The Effect of Business Development Services on Performance of Small and Medium Manufacturing Enterprises in Kenya

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ARTICLE INFO	ABSTRACT
	Small and Medium Enterprises have been regarded to play significant roles of job creation, poverty alleviation and economic development of many countries worldwide. These enterprises are however affected by many different factors. How these factors manifest singly or jointly is therefore a key concern for these organizations. Vital among these factors are business development services that affect how organizations produce and sell their goods and services. There is however a dearth of studies focusing on effects of aspects of business development services on organizational performance in Kenya. This study aimed at establishing how market access, procurement services and infrastructure facilities affect performance of small and medium manufacturing enterprises in Kenya. The study adopted a cross sectional survey design and examined primary data collected from 150 enterprises in Nairobi. Inferential statistics were used to interrogate relationships between independent variables and performance while descriptive statistics were used to determine distribution, central tendency and dispersion and hence establish conformity to linear regression requirements. Contrary to expectation, the results for market access did not show any relationship but procurement services and infrastructure facilities each had a positive and significant influence on performance of the enterprises. Furthermore, it was established that the joint effect of the three variables on performance of studied firms is greater than their individual effect. This study therefore concludes that, since procurement services and infrastructure facilities showed a positive influence on performance of small and medium manufacturing enterprises in Kenya, these enterprises should adopt strategies that enhance procurement and improve infrastructure facilities to experience better performance.

Introduction

More than ever before, organizations especially small and medium enterprises (SMEs) are confronted by dynamic and complex business environments characterized by globalization resulting in the need for greater efficiency and effectiveness (Price, Stoica & Boncella, 2013). Therefore the owners and managers of these organizations are under great pressure to respond to these challenges in order to foster competitiveness (Raymond, Bergeron & Blili, 2005). In an attempt to reduce their costs, increase productivity, improve quality and satisfy the dynamic requirements of customers and other stakeholders, these enterprises scan the business environment to identify various business development solutions. To the extent that such solutions are assimilated in a firm's business, they can affect both efficiency and effectiveness of business processes.

Efficiency and effectiveness of a firm, especially SMEs, are deemed to be enhanced through factors related to market access, infrastructure facilities, procurement services, and financial services, also known as business development services (Musara & Fatoki, 2010). Organizations however require resources to manage these factors. According to resource based theory (RBV), performance of an organization is determined by not only the resources possessed but also how they are utilized (Penrose, 1959). Pfeffer and Salancik (1978) further argued in the resource dependence theory (RDT) that ability of organizations to acquire resources is

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constrained by their inter-dependence with the external environment. Thus how well organizations manage resources in the context of these services may influence their performance objectives.

However, extant literature indicates that whereas some studies have focused on business development service (BDS) providers, there appears to be less focus on how BDS affects SMEs, especially in the manufacturing sector in Kenya. This is surprising since literature and publications by for example Kenya Association of Manufacturers (KAM) also indicates that a large number of manufacturing enterprises in the country falls in the category of SMEs (KAM, 2012; Busienei, K'Obonyo & Ogutu, 2013). The distinctive characteristics of SMEs relate to their environment and proximity to markets as well as structure and size (Fatoki, 2012). For example the fact that smaller enterprises often have lower production capacity can influence their decision about BDS.

Various aspects of BDS are deemed to have both short and long term advantages in an enterprise (Steel & Webster, 2001). Firms with better market access may enjoy first-mover advantage over their competitors (Lumpkin & Dess, 1996; Raymond, Bergeron & Blili, 2005; Pett & Wolf, 2010) while those that negotiate favourable procurement service terms may experience improved performance arising from low cost of such services (Miehlbradt & McVay, 2003; Ihua, 2009). It has also been argued that a firm's infrastructural facilities for warehousing and new business incubation or idea evaluation processes may be of great value to the enterprise. However, currently, there is not enough empirical evidence to support the actual effects of aspects of BDS on SME performance in Kenya.

SMEs have become increasingly important in many countries especially as agents of job creation, wealth accumulation, poverty alleviation and contribution to national economies (Beck, Demirguc-Kunt & Levine, 2005). Literature on SMEs and business development services demonstrate a significant overlap between the two. For example, SMEs often suffer due to poor infrastructure facilities, market access, highly priced inputs and services, inability to use technology for product development, and problems in securing low cost finances (Nelson, 1997; Nganga, Onyango & Kere, 2011; Fatoki, 2012) leading to resource constraints.

The field of SMEs has gained momentum over the recent decades (McCormick, 1999; Pett & Wolff, 2010; Gathenya, Bwisa and Kihoro, 2011; Fatoki, 2012). However, when discussing SMEs as a paradigm in research and practice, it is apparent that this momentum has been catalyzed by lack of convergence in opinions (Pett & Wolf, 2010; Mazanani & Fatoki, 2011). Whereas research on SMEs in different contexts and disciplines adds to the breadth of diversity in the field, it has not been cohesive in terms of its structure. For example, although certain SME characteristics like, size, differences in entrepreneur involvement and the long-term orientation of the owners may impact several aspects of the enterprise; these are rarely factored in studies (Fatoki, 2012).

SMEs differ in terms of the extent of owner involvement and levels of formality (Maalu, 2010). Definitions of SMEs include owner management, size of business, turnover and number of employees. In this study, SMEs were defined as those enterprises with sales turnover of below Kenya Shillings 250 million and having from 1 – 200 employees (Ayyagari, 2005; KAM, 2012). Based on this definition, this study examined how business development services may influence performance of SMEs while focusing on three dimensions, that is, market access, infrastructure facilities and procurement services.

In order to explore the role of BDS in small and medium manufacturing enterprises (SMMEs), the study sought to answer questions relating to: what is the individual effect of market access, infrastructure facilities, alternative financing and procurement services on performance of SMEs; is the joint effect of these factors greater than their individual effect on performance? This study demonstrates from RBV and RDT that different aspects of BDS may affect SME effectiveness and overall performance. The results can assist managers and SME practitioners to make decisions regarding selection of BDS options and their impact on these enterprises. The suppliers of BDS should also find these results useful when designing, providing and evaluating BDS types. Essentially this study therefore offers SMEs empirical tools to improve their efficiency and effectiveness which may lead to competitiveness.

Literature Review

Performance of Small and Medium Enterprises

Arguments focusing on SME performance generally posit that SMEs are capable of providing quality products and services and thus possessing competitive advantage (Pett & Wolf, 2010). However, there appears to be caveats to this view such as measurement of performance, determining levels of aspects of BDS and so on. Possible explanations for these differences are that access to BDS elements affects SMEs differently in turn impacting on performance (Nelson, 1997). Performance is critical to the enterprises since continued existence and business activities are a crucial benefit to their practitioners and managers. Thus aspects of BDS are important for an enterprise's sustainability and competitiveness in the long-run.

The relationship between BDS and performance has however been a subject of debate for several decades now. This debate has led to calls for studies to establish the nature and form of this relationship (Caniels, Romijn & De-Wilt, 2003; Brijlal, 2008). These calls have mainly focused on the need to determine the effect of different aspects of business development services on organizations. Caniels, Romijn and De-Wilt (2003) point out that this effect may be viewed from two main perspectives, that is, demand for, and supply of BDS. Supply of BDS is concerned primarily with which organizations provide BDS, the types of BDS they provide and how they provide BDS to SMEs. Conversely, the demand for BDS looks at the types of BDS SMEs need, how they can get the BDS and what effects or benefits may accrue to them from such BDS (McVay & Miehlbradt, 2002). Thus this study focused on demand for BDS and investigated overall effect of its aspects on SMEs as depicted in Figure 1.

Business Development Services

Studying BDS in organizations is important since there could be a unique set of activities and resources involved which could help explain the construct as a critical factor in predicting performance of SMEs (Brijlal, 2008). Initially, BDS entailed supply of subsidized financial services to a limited population but recently the phenomenon underwent a paradigm shift to focus on the development of a vibrant business services market that provides a variety of non-financial services for large numbers of SMEs (McVay & Miehlbradt, 2002). It has been viewed as "the wide range of activities used by entrepreneurs to help them operate better and grow their businesses with broader purpose of contributing to economic growth, creating employment, and alleviating poverty" (Miehlbradt & McVay, 2003:2). BDS is important for small firms as the management and practitioners, upon recognizing the low capacity of such firms, often tend to prefer BDS to remain competitive, and have acknowledged that BDS is very effective in achieving their business objectives.

BDS has been studied in different forms in small enterprise literature. For example in South Africa, JP Morgan Chase (2013) argued that BDS led to improved SME business growth, access to finance, access to markets, financial management, workforce management and corporate governance which resulted in increase in their overall revenue and number of permanent staff. Specifically, BDS enabled SMEs in that study to adopt more structured approaches to management and planning and to have the ability to prioritize and be more strategic and focused. Earlier on, the importance of BDS to SMEs had been demonstrated by McCormick (1999) who found that SMEs clustered together in urban areas reported improved performance compared to their counterparts that were located in isolation or remote areas in Kenya. More recently, Gathenya, Bwisa and Kihoro (2011) investigated the use of business development services among SMEs in Kenya and pointed out that BDS could help enhance entrepreneurial strategic planning practices of SMEs. Moreover, literature suggests that in smaller firms, limited resource and capability inhibit SMEs' ability to perform, but improved effectiveness may be achieved by accessing BDS services (Van der Ree, 2003).

However despite these pro-BDS demand related arguments, research (Mazanai & Fatoki, 2011; Gomez, 2013) has mainly focused on supply side, that is, how BDS can be provided to organizations and who provides them as opposed to the types of BDS that SMEs need and how these BDS may benefit SMEs. For example, Mazanai and Fatoki (2011) investigated the effectiveness of BDS providers in improving start-up SMEs' access to finance in South Africa. They established that there is a positive relationship between an SME and access to finance such that as SME's awareness about BDS increases, its chances of getting access to finance also increases significantly. In a more recent research, Gomez (2013) studied strategies and practices for mobilizing resources towards delivery of BDS in United States of America (USA). The study found that many BDS providers in USA reported improvements in key SME metrics such as business start rates, business growth and survival rates as well as number of jobs created.

These empirical studies demonstrate that whereas provision or supply of BDS to SMEs has received a considerable amount of attention, demand for BDS and its effect on SME performance has been given

relatively less focus. This position is also supported by Miehlbradt and McVay (2003:11) who observed that, "one of the key mistakes of past BDS programs was that they assumed which services small enterprises wanted." This demonstrates diversity in opinions regarding BDS and their effect on performance of SMEs and therefore, it is important to determine how BDS dimensions manifest in small and medium enterprises thus affecting their ability to provide the customers with products and related services.

In this study, BDS was defined as "services that improve the performance of the enterprise, its access to markets, and its ability to compete" (Steel & Webster, 2001:14). Thus, BDS is focused both on short and long term activities of small and medium enterprises. Given this interpretation, literature argues that the framework for business development services is a six dimensional configuration consisting of market access, infrastructure facilities, policy development, input supply, training and technical assistance, technology and product development, and alternative financing services (UNDP, 2004). This study however focused on three dimensions, that is, market access, infrastructure facilities and input supply or procurement services which are deemed crucial for manufacturing enterprises.

Market Access

The importance of market access to organizations is well documented in literature (Pollard & Jemicz, 2006; O'Dweyer, Gilmore & Carson, 2009; Price, Stoica & Boncella, 2013). It may be achieved through market management which is postulated to have the ability to enhance an enterprise's competitive advantage through increased market outreach. Management of markets through continuous innovation, products or processes in anticipation of, and response to, dynamic customer requirements, competitors and supply analysis is the essence of SME survival and growth (Price, Stoica & Boncella, 2013). A crucial activity under market management is market development through innovation which has been noted as important in improving product and service offering in firms. Market development, which has been broadly regarded as specific or general to organizations, enables firms to try new ideas, seize the opportunity which are essential during market access and gain competitive advantage (Mahmoud, 2011).

According to extant literature, market access has been presented in different forms. For example Small Enterprise Education Program (SEEP) guide to business development services argued that market access consists of marketing business, market linkages, trade fairs and exhibitions, development of samples for buyers, market information, subcontracting and outsourcing, marketing tips and meeting, market research, marketing space development, showrooms, packaging and advertising (SEEP, 2000). In contrast, UNDP (2004) presented market access as a seven element factor comprising market research, market information, trade fairs, product exhibitions, advertising, packaging, marketing trips and meetings, and subcontracting and outsourcing. Literature (Mahmoud, 2011; Moorthy, Tan, Choo, Wei, Ping & Leong, 2012) has pointed out that market access has an influence on performance of organizations in Ghana. However, differences in opinions have been reported in measuring the variable and regarding this effect. In this study, market access was regarded from the viewpoint of market information and advertising facilities, which are the two key components that affect organizations' market outreach, leading to the first hypothesis thus:

> *H1: There is a positive relationship between market access and performance of small and medium enterprises.*

Infrastructure Facilities

Studying infrastructure facilities is crucial as there could be a set of distinctive issues involved which may help describe it as a critical feature in understanding SME performance (Gramlich, 1994; Easterly, 2002; Delmon, 2008; The World Bank, 2008). According to Easterly (2002), infrastructure facilities have been viewed as the basic structures – physical and organizational that provides support for development of an organization or economy. It has been regarded as an essential linkage between a firm and its markets which can have the potential to impact on the firm's revenues and overall effectiveness (Price, Stoica & Boncella, 2013). According to Delmon (2008), well-developed infrastructure facilities reduce the impact of inter-regional distances, integrating the local markets as well as connecting them at low cost to markets in other countries and regions. Similarly, Izquierdo and Vasallo's (2004) study pointed out that infrastructure facilities and economic development are positively correlated such that there are effects during the construction phase and during the usage of such facilities.

Organizational infrastructure refers to the physical structures that enable businesses to run smoothly (Horby, 2005). In a manufacturing concern, infrastructure facilities consist of the factory, equipments and warehousing facilities. According to White, O'Connor, and Rowe (2004), unavailability of appropriate

infrastructure could lead to excessive capital investments, support levels and inadequate organizational flexibility. Thus strained access to infrastructure components like warehousing may have adverse implication for performance in a manufacturing enterprise hence hypothesis two was formulated:

> *H2: There is a positive relationship between infrastructure facilities and performance of small and medium enterprises.*

Procurement Services

The role of procurement services in organizations is well documented in literature (Gramlich, 1994; Easterly, 2002; Koh, Demirbag, Bayraktar, Tatoglu, & Zaim, 2007; Delmon, 2008; The World Bank, 2008; Awino, 2011). Procurement services are perceived to have the ability to give businesses increased flexibility through alternative sourcing of inputs and services thus reducing supply chain costs and risks (Hong & Jeong, 2006). Procurement services have been described as the business function that is responsible for identification and purchase of external resources needed by an organization to fulfill its strategic objectives (Kidd, 2005). In manufacturing environment, an important undertaking is the purchase of raw materials and other input supplies which are crucial ingredients. Input supplies have been noted as important for an enterprise's processes since they facilitate the production of goods and services (Koh et al., 2007).

However, SMEs have been observed not to be as strong and resistant to effects of business environment, as their larger counterparts, due to their inability to negotiate favourable procurement services terms and small scale economies for sourcing input supplies. Studies argue that limited resources and capabilities in small enterprises hamper their ability to negotiate for better prices and terms and that this may be alleviated when such services are provided to SMEs in a cluster (Kayanula & Quartey, 2000; Schimitt-Degenhardt, Stamm & Zehdnicker, 2002). According to Miehlbradt and McVay (2003), better terms of procurement services may be achieved by linking SMEs to suppliers, facilitating bulk buying groups, improving suppliers' capacity to provide quality inputs and providing information on input supply services. Thus, how inputs are procured may contribute to improved performance of an organization. However, contradictions and differences in opinion have been reported regarding this relationship. In this study, input supplies or procurement services were viewed as linking of SMEs to raw material suppliers and access to group purchasing arrangements hence leading to the third hypothesis:

> *H3: There is a positive relationship between procurement services and performance of small and medium enterprises.*

Given that these aspects of business development services, that is, market access, infrastructure facilities and procurement services are simultaneuosly required by an organization when producing and providing products and services to customers, a fourth hypothesis was also formulated thus:

> *H4: The joint effect of market access, infrastructure facilities and procurement services on performance of small and medium enterprises is greater than their individual effects.*
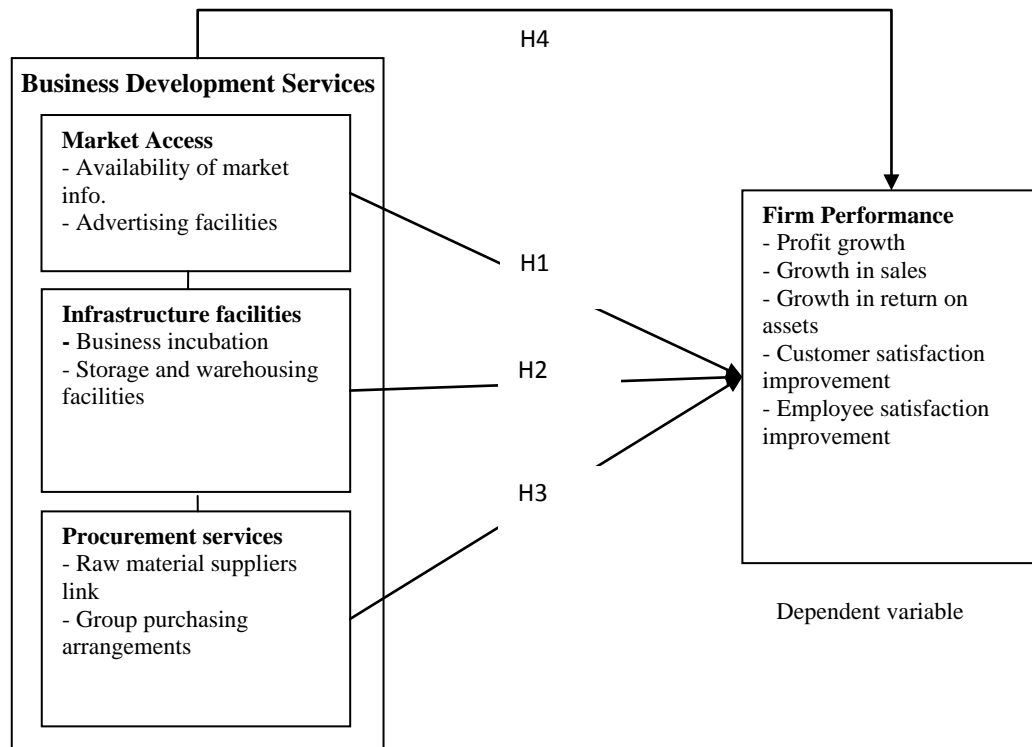
Figure 1: Conceptual Model for the Study

Methodology

This study sought to investigate the effect of business development services on performance of small and medium enterprises. The specific objectives were to establish individual effects of i) market access ii) infrastructure facilities iii) procurement services of inputs and iv) their joint effect on performance of SMMEs in Kenya. The study used a cross sectional survey design and descriptive approach on a population of 800 SMEs registered with KAM as at December 2012, in Nairobi. A sample of 150 SMEs was drawn using Cochran's (1977) formula followed by stratified random sampling based on sectors. Data was collected from SME practitioners or senior managers through primary sources and a structured questionnaire administered through drop and pick methods. Every respondent was asked to rate each variable item on a five point Likert type scale. An aggregate value of each item was then obtained by adding the scores for all the items from the returned questionnaires from every organization. This gave a single index used as a proxy value measure for each variable in an organization which was the unit analysis.

Data Analysis

A total of 97 organizations participated in the study giving a 65% response rate. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 19. Cronbach's alpha tests dome for reliability to check consistency of scale of measurement returned alpha values of 0.778 and 0.868 for BDS and Performance respectively which were above the recommended minimum of 0.70 (Nunnally & Bernstein, 1994) and thus regarded as satisfactory. In addition tests for homoscedasticity using Z*pred and Z*presid were performed on performance - the dependent variable which produced the P-P Plot of Regression Standardized Residual as presented in Figure 2.
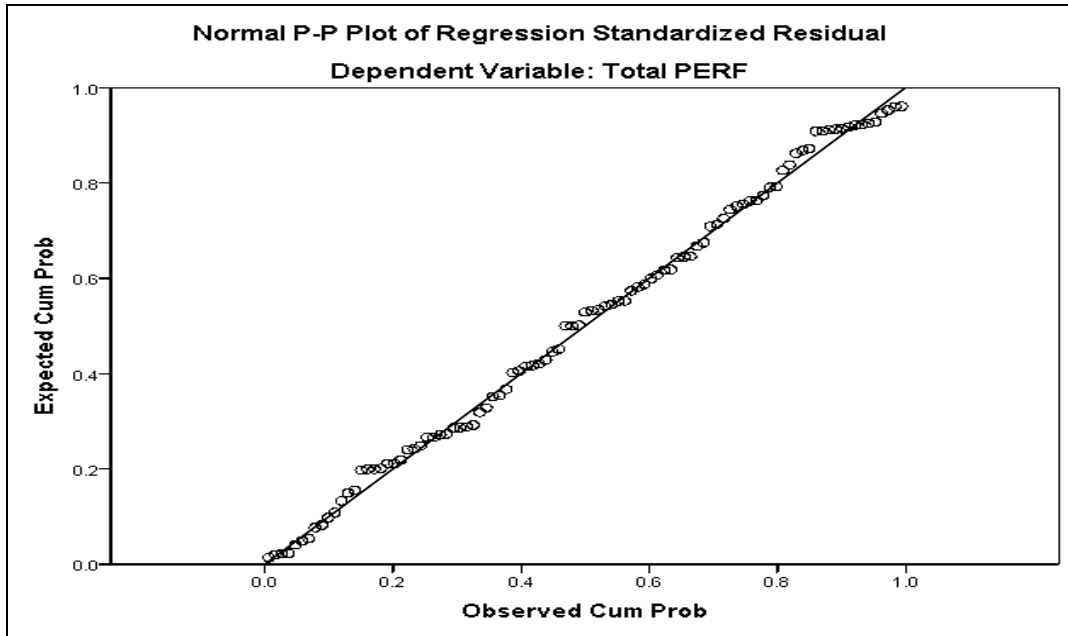
Figure 2: Homoscedasticity Test for Firm Performance

As the results in Figure 2 indicate, the plot is a straight line graph which demonstrates that, performance data did not vary erratically and therefore satisfied homoscedasticity.

Descriptive Analysis
Results for descriptive statistics used to test normality are presented in Table 1.

Table 1: Summary of Descriptive Statistics for the Study Variables

Variables		Skewness		Kurtosis		Distribution	
Measure	n	Statistic	Std. Error	Statistic	Std. Error	Mean	Standard Deviation
Market Access	95	-0.052	0.247	-0.546	0.490	7.71	1.398
Procurement services	91	-0.285	0.253	-0.561	0.500	7.48	1.601
Alternative Financing	89	-0.115	0.255	-0.748	0.506	6.39	1.382
Infrastructure facilities	92	-0.807	0.251	0.090	0.498	6.90	2.138
Profit growth	95	0.259	0.247	-1.002	0.490	2.27	1.005
Sales growth	94	-0.013	0.249	-1.119	0.493	2.64	1.135
ROA growth	93	0.301	0.250	-1.140	0.495	2.22	1.051
Profit/sales growth	92	0.179	0.251	-1.116	0.498	2.40	1.110
Customer satisfaction	95	-0.329	0.247	-0.441	0.490	3.39	1.045

As Table 1 shows the values for skewness ranged from -0.807 to +0.301 while kurtosis statistics ranged from -1.140 to +0.090. According to International Business Machines (IBM) Corporation (2012), for a normal distribution, value of skewness should not be more than twice its standard error while kurtosis statistic should be close to zero. In this study, the values for skewness were less than twice their standard errors while those for kurtosis were near zero. This clearly demonstrates that this study's variables satisfied the conditions for normal distribution since values for skewness and kurtosis fell within these boundaries

hence were suitable for further statistical analysis. In a similar vein, the Table shows that the means for the variables ranged from 2.22 to 7.71 while standard deviations were from 1.005 to 2.138. These values indicate that in all the variables 95% of the data were within two standard deviations from the mean and therefore reconfirm that the variables in this study were normally distributed.

Testing of all Hypotheses
Multiple Linear Regression analysis was used to test all the five hypotheses in this study. The hypotheses were examined at 95% and 99% confidence levels which translated to significant levels of $p \leq 0.05$ and $p \leq 0.01$ respectively. This was because all data were collected from a sample rather than the entire population (Wonnacot & Wonnacot, 1990). Likewise, single tail approach was used since all the hypotheses were uni-directional. Multiple linear regressions were used to test all the hypotheses as depicted in Figure 1.

Tests for Individual Variable Effects
The results of the tests for hypotheses 1, 2 and 3 are summarized in Table 2. Hypothesis 1 which stated that "there is a positive relationship between market access and firm performance" was tested using model 1: $PERF = \alpha + \beta MA + \acute{\epsilon}$, while hypothesis 2 which held that "there is a positive relationship between procurement services and firm performance" was tested in model 2: $PERF = \alpha + \beta PROC + \acute{\epsilon}$, and finally hypothesis 3 which opined that "there is a positive relationship between infrastructure facilities and firm performance" was tested in model 3: $PERF = \alpha + \beta INFRA + \acute{\epsilon}$. Where PERF=Performance, MA=Market Access, PROC=Procurement, INFRA=Infrastructure, α = constant, β=regression coefficient and $\acute{\epsilon}$= error term.

Table 2: Regression of Firm Performance on individual Independent Variables

Statistical Tests	Model 1: Market Access	Model 2: Procurement services	Model 3: Infrastructure facilities
Adjusted R^2	0.025	0.121	0.122
β	0.157	0.348	0.349
t	1.533	3.574***	3.576***
F	2.349	12.776***	12.791***
n	94	94	93

***$p \leq 0.01$
Dependent Variable = PERF

The results in model 1, in Table 2 indicate that adjusted R^2 is 0.025 which implies that the model could be used to explain 2.5% of the variance. Analysis of variance (ANOVA) is however weak (F=2.349) and not statistically significant even at 10% level. Thus the independent variable market access shows no relationship and therefore does not make any contribution in the explanation of variations in performance. Market access returned a weak result (β=0.157, t=1.533). The t-value is low at 1.533 and in any case not statistically significant even at 10%. In addition model 2 in Table 2 provides results for the regression of procurement services on firm performance. The results show that the model may be used to account for 12.1% of the variations (adjusted R^2 = 12.1%). ANOVA is moderate (F=12.776) but very significant at 1% level ($p \leq 0.01$). This demonstrates that independent variable, procurement services, has a major impact in the explanation of performance. Procurement arrangements and services indicate a moderate relationship (β=0.348, t=3.574, $p \leq 0.01$). At 3.574, the t-value is near average but highly significant at 1% level.

Model 3 in Table 2 is the last test and examines the effect of infrastructure facilities on firm performance. The adjusted R^2 is 0.122 which means that the model may predict 12.2% of changes in performance. From this model, ANOVA is moderate although very significant (F=12.791) at 1% level which suggests a major contribution by infrastructure facilities in explanation of performance. Furthermore, elements of procurement services like business incubation and availability of warehousing facilities have a strong result (β=0.349) but with a highly statistically significant t-value (t=3.576, $p \leq 0.01$).

Tests for the Combined Variable Effects
The fourth hypothesis in this study stated that "the combined effect of MA, PROC and INFRA on firm performance is greater than each individual effect". It was tested through hierarchical linear regression using model 4: $PERF = \alpha + \beta_1 MA + \beta_2 PROC + \beta_3 INFRA + \acute{\epsilon}$. The results of these tests are presented in Tables 3, 4 and 5 respectively.

Table 3: Regression of Firm Performance on individual Independent Variables

Variables	Analyses			
	Individual		Combined	
Independent	β	t	β	t
Market Access	0.157	0.129	0.014	0.137
Procurement services			0.227	2.001**
Infrastructure facilities			0.231	2.040**
Adjusted R^2	0.025		0.162	
r	0.157		0.348	
F	2.349		5.847***	
n	94		94	

***p≤0.01, **p≤0.05
Dependent Variable = PERF

As Table 3 shows the results for the individual effect of market access indicate that the model may be used to explain 2.5% of variance (adjusted R^2 =0.025) which however is not statistically significant even at 10% level. In the combined model, where procurement services and infrastructure facilities are introduced, adjusted R^2 improves to 0.121 with a corresponding huge increase in F-value, from 2.349 to 5.847, which is statistically significant at 1% level. This implies that the combined model may be used to explain 12.1% of the variance compared to the individual model which could explain only 2.5%. This increase in explanatory power is notably contributed by procurement services (β=0.227, t=2.001) and infrastructure facilities (β=0.231, t=2.040) respectively which have brought in strong and statistically significant effect (p≤0.05) in the combined model.

Table 4: Regression of Firm Performance on individual Independent Variables

Variables	Analyses			
	Individual		Combined	
Independent	β	t	β	t
Procurement services	0.348	3.574***	0.227	2.001**
Market Access			0.014	0.137
Infrastructure facilities			0.231	2.040**
Adjusted R^2	0.121		0.162	
F	12.776***		5.847***	
r	0.348		0.402	
n	94		94	

***p≤0.01, **p≤0.05
Dependent Variable = PERF

As shown in Table 4, the model for individual effect of procurement services on performance can be used to predict 12.1% of variations in performance (adjusted R^2=0.121) and a strong result (β=0.348, t=3.574, p≤0.01). The value for ANOVA is similarly strong (F=12.776) and statistically significant at 1% level (p≤0.01). The results for the combined effect show a surge in the explanatory power of the model from 12.1% to 16.2% (adjusted R^2 increases to 0.162), and remains statistically significant. ANOVA however decreases substantially from F=12.776 to 5.847 but is still statistically significant at 1% level (p≤0.01). The results for procurement services also indicate a weakened position (β=0.227, t=2.001) accompanied by a reduction in significance to 5% at (p≤0.05). A similar weakening in strength is exhibited by infrastructure

facilities (β=0.231, t=2.040) also at 5% level (p≤0.05). These results indicate that the combined effect of all the three variables on firm performance is statistically significant and greater than the individual effect of procurement services.

Table 5: Regression of Firm Performance on Individual Independent Variables

Variables	Analyses			
	Individual		Combined	
Independent	β	t	β	t
Infrastructure facilities	0.349	3.596***	0.231	2.040**
Market Access			0.014	0.137
Procurement services			0.227	2.001**
Adjusted R^2	0.122		0.162	
F	12.930***		5.847***	
r	0.349		0.402	
n	94		94	

***p≤0.01, **p≤0.05
Dependent Variable = PERF

As Table 5 shows, the test results of hypothesis 4 depict statistical significance for both individual and combined models with less strength but high explanation for performance. The results further indicate that the individual effect of infrastructure facilities is strong (β=0.349, t=3.596, p≤0. 01) with a statistically significant explanatory power of 12.2% (adjusted R^2=0.122). The combined model however has a higher and statistically significant explanatory power of 16.2% (R^2=0.162, p≤0. 01) although with a weaker ANOVA (F=5.847) compared to that of the individual model (F=12.930). Despite the weaker F-value, the combined effect is still statistically stronger compared to individual effect of infrastructure facilities. The stronger combined effect is contributed by procurement services (β=0.227, t=2.001) and infrastructure facilities (β=0.231, t=2.040) both of which are statistically significant at 5% level (p≤0.05).

RESULTS

Hypothesis 1, which states that "there is a positive relationship between market access and performance of small and medium enterprises", is not supported. The findings show that although there appears to be some positive relationship between market access and firm performance (β=0.157) and an R^2 of 0.025 which explains a paltry 2.5% of variance, this effect is both weak (F=2.349, t=1.533) and not statistically significant even at 10% level. These results indicate that there is no evidence for market access in performance of small and medium manufacturing enterprises in this study. Therefore, the study rejects hypothesis 1 and fails to support the assertion that market access has a positive effect on performance of the enterprises. On the other hand hypothesis 2, which states that "there is a positive relationship between procurement services and performance of small and medium enterprises", is supported according to these findings. The procurement services explains 12.1% of the variance in firm performance (R^2=0.121) and is statistically significant (p≤0. 01). These findings indicate that there exists evidence for contribution of procurement services in small and medium enterprises. Therefore, this study fails to reject hypothesis 2 and concludes that performance is positively influenced by procurement services.

Hypothesis 3 postulates that "there is a positive relationship between infrastructure facilities and performance of small and medium enterprises" and is supported by these findings. The findings indicate that infrastructure facilities significantly accounts for 12.2% of the variations in firm performance (R^2=0.122, p≤0.01). The findings suggest that there is proof for the role of infrastructure facilities in small and medium manufacturing enterprises. Therefore, this study fails to reject hypothesis 3 and supports the view that infrastructure facilities have a positive effect on performance of small and medium manufacturing enterprises. Furthermore, hypothesis 4 states that "the joint effect of market access, infrastructure facilities and procurement services of inputs on performance of small and medium enterprises is greater than each individual effect". This hypothesis is supported for all the three independent variables. In the case of market

access, the R^2 is 0.025 which as indicated earlier explains 2.5% of the variance and is not statistically significant even at 10% level. This is as opposed to the combined effect of market access, procurement services and infrastructure facilities which significantly explains 16.2% of variance in performance (R^2=0.162, $p\leq0.01$). This means that the total effect of market access, procurement services and infrastructure facilities on firm performance is statistically significant and greater than that of market access on its own.

In the case of procurement services, R^2 is 0.121 which significantly explains 12.1% of variations in performance. In this result, the effect of procurement services is weaker than the combined impact of market access, procurement services and infrastructure facilities which, as reported before, significantly accounts for 16.2% of the total variations in firm performance (R^2=0.162, $p\leq0.01$). These findings demonstrate that the joint effect of procurement services, market access and infrastructure facilities on firm performance is statistically significant and more than procurement services alone. Further, infrastructure facilities is individually responsible for 12.2% of the variance and is statistically significant (R^2=0.122, $p\leq0.01$). When compared to the joint impact which, as reported previously, explains 16.2% of the variance, this individual effect is weaker. This shows that the combined effect of infrastructure facilities, market access and procurement services are greater than that of infrastructure facilities as a standalone variable. All the three results thus indicate that there is evidence for support for a greater combined influence of market access, procurement services and infrastructure facilities than that of each on the studied firms. In conclusion, this implies support for hypothesis 4.

The findings of this study have implications for theory, policy and practice. By supporting the the notion that procurement services and infrastructure facilities could facilitate the improvement of SMME performance, they contribute to development of a theoretical conceptual model for these variables and supports RBV that better resource utilization could lead to superior performance. Similarly, the findings find support in contingency theory that the combined variable effect is greater than the impact of each. Lastly, for policy and practice, performance may be enhanced through prudent procurement of raw materials and other inputs as well as proper storing and distributing finished products before selling them.

DISCUSSION AND CONCLUSION

The results indicate lack of support for market access in small and medium manufacturing enterprises in this study. This result concurs with recent studies for example Kruger (2011) which found a negative relationship between market access and performance of businesses, including SMEs, in South Africa. Specifically, the results imply that contrary to expectation accessing information and advertising facilities, which were used as measures of market access, have no influence on performance of firms studied. The results however showed strong support for procurement services on small and medium manufacturing enterprises in the study. This concurs with Koh et al (2008) who reported a positive relationship between procurement services and firm performance. More specifically, group purchasing arrangements was identified as a key dimension of procurement services among the firms in the study. The results of this study similarly demonstrate a strong support for infrastructure facilities in firm performance. This reinforces recent studies like Price, Stoica and Boncella (2013) which argued that infrastructure facilities improves the linkage between a firm and its markets with a likely impact on a firm's revenues and overall effectiveness. The results also concur with views by Izquierdo and Vasallo (2004) who reasoned that infrastructure facilities and economic development are positively correlated.

According to this study, the effect of infrastructure facilities was the strongest overall indicator of firm performance. Based on this finding and other extant studies, it appears prudent to suggest that infrastructure facilities contribute to improved performance in the SMMEs. Small and medium manufacturing enterprises should give priority to incubation facilities in which new ideas may be nurtured and prototyped so as to improve existing business products and services. Similarly, SMME management should ensure availability of warehousing facilities where finished products may be stored under safe conditions before distribution. Therefore, even though establishment of appropriate infrastructure facilities may seem a complex, costly and time consuming undertaking, it may result in benefits to the firm. Furthermore, based on the finding that procurement services positively contributes to performance of studied SMMEs, their practitioners and management should pursue group procurement arrangements to benefit from associated discounts. SMMEs should similarly seek opportunities which facilitate linkages with their raw material suppliers to cut down on delays in delivery and reduce supply lead-times. In addition,

this study established that the joint effect of all the three variables, that is, market access, procurement services and infrastructure facilities is also more than the individual effect of each on performance. This result is consistent with the findings for individual effects of these variables on performance. Whereas tests for market access reported no significant influence on performance, results for procurement services and infrastructure facilities both had strong individual influence. It was therefore logical to assume that jointly, these three variables would have a greater impact than individually on performance. The results for hypothesis 4 are therefore consistent with those of hypotheses 1, 2 and 3 respectively and hence consistent with expectations. Arising from these findings, policy makers in these firms should put in place measures to ensure availability of procurement services and infrastructure facilities as this may have an impact on performance.

This study focused on manufacturing SMEs in Nairobi County. This context excludes not only SMEs outside the county but also service sector SMEs in totality hence limiting generalization of the results to SMMEs in Nairobi. Further studies may thus focus on manufacturing firms beyond Nairobi and service sector SMEs. Future research can also investigate effect of BDS on performance using a broader framework (UNDP, 2004) to measure BDS. In addition, subsequent studies may consider investigating how firm characteristics like age and size of the firm, and managetial competency of owner/manager can impact how BDS affects performance of SMEs.

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