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## EFFECT OF SUPPLIER DEVELOPMENT ON BUYER PERFORMANCE: A SURVEY OF SUGAR MILLING FIRMS IN WESTERN REGION OF KENYA

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**ABSTRACT**: As firms increasingly emphasize cooperative relationships with critical suppliers, executives of buyer firms are using supplier development to ensure that their performance and objectives are met. Supplier development is an effort by the buying firm to meet current and future business needs by improving supplier performance and capabilities. This paper, therefore, set out to investigate the effect of supplier development on buyer performance. Explanatory Research design was utilized to explain the cause-effect relationship between supplier development and buyer performance. A sample of 88 top level purchasing and marketing executives considered by the researcher to have strong buyer-supplier and buyer-customer relationship respectively, were selected using purposive sampling technique. Data from respondents was analyzed using both descriptive and inferential statistics (correlation analysis and multiple regressions). The study found out that supplier technical support and supplier financial support had positive effect on buyer performance. Hence, it was prudent to infer that supplier technical support and supplier financial support positively affects buyer performance. This means that the company management efforts of developing suppliers will be of great significance to the company if it invested in offering supplier development so as to increase buyer performance both in the short and long run. Finally, from the study findings it is recommended that in order for firms to gain competitive edge over its competitors, they must continuously strive to align the resources, performances and activities of their critical suppliers with the operations of the buying organization through supplier development so as to gain superior overall performance and increased customer satisfaction.

KEYWORDS: Supplier Technical Support, Supplier Financial Support, Buyer Performance

## INTRODUCTION

Buyer performance is a critical success factor in any business entity and serves as a link between the firm and the customer. Effective buyer performance is evident via product innovation,

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product quality, timely delivery of product and competitive pricing. Supplier development has strong influence on buyer competitive performance outcomes. According to Li *et al.*, (2006), buyer performance is fundamental to the establishment and sustaining of the firms' competitive advantage. Buyers' performance is enhanced through supplier development, especially via investments in specialized assets considered to be critical to firms' overall performance (North, 1990; Buvik & Gronhaug, 2000). Supplier development is increasingly becoming a source of competitive advantage to many competing firms (Krause *et al.*, 2001).

Gonzalez and Quesada (2004) rightly pointed out that supplier development is the most influential management process for achieving product quality and customer satisfaction .To achieve this objective, firms should put more emphasis on their ability to create and enhance its own capability in a strategically important aspect such as supplier development. The success of any company today lies not only in the management of its relationships with its customers, but also bearing in mind a wider reference group in the supply chain including its suppliers. In support, Morgan and Hunt (1994) underscored the importance of establishing, developing and maintaining steady relationships with suppliers that are beneficial to both parties. Throughout the past decade, the business community has recognized the need to manage the supply chain as part of a broader business strategy, and in particular to build and exploit shared relationships with supply chain partners.

According to Wagner (2006) firms have to work through suppliers to facilitate and realize significant cost savings and therefore, they can no longer limit their development efforts to their firm boundaries. Firms can approach problems in a variety of ways, more so if current suppliers are not able to provide a demanded product, are not performing up to expectations, the composition and quality of a firms' supplier base is not competitive or capable suppliers are not available in the market (Handfield *et al.*, 2000). With the fast developing world economy and the shrinking global market, there has been a drastic increase in pressure on organizations to find new ways of creating and delivering value to their customers through supplier development. There has been a growing recognition of building relationship with the supplier for improvements in profitability, serviceability and reduced costs in the supply chain (Niraj *et al.*, 2001).

For decades, many companies have not taken seriously the performance of their suppliers until recently when competition became too much for them to bear. With time, the number of reliable suppliers has drastically reduced as new and more competitive firms emerge with new and attractive terms and conditions of engagement (Stainly & Wisner, 2002). Poor or inconsistent supply can be attributed to lack of trust between supplier and buyer, poor supplier performance, suppliers' inflexibility to change, poor coordination, lack of training, poor motivation and fragmentation of information between supplier and buyer (Newman, 2001). The impact of this to the business is loss in business performance, increased inventory, and decreased capability to meet customer needs, decreased market share, inflexibility to change, long lead time and decreased profits. As a result, customers are dissatisfied and the company losses market reputation. Reduced information sharing and decreased customer loyalty towards the goods and services of the organization may lead to customers switching to more competitive firms (Petersen *et al.*, 2005). The relationship of supplier practices with performance has been addressed in several studies (Krause et al., 2000; Forker & Hershauer, 2000). However, most

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studies offer only a partial analysis of the problem since they investigate only a few supplier practices.

## **Problem formulation**

Currently all sugar milling firms in western region of Kenya, are facing a cut throat competition for the cane that is rapidly getting depleted. Deliveries to these sugar milling firms is dwindling day by day as a result of encroachment by rival firms. As a measure to curb rampant encroachment and poaching of cane by competing firms, millers, with the help of the Kenya sugar board, have been compelled to carry out 'zoning' of the cane catchment areas. Each firm currently is putting all effort towards converting any idle land and land previously occupied by food crops in their zone into cane growing farms through development of the cane suppliers. They do so by providing free or subsidized cane seeds and fertilizers, free agricultural training, financial assistance and providing technical support to farmers and other suppliers who supply fertilizers, sugar ingredients, machine parts and components and packaging materials to the buying firm.

Sugar milling firms in the western region of Kenya have undertaken supplier development, yet its effect on the performance of these firms is not clear. Milling firms are experiencing shortage of cane and the situation is getting worse day by day. The acute shortage of cane to these milling firms is exacerbated by poaching by rival firms, rapidly increasing number of the milling firms and by some farmers who are opting out of cane farming for other cash crops that takes shorter period to mature and harvest. This has prompted both the existing and up-coming cane millers to immensely support their suppliers via supplier development by providing the suppliers with training; financial support and constantly offering technical support so as to improve the performance of their firms. Therefore, this paper aims at establishing the effect of supplier development on buyer performance by conducting a survey study of all sugar milling firms in western region of Kenya.

## **REVIEW OF LITERATURE**

## **Concept of Buyer Performance**

Buyer performance is the ability of the buying firm to leverage its social capital through better quality, competitive pricing, reduced lead time, increased product safety and increased sales which culminates in firms' high profitability (Scannell, Vickery & Droge, 2000). Krause (1999) pointed out that in order to improve buyer performance for specific investments, buying firms take a variety of efforts to leverage suppliers' performance and capabilities through investment in human or physical assets that are dedicated to a particular supplier. For example, buyer's direct investment in assets specialized to the buyer and supplier's exchanges (for instance customized equipment and tools). The buying firm should seek competitive ways that are consistent with the set of priorities that a company chooses to compete in its market (Paiva *et al.*, 2004). Wheelwright (1984) and Tompson (1999) identified some competitive criteria as cost, quality, dependability and flexibility. Dependability criterion is related to the confidence that the product will work in accordance to the specifications or, in the case of services that the deliveries

<u>Published by European Centre for Research Training and Development UK (www.eajournals.org)</u> will be at the right time and the problem solutions will occur in a short time (Wheelwright, 1984).

## **Supplier Development**

According to Krause (1999), supplier development broadly refers to "any effort by a buying firm to improve a supplier's performance and/or capabilities to meet the buying firm's short- and/or long-term supply needs" Purchasers can make use of a wide range of supplier development practices to improve a supplier's performance and/or capabilities. Krause *et al.* (2007) opined that supplier development may be composed of such activities from a buying firm as goal setting, supplier evaluation, supplier technical support, performance measurement, supplier training, and other related activities. This set of practices encompassing direct involvement indicates a multi-dimensional nature of supplier development (Pagell & Curkovic, 2001).

Supplier development should lead to improvement in the total added value from the supplier in question in terms of quality of product or service offered, business processes and performance, improvements in lead times and delivery to overall performance of the buying firm (Modi & Mabert, 2007). Supplier development is normally undertaken with existing suppliers that can be, and agree to being, improved. Suppliers can be categorized in respect of supplier development in three ways; they are, being developed, on hold as a potential for development or, identified as not being worth the investment of development.

There is no single approach to supplier development but it is generally acceptable that it can be undertaken at three levels (Trent & Monczka, 1999) i.e. basic, moderate and advance level, according to the level of firm involvement and implementation complexity (i.e. skill, time, and resources required to execute successfully a particular activity). There is consensus between Petersen et al. (2005) and Swink, Narasimhan and Wang (2007) that a fundamental pre-requisite to supplier development and indeed the development of any purchasing and supply management strategy, is that purchasing and supply management professionals should analyze, evaluate and appreciate their own organization's corporate objectives and business needs before embarking on supplier development. The supplier development projects which are undertaken must be in support of the purchasing and supply management strategy which, in turn, supports the organizational strategy (Muhkerji & Francis, 2008). However, there are also such direct investments in supplier development that are more specific, advanced and time and resources consuming as well as complex to implement by the buyer. Although academia elaborates on a number of constructs in the context of supplier development, an immense majority of literature focuses only at a few of them. Wuyts and Geyskens (2005) investigated the role of detailed contract drafting and close partner selection on the formation of strong supplier-buyer relationships which eventually translated into greater firm performance.

## **Empirical Review**

Carr and Pearson (1999) investigated the linkage between the implementation of supplier evaluation and a firm's financial performance. In their empirical research, Carr and Smeltzer (1999) found evidence of the relationship between effective communication with suppliers and a firm's financial performance. Forker and Hershauer (2000) investigated the relationship between supplier development practices and customer satisfaction, supplier satisfaction, and supplier

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quality performance. They concluded that control of quality management and supplier development programs were crucial factors that lead to mutual satisfaction among buyers and suppliers.

Krause *et al.*,(2000) found that direct supplier involvement activities, such as buyer site visits to supplier factories and training/education of supplier personnel, play a critical role in supplier performance improvement. More recently, Tracey and Tan (2001) found that the involvement of suppliers in the buyer's product development process and continuous improvement programs increase customer satisfaction.

Silveira and Arkade (2007), among others, explored the contributions of relationship-specific investments toward supply chain coordination and found out that technical capabilities are necessary when input from the supplier is given to certain specification. This is more important to engineering personnel and they must be a part of this type of supplier development so that they can jointly undertake the functional and technical requirements necessary for producing innovative products. This is consistent with research by Carr and Pearson (1999) who reported the existence of a positive impact of supplier reward and recognition on the overall performance of supplier technical capability (Silveira & Arkade 2007).

A supplier who is properly and adequately financially supported augment the buyers' ability to deliver high-quality and innovative products to its customers and thus reduces buyers operational risks. Supplier's financial support is critical in determining the supplier's ability to remain financially solvent (Wangner, 2006). Financial support enhances suppliers' capability and capacity to cope with the buyers' requirement and therefore strengthens the suppliers' capacity to meet resource requirements by the buyer.

With better cooperation between the firm and the suppliers, the firm will be better able to communicate with suppliers based on technical details. They also will be highly sought after by suppliers since they will be seen as a technically elite firm from whom the supplier can learn. Therefore, more cooperation between the firm and its suppliers should arise since suppliers will be motivated to exchange knowledge. More expert firms will be able to select from better suppliers and get rid of poorly performing suppliers, increasing their satisfaction with their suppliers' performance.

## **Theoretical Review**

This paper was anchored on the social exchange theory. According to Ekeh (1974), Social exchange theory is a social psychological and sociological perspective that explains social change and stability as a process of negotiated exchanges between parties. Social exchange theory posits that all human relationships are formed by the use of a subjective cost-benefit analysis and the comparison of alternatives. The theory has roots in economics, psychology and sociology. Costs are the elements of relational life that have negative value to a person, such as the effort put into a relationship and the negatives of a partner, (Costs can be time, money or effort). Rewards are the elements of a relationship that have positive value (Rewards can be sense of acceptance, support, and companionship). The Social Exchange perspective argues that people calculate the overall worth of a particular relationship by subtracting its costs from the rewards it provides.

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Worth = Rewards - Costs

If worth is a positive number, it is positive relationship. On the contrary, negative number indicates a negative relationship. The worth of a relationship influences its outcome, or whether people will continue with a relationship or terminate it. Positive relationships are expected to endure, whereas negative relationships will probably terminate.

The guiding force of interpersonal relationships is the advancement of both parties' self-interest (Roloff, 1981). One thing about the social exchange theory is that it explores the nature of exchanges between parties and everything dealing with the social exchange has its outcome and satisfaction dependent on relationships. With the social exchange theory, both parties take in responsibilities of one another and they both depend on one another. Social Exchange Theory posits that the major force in interpersonal relationships is the satisfaction of both people's self-interest. Self-interest is not considered necessarily bad and can be used to enhance relationships. Interpersonal exchanges are thought to be analogous to economic exchanges where people are satisfied when they receive a fair return for their expenditures. Other tenets of social exchange theory include the pinnacle roles of trust, commitment, cooperation, satisfaction, and relational norms that develop over time and tend to govern the relationship rather than reliance on written contracts (Heide & John, 1992; Pratt & Dirks, 2007)

The theory relate well to the unique relationship established by the buyer through supplier development for mutual economic exchanges that is beneficial to both parties. The buyer empowers the supplier via financial support, technical support and supplier training in return for product innovation, reduced risks of non-supply, reduced lead time, increased product safety, improved product quality and competitive pricing for the buyer.

## **Conceptual Framework**

From the literature, it is vivid that the two main independent variables for supplier development are supplier technical support and supplier financial support. According to Rodriguez et al. (2005) Technical capability relates to engineering issues and the supplier's capability to meet performance and technical specifications and requirements. Activities related to the provision of technical support are fundamental to suppliers' performance (Krause, 1997; Krause *et al.*, 1998). This technical support might consist of direct investment in equipment and personnel of the suppliers, evaluation of supplier performance and sharing feedback on the evaluation results, visiting suppliers' plants, and supplier certification (Hartley & Choi, 1996; Krause, 1997; Krause *et al.*, 1998).

According to Choi (1999), supplier financial support is the buyers' effort towards its suppliers to continuously spot financial weaknesses within its supply base and taking the necessary financial support to avoid supply disruptions and increase supplier financial health so as to meet his short-term and long-term financial obligations. Financial support is a critical success factor in supplier development and supplier performance. According to Heide and John (1990), proven financial support provides the buying firm with increased supplier competition in the global market and potentially reduces transportation and other logistical costs of suppliers. Today's successful buyers can attribute their achievement to their valuable buyer-supplier relationship obtainable through buyers' initiative to support supplier via technical support, financial support and through

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supplier training in order to achieve superior performance and mutual gain for both parties. Buyer performance relies on the effectiveness and efficiency of the supplier in order to achieve its set goals and objectives. This therefore suggests that there is a strong direct link between supplier development and the overall buying firm performance.

The study predicted a positive relationship between technical support and buyer performance. This is because as the supplier put into use the acquired technical capability, it translates into product innovation and product quality (Carr & Pearson, 1999). This has led to supply of superior products by the suppliers which in turn enhances the effectiveness and efficiency of performance on the part of the buyer.

## *H*<sub>01</sub>: Supplier technical support has no significant effect on buyer performance

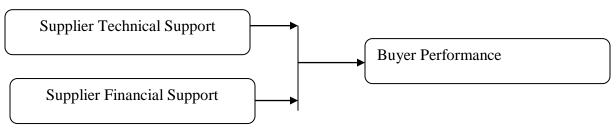
The study predicted a positive relationship between supplier financial support and buyer performance. Financial assistance given by the buyer to the supplier facilitates timely meeting of financial obligations, increases supplier competitive edge and leads to continuous supply of goods to the buyer. This, therefore, means there is a positive association between the supplier financial support and buyer performance (Wangner, 2006). The indicators for the supplier financial support were the liquidity, personnel, and capital investment and distribution networks.

## *H*<sub>02</sub>: Supplier financial support has no significant effect on buyer performance.

Based on the above discussion, the conceptual framework was developed as shown in figure 1

#### **Independent Variables**

**Dependent Variable** 



Source: Researcher (2014)

## MATERIALS AND METHODS

An explanatory research design was used. Cooper and Schindler (2003) pointed out that explanatory study uses theories or hypotheses to account for the forces that caused a certain phenomenon to occur. The target population of this study were the 11 milling firms in western region of Kenya. The professionals consisted of one purchasing manager, one deputy purchasing manager and two assistant purchasing managers and one marketing manager, one deputy marketing manager and two assistant marketing managers from each firm. In this study, the unit of enquiry was top level purchasing and marketing executives, managers of Tractor supply agencies, Fertilizer supply agencies and packaging materials supply companies and from the chairmen of the two cane suppliers' cooperative societies. Random sampling technique was used

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to select a sample size of 88 top level officials from both purchasing and marketing departments from all the eleven sugar milling firms. Primary and secondary data were collected and analyzed. The primary data was obtained through the use of questionnaires and through observation in order to ensure comprehensive and detailed collection of relevant data. Secondary data were collected from the relevant datasheet of each company.

### **Measurement of Variables**

### **Dependent variables**

The indicators of the buyer performance were the price, quality, sales, lead time and inventory level.

### **Independent variables**

The indicators of the supplier training were defects, quality, expertise, efficiency, accidents and costs. The above variables therefore gave rise to the following conceptual framework.

The indicators of supplier technical capability were quality of raw materials and of finished products, innovativeness and physical equipment/technology.

Items developed were measured using a five Point Likert Scale. In the scale strong disagreement ranged from 1.0-1.49, disagreement ranged from 1.5-2.49, un-decided ranged from 2.5-3.49, agreement ranged from 3.5-4.49 and strong agreement ranged from 4.5-5.49

## Data Validity and Reliability

Cronbach's alpha was calculated to determine construct reliability. The Cronbach alpha for supplier training, supplier technical support, supplier financial support and buyer performance were 0.783, 0.807, 0.833 and 0.721 respectively. All Cronbach alphas were above 0.5, where Cronbach's coefficient, having a value of more than 0.5 is considered adequate for such exploratory work (Nunally, 1978). Since all Croncbach alpha values were more than 0.7, it implies that there was a high degree of internal consistency in the responses to the questionnaires. To assess non-response bias, the researcher compared early respondents to late respondents (i.e. first 34 questionnaires and second 26 questionnaires) following Armstrong and Overton's (1977) recommendations. No significant differences were found between early and late respondents on all variables.

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Construct	Item	Cronbach alpha	Composite reliability				
Supplier Technical Support	Supplier adaptation to new technology	0.783	0.77				
Support	Product development and production						
	Certification of quality system Direct investment in equipment of supplier						
	Quality of finished goods						
	Meeting of product specification						
Supplier	Raw materials	0.807	0.85				
Financial Support	Capital equipment						
	Highly trained human resources						
	Timely payment of salaries and wages						
	Financial debt						
	Distribution network						
Buyer	Improved Competitive pricing	0.721	0.79				
Performance							
	Reduced lead time						
	Reduced risk of non-supply						
	Improved dependability & accuracy of deliveries						
	Increased product safety						
	Improved product packaging						
	Improved inventory management						
	Increased sales						
	Improved customer satisfaction						

## Table 1.Measurement items and reliabilities

## **Data Analysis and Analytical Model**

Descriptive statistics were used to test for normality of the data collected. Measures of central tendency like mean. Mode, median and frequencies obtained from the analyzed data were used to describe the findings. Inferential statistics was used to draw implications from the data with regard to the regression model. Correlation analysis was utilized to test the hypotheses of the study. Multiple Regressions was employed to estimate the effects of multiple independent variables on a single dependent variable for purposes of prediction (Blalock, 1979). According to Osborne, Jason and Waters (2002), the regression model has the following assumptions; assumptions that variables are normally distributed, assumption of a linear relationship between the independent and dependent variable(s), assumption that variables are measured without error (reliably), and assumption of homoscedasticity ( i.e. the variance of errors is the same across all levels of the IV).

<u>Published by European Centre for Research Training and Development UK (www.eajournals.org)</u> The above gave rise to the model specification shown below:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \varepsilon$$

Where:

Y is the dependent variable (buyer performance)

 $\alpha$  is the constant.

 $\beta_1, \beta_2$  are regression coefficients or the change induced in y by each x variable.

 $x_1$  = supplier technical support

 $x_2$  = supplier financial support

 $\varepsilon$  = is the error term

## RESULTS

## **Descriptive Statistics for Survey Responses and Respondents Profile**

Of the 88 questionnaires delivered, 63 questionnaires were collected. Of these, three incomplete ones were discarded from further analysis. This gave a response rate of 68.18%. The respondents had an average working experience of 5 years in their firm. Majority of the respondents 33 (55%) were female while 27 (45%) were male, indicating that male were the least respondents in the study. Findings also showed that among the list of supplier development aspects, supplier training was given the most priority by many firms as shown by a frequency of 52 (86.7%) followed by supplier technical support 15 (25%), and the least prioritized supplier development aspect by the buying firms was supplier financial support with 47 (78.3%) as rated by the respondent. This implies that most firms were willing to engage and support their suppliers on aspects which did not require financial commitment and that they were quite unwilling or were least willing to support their suppliers financially.

## Table 2 Most Prioritized Supplier Development Aspects

Supplier Development Aspect		Highest Priority	Moderate Priority	Least Priority
Supplier Technical Support	Frequency	15	44	1
	Percent	25	73.3	1.7
Supplier Financial Support	Frequency	0	13	47
	Percent	0	21.7	78.3

Source: (Survey Data, 2012)

## Supplier Development aspects against various Buyer Performances

The study findings on supplier development aspects against various buyer performances are shown in table 3. The findings reveals that supplier technical support had positive relationship

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with customer satisfaction (r = 0.324) and sales (r = 0.161), however, supplier technical support had negative relationship with lead time (r = -0.423) and risk of non- supply (r = -0.243). Further analysis shows that supplier financial support was positively associated with customer satisfaction (r = 0.121) and sales (r = 0.209), nevertheless, supplier financial support was negatively related to lead time (r = -0.293) and risk of non- supply (r = -0.282). In overall, supplier development had positive effect on buyer performance (r = 0.262). This therefore suggests that investment on supplier development aspects such as training, enhancing supplier technical capability and supporting suppliers financially greatly improves supplier effectiveness which in turn lead to greater buyer performance via timely deliveries, reduced risk of non-supply and increased competitive pricing. The implication of this is that there is an overall improvement on supplier and buying firm performance in terms of producing superior quality products which transmutes to increased customer satisfaction, competitive pricing, reduced lead time, low inventory, reduced costs, increased sales and promising returns on investment for the company, therefore encouraging the buying firms to further continue supporting supplier development practices in order to achieve superior performance for the mutual benefit of all the stakeholders.

	Lead-time	Customer satisfaction	Competitive pricing	Risk of non-supply	Sales	Buyer Performance
Supplier technical support	-0.423**	0.324*	0.163*	-0.243*	0.161*	0.142*
	(0.002)	(0.031)	(0.024)	(0.048)	(0.022)	(0.008)
Supplier financial support	-0.293**	0.121*	0.2	282*	0.209*	0.169*
	(0.000)	(0.031)	(0.137)	(0.034)	(0.019)	(0.006)
Supplier Development	-0.359**	0.173*	0.180*	-0.155*	0.081	0.262*
1	(0.003)	(0.019)	(0.019)	(0.049)	(0.055)	(0.043)

Table 3: Impact of Supplier Development Aspects on Various Buyer	r Performances.
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\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: (Survey Data, 2012)

## **Correlation Statistics**

Table 4 shows Pearson correlation matrix for all variables of the study model. Pearson correlation coefficient always ranges between positive one for positive and direct correlation, and negative one for negative and inverse correlation. Supplier technical support had a Pearson coefficient correlation ratio= (0.169 p < 0.008) meaning it had moderate positive relationship with the buyer performance. Supplier financial support had a Pearson coefficient correlation ratio= (0.142 p < 0.006) meaning it had the least and direct positive relationship buyer performance. The assumptions of Pearson coefficient correlation is that there was a linear relationship between variables and the variables were casually related.

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	Buyer Performance	Supplier technical support	Supplier financial support
Buyer Performance	1		
	0		
Supplier technical support	0.169*	1	
	(0.008)	0	
Supplier financial support	0.142*	.266*	1
	(0.006)	(0.04)	0

**Table 4: Correlation Matrix of Key Variables** 

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Source :( Survey Data, 2012)

# **Hypothesis Testing**

Findings in table 5 indicated  $R^2$  of 0.554. This value of  $R^2$  explains 55.4% variability of the buyer performance. All the independent variables positively impacted upon the buyer performance at a significant level and therefore all the three hypotheses were rejected. Further, the F value was reported as 23.159. This large value of F indicates a rare test scores (unusual data) and indicates that it is unlikely the null hypothesis was true. The significance level (p-value) for the test was 0.000 which is less than 0.05 and therefore the null hypotheses was rejected and a conclusion that at least one coefficient as none zero meaning there was a significant linear relationship between supplier technical support, supplier financial support, supplier training and buyer performance was made.

Hypothesis "H<sub>01</sub>: postulates that supplier technical support has no significant effect on buyer performance, but the findings in Table 4 indicated that supplier technical support had a coefficient estimate  $\beta$ = 0.259 with *p* value of 0.007, hence the hypothesis "H<sub>01</sub>: was rejected. This is because the findings clearly showed that supplier technical support had a positive effect on buyer performance on all the sampled firms; hence an increase in supplier technical support by a single unit would increase buyer performance by 0.259. ( $\beta$ = 0.259, *p* < 0.007). This is so because as the suppliers put into use the acquired technical skills and capabilities, it transmutes to product innovation and product quality. This leads to supply of superior products by the supplier which in turn enhances the effectiveness and efficiency of buyer performance

Hypothesis "H<sub>02</sub>: predicted that Supplier financial support has no significant effect on buyer performance. The results in 4 indicate that supplier financial support had a coefficient estimate  $\beta$ = 0.244 with a *p* value of 0.011; hence the hypothesis "H<sub>02</sub>: was rejected. This is because Supplier financial support positively affected buyer performance, thus the implication is that an increase of one unit of supplier financial support would influence buyer performance by 0.244. ( $\beta$ = 0.244, *p* < 0.011). The research finding therefore supports the argument that supplier financial position has a close link with the performance of the supplier and by extension the performance of the buyer. Financial assistance given by the buyer to the supplier facilitates

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timely meeting of financial obligations, increases supplier competitive edge and leads to continuous supply of goods to the buyer. Supplier financial improvement includes continuously spotting financial weaknesses within suppliers supply base and taking the necessary financial assistance to avoid supply disruptions and increase supplier financial health so as to enable him meet his short-term and long-term financial obligations. This, therefore, means that a financially leveraged supplier is able to meet his financial obligation, is able to invest in capital intensive equipment, can ensure uninterrupted supply of high quality raw materials and finally can employ and retains highly qualified and productive human resources.

	Un-standardized Coefficients		Standardized Coefficients		
	В	Std. Error	Beta	t-statistics	Sig.
(Constant)	0.003	0.603		0.005	0.996
Supplier technical support	0.277	0.099	0.259	2.616	0.007
Supplier financial support	0.203	0.077	0.244	3.16	0.011
Summary Statistics					
R Square	0.554				
Adjusted R Square	0.53				
F	23.159				
Sig.	.000				

## Table 5 Multiple Regression Results for Hypothesis Testing

a Dependent Variable: Buyer Performance

Source: (Survey Data, 2012)

## CONCLUSION

The study sought to investigate the effect of supplier development on buyer performance. This was accomplished through testing the hypothesized model, which was developed, based on a comprehensive review of the literature. Although previous research have addressed issues relating to supplier-buyer relationship and the direct effects of Supplier development on financial and quality performance, the effect on buyer performance has been largely ignored. This study attempted to close this gap, by investigating the effect of supplier development on buyer performance, using the three constructs that is supplier technical support, supplier financial support and supplier training as the model variables.

The first finding of this research was that providing suppliers with technical support significantly leverage their performance on product improvement, material improvement, innovation improvement, supplier adaptation to new technology, certification of quality system and meeting of product specification and all these ultimately impacted positively on buyer performance. This finding concur with those of Rodriguez et al.(2005), Krause et al. (1998) and Silveira and Arkade (2007) who found out that technically proficient suppliers have high capability of meeting buyers technical specifications and requirements.

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The second finding of this study was that financial support given to suppliers by the buying firms positively affected buyer performance. Financial soundness of suppliers facilitates timely meeting of financial obligations, increases supplier competitive edge, can hire highly qualified and productive human resources, enable supplier to invest in capital intensive equipment and enable supplier to continuously supply materials and/or goods to the buying firm. Thus a financially healthy supplier enhances his capability and capacity to cope with the buyers' requirement and therefore strengthens the suppliers' capacity to meet resource requirements by the buyer hence enhancing buyers' competitive edge. This findings support the findings of Wagner (2006) and Choi (1999) who reported positive association between financial stability with organizational performance.

The final finding of this research is that improvement in supplier development enhances buyer's performance especially when the buyer emphasizes quality and delivery as its competitive priorities. The results indicate that firms who build joint investments with suppliers are better able to align their supply chain strategy with the competitive strategy leading to improved relationship marketing and enhanced customer satisfaction. Supplier development, therefore, is a significant opportunity to raise the profile of purchasing and supply management in an organization and should be utilized by all purchasing and supply management professionals. This finding reinforces the findings of Dunn and Young (2004) that supplier assistance through supplier development initiatives enhances the supplier's capacity in meeting their obligation.

## **Implication of the Study Findings**

Study findings revealed that supplier development has a significant impact on buyer performance. This means that with fast developing world economy and the shrinking supply base, there is a drastic increase in pressure on the buying firms to find new ways of building relationship with key suppliers through supplier development. To implement supplier development, buying firms should constantly review and evaluate the performance of their suppliers in order to spot and identify gaps and quickly work towards fixing it through technical support, financial support and through training. Hence, with some firms still being very hesitant when it comes to developing suppliers in their supply chains, they are advised to intensify their supplier development activities, implement appropriate structures and processes, and invest human and financial resources in supplier development efforts. With suppliers making a significant contribution to a company's competitive position, it would be a fatal mistake if companies were to neglect the potential of supplier development practices. Supply chain management is an increasingly important organizational concern, and proper management of supplier relationships constitutes one essential element of supply chain success. Buying firms faced with problems of deficient supplier performance and/or capabilities can implement a wide range of supplier development practices such as raising supplier technical capability, leveraging supplier financial position, supplier recognition, and supplier training in order to upgrade the performance and/or capabilities of the weakest links in their supply chain. Therefore, in order to survive and compete effectively in an industry characterized by cut-throat competition and rapidly diminishing resources, the study makes the following recommendations:

The study recommends that managers of competing firms should assist deserving strategic suppliers in their supply chain to attain financial stability. Financial stability compounds to grow

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profits for the suppliers and cause lenders, investors and employees more willing to deal with such financially stable businesses upon favorable terms. These favorable terms allow for expansion, enhance suppliers' capability and capacity to cope with the buyers' requirements, leads to more profits and greater stability. Otherwise, financial instability of strategic suppliers can quickly deteriorate toward bankruptcy leading to collapse of supplier and buyer business.

It is also recommended that, technically proficient buyers need to provide technical support to its strategic suppliers so as to enhance supplier flexibility, supplier material improvement, supplier process improvement, product innovation improvements and supplier product quality in order to vitalize mutual collaboration. A firm may need the capabilities of other firms to complement its own in building sustainable competitive advantage, so securing those complementary capabilities will allow a firm to grow steadily by overcoming its resource-based constraints.

The study suggests that more research should be conducted on: the dimensions of buying firms affecting supplier performance, the effect of supplier development on buyer performance especially on non-sugar milling firms and on the impact of supplier financial support on buyer performance.

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