FACTORS AFFECTING GROWTH OF SMALL AND MEDIUM WATER BOTTLING ENTERPRISES IN NAIROBI, KENYA

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ABSTRACT

The water sector has the potential to substantially improve the lives of Kenyans by ensuring access to clean water and acceptable sanitation services. The need for safe drinking water coupled with mistrust for the purity of tap water largely led to introduction of bottled water which represents only 0.4 % of the total commercial value of water consumed in terms of volume. Kenya’s bottled water market has a majority of registered players based in Nairobi. The market though, is dominated by half a dozen large firms that is, Coca cola’s Dasani, Keringet, Highlands, Quencher and Aquamist who account for 60 % of the total bottled water sales. The Small and Medium Enterprises (SMEs), who comprise 98 % of the registered players on the other hand only account for 40 % of the total sales. The bottled water market has high rate of annual growth of 12% with bottled water consumption estimated at 314 Million litres currently. But in spite of increased consumption and growing demand for bottled water, SMEs in Nairobi have been experiencing low sales turnover. The study sought to explore the factors affecting growth of small and medium water bottling enterprises in Nairobi. The study attempted to determine whether start-up capitalization, marketing skills, legal and regulatory requirements and technology affect growth of small and medium water bottling enterprises. Descriptive research design was adopted for this study. Simple random sampling technique was employed to sample 105 water bottling SMEs. The study area (Nairobi) had a population of 350 registered water bottling SMEs. Questionnaires were the main instrument of data collection and were supplemented with interview schedules. The instrument was pilot tested on 11water bottling SMEs in Nairobi to ensure reliability and validity. Descriptive statistics was used to analyze quantitative data using statistical measures of central tendencies, dispersion and distribution. Qualitative data was coded and classified into themes and perceptions and reported in the findings. The study found out that raising the start-up capital is a challenge to many entrepreneurs as is marketing. The managers also do not apply the latest technology in their business thus affecting growth of their businesses. Arising from these findings, the study recommends that financial institutions should find alternative ways of securing loans. Firms should also improve in their marketing strategies as well as adopt appropriate technologies. Further, laws and regulations which are a hindrance to business should be reviewed.

Key Words: small and medium water bottling enterprises, Nairobi, Kenya
Introduction

In the UK, small enterprises are defined as those enterprises having 1-50 employees, a turnover of not more than £6.5 million and a balance sheet total of not more than £3.26 million, while medium sized firm has 51-250 employees, turnover of not more than £25.9 million and a balance sheet total of not more than £12.9 million (Kirby, 2002). In Kenya, Sessional Paper No 2 of 2005 on development of micro and small enterprises for wealth and employment creation for poverty reduction defines small and medium enterprises (SMEs) as those enterprises employing 10-49 for small enterprises and 50-99 for medium enterprises. In order to integrate the SMEs sector into the national economic grid, the Sessional Paper No 2 of 2005 further expanded the definition of SMEs to include all enterprises, both farm and non-farm, employing less than 50 persons (RoK, 2005).

Worldwide the SMEs have been recognized as engines of growth and development (Punyasaratsus, 2009). Many countries have put considerable effort to support them so as to create and tap their employment opportunities, incomes and productive capacity. The SME sector in Kenya contributed 78% of total employment and 20% of GDP, according to the Economic survey of 2007. Growth and profitability of small and medium enterprises enhance their ability to contribute effectively to sustainable development, employment creation and poverty alleviation (Okpara & Wynn, 2007). It is however widely acknowledged that the sector faces constraints which hinder their growth, among them financial (Ndungu, 2007).

Bottled water can come from any of the following sources, mineral and spring water must come from an underground source (not a public water supply) and can't be altered with chemicals. Mineral water has a higher amount of dissolved mineral salts; purified bottled water can be water from any source, distilled, carbonated or treated in any manner (Ferrier, 2001).

Kenya is described as a water-scarce country due to limited national endowment and the needs of a growing population (RoK, 2005). This problem has been compounded by water resources degradation and low investments in infrastructure development, and maintenance and operations.

The water sector has the potential to substantially improve the lives of Kenyans by ensuring access to clean water and acceptable sanitation services (RoK, 2005). The availability of good quality and quantity water is central to Kenya’s socio-economic development goals. This is so considering that water is a major resource for energy generation, for urban and rural consumption, agricultural development, tourism, and for industrial growth (RoK, 2005).

In Kenya, it is estimated that the bottled water business alone nets over 1.3 billion shillings (16 million U.S. dollars) annually and with the quest for a safer commodity, the sales are bound to rise with demand (Devas, 2009). Hotels and supermarkets have begun branding their own bottled water products just to compete with the already existing companies and individuals in the business. For a long time, bottled water was seen as a product for the elite (well-to-do individuals), but as years went by, the industry began 'going small' by packaging small quantities that even the not-so rich person would afford. For most urban residents,
water shortage sends shivers in their nerves because the vendors do even sell dirty water to make money regardless of whether it is safe for their clients or not (Devas, 2009).

And as the Ministry of Water and Irrigation strives to ensure that Kenyans access adequate safe and clean drinking water, more and more investors are taking up the challenge in this multi-billion shillings industry to fill the gap occasioned by the shortage (Mathaba, 2011). Bottled water has been used in place of tap water for its convenience, taste, and perceived purity (Lalumandier & Ayers, 2000). Worldwide consumption of bottled water is increasing at 10 % every year with the fastest growth seen in developing countries (Gleick, 2004). This demand for bottled water has been necessitated by changes in lifestyle, increased income levels, convenience, health consideration and safety consciousness among consumers (Sambu, 2010; Lalumandier & Ayers, 2000). Functional bottled water continues to see growth with new product development featured around weight management, improvement in mental function, skin hydration and anti-ageing benefits (Devas, 2009).

Kenya’s bottled water market has 470 registered players of which 350 are based in Nairobi (RoK, 2010). The market though is dominated by half a dozen large firms i.e Coca cola’s Dasani, Keringet, Highlands, Quencher and Aquamist who account for 60 % of the total sales (Sambu, 2010; RoK, 2010). The SMEs, who comprise 98 % of the registered players (350) only account for 40 % of the total sales. Statistics show that the bottled water segment represents only 0.4 % of the total commercial value of water consumed, while conventional water represents 41 % of the total beverage consumed in Kenya in terms of volume (RoK, 2010). Consumption of bottled water though is growing fast at 12 % in Kenya with the country estimated to have a 314 Million litre bottled water market (Githinji, 2010). In spite of increased consumption and growing demand for bottled water, SME’s in Nairobi have been experiencing low sales turnover (RoK, 2011).

In view of the above, a vibrant water bottling sector can therefore play an important role in employment and wealth creation. This will be through a competitive and growth oriented small and medium water processors as envisaged in Kenya’s vision 2030 (RoK, 2007).

**Statement of the Problem**

Growth of SMEs is desirable in order to create wealth for the owner and the country, create employment and reduce poverty in the general population (RoK, 2005). Growth of water bottling SMEs will enable firms take advantage of increased consumption of bottled water which is increasing by 10% every year worldwide with the fastest growth seen in developing countries (Gleick, 2004). Consumption of bottled water in Kenya is at par with the developing countries at 12 % (Githinji, 2010). The increased trend in consumption has been necessitated by changes in lifestyle, increased income levels, convenience, health consideration and safety awareness among consumers (Sambu, 2010; Lalumandier & Ayers, 2000). The increase in demand though is not in tandem with growth of water bottling SMEs with sales turnover increasing by 3 % in 2010 representing 9 Million litres of bottled water while demand grew by 12 % over the same period (Sambu, 2010). To meet the increased demand for bottled
water, SMEs bottling water need to match the increased demand by increase in production and sales turnover (RoK, 2010).

In spite of increased consumption and demand for bottled water, SMEs water bottling firms in Nairobi have not been growing fast enough to meet the demand of bottled water products (RoK, 2011). The SMEs who account for 98% of the players (350) only account for 40% of the total sales (Sambu, 2010; RoK, 2010). The other 60% is shared among large firms namely Coca-Cola's Dasani, Keringet, Highlands, Aquamist and Quencher (Githinji, 2010). This situation if not addressed will lead to lose of employment, as the firms wind up and further diminish the SMEs ability to contribute to sustainable development and wealth creation (RoK, 2005).

According to Ogutu (2003) some entrepreneurs in the water bottling industry ventured into the business because they saw an opportunity; however, they have not sought to understand the technology, acquire marketing skills or even hire marketing personnel so that they can be able to sustain their businesses This necessitates the need to investigate what affects growth of water bottling SMEs in Nairobi.

**General Objective**

To explore the factors affecting growth of small and medium water bottling enterprises in Nairobi.

**Specific Objectives**

1. To determine whether start-up capitalization influences the growth of small and medium water bottling enterprises.
2. To find out whether marketing skills influences growth of small and medium water bottling enterprises.
3. To determine whether legal and regulatory requirements influence growth of small and medium water bottling enterprises.
4. To determine whether technology influences growth of small and medium water bottling enterprises.

**Theoretical Review**

SME’s growth is often closely associated with firms overall success and survival (Passanen, 2003). Growth has been used as a simple measure of success in business and has also been suggested as the most appropriate indicator of the performance for surviving small firms (Storey, 2003). According to Baran & Velickait (2008) there have been attempts to provide an overview and clarify the key factors that cause some business to grow rapidly, while others remain small or grow very slowly. Perenyi (2008) notes that any investigation on factors affecting the growth of firms has to consider at least two different streams of literature: theories about firm growth and theories about entrepreneurship. Perenyi (2008), further states that the aim of growth theories is to describe the growth process and to identify typical features that make growing firms stand out from other enterprises. Cuervo, Ribeiro & Roig (2007) are of the view that entrepreneurship theories try to explain characteristics which differentiate successful entrepreneurs from less successful or unsuccessful ones.
There are two broad approaches in the studies of small firm success: the business professionals’ model and the small business proprietors’ model (Pasanen, 2003). According to business professional model, a successful firm is one that achieves its highest potential in terms of growth, market share, productivity, and return to capital or other measures of the performance of the firm itself. In small business proprietors’ model, the owner-managers’ main concern is whether the firm is providing them with benefits they want from it usually associated with lifestyle and income level to maintain it. Casson (2003) says that it is the function of entrepreneur to rationally combine forces of production into a new producing organization. According to Jovanovic (2000), growth could begin only when hard work and business enterprise were free of heavy taxation, of social stigma and of other interference by the government and the church. This theory challenges the growth economist to explain not just growth, but the evolution of political and religious institutions and social attitudes as well. This study is based on theories stipulated by Jovanovic (2000), Cason (2003) and the business professional model espoused by Pasanen (2003).

In firm development approaches, firms are seen as temporal phenomena which are born, grow, mature, decline, and die (Pasanen, 2003). Firm growth is the basic dimension of the models of organizational life cycles (Greiner, 1972; Churchill & Lewis, 1983; Scott & Bruce, 1987). Pasanen (2003) indicates that numerous models of life cycles have been presented from the three stage model (Smith, Stanworth & Curran, 1985; ), four stage models (Quincy & Cameron, 1983), five stage models (Greiner, 1972; Churchill & Lewis, 1983; Scott & Bruce, 1987). Dodge and Robbins (1994) point out that common to these growth pattern models is that the development of any enterprise, large or small, tends to follow a predictable pattern that is usually characterized by sequential and progressive phases. From the various researches of Churchill and Lewis (1983), Scott and Bruce (1987), and Burns and Dewhurst (1996) conducted on growth models, the problems and challenges the firms face as it grows, suggest that the owner-manager needs to display different managerial talents and skills when dealing with these issues. A small business can flourish if it is able to adapt to shifts in its external environment (Tyebjee and McIntyre, 2005). A number of organizational life cycle models exists which serves to illustrate the changes a firm undergoes as it progresses from initial concept through to the decline stage. Four of the more popular models are that of Greiner (1972), Churchill and Lewis (1983), Scott and Bruce (1987) and Burns (in Burns and Dewhurst, 1996). However, for this study, the Churchill and Lewis (1983) will be presented and is the preferred model for the purposes of this study. It is a widely used model covering the most common phases of a typical life cycle model.

The model developed by Churchill and Lewis (1983) has five stages, namely existence, survival, success, take-off and resource maturity. In the existence stage, the key focus is on obtaining customers and as such the extent of formal systems is minimal and in some cases non-existent. In addition, the organizational structure is flat and therefore the owner-manager adopts a management style where there is direct supervision of those working in the business. As the business progresses to the second stage, survival, the business begins to employ some formal systems as the organizational structure develops more levels and hence, the owner-manager begins to delegate some of the responsibilities to employees. The success stage is characterized by the owner-manager deciding either to keep the business at its current operational level or to use the business to launch into some form of growth. The decision to
will be driven by the owner-manager’s motivation, opportunity recognition and resources. Functional managers are usually used in this stage, as the business would normally have grown for the organization to have employees taking even more management responsibility. In addition, the business has basic systems such as finance, marketing, and operations (Passanen, 2003). In the fourth stage, take-off, the key management issues confronting the owner-manager includes determining the rate of growth and financing of the desired growth. Embedded in making these decisions are issues of delegation where the owner-manager would have to allow for even greater delegation to functional managers to improve organizational effectiveness and availability and access to financial resources required to support the desired growth (Pasanen, 2003). The final stage is resource maturity where the main concern for owner-managers includes managing the financial gains resulting from growth and maintaining the benefits associated with small business such as flexibility, responsiveness to customers’ changing needs and entrepreneurial behaviour. A business in this stage would typically have well-established organizational systems (Churchill and Lewis, 1983).

Several researchers have noted that the firms going through these transitions will be faced with certain management issues. The key issue is how the entrepreneurs/owner managers actually cope with these transitions (Timmons, 1994). Hall (1995) suggests that the transitions that a firm might go through are of an internal nature and usually occurs as the firm grows in size. The life cycle models have been criticized because of their assumption that if a firm does not grow it will automatically die (Nieman, Hough and Nieuwenhuizen, 2003). Many of the models also claim that the order of the stages is very stable. A firm cannot go backwards or skip a stage. The critics have also pointed out that these models do not offer explanations as to why a firm shifts from one stage to another (Snuif & Zwart 1993). The life cycle model of Churchill and Lewis (1983) counters this criticism. In their model, a firm can stay permanently in one stage without dying. Furthermore, a firm can also move backwards during the process. Churchill & Lewis model is ideal for this study since it addresses changes in management as the firm grows in size and age.

**Conceptual Framework**

![Conceptual Framework](http://www.ijsse.org)

**Independent Variables**

**Figure 2.2: Conceptual Framework**
Start-up Capitalization

Conceptual framework is a hypothesized model portraying the relationship between variables graphically or diagrammatically. Conceptual framework helps in quickly seeing the proposed relationship and is put to test in order to establish the significance of the proposed relationship (Mugenda, 2008). The conceptual framework will look at internal and external factors which affect growth of the small and medium water bottling enterprises in Nairobi. These factors are start-up capital level, marketing skills, legal and regulatory requirements, and technology.

According to Garikai (2000), access to credit is not a major constraint for SMEs start-ups because the majority of interventions directed at credit facilitation are in the area of microfinance. However, lack of access to medium or long term credit is the major constraint for those enterprises that wish to expand their activities (Garikai, 2000). The reasons for this are well known particularly the fact that SMEs present a high risk to the lender because many of them have insufficient assets and suffer from low capitalization. In addition, poor accounting records and lack of other financial records make it difficult for banks to assess the creditworthiness of potential borrowers (Garikai, 2000).

According to Morten, Nothard, Ortmann, & Meyer (2009), SMEs indeed face considerable financing constraints which hamper both their profit and turnover growth. He found that young and/or small firms in principle grow faster than older and larger firms. At the same, they also face considerably more severe financing restrictions than other firms. Also firms of manufacturing and construction sectors are more likely to feel financing constraints, which are attributed to the high capital intensity of these sectors. Morten, Nothard, Ortmann, & Meyer (2009), further found that more cash flow fosters growth. Huyghebaet (2008) argues that higher financial leverage creates incentives for an entrepreneur to maximize on short term earnings to enhance firm survival. The positive effect of higher leverage on profitability is empirically confirmed for firms in Belgium and is also found to persist, albeit growing at a declining rate, as firms age (Huyghebaet, 2008). Colluzzi (2008), using survey information collected from firms by the World Bank, whoever found that the effect of higher leverage was ambiguous: it fosters growth in some countries while hampering growth in others. Wanjohi & Mugure (2008), reports that lack of access to long term credit for SMEs forces them to rely on high cost short term finance which impacts on their growth. This also affects technology choice by limiting the number of alternatives that can be considered. Many SMEs may use an inappropriate technology because of affordability because of limited start-up capitalization.

A study carried out by Organization for Economic Cooperation & Development (2005) on challenges facing SMEs in Kenya established that limited access to financing was a problem that was experienced across the board. In spite of Kenya’s relatively large financial services sector, only about 10 per cent of the population is estimated to have access to banking services. The bulk of the poor have no access to formal financial services. Consequently, small entrepreneurs’ start their business by investing their own savings and/or using funds obtained from relatives or friends and supplemented by loans from informal lenders or by credit from suppliers. The report indicated that the main reason why commercial banks are reluctant to lend to the small scale enterprises is that this type of business seldom has any credit history or marketable assets to use as collateral.
Holland (2004) in his analysis of Chinese SMEs and their access to credit facilities found that as much as 56% of the companies funds were from personal savings/sources while 20% came from the banks and a mere 1% from equity. State banks in China traditionally preferred lending to large state owned enterprises, however, with the economic restructuring in place, private small scale businesses are finding their access to credit increasingly limited as a result of new credit restrictions. Analysts in China estimate that a majority of SMEs owners in China are now forced to resort to the underground market in order to gain access to much needed finances. A shortage of capital affects small scale businesses in particular, as they do not have the ability to absorb the risk of experimenting in new markets.

Marketing Skills

Lack of sufficient market information and skills poses a major challenge to SMEs in Kenya (Wanjohi & Mugure, 2008). Despite the vast amount of trade related information available and the possibility of accessing national and international databases, many small enterprises continue to rely heavily on private or physical contacts for market related information. This is due to inability to interpret statistical data and poor connectivity especially in rural areas (Muteti, 2005).

According to Garikai (2011), SMEs use the traditional ways of marketing and these no longer give rise to high levels of revenue and product recognition. This factor has also been identified by Bellema (2009) in his survey in UK and Nigeria. The survey results showed that 69% and 70% of the respondents in the UK and Nigeria respectively agree that poor marketing and sales efforts influence SMEs failure. This implies that the variable is significantly considered as a major factor influencing business failures in the SMEs sector. Garikai (2011), further states that economically, it means that if one fails to market or advertise products then turn over and sales volume will be low and that poor marketing and sales efforts are caused by wrong and untimely advertisements or none at all. Lack of information and market detection are other possible causes as well (Bellema, 2009). SMEs usually face higher production costs and hence cannot sell their produce at competitive prices especially in those sectors where large corporations are also into play (Garikai, 2011).

Garikai (2011), further states that marketing, which is a common source of economies of scale (EOS), spreading cost of advertising over a greater range of output in media markets, is still low and this impact on their growth of SMEs. Cambridge Small business Research Centre (1992), also identified marketing skills among other factors as affecting a firm’s growth progression. Furthermore, following Stokes and Blackburn (1999), it appears that when compared to other functions of their business, SMEs owners have a problem with marketing; they appear to give marketing a low priority, often regarding marketing as “something that larger firms do”. Meziou (1991) concurs that SMEs are more reluctant than larger firms to embrace the marketing concept in their strategy formulations. Apparently, SMEs do not conduct market research, and do not have long-term market planning (Meziou, 1991).

In a study carried out by Saleh, Kaputi and Harview (2006) on perceptions of business challenges facing Malaysian SMEs, findings indicated that factors related to human capital were observed to be the greatest challenge facing the businesses. The factors were indicated by dominance of unskilled workforce in the industry and lack of motivation among the workforce, there was also lack of managerial and marketing skills as well as labour
productivity. The study sought to determine if there was a relationship between business growth and level of training in the line of business. The results showed that 49.5% of those who had received training in their areas of business reported that their enterprises were doing well. Given that 51% received training and nearly all of them (49.5 percent) said their businesses were doing well, the researchers concluded that relevant training could produce positive results in the running of businesses. They therefore inferred that there was a negative relationship between lack of training and business growth.

Tlhomola (2008) in his study on perception of SMEs regarding to factors contributing to failure in South Africa found out that it is an apparent issue that when businesses are not properly marketing their products, it is likely for such business to perform poorly. He therefore argued that it was imperative for SMEs to improve the way they market their products as reflected in the responses where most of the respondents (65.8%) agreed that many businesses collapse because of poor product marketing. He observed that the findings confirmed what Gbadamosi (2006) found on SMEs’ limited marketing capacity that the economic power of many of these SMEs is small, hence they mostly serve their localities-local markets and environment, and that there is a need for marketing orientations and market expansion.

Abdelrahim & Alasadi (2007) further observed that it was expected that training in marketing in particular would have a direct impact on the performance of the firm in turnover. The following results were found with regard to this variable: there were significant differences between the declining and improving firms with regard to training in marketing; training in marketing and the strength of the business in marketing skills were positively related; and marketing and turnover growth were also related and this relationship was positive and highly significant. Training, therefore, in a particular field of business may improve the skills of the owner/managers in that area and subsequently it may have a positive impact on the performance of the firm. The absence of training does not necessarily lead to failure, but the presence of training would increase the chance of success.

Legal and Regulatory Requirements

Many countries have acknowledged that SMEs have an important role in their economies. However, not much effort has been done to facilitate their growth. They have to compete for finance, markets, personnel, and utilities like any other business unit. In a few countries especially India, there has been affirmative action to promote small enterprises over a long period (Punyasavatsut, 2009).

In Kenya, the SMEs have been supported by the Kenya Government as avenues for industrialization and development (RoK, 2005). However, Alila & McCormick (1994) reports that it is easier for large enterprises to get land for industrial development and license to operate the business than the small operator. Further, large enterprises also get easy access to utilities than small enterprises. Government tenders are biased and do not give preference to SMEs hence the market for SMEs output is very low. Consequently, there is no enabling environment to promote SMEs.

A legal and regulatory system that calls for complex registration and licensing requirements and demands tedious and costly reporting practices impose heavy costs on SMEs (Garikai, 2000). They are a disincentive to increasing the size of business operations. This is in tandem with the findings of Wanjohi and Mugure (2008) who indicated that unpredictable
government policies coupled with grand corruption, high taxation, all pose great threat to growth of SMEs. Garikai (2000) indicates that statutory requirement for settings up businesses vary among countries from strict to non-existent. In Kenya, Burkina Faso and Samoa, obtaining a business license is a protracted process while a license is no longer a requirement for establishment or expansion of business in Nepal since 1992. Manufacturing license is the most difficult to obtain given the need for health and environmental requirements. Burkina Faso, Nepal and Zambia have a system of exemptions in place to reduce the burden of tax on small enterprises (Garikai, 2000).

Mitullah (2003) in her study on SMEs in Kenya found that most urban authorities in Kenya were operating on colonial by-laws that had yet to be reviewed. The policies were deficient and the urban authorities had not only failed to enforce them, but in reality given their form and coverage, they were not possible to enforce. The research further revealed that, while the basic idea is that licensing which originally intended to enable entrepreneurs to conduct their businesses productively and profitably, had become a stumbling block. In spite of the number of people who can be licensed being limited, once the license is given, it is shrouded with many other outdated restrictive requirements relating to public health, building requirements, and other regulations outlined in the Local Government Act. This had resulted in most traders evading licenses, and therefore flouting most regulations laid down by authorities. The study concluded that there was need for Local Authorities to put in place relevant policy frameworks and reviews of the existing by-laws if they have to conform with government policy of enhancing the performance of SMEs.

In a study carried out by Economic Commission for Africa (2001) on enhancing the competitiveness of small and medium enterprises in Africa, the mission found that many African countries do not have a legal and regulatory framework that supports the growth of the SME sector. In the case of Uganda, an extensive number of outdated and cumbersome laws and regulations had increased the transaction costs of SMEs, thereby hampering their economic performance and growth. In Ethiopia, the complexity of the customs system and the many forms and declarations required had a negative impact on the general business climate, diverting entrepreneurs’ efforts from more productive tasks. Evident showed that custom duties and tariffs discriminated against local producers.

The commission observed that in other African countries, the problem has often been the governments’ inconsistency and lack of transparency in implementing policies. In some countries like Nigeria for example, in recognition of the key role played by SMEs, the government formulated special policy measures and programmes to encourage their development. It included favorable laws and regulations on contracts, leasing, and corporate tax, as well as fiscal and export incentives for SMEs. However, the political will for proper implementation was never there. Corruption diverted the support programmes from the original beneficiaries. Illegal permits and licenses were given at all levels to family members and friends operating informal micro enterprises that did not qualify for tax relief and other incentives. Consequently, there was little or no impact on the original group (Economic Commission for Africa, 2001).
Technology
Since the mid 1990s there has been a growing concern about the impact of technological change on the work of micro and small enterprises (Wanjohi & Mugure, 2008). Wanjohi & Mugure (2008) further avers that even with change in technology, many small business entrepreneurs appear to be unfamiliar or unaware of new technologies. But if they do the cost is prohibitive. This hinders competitiveness of their business and suppresses growth.

In most African nations, Kenya inclusive, the challenge of connecting indigenous SMEs with foreign investors and speeding up technological upgrading still persists (Muteti, 2005). SMEs survival depends on their capability to improve on their performance and produce products that could meet international standards (Gomez & Simpson, 2007). In other words a certain level of competitiveness appears to be a pre-requisite for SMEs survival when dealing with a dynamic condition in the business environment. To compete with global competition and overcome rapid technology change and product variety proliferation in the manufacturing environment, SMEs must be able to sustain product innovation (Laforet, 2007). Garikai (2011), further states that because of their sizes, SMEs end up using cheap technology which is usually not top of the range. This is associated with high cost of production and therefore low competitiveness. For instance small enterprises cannot afford to use computers or continuously upgrade their equipments.

O’Regan & Ghobadian, (2004) investigated a sample of 2007 manufacturing SMEs and found a positive correlation between R & D investment and technological change in products and processes in firms with static or declining sales. Gassman & Keupp (2007), in his study concluded that managers of SMEs should invest less in tangible assets but more in areas that will directly generate their future competitive advantage; that is incremental innovation in existing technologies.

Ngahu (1992) in his study on choice of technology in SME industries observed that SMEs face unique constraints that hinder the effective choice of technology. This is supported by Cloete, Courtney & Fintz (2002) who in their study of adoption of e-commerce in South Africa found that choice and adoption of technology is heavily influenced by factors within the organization. Many small scale enterprises owners or managers lack managerial training and experience. The typical owner or managers of small businesses develop their own approach to management, through a process of trial and error. Lack of information is a key problem affecting SMEs in developing countries because their choice of technology is based on insufficient information and ineffective evaluation. Ignorance was cited as a key constraint affecting the choice of technology by small scale enterprises.

Empirical Literature
SME’s growth is often closely associated with firms overall success and survival (Passanen, 2003). Growth has been used as a simple measure of success in business and has also been suggested as the most appropriate indicator of the performance for surviving small firms (Storey, 2003). The most frequently used measure of growth has been change in the firm’s turnover (Passanen, 2003). Another typical measure of growth has been change in the number of employees. However these measures which are frequently used in the SME’s context are strongly correlated.

According to Doria (2006), bottled water consumption is driven by two main drivers. These drivers concern consumers buying behavior in USA, Canada and France. The drivers are:
organoleptics (water characteristics that affect the senses of taste, odour and sight) and health and risk concerns (risk concerns may be seen as safety). Doria (2006) argued that many consumers in these developed countries are not satisfied with the tap water quality. Moreover, the consumption of bottled water has often been high in communities that have serious problems with their tap water. Such problems provide new opportunities for bottled water producers and marketers, who present their product as ‘pure’, ‘safe’ and ‘healthy’. He also argued that consumers are sensitive to the marketing of the business. Not only the advertisement, but also the package influences their buying behavior. As many consumers prefer products which seem to have higher health benefits, a great part perceives bottled water to be reliable and, most of all, healthier than other water.

Rodwan (2009) partly agrees with Doria (2006). According to Rodwan (2009), bottled water industry is just taking advantage of the growing health and well-being consciousness of consumers. He however, stated that consumers in developed countries as the USA and Canada perceive bottled water as a good alternative to other beverages, such as carbonated soft drinks and juices. It is not only a way to achieve hydration for them, but it is also healthy and thirst-quenching.

Rodwan (2009) argues in contrast with Doria (2006), that it is in the developing countries, where bottled water serves as an alternative since these countries often have unsafe water. Shandling (2008) on the other hand did not come to a regional conclusion in her study. She claimed another main global driver is an increased awareness of people of the need for and benefits of hydration for body and mind. Furthermore, bottled water is becoming more accessible in growing economies such as Latin America and Eastern Europe, she argued.

**Critique of Existing Literature**

Role of capital leverage in determining the success or failure of small businesses in Africa is ambiguous. While some researchers are of the opinion that start-up capital leverage stimulates growth of SMEs others differ thus magnifying the importance of this study’s aim to provide a better understanding of the role of the level of start-up capitalization in the success or failure of small business in Kenya. Meyer (2009) found that more cash flow fosters growth of firms. This is supported by Huyghebaet (2008) who empirically confirmed the positive effect of higher leverage on profitability but which persist, albeit growing at a declining rate as the firms’ age. On the other hand, Colluzi (2008) however found that the effect of higher leverage was ambiguous. It fosters growth in some countries while hampering growth in others.

Various studies in other sectors like the footwear sector are in agreement that inadequate marketing skills have a negative growth correlation (Bellema, 2009; Garikai, 2011). Gbadamosi (2006) however contends that the economic power of SMEs is small and hence limit their marketing capability and reach. Further, Stoke & Blackburn (1999) says that failure of proper marketing is due to low priority given to marketing by SMEs management. Meziou (2001) concurs that SMEs are more reluctant and don’t put much weight to marketing concept than larger firms.

The literature review generally identified technology as a tool to enhance competitiveness of SMEs. However investment in technology by SMEs is low with use of poor low cost technology rampant (Ngahu, 1992; Muteti, 2005). Laforet (2007) states that in order to overcome rapid technology change, SMEs must be able to sustain product innovation. Legal
and regulatory requirements have also been cited as a hindrance to SMEs growth. Mitullah (2003), in her study of SMEs in Kenya cited outdated colonial by-laws and deficient policies as key in hampering business growth. The Economic Commission for Africa (2001) however contends that whereas the laws and regulations may be there, corruption and non implementation of policies were a hindrance to businesses growth. This is supported by Wanjohi & Mugure (2008) and Alila & McCormic (1994). Certain countries like India have put in place affirmative measures to address this situation. Legal and regulatory requirements also need to be reviewed.

In the bottled water industry, Doria (2006) identifies safety and health as well as organoleptic concerns as the main drivers for bottled water consumption. This is corroborated by Rodwan (2009) but who also states that bottled water is perceived by consumers as a good alternative to other beverages such as carbonated drinks and juices. Shandling (2008) on the other hand identifies increased awareness of people of the need for and benefits of hydration for body and mind as another global driver for bottled water consumption.

**Research Methodology**

**Research Design**

Bryman and Bell (2007), defines research design as the structure that guides the execution of a research method, and the subsequent analysis of acquired data. It provides a framework for the generation of evidence that is suited both to a certain set of criteria and to the research question in which the investigator is interested. Descriptive research design was adopted in this study. A descriptive research determines and reports the way things are (Mugenda & Mugenda, 2003). Creswell (2002) observes that a descriptive research design is used when data are collected to describe persons, organizations, settings, or phenomena. Descriptive design was ideal as the study was carried out in a limited geographical scope and hence was logistically easier and simpler to conduct considering the limitations of this study (Mugenda, 2008). The design also has enough provision for protection of bias and maximized reliability (Kothari, 2008). Descriptive design uses a pre planned design for analysis (Mugenda & Mugenda, 2003).

**Population**

According to Cooper & Schinder (2008), population refers to an entire group of objects/individuals having common observable characteristics. It’s also described as an aggregate of all that conforms to a given specification (Kothari, 2008). The target population were the 350 water bottling SMEs in Nairobi. The study population were the owners and top managers of water bottling SMEs.

**Sampling Frame**

This is the list of ultimate sampling entities which may be people, households, organizations or other units of analysis (Mugenda, 2008). It is a physical representation of the target population and comprises all the units that are potential members of a sample (Kothari, 2008). To meet the expectation of the sampling theory that all possible units in the target population be identified to enable probability for selecting a random combination be calculated, Ministry of Labor and Human Resources Development, Department of Small and Medium Enterprises register was used to derive the sample of water bottling SMEs in Nairobi. Identification of proprietors and managers of water bottling SMEs was enabled.
through the assistance of the senior human resource officer in the department of human resource development at the headquarters, Nairobi.

**Sample Size and Sampling Technique**

Sample size determines the precision which population value can be estimated and therefore experts emphasize that the sample has to be reasonably large to obtain accurate estimates (Mugenda, 2008). In this study 30% of the target population which is 105 water bottling SMEs was sampled using simple random sampling technique. Barzun & Graff (2004) recommends that for a small population of between 300 and 500, 30% as sample size is adequate. Simple random technique ensures that all subsets of the frame were given an equal probability and hence minimizes bias. Each element of the frame therefore had an equal probability of selection. In this study the 105 owners and top managers of the small and medium enterprises were the respondents. Respondents refer to those who responded to the research instruments.

**Data Collection Procedures**

Creswell (2002) defines data collection as means by which information is obtained from the selected subjects of an investigation. Primary data was collected from the owners and top managers of water bottling SMEs in Nairobi using questionnaires and supported by an interview schedule which was self administered to minimize variation in data collection procedures and ensure consistency.

**Data Analysis and Presentation**

Descriptive statistics were used to analyze quantitative data. Descriptive statistics provides for meaningful distribution of scores using statistical measures of central tendencies, dispersion and distribution (Kothari, 2008). Pearson product-moment correlation statistics procedure using statistical package for social science version 16.0 (SPSS) was used to analyze and generalize the results of analysis to the population. This is because the variables the researcher studied are measured at ratio or interval scales and are continuous (Patton, 2002). To permit quantitative analysis data, must be converted into numeric codes representing attributes or measurements of variables. It is important that coding should include as much information as possible because once the coded data is entered into the computer, it is impossible to recover any details, which were omitted (Mugenda & Mugenda, 2003). Generalization is then done from the themes about the phenomena in question and interpreted in the light of the available literature (Kumar, 2005). Qualitative analysis is important since it supplements the quantitative analysis to create a better framework to the interpretation of the findings (Kothari, 2008). Regression analysis was calculated using the basic regression model:

\[
GSM = \beta_0 + \beta_1SC + \beta_2MS + \beta_3LR + \beta_4TE + e
\]

Where:
- SC is the Start-up capitalization
- MS is the Marketing skills
- LR is the Legal and regulatory
- TE is the Technology
- \( \beta_0 \) is a constant which is the value of dependent variable when all the independent variables are 0.
\( \beta_{1-n} \) is the regression coefficients or change induced by SC, MS, LR and TE on GSM. It determines how much each (i.e. SC, MS, LR and TE) contribute to GSM.

\( e \) is the error of prediction.

Data was then presented in bar graphs, pie charts and tables.

**Data Analysis Presentation and Interpretation of Findings**

**Level of Education of the Respondents**

The study found that majority (77%) of the managers had A-level as their highest level of education. They are followed by (15%) who had university education as their highest level. The rest (8%) had secondary education. This implies that the managers in the small and medium enterprises water bottling enterprises generally have a higher level of education and thus are expected to undertake business managerial activities better and with more output (King & McGrath, 2002). The findings also concurred with Brown and Duguid (2003) who found that highly skilled personnel enhance production of high quality outcomes and effective quality improvement in an enterprise.

In a study carried out by Saleh, Kaputi and Harview (2006) on perceptions of business challenges facing Malaysian SMEs, findings indicated that factors related to human capital were observed to be the greatest challenge facing the businesses. The factors were indicated by dominance of unskilled workforce in the industry and lack of motivation among the workforce, there was also lack of managerial and marketing skills as well as labour productivity. The higher level of education can be attributed to the fairly technical nature and requirements of water bottling firms (Devas, 2009). Entrepreneurs are thus required to understand complex processes in the manufacturing procedures.

**Legal form of Business**

The study sought to investigate the legal form of business as sole proprietorship, partnership or company. Findings indicate that (44%) of the respondents had registered their business as sole proprietorship while (43%) were in partnership, while the rest (13%) were in a company form of business. Reddy and Zhao (2000) noted that forming a joint partnership with foreign firms is clearly a favorable strategy for any SME wishing to exploit firm specific assets owned by foreign partners and hence increase competitiveness of the SMEs in the local and global markets due to technology transfers. Majority of the managers prefer sole proprietorship because of its advantages for small firms compared to other forms of businesses. This includes remittance of individual tax returns, the amount of which is less compared to company tax. Inability to raise required capital could also be a reason for partnership.

**Start-up Capitalization**

**Source of Start-up Capital for Business**

The study sought to investigate the source of start-up capital for the business. Findings indicate that (26%) who are the majority of the managers get their start-up capital from the commercial banks and micro-finance institutions. (16%) got their start-up capital from SACCOs while (14%) have their families as their source of the start-up capital. While 10 (11%) get the start-up capital from shylocks and the rest (7%) get their start up capital from friends.
According to Garikai (2000) access to credit is not a major constraint for SME’s start-ups because the majority of interventions directed at credit facilitation are in the area of microfinance. However, lack of access to medium or long term credit is the major constraint for those enterprises that wish to expand their activities. Entrepreneurs face credit constraints such as collateral requirements, high cost of credit as well as small amounts limits with short repayment periods (Okpara & Wynn, 2007). Gray, Cooley & Lutabingwa (1997), further states that most cannot meet the requirements for commercial loans and those who do find such loans expensive. This makes it difficult to borrow money from financial institutions. This has forced entrepreneurs to seek alternatives and soft credit with low interest rates (Wanjohi & Mugure, 2008). This study found that water bottling SMEs face major constraints in accessing start up capital due to the requirements of collateral and guarantor which most of them does not have.

**Sufficiency of the Capital**
The study sought to know if the start-up capital is sufficient for the business. Findings indicate that the majority (79%) of the respondents found it sufficient. The rest (21%) disagreed. Meyer (2009) found that more cash flow fosters growth. Huyghebaet (2008) argues that higher financial leverage creates incentives for an entrepreneur to maximize on short term earnings to enhance firm survival. The positive effect of higher leverage on profitability is empirically confirmed for firms in Belgium and is also found to persist, albeit growing at a declining rate, as firms age (Huyghebaet, 2008). The study found out that owners/ top managements of the water bottling SMEs in Kenya are contended with production commensurate with the startup capital.

**Requirement for Acquisition of Start-up Capital**
The study sought to find the requirement for acquisition of start-up capital from the managers. Findings indicate that the majority (71%) of the respondents were required to produce a guarantor before they were given the start-up capital, (19%) were required to have business proposal while the rest (10%) were asked for collateral among other requirements. According to Okpara & Wynn (2007), entrepreneurs face credit constraints such as collateral requirements, high cost of credit as well as small amounts limits with short repayment periods. This makes it difficult to borrow money from financial institutions. This has forced entrepreneurs to seek alternatives and soft credit with low interest rates (Wanjohi & Mugure, 2008). There is a need to have a guarantor and a well prepared business plan to enable acquisition of start up capital from lenders and especially so for water bottling SMEs. This may be so because of the government’s intervention in injecting money in commercial banks and microfinance institutions to assist SMEs access finance.

**Amount of the Start-up Capital**
Findings indicate the amount of the start-up capital that the water bottling enterprises started with. Majority (43%) of the managers had their start-up amount between Kshs.301,000/= and 500,000/=, (29%) had theirs between Kshs.151,000/= to 300,000/=, (16%) had start up capital of over Kshs. 500,000 while (12%) had between Kshs.50,000 and 150,000. Meyer (2009) found that more cash fosters growth. Huyghebaet (2008) argues that higher financial leverage creates incentives for an entrepreneur to maximize on short term earnings to enhance firm’s survival. The positive effect of higher leverage on profitability is empirically confirmed for firms in Belgium and is found to persist, albeit growing at a declining rate, as
firm age. Majority of water SMEs have startup capital of between Kshs. 301,000-500,000. This could be due to their inability to secure bigger capital due to various factors including need for collaterals among others and thus are forced to be contended with their current productions.

**Ease with Which Start-up Capital is Acquired**

The study sought to know if the entrepreneurs found the process of acquiring the start-up capital easy. Findings show that forty four percent (44%) of the respondents disagreed that the acquisition of the start-up capital is easy; forty percent (40%) agreed that it was easy while the rest (16%) were neutral. The process of start-up acquisition should not be a hindrance for entrepreneurs who are aiming to expand their business. Garikai (2000) points out that lack of access to medium or long term credit is a major constraint for those enterprises that wish to expand their activities. The study found out that acquisition of start up capital is a problem facing the entrepreneurs venturing in water bottling enterprises as shown from the response.

**Marketing Skills**

**Availability of Marketing Strategy**

The study sought to know whether water bottling firms employed any marketing strategy in the business. Findings show that majority (75%) of the respondents, agreed that there is a marketing strategy in their firms while twenty five percent (25%) disagreed. The necessity of marketing strategy is supported by Wanjohi & Mugure (2008) who stated that lack of sufficient market information and skills poses a major challenge to SMEs in Kenya. They observed that despite the vast amount of trade related information available and the possibility of accessing national and international databases, many small enterprises continue to rely heavily on private or physical contacts for market related information. Bellema (2009) also found that SMEs use of traditional ways of marketing which no longer attribute to increased revenues and product recognition. The study found out that there is a marketing strategy in majority of the water bottling SMEs which nonetheless is not effective in growing sales.

**Marketing Strategy Employed at the Enterprise**

Findings show the type of marketing strategy employed by the water bottling SMEs in Nairobi. The study shows that the majority (40%) of the respondents used pricing as the major marketing strategy. Twenty five percent (25%) employed product diversification while nineteen percent (19%) used cost leadership. The rest (16%) employed product differentiation. According to Kotler & Keller (2006), use of traditional ways of marketing no longer gives rise to high levels of revenue and product recognition. This factor has also been identified by Bellema (2009) in his survey in UK and Nigeria. The survey results showed that sixty nine percent (69%) and seventy percent (70%) of the respondents in the UK and Nigeria respectively agree that poor marketing and sales efforts contribute to SMEs failure. This implies that the variable is significantly considered as a major factor influencing business failure in the water bottling SMEs.

**Method of Distributing Product**

The study sought to investigate the method of distributing products employed by the managers of the water bottling enterprises. Findings indicate that forty percent (40%) of respondents distributes their product through wholesale channel. A further twenty eight
percent (28%) retail their products while the rest sell their products directly to customers (21%) and export agencies (11%) respectively. Distribution through wholesale trading is the most preferred method of distribution. Simpson & Taylor (2002) however says that the typical selling method of SMEs especially small scale enterprises is to operate through their own outlets. Simpson & Taylor (2002) further avers that many of them are also not in a position to promote their products and services through advertising and sales promotion mainly due to lack of skills and high cost involved.

**Promotion of Product**

Findings show that majority of the entrepreneurs, forty seven percent (47%) promote their products through sales promotion. Thirty five percent (35%) employ personal selling while the rest use advertising. Product promotion is an important marketing aspect in business that cannot be ignored. Thomolo (2008) in his study on perception of SMEs regarding factors contributing to their failure in South Africa found out that when businesses do not properly market their products, it is likely such business will perform poorly. He therefore argued that it was imperative for SMEs to improve the way they market their products as reflected in the responses where most of the respondents (65.8%) agreed that many businesses collapse because of poor product marketing. The study shows that sales promotion and personal selling employed by the water bottling SMEs are not providing the desired effects of sales growth.

**Determination of Product Price**

The study sought how product price is determined. Findings indicate that the majority of the respondents (37%) used competitor based pricing to determine the price of the product. Twenty four percent (24%) used perceived pricing to determine price of their product. Others employed cost based pricing (20%) and break even pricing (19%). The study implies that competitor base is the most preferred method of product price determination. Meziou (1991) points out that SMEs are more reluctant than larger firms to embrace the marketing concept in their strategy formulations. Apparently, SMEs do not conduct market research, and do not have long-term market planning (Meziou, 1991). Absence of marketing skills including product price determination has resulted in early demise of business enterprises (Simpson & Taylor, 2002). Hogarth-scott, Watson & Wilson (2001), however contends that small business owner managers are often generalist, not marketing specialists and hence do not understand the market as would a marketer.

**Effect of Marketing on Enterprise Performance**

Findings show the effect of marketing on enterprise performance. Majority (83%) of the respondents found out that marketing has effect on the performance of the business. Only a few (8%) found that marketing is unlikely to influence the performance of the business. This implies that the entrepreneurs acknowledge that marketing is important for growth of their business. Marketing is an important aspect in a firm’s growth. According to Kotler & Keller (2006) failure to market or advertise will lower sales turn over and sales volume and that poor marketing and sales efforts are caused by wrong and untimely advertisements or none at all. Lack of information and market detection are other possible causes as well. The owners/managers of water bottling SMEs recognize the importance of marketing in business performance despite the constraints involved in these efforts.
Inadequate Market Information
The study sought to know if the entrepreneurs have adequate market information. Findings indicate that the majority (76%) of those interviewed agreed that they have inadequate market information. Only (24%) disagreed. Wanjohi & Mugure (2008) observed that lack of sufficient marketing information and skills poses a major challenge to SMEs in Kenya. Muteti (2005) further states that poor connectivity especially in rural areas hinder access to market information. This confirms the findings of the study that the entrepreneurs do not get adequate market information. The study found out that owners/manager of water bottling SMEs are aware of the limited market information they possess and pose a major challenge to them.

Legal and Regulatory Requirement
Length of Time in Obtaining the Business License
The study sought to know the time taken to obtain a business license. Findings show that majority (54%) of the respondents indicated that they take over 3 months to acquire a license for their bottling business. Thirty two percent (32%) take between 2 and 3 months as the rest take between 1 and 2 months. This shows that it is difficult to acquire a business permit within a short time. Alila & McCormick (1994) reports that it is easier for large enterprises to get land for industrial development and license to operate their business than the small operators, and that Government tenders are biased and do not give preference to SMEs hence the market for SMEs output is very low. Mitulla (2003) adds that obtaining a business license is a protracted process coupled with the many licences required by different government agencies ensures that ample time is spent in securing the same. Water bottling SMEs are facing a lot of difficulties in acquiring trading licenses which takes more than two months.

Whether Laws and Regulations are Cumbersome
The study then sought to know if the laws and regulations are cumbersome. Findings show majority (78%) of the managers agreed that they are indeed cumbersome. Twenty seven percent (27%) disagreed while (5%) were neutral. This can be as a result of obsolete laws and regulations that are still being used today. Mitullah (2003) in her study on SMEs in Kenya found that most urban authorities in Kenya were operating on colonial by-laws that had yet to be reviewed. The policies were deficient and the urban authorities had not only failed to enforce them, but in reality given their form and coverage, they were not possible to enforce. The study found out that laws and regulations are cumbersome and affects the operations of water bottling SMEs.

Corruption Diverting Support Programs from Original Beneficiaries
Findings show that majority (83%) of the respondents agreed that there is corruption diverting support programs from original beneficiaries while (17%) of the respondents disagreed to the statement. A study by Economic Commission for Africa, (2001) pointed out that illegal permits and licenses were given at all levels to family members and friends operating informal micro enterprises that did not qualify for tax relief and other incentives. Consequently, there was little or no impact on the original group. Water bottling SMEs faces difficulties in accessing support programs due to corruption.
Extent to which Legal and Regulatory Framework affect Enterprise Growth
The study then sought to investigate the extent to which legal and regulatory framework affect enterprise growth. Findings indicate majority (82%) of the respondents agreed that the legal and regulatory framework affect the growth of the enterprise greatly. This implies that the poor performance of SMEs can be as a result of the legal and regulatory framework. In a study by the economic Commission for Africa (2001) on enhancing competitiveness of SMEs in Africa, found that many African countries do not have legal and regulatory framework that supports the growth of the SMEs sector. This is supported by Garikai (2000) who noted that a legal and regulatory system that calls for complex registration and licensing requirements and demands tedious and costly reporting practices impose heavy costs on SMEs. This calls for a revision of the legal and regulation framework that the respondents find to be contributing negatively on their business.

Technology
Nature of Production System
The study wanted to know the nature of the production systems employed by water bottling SMEs. Findings show majority (65%) of the respondents use semi-automated production system while (20%) are fully automated and (15%) are manually operated. Wanjohi & Mugure (2008) avers that even with change in technology, many small business entrepreneurs appear to be unfamiliar or unaware of new technologies. But if they do the cost is prohibitive. This hinders competitiveness of their business and suppresses growth.

Lack of Knowledge on Different Technology
There is apparent lack of knowledge /knowhow in the use of different types of technology. Findings indicate that majority (84%) of the respondents agreed that lack of knowledge is a hindrance to adoption of technology. Ten percent (10%) disagreed while (6%) were neutral. Cloete, Courtney & Fintz (2002) in their study of adoption of e-commerce in South Africa found that choice and adoption of technology is heavily influenced by factors within the organization. Many small scale enterprises owners or managers lack managerial training and experience. The study found out that lack of information is a key problem affecting SMEs in developing countries because their choice of technology is based on insufficient information and ineffective evaluation. This is corroborated by Wanjohi & Mugure (2008) who found that lack of sufficient information and skills pose a major challenge to SMEs in Kenya.

Lack of Training on use of Technology
Training on the use of technology was studied. Findings show that a majority (81%) of the managers agreed that lack of training on the use of technology in their business hinder adoption of technology. 13% disagreed while 5% gave a neutral response. Therefore it can be deduced that there is limited training on the use of technology. Gassman & Keupp (2007), in his study concluded that managers of SMEs should invest less in tangible assets but more in those areas that will directly generate their future competitive advantage; that is incremental innovation in existing technologies.
High cost of Technology Maintenance and Sustainability

The study then sought to know the effect of technology maintenance and sustainability. Findings indicate that a majority (82%) of the respondents agreed that the cost of technology maintenance and sustainability is high and as such a hindrance to technology adoption. A few disagreed. The cost of technology therefore was perceived to affect the performance of the business. Ngahu, (2001) in his study on choice of technology in SMEs observed that the high cost of technology hinder effective choice of technology. Cloete, Courtney & Fintz (2002) in their study of adoption of e-commerce in South Africa found that choice and adoption of technology is heavily influenced by factors within the organization including cost of the same. Garikai (2011), states that because of their sizes, SMEs end up using cheap technology which is usually not top of the range. This is associated with high cost of production and therefore low competitiveness. For instance water bottling SMEs cannot afford to use automated packaging and blow on bottles or continuously upgrade their equipment.

Lack of Qualified Staff to Use the Technology

Findings show that majority (81%) of the respondents of the respondents agreed that they lack the required qualified staff to use the technology. This presents lack of qualified personnel to use the required technology. O’Regan & Ghobadian (2004) on his research on manufacturing SMEs found a positive correlation between research and development investment and technological change in products and processes in firms. According to Cloete, Courtney & Fintz (2002), many small scale enterprises employees lack qualified personnel on the use of e-commerce technology and hence the need for staff development. There is therefore need for water bottling SMEs to develop staff on use of modern technology to hence their competitiveness.

Growth Indicators

Years in the Water Bottling Business

The study sought to know the number of years respondents were in water bottling business. Findings show majority (58%) of the respondents of the respondents have been in the water bottling business for 5 – 7 years while (22%) have been in the business for over 7 years. This implies that the respondents are experienced to know the problems the SMEs are facing. Majority (58%) of the water bottling SMEs have a life of over 42 months which is critical for firms’ survival and they are expected to be growing in sales.

Sales Turnover in the Last 3 years

Sales turnover for the last 3 years was studied with the following results. Figure 5.0 indicate that majority (68%) of the respondents said that their sales turnover in the last 3 years has been low. (22%) responded as having had moderate sales while only (10%) had high sales turnover. According to Passanen (2003), there has been much interest in understanding small firm growth over the last ten years but there is still not much of a common body of well-founded knowledge about the causes, effects or processes of growth. Even though several determinants of firm growth have been suggested, researchers have been unable to achieve a consensus regarding the factors leading to firm growth (Weinzimmer, 2000). Growth has been used as a simple measure of success in business and has also been suggested as the most appropriate indicator of the performance for surviving small firms (Storey, 2003). The most frequently used measure of growth has been change in the firm’s turnover (Passanen, 2003).
Another typical measure of growth has been change in the number of employees. However, these measures which are frequently used in the SME’s context are strongly correlated. The firms’ turnover has been taken as a measure of growth in this study.

**Sales Turnover at Present Time**

The study further determined sales turnover presently. Findings show that majority (70%) of the respondents said that their sales turn over at present are still low. (16%) responded as having moderate sales while only (14%) have high sales turn over. Growth and profitability of small and medium enterprises enhance their ability to contribute effectively to sustainable development, employment creation and poverty alleviation (Okpara & Wynn, 2007). It is however widely acknowledged that the sector faces constraints which hinder their growth, among them financial (Ndungu, 2007). The SMEs seem to be making loses, this depicts that they are facing problems that ought to be addressed.

**Correlation Analysis Results**

The study used the Pearson’s Product Moment Method to determine the strength of the relationship. This type of correlation is used when both variables under study are measured at ratio or interval scales and are continuous (Mugenda, 2008). Table 1 details the correlation matrix which indicates that growth of small and medium water bottling enterprises is positively correlated with all variables under study. Growth is correlated with Start-up capitalization at 5 percent significance level (0.478). Marketing skills is positively correlated to Start up capitalization and Legal and regulatory requirements at 5 percent significance level (0.334) and (0.427) respectively. The table also indicates that there is correlation between Marketing skills and technology at 5 percent significance level of (0.412).

**Table 1: Correlation Matrix of Independent Variables against Growth**

<table>
<thead>
<tr>
<th></th>
<th>Start up capitalization</th>
<th>Marketing skills</th>
<th>Legal and regulatory requirements</th>
<th>Technology</th>
<th>Growth of small and medium bottling enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start up capitalization</td>
<td>1</td>
<td>.334</td>
<td></td>
<td>.393</td>
<td>.478</td>
</tr>
<tr>
<td>Marketing skills</td>
<td></td>
<td>1</td>
<td></td>
<td>.427</td>
<td>.190</td>
</tr>
<tr>
<td>Legal and regulatory requirements</td>
<td>.393</td>
<td></td>
<td></td>
<td>.323</td>
<td>.137</td>
</tr>
<tr>
<td>Technology</td>
<td>.373</td>
<td>.412</td>
<td>.323</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Growth of small and medium bottling enterprises</td>
<td>.478</td>
<td>.190</td>
<td>.137</td>
<td>.393</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.05 level (1-tailed).
Regression Analysis between Dependent Variable and Independent Variables

Table 2 shows the summary of the regression analysis that seeks to establish the relationship between Growth of small and medium bottling enterprises, Start up capitalization, Marketing skills, Legal and regulatory requirements and Technology. With an adjusted R-squared of 0.56 percent, it means that Start up capitalization, Marketing skills, Legal and regulatory requirements and Technology account for 56 percent of the variations in growth of small and medium bottling enterprises. The P-value of 0.048 (Table 4.20) implies that growth of small and medium water bottling enterprises is significant at 5 percent level of significance, P values of less than 0.05 implies positive significance (Patton, 2002). The Durbin Watson of 2.09 showed absence of serial correlation. A value of 2.0 and above indicates that there is no serial correlation (Verbeek, 2001; Newman, 2000; Patton, 2002). Precisely, this study will need to establish relationship between the indicators of growth of small and medium bottling enterprise with the four determinants. The coefficient of correlation (r), determine the degree (strength) of relationship and its value is between -1 and 1. A value 0 implies no relationship, 1 implies a perfect positive relationship, -1 means a negative relationship. An absolute value of r between 0.5 and less than 1 implies a strong relationship between the variables. If the value r is greater than 0.3 and less than 0.5 then the relationship is moderate. The relationship is weak if the value of r is less than 0.3. Further, regression will be used to obtain an equation which describes the dependent variable in terms of the independent variable based on the regression model, (regression is used to determine the type of relationship). The regression will be calculated using the basic regression model.

\[ \text{GSM} = \beta_0 + \beta_1 \text{SC} + \beta_2 \text{MS} + \beta_3 \text{LR} + \beta_4 \text{TE} + \epsilon \]

Where:
- SC is the Start-up capitalization
- MS is the Marketing skills
- LR is the Legal and regulatory requirements
- TE is the Technology
- \( \beta_0 \) is a constant which is the value of dependent variable when all the independent variables are 0.
- \( \beta_{1-4} \) is the regression coefficients or change induced by SC, MS, LR and TE on GSM.
- \( \epsilon \) is the error of prediction.

Table 2: Regression Analysis of Dependent Variable against Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant Term</td>
<td>0.16</td>
<td>2.56</td>
<td>0.02</td>
</tr>
<tr>
<td>Start-up capitalization</td>
<td>0.52</td>
<td>2.438</td>
<td>0.031</td>
</tr>
<tr>
<td>Marketing skills</td>
<td>0.40</td>
<td>2.335</td>
<td>0.021</td>
</tr>
<tr>
<td>Legal and regulatory requirements</td>
<td>0.010</td>
<td>2.720</td>
<td>0.01</td>
</tr>
<tr>
<td>Technology</td>
<td>0.123</td>
<td>2.433</td>
<td>0.04</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.6084</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson value</td>
<td>2.09</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Correlation is significant at the 0.05 level (1-tailed).

Hence the resultant regression model is:

\[
GSM = \beta_0 + 0.52SC + 0.4MS + 0.01LR + 0.123TE + \epsilon
\]

The regression had a correlation coefficient (R²) of about 0.6084 and an adjusted R² of 0.56. This means that Start-up capitalization, Marketing skills Legal and regulatory and technology contributes 56 percent of the variations in growth of small and medium bottling enterprises. The F-value of 4.31 with a probability of 0.00 at 5% significance level is significant indicated that the joint contribution of the independent variables was significant in predicting the dependent variable. F-value greater than 4.0 implies the variables are significant (Verbeek, 2001).

**Table 3: Regression Analysis Summary**

<table>
<thead>
<tr>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>.6084</td>
<td>.56</td>
<td>.64593</td>
<td>4.31</td>
<td>.048</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.090</td>
</tr>
</tbody>
</table>

**Relationship between Dependent Variable and Independent Variables**

Table 4 shows the results of the regression analysis based on the sign of the coefficient and the t-ratio. From the analysis the constant has a t-ratio of 3.4. This indicates that the other factors that affect growth of small and medium water bottling enterprises and have not been included in the model are statistically significant in determining the growth. The constant is also positively related to the growth implying that the impact of these factors which are not in the model will impact on Growth of small and medium bottling enterprises positively.

**Table 4: Regression on Dependent Variable and Independent Variables**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T-calculated</th>
<th>T-critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.512</td>
<td>.160</td>
<td>3.4</td>
<td>.022</td>
<td></td>
</tr>
<tr>
<td>Start up capitalization</td>
<td>1.237</td>
<td>.541</td>
<td>.082</td>
<td>2.438</td>
<td>2.920</td>
</tr>
<tr>
<td>Marketing skills</td>
<td>.8593</td>
<td>.368</td>
<td>.061</td>
<td>2.335</td>
<td>2.920</td>
</tr>
<tr>
<td>Legal and regulatory requirements</td>
<td>1.281</td>
<td>.471</td>
<td>.490</td>
<td>2.720</td>
<td>2.920</td>
</tr>
<tr>
<td>Technology</td>
<td>1.271</td>
<td>.357</td>
<td>.234</td>
<td>2.433</td>
<td>2.920</td>
</tr>
</tbody>
</table>

Dependent variable: Growth of small and medium bottling enterprises.
Inference of Correlations

The study found that all the dependent variables had a positive correlation to the independent variable. The correlations were also all statistically significant at a t-ratio of less than 2.920. According to Verbeeck (2001) and Neuman (2000), a t-ratio of less than 2.920 is considered statistically significant. Legal and regulatory requirements is positively related to Growth of small and medium bottling enterprises and has the most statistically significant coefficient as indicated by a t-ratio of 2.720. Alila & McCormick (1994) reports that it is easier for large enterprises to get land for industrial development and license to operate their business than the small operators, and that Government tenders are biased and do not give preference to SMEs hence the market for SMEs output is very low. Mitulla (2003) adds that obtaining a business license is a protracted process coupled with the many licences required by different government agencies ensures that ample time is spent in securing the same.

There is also a positive relationship between Growth of small and medium bottling enterprises and the marketing skills. Marketing skills also has a statistically significant coefficient as indicated by a t-ratio of 2.335. This is shown by the positive sign of the coefficient. According to Kotler & Keller (2006), use of traditional ways of marketing no longer gives rise to high levels of revenue and product recognition. This factor has also been identified by Bellema (2009) in his survey in UK and Nigeria. The survey results showed that sixty nine percent (69%) and seventy percent (70%) of the respondents in the UK and Nigeria respectively agree that poor marketing and sales efforts contribute to SMEs failure.

The Start-up capitalization is positively related to the Growth of small and medium bottling enterprises. The coefficient of start-up capitalization is also statistically significant as indicated by a t- ratio of 2.438. This study shows that start-up capitalization is important and is one of the most difficult processes among the bottling business. According to Okpara & Wynn (2007), entrepreneurs face credit constraints such as collateral requirements, high cost of credit as well as small amounts limits with short repayment periods. This makes it difficult to borrow money from financial institutions. This has forced entrepreneurs to seek alternatives and soft credit with low interest rates (Wanjohi & Mugure, 2008).

Technology is positively related to the growth of small and medium bottling enterprises. This is shown by the positive sign of the coefficient. The coefficient is statistically significant as indicated by a t-ratio of 2.433. Cloete, Courtney & Fintz (2002) in their study of adoption of e-commerce in South Africa found that choice and adoption of technology is heavily influenced by factors within the organization.

The study also found out that lack of information is a key problem affecting SMEs in developing countries because their choice of technology is based on insufficient information and ineffective evaluation. This is corroborated by Wanjohi & Mugure (2008) who found that lack of sufficient information and skills pose a major challenge to SMEs in Kenya.

Conclusions

The main objective of the study was to find out the factors affecting the growth of small and medium water bottling firms in Nairobi. From the findings above, it can be concluded that majority of the managers cannot get start-up capital easily and that SMEs with a higher start-up capital performed better than those with less i.e. less than Kshs. 300,000. The procedure of securing capital has a lot of requirements that ought to be revised. SMEs indeed face
considerable financing constraints which hamper both their profit and turnover growth. Young and/or small firms in principle grow faster than older and larger firms. At the same time, they also face considerably more severe financing restrictions than other firms. Also firms of manufacturing and construction sectors are more likely to feel financing constraints, which are attributed to the high capital intensity of these sectors.

The marketing skills of the managers should also be improved to realize profit in their water bottling business. They seem to be applying marketing skills that is not helping their business. Cost of advertising over a greater range of output in media markets is still low due to the small size of their production and product diversity and hence the inability to utilize economies of scale. Marketing skills among other factors affect a firm’s growth progression.

The legal and regulatory requirement is a hindrance to business growth. Most top management complained of corruption and cumbersomeness that affect their business. In Kenya, the SMEs have been supported by the Kenya Government as avenues for industrialization and development. However it is still easier for large enterprises to get land for industrial development and license to operate the business than the small operator. Further, large enterprises also get easy access to utilities than small enterprises. Government tenders are biased and do not give preference to SMEs hence the market for SMEs output is very low. Consequently, there is no enabling environment to promote SMEs.

The businesses also lack technological knowhow. They ought to use the current technology to be competitive and hence realize profit. A certain level of competitiveness appears to be a pre-requisite for SMEs survival when dealing with a dynamic condition in the business environment. To compete with global competition and overcome rapid technology change and product variety proliferation in the manufacturing environment, SMEs must be able to sustain product innovation.

Recommendations
Small and Medium Enterprises face a myriad of problems which hinder their growth. In order to realize growth and profitability of water bottling small and medium enterprises there is need to enhance their ability to grow and therefore contribute effectively to sustainable development, create wealth for their owners, employment creation and poverty alleviation; appropriate measures must be put in place to address the challenges identified in this study.

The study has shown that majority of water bottling SMEs have difficulties in accessing start-up capital and that SMEs with a higher start-up capital performed better than those with less. The procedure of securing capital has a lot of requirements that ought to be revised. Financial institutions should therefore come up with alternative ways of securing loans other than collaterals. Businesses should be sensitized on the importance of development of sellable business plans to enable them source large credits for start-up capital which is an important factor for growth.

Marketing of the products should be done in a professional manner since presently the methods used are not effective. Water bottling SMEs are using the traditional ways of marketing and these are not producing the desired results of revenue growth and product differentiation. This factor has also been identified by a survey in UK and Nigeria. The survey results showed that majority of the respondents in the UK and Nigeria respectively agree that poor marketing and sales efforts influence SMEs failure. The small and medium
water bottling entrepreneurs therefore should be capacity build on the current marketing strategies to apply in their businesses.

The legal and regulatory requirement is a major constraint to most owner/managers when registering the business. Most of them complained of corruption and cumbersomeness that affects their business. It is therefore recommended to review obsolete laws and regulations which are hindrance to business. In the same breath, a one stop shop as envisioned in sessional paper No. one of 2005 should be established to address the delays in registrations. In Kenya, the SMEs have been supported by the Kenya Government as avenues for industrialization and development. However this should be further enhanced by promoting enabling environment to promote SMEs.

Majority of owner/ top managers of water bottling SMEs are unfamiliar or unaware of new technologies. But if they do the cost is prohibitive. This hinders competitiveness of their business and suppresses growth. In most African nations, Kenya inclusive, the challenge of linkages between indigenous SMEs with foreign investors and speeding up technological transfer still persists. This should be enhanced through business outsourcing programmes. The government should also address the cost of technologies through tax incentives.

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