey research design. The research had a target population of 502 small scale enterprise owners from which a sample size of 150 small scale enterprises at the study area was selected. The respondents were selected using stratified sampling technique and semi-structured questionnaires were used to collect the data. Descriptive statistics was employed in data analysis. The main findings of the study showed that a majority of the respondents reiterated that customer focus was an effective principle of the total quality management in improving the performance of small scale enterprises at the study area. This is significant because it goes in tandem with the saying in entrepreneurship 'customer is king', thereby depicting that there is a nexus between an organization focusing on its customers and how it will perform in the market.

Keywords: Entrepreneurship, Total Quality Management, Performance, Small Scale enterprises.

Introduction

Total Quality Management (TQM) is in essence is a continuous effort for the improvement of quality and achievement of customer satisfaction. It is basically an organizational strategy considered as a change program for the achievement of excellence by producing quality service as defined by the customer, (Garg, 2008). In most countries, Small Scale Enterprises are the backbone of the economy, (Hatten, 2012). With the advent of globalization and capitalism, entrepreneurship continues to be popular and achieve much importance, (Lee, Lim, Pathak, Chang, & Li, 2006). Studies and statistics have depicted the most effective and efficient way of experiencing rapid and robust economic growth is to increase the number of active entrepreneurs in an industry, (Pretorius, VanVuuren, & Nieman, 2005; Umsobomvu, 2004). TQM principles can influence the performance of small scale enterprises thereby affecting the economy. It is evident that small scale enterprises play a critical role in the eventual development of the economy of a country, (Beck, Kunt, & Ross, 2003). This is because of their potential to generate many job opportunities and spread the benefits of economic growth by involving low-income groups in national development, (Dollar & Aart, 2002).

Internationally, SSEs are the most common and conspicuous form of business organization and the main creators of employment opportunities in the world. They account for more than 95% of manufacturing enterprises and an even a much higher share of organizations in many service industries in OECD (Organization for Economic Co-operation and Development.) countries. SMEs are also closely involved with innovation, development, deployment, and economic utilization of new processes, services and products which entails total quality management, (Organization for Economic Co-operation and Development, 2010).

Moreover, a business enterprises will be called a small scale business undertaking if the investment in the fixed assets in plant and machinery do not exceed Kenya shillings two million. Small-scale

enterprises have been and continue to be the main engine of economic development and success in many continents of the world, (Michalska-Cwiek, 2009). Employment generation in SSEs is faster and swifter, 0.5 million jobs annually, SSEs is 33% more employment intensive than the whole of the economy put together, (Small Industries Development Organisation, 2004). They were introduced in developing countries, especially those of Africa South of the Sahara, after independence as part of an employment policy. Small-scale enterprises contribute a lot to the development of a country. The proponents of such development policy argue that small-scale enterprises are low capital intensive, and do not require very high managerial skills, but are training grounds for future managers, (Orser, Spence, Riding, & Carrington, 2008).

Closer home in Kenya, SMEs also have contributed to long-run industrial growth by producing an increasing number of organizations that emerge from the private sector. The emergence of small and medium-scale Kenyan industries is likely to be an ingredient and prerequisite for any sustainable industrialization. However, despite government efforts in Kenya to ensure the promotion of informal sector activity, not much progress seems to have been gained, judging by the performance of the informal sector, (Tarus, Ng'ang'a, Lagat, & Omboto, 2007).

Consequently, small-scale enterprises activities span a wide range in both the formal and informal sectors and they provide good source of private sector employment.. For some in public sector employment, small-scale enterprises provide a substantial supplement to their incomes as second jobs, (Rukunga, 2000). The study was conducted in Uasin – Gishu County, Kapseret location which is a low income and one of the populated residential area of Eldoret town and many people are involved in business activities. As many of these small-scale enterprises are emerging, some are failing. This is due to the problems that surround these small-scale enterprises. Many of these enterprises face poor managerial skills which contribute to some closing up. The sector has been pinpointed in the Kenya government's policies to be one of the main engines of Kenya's Industrialization by the year 2020, (Government of Kenya, 1994). The research sought to determine the influence of customer focus on the performance of small scale enterprises.

Literature review

A Small Scale Enterprise (SSE) as a business is considered small if it is independently owned, financed and operated; if it has fewer than 100 employees and has relatively little impact on the industry, (Havinal, 2009; Hatten, 2012). Small Scale Enterprises (SSEs) are often reliant upon a limited number of consumers or customers and have a limited product portfolio, (Cosh and Hughes, 2000). In Finnish, the word for entrepreneur is *yrittäjä*, which translates as someone who tries, while the Swedish word is *entreprenör* and is often associated with an undertaker or a builder, one putting an end to some activity and the other creating the new, often on the initiative of somebody else and finally it has its roots in a French word that dates from the seventeenth century, translates literally as “between-taker” or “go-between”, (Carsrud & Brannback, 2007; Bhargava, 2007; Hatten, 2012).

Moreover, an entrepreneur is one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalize on those opportunities, (Thomas, 2004; Scarborough, 2012). An entrepreneur is a person who undertakes an enterprise (that is bold or difficult undertaking) or business with the chance of profit or loss; a person who buys factor services at certain prices with a view to selling its product at uncertain prices (Havinal, 2009; Bhole, 2007). An entrepreneur is a person who sees an opportunity or has an idea and assumes the risk of starting a business to take advantage of that opportunity or idea and it originally referred to men who organized and managed exploration expeditions and military maneuvers, (Hatten, 2012). Furthermore, entrepreneurship is the

process of establishing a business enterprise and entrepreneurs possess the capacity to generate employment for themselves as well as others (Bhargava, 2007). It is also the process by which individuals, either on their own or inside organizations pursue opportunities without regard to the resources they currently control (Carsrud & Brannback, 2007).

Generally, Total Quality Management (TQM) is a method by which employees and management can become involved in the continuous improvement of the production of services and goods. It is a combination of management and quality tools aimed at reducing losses due to wasteful practices and increasing business, (Hansson, 2003). TQM is a system that is structured for satisfying internal and external customers and suppliers by integrating the business environment, striving for continuous improvement, and searching for breakthrough in maintenance and development cycles as well as changing the culture of the organisation. A crucial key to TQM implementation can be found in this definition and idea that TQM is a system that is structured. The description that TQM is a system that is structured means that it is a strategy originating from external and internal customer and supplier wants and needs that have been determined by management (Lancaster & Reynolds, 2006).

Moreover, Total Quality Management is to achieve total quality through everybody's participation, (Dahlgaard, Kristensen, & Kanji, 2007). TQM is defined as both a set of guiding principles and a philosophy that represent the basis of a continuously improvement in an organization (Besterfield, 2001). In the study, the principle of TQM was customer focus, which is in essence the core principle and idea of TQM because quality effort originates from customer's needs and ends with customer's acceptance, (Bhargava, 2007).

Focusing on the customer or consumer is important to the organisation as it helps to reduce cost that can be incurred due to the ignorance of customers' needs and wants, (Dahlgaard et al., 2007). Customers define quality in terms of their overall experience with the company and poor service quality causes customer defection, which in turn have a substantial impact on cost or profits, (Kamran, 1999). Moreover, all businesses should develop reliable customer related databases on customers' needs and expectations with continuous monitoring of their satisfaction level, (Poonsook, Kusuma, & Pong, 2005). A hallmark of most customer-driven organizations is that the top executives have regular meaningful one-to-one contact with customers who receive goods and services from the organisation, (Proctor, 2000).

Furthermore, small and medium enterprises (SMEs) play a crucial role in most developing and developed countries not only because of their variety and number. They are also involved in all segments of the national economy but more importantly, they have an irreplaceable role in the creation of employment, (Thitapha, 2002; Kumar & Subrahmanya, 2007). The Poverty Reduction Strategy Paper, (Republic of Kenya, 2004), states that the enormous potential of small and medium enterprises (SMEs) in both raising incomes and creation of employment for many families in Kenya makes them an important ingredient in the poverty reduction strategy.

Moreover, the economic survey indicates that the economy generated 469 thousand new jobs in 2006 – 2007 financial years which showed an increase of 5.7 from the previous year, (Republic of Kenya, 2008). A large population of this labour force was absorbed in the informal sector which generated 418 thousand jobs most of which are involved in the SMEs, (World bank, 2001). The lack of barriers to entry into the sector has made it a fall back opening for those leaving education and training institutions as they await to join the modern sector and for those leaving the modern sector and for those who cannot secure formal employment due to lack of relevant and appropriate skills, (Republic of Kenya, 2010).

In addition, TQM in essence is a continuous effort for the improvement of quality and achievement of customer satisfaction. It is basically an organizational strategy considered as a change program for the achievement of excellence by producing quality service as defined by the customer, (Garg, 2008). On the study of TQM’s effect on the performance of the organization, most research have emphasised on analyzing the relationship between the implementation of different and several types of performance, (Poonsook, Kusuma, & Pong, 2005). Generally, SSEs provide development sinews to the hook and corner of the economy. In the industry, economic growth is accelerated by the SSEs, as SSEs are productive and vibrant contributors to the global economy. Employment generation in SSEs is faster and swifter, 0.5 million jobs annually. SSEs is 33% more employment intensive than the whole of the economy put together, (SIDO, 2004).

Methodology

The study was quantitative and used survey design. The study targeted 502 small scale enterprise owners in Kaperset location of Wareng District of Uasin Gishu County from which a sample population of 150 which was used based on the various types of business activities carried out. To find the sample size, the researcher applied 30% of the target population,(Neumann, 2000).*The sample size consisted of 150 respondents drawn from six categories of business activities namely metal works, woodwork/carpentry, kiosks/shops, beauty services, bars and butcheries.* The study used stratified sampling technique to select *categories of business activities* and then drawn respondents from each category, (Babbie, 2008). In this study, the sample respondents were selected at random from small-scale enterprise owners who have less than ten employees. In the research, the questionnaires were used to gather information on the aspects of the enterprises owners as well as the enterprises. The structure of the questions in the questionnaire was both open and closed ended questions, (Walliman, 2005). The data collected was analyzed quantitatively using Statistical Package for Social sciences (SPSS) computer program. Descriptive statistics was used in data analysis.

Analysis and discussion

From the study findings according to Table 1 on performance of organisation and the selected TQM principles, 36% of the respondents mentioned that the performance of their organization was very good as a result of customer focus. Therefore, this means that customer focus was the TQM principle was regarded by the respondents to have influenced the performance of the small scale enterprises in Kaperset location of Wareng District, Uasin Gishu County. Focusing on the customer can give SSE a competitive edge in the industry.

Table 1: Performance of organisation and customer focus

Performance of organisation and customer focus		
Rating	Frequency	Percentage
Very good	54	36.0
Good	49	32.7
Fair	47	31.3
Poor	0	0.0
Very poor	0	0.0

According to Table 2 on the issue of customer focus and performance of small scale enterprises, profitability of business through repeat sales and customer retention had 48.7% of the respondents strongly agreeing. This meant that most respondent strongly agreed that customer focus results in profitability of the business through repeat sales and customer retention hence these results have

established that if small scale enterprises focuses on the customer, it will have a tremendous impact on the performance and growth of SSEs.

Linking of business objectives to customer needs had 36.3% of respondents disagreeing. This may be attributed to lack of understanding by the respondents to set smart objectives as most of them had primary and secondary level of education and only few having tertiary and university education. Prompt acting on criticism/complaints from customers had 31% of respondents disagreeing. Disagreement to this fact may be due to the fact that customer behaviour is usually not homogenous, but heterogeneous, meaning that they behave differently. Research on customer needs and expectation on regular basis had 48.0% of respondents who disagreed with the opinion.

From the findings on research on customer needs and expectations on regular basis, the majority of the respondents disagreed (48%) and a further 37.3% strongly disagreed. From this it can be concluded that majority of the respondents in the study area did not research on customer needs and expectations on regular basis. This may be attributed to lack of resources and skills necessary to undertake research studies. Finally, communication of customer needs and expectation throughout the business enterprise had 30% of respondents who also disagreed. Customer needs and expectations keep changing and their communication may require more than customer focus for it to be successful. This may be due to the fact that customer needs and wants keep changing in the advent of globalisation and information and communication technological advancement. (SA= Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree).

Table 2: Customer focus and the performance of SSEs

Customer focus and the performance of SSEs (%)					
Item	SA	A	N	D	SD
Profitability of the business through repeat sales/ customer retention	48.7	27.3	6.0	5.3	12.7
Linking of business objectives to customer needs	10.7	24.0	4.0	36.3	25.0
Prompt acting on criticism/complaint from customers	20.7	23.7	3.3	31.0	21.3
Research on customer needs and expectation on regular basis	3.3	5.3	6.1	48.0	37.3
It ensures the communication of customer needs and expectation	17.3	20.7	5.3	30.0	26.7

Conclusions and implications

In conclusion, it is clear that customer focus has an influence on the performance of SSEs. This is to imply that it is an important principle to an enterprise because it can determine the profitability and sustainability of an organization. Small scale enterprises can rise or fall on the premise of how they focus on their customers. How an enterprise embraces this TQM principle is what will differentiate it from the rest of the organizations and give it a sustainable competitive advantage.

Recommendations

The various small scale entrepreneurs must be trained on the issues that pertain to entrepreneurship especially on principles of Total Quality Management so that these SSEs can gain comparative advantage. This will also ensure that success is realized in the industry. Additionally, there should be the collaboration and cooperation of the various stakeholders in the industry to ensure the success of SSEs. Also, the government should be more involved to ensure that these small scale enterprises that are coming up succeed. This can be done by the creation of an ample business environment that will

be conducive to these small scale enterprises. Last but not last, a mechanism should be in place to ensure that there is tax waiver on small scale enterprises in terms of raw materials, services, consultancy and so on in order to reduce the barriers of entry into the industry. Lastly, there should be subsidies directed to essential goods and services that are required by small scale enterprises so that their business environment is more conducive.

Opportunities for further research

Research can be conducted to find out how the other remaining principles of TQM influence the performance of SSEs. The other principles include involvement of people, system approach management, value-added to processes and leadership.

References

- Babbie, E. (2008). *The Basic of Social Research* (4th ed.). California: Thomson Wadsworth.
- Barrat, C., & Whitehead, M. (2004). *Buying for Business: Insights in Purchasing and Supply Management*. West Sussex: John Wiley and Sons Ltd.
- Besterfield, D. H. (2001). *Quality Control* (6th ed.). New York: Prentice Hall.
- Bhargava, S. (2007). Towards Entrepreneurship Development in the 21st Century. In S. Bhargava (Ed.), *Developmental Aspects of Entrepreneurship*. New Delhi: Response Books.
- Bhole, L. M. (2007). The Evolution of the Concept of Entrepreneurship. In S. Bhargava (Ed.), *Developmental Aspects of Entrepreneurship*. New Delhi: Response Books.
- Carsrud, A. L., & Brannback, M. E. (2007). *Entrepreneurship*. London: Greenwood Press.
- Dahlgaard, J., Kristensen, K., & Kanji, G. (2007). *Fundamentals of Total Quality Management*. London: Taylor and Francis.
- Dollar, D., & Aart, K. (2002). Growth Is Good for the Poor. *Journal of Economic Growth*, 7(3), 195-225.
- Garg, I. (2008). Employees Training & Participation : A Must For Total Quality Management. *Proceeding of IABR & TLC Conference*. San Juan, Puerto Rico, USA.
- Hansson, J. (2003). *Total quality management, Doctoral Thesis*. Sweden: Lulea University of Technology.
- Hatten, T. S. (2012). *Small Business Management : Entrepreneurship and Beyond* (5th ed.). Ohio: South-Western Cengage Learning.
- Havinal, V. (2009). *Management and Entrepreneurship*. New Delhi: New Age International Publishers.
- Kamran, M. (1999). *Dissertation on the Quality Culture in Pakistani Organizations*. Sheffield: Sheffield Hallam University Press.
- Kumar, R. S., & Subrahmanya, B. (2007). Subcontracting relationships of Indian SMEs with global TNCs. Do SMEs gain? How? *Journal of Asian Economics*, 5(39), 21 - 40.

- Lancaster, G., & Reynolds, P. (2006). *Management of Marketing*. New York: Butterworth Heinemann.
- Lee, S. M., Lim, S., Pathak, R. D., Chang, D., & Li, W. (2006). Influences of student attitudes towards entrepreneurship : A multi country study. *Entrepreneurship management*, 2, 351 – 366.
- Michalska-Cwiek, J. (2009). Enterprises' evaluation according to the polish quality awards. *Journal of Achievements in Materials and Manufacturing Engineering*, 36(2), 199-206.
- Neumann, L. (2000). *Social Research Methods : Qualitative and Quantitative Approaches*. Massachusetts: Needham Heights.
- Organization for Economic Co-operation and Development. (2010). *Trade by Enterprise Characteristics Database*. New York: OECD.
- Orser, B., Spence, M., Riding, A., & Carrington, C. (2008). *Canadian SME Exporters*. Ottawa: University of Ottawa Press.
- Poonsook, J., Kusuma, P., & Pong, H. (2005). An application of Total Quality Management for Thai Communities Knowledge Management Systems. *Proceeding of the Fourth International Conference on Business*. Bangkok.
- Pretorius, M., VanVuuren, J. J., & Nieman, G. H. (2005). Critical evaluation of two models for entrepreneurship education: An improved model through integration. *International Journal of Educational Management*, 19(5), 413 – 427.
- Proctor, T. (2000). *Strategic Marketing: An introduction*. New York: Routledge.
- Republic of Kenya. (2004). *Poverty Reduction Strategy Paper*. Nairobi: Kenya National Bureau of Statistics.
- Republic of Kenya. (2008). *Economic Survey*. Nairobi: Kenya National Bureau of Statistics.
- Republic of Kenya. (2010). *Economic Survey*. Nairobi: Kenya National Bureau of Statistics.
- Revilla, P. (2001). *Using Total Quality Management to improve Spanish industrial*. Madrid: National Statistical Institute of Spain.
- Rukunga, N. (2000). *Excellence in Business : The Entrepreneur's Handbook*. Nairobi: R.N. Publishers.
- Small Industries Development Organisation. (2004). *Half Century by DCSSI*. New Delhi: Government of India.
- Tarus, D., Ng'ang'a, S., Lagat, C., & Omboto, P. (2007). Small and medium size manufacturing enterprises growth and work ethics : A case of Jua Kali enterprises in Eldoret, Kenya. *Journal of Geography and Regional Planning*, 4(8), 498-504.
- Thitapha, W. (2002). SME subcontracting as a bridgehead to competitiveness : An assessment of supply side capabilities and demand side requirements. *Asia Pacific Development Journal*, 9(1), 65-87.

Thomas, N. (Ed.). (2004). *The John Adair Handbook of Management and Leadership*. London: Thorogood Ltd.

Umsobomvu, T. (2004). *Leading entrepreneurship education providers in South Africa*. Cape town: University of Western Cape press.

Walliman, N. (2005). *Your Research Project* (2nd ed.). London: Sage Publications Ltd.

World bank. (2001). *World Development Report 1999/2000*. New York: Oxford university Press.