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Effects of Capital and Technology on the Performance of SMEs in the Manufacturing Sector in Kenya - Case of selected firms in Thika Municipality

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Abstract

The global concern about the persistent stagnation and even decline in economic growth accompanied by chronic unemployment, poverty and its resultant problems has led to increased search for strategies which could stimulate economic activity in many economies. Small business development has been at the centre stage of these efforts based on the notion that small businesses form the context within which entrepreneurial activity takes place. Small Medium Enterprises (SMEs) have been found to have a higher potential for job generation because of a lower cost per job created. The study was prompted by the fact that a large number of SMEs in the manufacturing sector have not been performing well while others have closed shop yet they are expected to enable the government of the Republic of Kenya to achieve its 2030 vision. The study particularly sought to find out those key factors that contribute to the failure of small businesses in order to enlighten the entrepreneurs about them so as to avoid them. The main factors investigated includes: capital, technology, management, franchising, product diversification, and government policies. This paper however concentrates on capital and technology. The study was carried out using a descriptive research design. The sample under study was collected through stratified random sampling technique in selecting the respondents. The data was the collected through interviews and questionnaires. Data was analyzed and presented using descriptive and inferential statistics. The study found that capital is vital for superior performance and increase of competitiveness of the firm. Technology was also found to be important though the SMEs are mostly manual driven. The recommendation are to have policies governing the finance sector and particularly in regard to collateral. Government can assist the SMEs by acting as their guarantor having carried out the risk analysis and mainstreaming the SMEs identification. Higher learning institutions could also be used for technology driven information incubation, dissemination and implementation by the SMEs.

Key terms: Collateral, Finance, Competitiveness, Incubation, ICT, Industrialization

1.0 Introduction

Most previous studies in Africa treat informal sector as essentially homogeneous in its characteristics. However they are heterogeneous in nature cutting across all sectors of the economy. Majority are characterized by small activities, limited capital and equipment, limited access to information, limited markets and employ labour intensive technology (KIPPRA 2002). The SMEs play an important role in the Kenyan Economy contributing to over 50 per cent of the new jobs created (Economic survey, 2006). Despite their significance, past statistics indicate that three out of five businesses fail within the first few months of operation (KNBS, 2007). The few firms that have succeeded to grow into large companies have in a way managed to address, although not adequately, the major factors affecting the manufacturing SMEs. These factors that affect the manufacturing firms are many and varied. If they are addressed properly the firms would perform well, survive and even grow into bigger companies. In addition, they would create more jobs to the jobless and improve the general welfare of the communities they serve. In Thika Municipality, there is a big number of unemployed people due to redundancy, illiteracy, retrenchment among other factors. Some of the unemployed residents started their own small businesses in the hope of earning some kind of income. This led to the creation of more than 60 companies and over 2000 registered micro and small enterprises mainly drawn from the informal sectors (ROK, 2006). However, these businesses are not flourishing as they should. The question addressed in this study was therefore "what are the factors that affect the performance of small and medium manufacturing businesses in Thika Municipality".

2.0 Literature Review

According to Needles (2007), organizations are evaluated on the basis of the performance excellence criteria, which is a set of standard that is agreeable to all players. It is known from economic development that, until a

certain stage of maturity is reached, economic growth is driven largely by industrialization. But industrial development is not simply a matter of production process; it is a matter of a well-functioning financial sector (Isaksson, 2001). In both developing and developed countries, small and medium scale enterprises play important roles in the process of industrialization and economic growth (Ogujiuba and luche, 2004). However, the long term growth and competitiveness are compromised by the constraints on their access to alternative forms of finance among other systematic and institutional problems in developing countries. Limited access of SMEs to credit and financial services has been identified as one of the most important constraints confronting the sector in Kenya (Soderbom, 2001). This has often led to poor maintenance or replacement of machinery, inability to purchase required materials and services or to expand (Levitsky and Oyen, 1999). According to Evans and Carter (2000) and Whincop (2001), large firms benefit from established capital markets where small firms cannot raise funds. Owing to lack of well-developed finances information systems, the financial sector is the main sources for SMEs external funds.

Technology does not assure SMEs success or competitiveness, however, SMEs that make effective use of technology tend to be more competitive than those that do not (SME survey, 2007). Technology is a real business enabler and if competent levels of ICT maturity have been reached, successful delivery of the company strategies will be enabled. To continue to be competitive and ensure future growth, ICT infrastructure has to interface with the needs of the business and have the flexibility to adopt to changing markets (SME survey, 2007). Rogerson (2001) strongly advocate that they need access to appropriate technology if they are to have a competitive advantage otherwise their inability to secure technology especially at start-up level impact negatively on the entrepreneurship development process in today's world of globalization. Tlhomola (2002) argues that the challenges in the political climate, some countries had out of necessity to steal ideas from the competitors in order to upgrade their technology to enable them meet the challenges of the changing environment. Successful entrepreneurs had to be technology oriented and willing to adapt to a changing environment, whereby innovation is a key to survival.

Rwigema et al (2004) advocates that initiative is essential as the business depends on entrepreneurs' action. Managing the complexity, reliability, variety of products, integration into existing systems, ever-changing developments in technologies and the costs related to all of these issues, are some of the challenges facing SMEs. Innovation is explicitly included in definitions describing the entrepreneur as a person who introduces new or improved products, new production techniques new processes, new markets, new marketing or sales methods, new channels of distribution and promotion, new inputs and raw materials, new or improved services, new methods of financing, new technology and many others. On innovation, Williams (2007) notes that the goal today is to embed the innovation culture into each and every area of the company. Further, he argues that this is achieved by providing organizations behaviors, characteristics and systems of a growing innovative organization.

3.0 Research Methodology

This study was conducted through a descriptive research design. Survey was carried out on manufacturing SMEs in Thika Municipality. From 404 manufacturing SMEs in Thika Municipality (Municipal of Thika 2010) 81 SMEs were selected using stratified sampling method. The method enabled inclusion of all the SMEs in various sectors like: textile work (both tailoring and knitting), woodwork (both carpenters and upholsteries makers), metal work, animal feed manufacturers and soap makers. Questionnaires, interviews and document analysis methods were used as the main tools for collecting data. Triangulation of the tools enabled to balance between the quantitative and qualitative data collection for fuller explanation of the phenomena under investigation.

4.0 Data Analysis

Data collected was analyzed with descriptive statistics using SPSS which included percentages, mean scores and frequency tables. Factor analysis was undertaken to make the data more manageable by reducing the number of variables by reducing the problems of multicolinearity. Where the degree of association between variables were required, the researcher applied the Pearson's product correlation coefficient (r) which tends to vary between -1 and +1.

5.0 Research Findings and Discussion

Performance of SME's

Performance was a term that was used frequently in relation to the factors that affect it as far as SMEs in Thika Municipality were concerned. Respondents were asked to state their feelings about the performances of their businesses. From their responses, 49.2% considered their business to be deteriorating while 42.3% considered their business successful with only 8.5% of the respondent saying their businesses were very successful. Further probe revealed that businesses that were starting faced serious challenges that made owners consider their business as doing poorly within the first year of start up. It also found that most micro and small business hit their peak at the fifth year. After the fifth year, most entrepreneurs seem to suffer from what may be described as entrepreneurial burnout as the excitement declines. This may partly explain why most business as they are more than 5 years and above consider their businesses as being in the process of failing. This finding seems to confirm the observation made by Long Necker et al (2006) that burn out may lead to entrepreneurs losing interest in one business venture and instead look out for other opportunities.

Sources of Capital

The question sought to establish the entrepreneurs' sources of capital. It was found that 47.5% made use of their personal savings, 46.5% obtained their capital from friends and family while 15% had accessed their capital from commercial banks. The remaining 12% of the respondents obtained their capital from micro finance institutions. More importantly, most respondents indicated more than one source of capital with 23% indicating their sources as "own savings" and family & friends. A further 17% of the respondents indicated that they had obtained further capital from commercial banks. Micro finance institutions also played a big role with regard to provision of additional capital. 60% of the respondents had from time to time been involved with the MFI's in provision of additional funds. Most of these entrepreneurs would be in groups "Chama's", through which funds were channeled.

Extent capital affects performance of businesses

The importance of capital on business performance and survival was stressed by an overwhelming 97.1% of the respondents who indicted that lack of funds/capital affected their performance greatly. A further 2.9% indicated that capital affected their business to fairly great extent. This indicate the extent of capital requirements for SMEs success in their businesses. Growth is majorly achieved through capital for assets procurement, human resource, infrastructure and technology. This corroborates with earlier findings that lack of capital affects performance of business (Levitsky & Oyen, 1999; Soderbom, 2001).

Technology used

The respondents had been asked to indicate the type of technology used in their firms. Results indicated that majority of the respondents (84.3%) used manual technology, while a further 10% of the respondents used intermediate technology. Only 5.7% of the respondents had employed computerized technology. The technology in use determined the speed and efficiency of a firms operation. SME's in Thika seem to be lagging behind in embracing technology which affects performance and competitiveness of firms in the municipality. From a different question, 60.9% those who use manual technology were willing to change to other technologies if they were assisted financially. This means that finance levels of a firm dictates the technology used and ultimately performance of the firm.

Extent to which technology used affected performance

The question sought the respondents view on the extent of the level of technology in use affected the performance of their business. SMEs require technology not only for faster quality processing of products, but also for cost saving purposes. Respondents indicated that they were generally not satisfied with the level of technology employed by their firms as this affected their performance. Majority, accounting for 55.7% indicated that technology used affected their performances to a very great extent while 27.2% indicated that this was to a great extent. 17.1% of the respondents on the other hand indicated that the technology in use only affected their

performance moderately. This reveals the need for technology use by the SMEs for success as it enhances quality of goods therefore increasing SMEs competitiveness.

6.0 Recommendations

The study recommends the government and other financial providers provide training packages to cover such areas as book keeping and compilations of business plans. Lenders, it is has been noted, are prone to be favorably biased towards manufacturing SMEs who can demonstrated eloquence in areas such as financial management (including basic book keeping)marketing and technology upgrading.

Banking systems require some security and collateral because banks do not see SMEs entrepreneurs as investors. The study recommends revision of collateral laws to facilitate the registration and realization of collateral. SMEs should be encouraged to join cooperatives which can easily give loans guaranteed by members. The government could also in aim of economic development act as guarantor while assessing the risks involved which can be cushioned by having laws governing the same.

The study concludes that technology is an important factor that affects the performance of the SMEs in the manufacturing sector. It therefore recommends introduction of formal training workshops geared towards the use of modern manufacturing technology. Higher learning institutions can be engaged to save the local industries by incubating the technologically viable ideas and carrying out research on behalf of the SMEs. Dissemination of the research findings should also be clearly thought of to ensure information reach the SMEs on time and guidance on implementation should also be availed.

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