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Assessment of Supplier Partnership on Performance of the Procurement Department of Geothermal Development Company Limited, Nakuru-Kenya

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Abstract:

Competition and the growth of alliances are forcing firms to develop better supplier partnerships to maintain a competitive edge. Firms have realized that collaborative business relationship improve firm's ability to respond to the new business environment by allowing them to focus on their core businesses and reduce costs in business processes. Geothermal drilling is a relatively new concept spearheaded by the geothermal development company limited. This being a capital intensive project it is heavily dependent on imported technologies. Reliance on imported technologies has in the past contributed to the delays in project completion owing to the complex logistics of buying internationally. The company has embarked on supplier partnership programs to bridge the supply gaps. The target population was 300 staffs and a sample of 75 respondents was drawn. The study relied on primary data obtained from staff using a questionnaire. Data collected was analyzed using statistical package for social sciences (SPSS) Version21 and the use of descriptive statistics was also employed during analysis. Multiple regression analysis was then used to determine the relationship between predictor variables supplier partnerships and the dependent variable: performance of the procurement department. The study findings indicated supplier partnerships have significant contribution to purchasing performance.

Keywords: Supplier partnership, purchasing performance, collaborative business relationship, core businesses and logistics.

1. Introduction

Supplier partnership is a commitment over an extended time to work together to the mutual benefit of parties, sharing relevant information and the risks and rewards of the relationship (Lamming, 1996). Firms have realized that collaborative business relationship improve firm's ability to respond to the new business environment by allowing them to focus on their core businesses and reduce costs in business processes. According to Sheth & Sharma (1997) the following four reasons contribute for buyers to develop better supplier partnerships. First having a relationship with suppliers will enable firms to receive better service and therefore procurement is more efficient. Secondly, it makes it easy in improving quality of product it is easy for buyer to implement strategies such as quality platforms if firms have relationships with their suppliers. Third, as choice and demand of customer are changing rapidly buyer alone can't fulfill it thus there is need for reliable partners. Finally, competition and the growth of alliances are forcing firms to develop better supplier partnerships to maintain a competitive edge.

According to Lai et al., (2007) buyer-supplier partnership and transaction-specific investment are the key elements for commitment between buying firms and suppliers. They identified four types of partnership, that is: traditional partnership which is a low level of interaction between firms, operational partnership which is an effective operational planning, information sharing, and specific techniques for operation performance. The third form of supplier partnership is project-based partnership which involves an intensive information exchange and cooperation in designing and developing products or processes. The last form of partnership is the evolved partnerships which is a high level of cooperation and interaction activities. Three critical factors that affect the degree of perceived dependence of one party on the other are the importance of the product or service exchanged, the extent to which each of the parties has discretion over the exchange, and the extent to which the parties have alternatives to the current relationship. Commitment to a relationship is also demonstrated by the commitment of resources to the relationship Heide (1994). The measurement system used to assess the contribution to value of a relationship is another critical dimension of relationship management. One barrier to successful long-term relationships is the inability of multiple organizations to measure jointly created and shared value as well as to develop ways to allocate shared risk.

The Geothermal Development Company Limited (GDC) is a State-owned corporation in Kenya with a sole objective of fast tracking the development of geothermal resources in the country in light of the country's development goal of transforming to an industrialized economy by the year 2030. The company aims at generating 5,000 MW from geothermal resources from 1400 steam wells. Geothermal drilling is a relatively new concept in Kenya which relies on imported technologies mostly from China. However not all

supplies are achievable through importation. Local supplies play a critical role as they are easily accessible and the logistics of acquisitions are easy. Thus success in the GDC is heavily hinged on efficient local supplies of inputs.

1.1. Statement of the Problem

Competition and the growth of alliances are forcing firms to develop better supplier partnerships to maintain a competitive edge. Firms have realized that collaborative business relationship improve firm's ability to respond to the new business environment by allowing them to focus on their core businesses and reduce costs in business processes. In Kenya, geothermal drilling is a relatively new concept spearheaded by the GDC. This being a capital intensive project it is heavily dependent on imported technologies with few equipment, materials and tools sourced from the local market. However, reliance on imported technologies has in the past contributed to the delays in well completion owing to the complex logistics of buying internationally. Out of the completed 26 Wells only 2 were completed on time. 4 of the Wells recorded a downtime of one month as some of the parts that needed replacement had to be sourced from China resulting to delay and increased Well cost. The company has embarked on supplier partnership in order to meet their needs on the non-complex supplies to bridge the supply gaps and also lower the cost associated with down time of machines and staffs as they await delivery. Hence this study sought to help bridge this gap by assessing the effect of supplier partnership on performance of the procurement department of GDC, Nakuru.

1.2. Research Objectives

The study's objective was to assess the effect of supplier partnership on performance of the procurement department of GDC.

1.3. Research Hypothesis

The study sought to test the following hypothesis;

- H_{01} : Supplier partnerships do not have a significant effect on performance of the procurement department of GDC

1.4. Conceptual Framework

The conceptual framework for this study showed both the independent and dependent variables. The study conceptualized that purchasing performance is dependent on supplier partnership. The framework was as illustrated below.

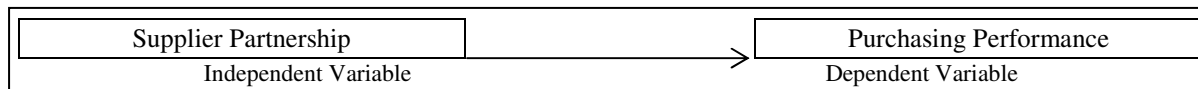


Figure 1: Conceptual framework

2. Literature Review

2.1. Theoretical Literature Review

The study was based on the below theory;

2.2. Resource-Based View

The RBV suggests that the resources possessed by a firm are the primary determinants of its performance, and these may contribute to a sustainable competitive advantage of the firm (Hoffer & Schendel, 1978). According to Barney (1991), the concept of resources includes all assets, capabilities, organizational processes, firm attributes, information and knowledge among others controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. RBV thus looks at the firm as a set of valuable and rare resources and assets that can enable the firm to achieve competitive advantage, and long-term superior performance (Barney, 1991). Traditional research on strategic management suggests that firms need to seek a strategic fit between the internal and external environments. However, considerable emphasis has usually been given to a firm's competitive environment and its competitive position (Das & Teng, 2000).

Thus in the study a strong supplier base is a valuable resource in modern business environment, owing to the fact that companies are dependent on the strength of their suppliers when downsizing their own organizations, which lead to supplier development instead of supplier switching (Krause & Ellram, 1997). Firms are also moving from traditional purchasing to strategic purchasing where suppliers, buyers and consumers are interlinked forming a supply chain (Drechsler, 2011). Although cost, quality and delivery are still the main supplier selection/evaluation criteria and the centre of supplier development programmes (Cheraghi et al., 2011; Krause & Scannell, 2002), the implications for the long-term capabilities of the whole supply chain are Key.

2.3. Empirical Literature Review

This section presents a review of empirical literature on the concept of supplier development and its impact on performance of the procuring entity.

2.4. Supplier Partnerships

Crotts et al., (1998) categorize buyer-supplier relationships into three categories. These include adversarial or price based competition, inter-locken also referred as exclusive members of particular groups, and cooperative relationship with a long-term business partners.

Daugherty, (2011) however revealed that the relationship between firms has shifted the focus away from traditional toward collaborative relationship.

To build relationship between supplier and buyer trust plays a vital role. Smeltzer (1997) in his study of meaning and origin of trust in supplier-buyer relation gave some parameters which indicates trusting environment between supplier and buyer. These were follow through, exchange of information informs of new idea from supplier side, listening and reacting to supplier's problem, open communication to avoid misunderstanding, mutual respect, sharing of cost savings, honesty, knowledge about product, positive attitude, good past performance, priorities, effort, sharing of technical advantages. Li et al., (2007) in their study of supplier development efforts on buyer's competitive advantage found that trust and joint action are appear most critical elements to enhance the operational effectiveness of a buyer while asset specificity improves the market responsiveness of a buyer slightly.

A study by Lambert et al., (1996) on developing and implementing supply chain partnerships found that closeness was an important characteristic in relation building. This implied that the more the closeness, the stronger is the relationship. They also identified that partnerships were closer than other types of relationships. However, the partnership model alone could not work effectively therefore along with, the manager could provide some incentives and reward to build close relationships hence partnerships.

In terms of relation improvement through partnerships Johnston et al., (2004) in a study on effects of supplier trust on performance of cooperative supplier relationships found that higher levels of inter-organizational cooperative behaviors such as shared planning and flexibility in coordinating activities were found to be strongly linked to the supplier's trust in the buyer firm. Johnston et al., (2004) also found that trust played a vital role to develop and maintain relations between supplier and buyer. A critical element in achieving supply chain effectiveness was establishing and nurturing trust across the organizational boundaries particularly for relationships such as alliances between buyers and suppliers in a supply chain.

McCutcheon & Stuart (2000) in their study of issues in the choice of supplier alliance partners found that manufacturers were interested primarily in desirability and the feasibility of partnerships. Desirability mainly dealt with the supplier's technical capabilities and supplier should satisfy technical and operational requirements of buyer. Feasibility mainly dealt with goodwill, trust and benefits.

Study of Sanders et al., (2011) indicate that buyer-to-supplier information sharing, buyer-to-supplier performance feedback and buyer investment in inter-organizational information technology are key enablers of buyer-to-supplier communication openness.

2.5. Purchasing Performance

Purchasing performance is considered an important element of corporate performance. Nonetheless, the measurement of purchasing performance and comparing that performance to other procurement departments has proven to be very difficult. These difficulties stem from the lack of valid measurement criteria and adequate methodologies to aggregate individual performance measures into a single index of overall performance. Many methodologies are unable to account for the relative importance of performance measures, which varies among firms. Some of the models commonly adopted in evaluation of purchasing performance include the analytic hierarchy process (AHP), analytic network process (ANP), and the data envelopment analysis (DEA) (Agarwal et al., 2011). Rajkumar & Ray (2004) identified attributes and factors relevant for performance evaluation of suppliers through fuzzy inference system of the MATLAB fuzzy logic tool box.

According to Hart (2008) efficiency and effectiveness represent different competencies and capabilities for procurement organizations. Efficiency reflects that the organization is doing things right, whereas effectiveness relates to the organization doing the right thing. There is a trade-off between efficiency and effectiveness as a highly efficient organization may spend less than peers particularly when compared to highly effective organizations. However, quality and value may suffer. Organizations focused on efficiency tend to make decisions based on cost and investment pay back likelihood; whereas effectiveness focused organizations make decisions based on quality and value rather than costs and productivity. The challenge for procurement organizations is targeting and achieving the right balance between the two. The current study however focuses on performance which encompasses both efficiency and effectiveness.

There are a wide range of metrics that can be tracked and used to drive purchasing performance. These range from spend visibility, process efficiency, talent management, supplier relationships to strategic alignment. Recent research has illustrated that there appear to be a number of key attributes that are tracked by those organizations that excel in regards to organizational performance. Specifically, these attributes include a mixture of efficiency and effectiveness metrics; and structural issues such as; talent management, internal alignment and complexity.

Hart (2008) proposed a criterion for assessing procurement performance which included cost of procurement as a percentage of the organizational expenditure. Staffing evaluated as staff per million of spend amounts. The second metric was productivity evaluated as purchase orders/Material receipts per employee and Cost per purchase order/receipt. In addition, technology leverage would be evaluated as technology costs per billion dollars of spend or technology cost as a percentage of procurement cost. Finally, the cycle time in terms of hours required to complete a requisition and purchase order. Further, he identified determinants of as cost savings, supplier leverage, error rates and customer satisfaction.

3. Research Methodology

The aim of this chapter was to provide the pathway through which the objectives of this study were achieved. The research design was a case study with a target population of 300 and a sample size of 75 drawn the drilling, logistics and procurement department. The study used the multi-stage sampling method; entailing the use of purposive sampling to the employees so as to identify the ones who

are involved in procurement. According to Cresswell & Plano Clark (2011), this will involve identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest

3.1. Data Processing

Data collected was processed and analyzed based on the objectives and research hypotheses using Statistical Package for Social Sciences (SPSS) version 21. This was done using both descriptive and inferential statistics. Descriptive statistics (percentages, frequencies and means) presented in tables were used to organize and summarize data and to describe the characteristics of the sample while Pearson correlation coefficient was used to test hypotheses.

4. Analysis and Findings

The study sample size was 75 respondents within the three sections in the company. The researcher therefore distributed 75 questionnaires in the sections of which 66 were correctly filled and returned. This was an 88% response rate which was characterized as very good according to Babbie (1990).

4.1. Supplier Partnerships

The researcher further sought to establish respondent's perception in regard to supplier partnerships. The means and standard deviations were established to aid in deriving various inferences with respect to supplier partnerships. The findings from the analysis are shown in table below,

	N	Min	Max	Mean	Std. Dev
1. There exists partnership between GDC and suppliers	66	1	5	2.97	1.240
2. A policy is in place to regulate the partnership	66	1	5	2.89	.930
3. The company organizes forums of interaction with suppliers	66	1	5	3.52	1.026
4. Information exchange between suppliers and the company is key	66	1	5	4.15	.899
5. There is cooperation in designing and developing products between the company and its suppliers	66	1	5	3.24	1.039
6. The company undertakes joint operational planning with its suppliers	66	1	5	3.00	.961
7. The company has gone into operational partnership with its suppliers	66	1	5	2.70	.841
8. The organization's policies promote the partnerships between buyers and suppliers	66	1	5	2.74	1.027
Valid N (listwise)	66				

Table 1: Perceptions on Supplier Partnerships

The table indicated that respondents agreed that the company organizes forums of interaction with suppliers and that information exchange between suppliers and the company is key. The two aspects recorded means approximately equal to 4 (Agree). Respondents however were undecided on all the other six aspects of supplier partnership registering mean values approximately equal to 3 (undecided). Divergent views were expressed by the respondents in four of the aspects registering standard deviations greater than 1. However, cohesion of responses was observed in four of the aspects having standard deviation values of less than 1.

4.2. Procurement Performance

Finally, the researcher established respondents' perceptions in regard to procurement performance. The means and standard deviations were established as shown in table below;

	N	Min	Max	Mean	Std. Dev
1. Cycle time from order to delivery	66	1	5	3.41	.894
2. Cost of purchasing	66	1	5	3.70	.877
3. Quality of goods and services delivered by suppliers	66	1	5	3.70	1.037
4. Reliability of goods supplied	66	1	5	3.33	.847
Valid N (listwise)	66				

Table 2: Respondents Perceptions on Procurement Performance

The respondents acknowledged the cost of purchasing and quality of goods and services delivered by suppliers was good. The two aspects had mean values approximately equal to 4 (good). On the other hand, respondents had moderate view in regard to cycle time from order to delivery and reliability of goods supplied. The two had mean values approximately equal to 3 (moderate). Apart from one aspect, respondents indicated greater cohesion in their responses registering standard deviation values less than 1.

Purchasing Performance	Supplier Partnership	
	Pearson Correlation	.537**
	Sig. (2-tailed)	.000
	N	66

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

Table 3: Correlations

From the table the researcher established that there is an average positive significant relationship ($r = .537$, $p < .01$) between supplier partnerships and the purchasing performance. Thus, supplier partnerships are important in determining the purchasing performance.

4.3. Summary of Findings

In relation to supplier partnerships, respondents agreed that the company organizes forums of interaction with suppliers and that information exchange between suppliers and the company is of key significance. They were however indecisive on whether there exists partnership between GDC and suppliers, on whether a policy is in place to regulate the partnership and on whether there is cooperation in designing and developing products between the company and its suppliers. They remained indifferent also on whether the company undertakes joint operational planning with its suppliers, on whether the company has gone into operational partnership with its suppliers and on whether the organization's policies promotes the partnerships between buyers and suppliers.

These findings were in tandem with other scholar's findings. Lai et al., (2007) asserted that buyer-supplier partnership and transaction-specific investment are the key elements for commitment between buying firms and suppliers. Aslan et al., (2011) in a study on supplier development revealed that collaborations and partnerships with suppliers were significant in improving supplier performance. According to the study, collaborative inter-organizational communication was crucial to decrease the problem with suppliers and increase their performances. Correlation analysis indicated an average positive significant relationship between supplier partnerships and the purchasing performance.

Regarding procurement performance, respondents acknowledged that the cost of purchasing and quality of goods and services delivered by suppliers was good. They expressed moderate view in regard to cycle time from order to delivery and reliability of goods supplied. Regression analysis indicated that all the explanatory variables taken together accounted for 45.4 % of the variation in the purchasing performance. Finally, all the independent variables were found to be significant accounting for the variation in purchasing performance. As such, the organization cannot neglect any of the aspects of supplier development for better results on the purchasing performance.

4.4. Conclusion

It was established that supplier partnership had a weak positive relationship with the company's purchasing performance. Further supplier partnerships could positively account for 47.7 % of variation in the purchasing performance. The researcher concluded that supplier partnerships have an influence on the purchasing performance. Finally, supplier partnership was shown to have an average positive significant relationship with purchasing performance. Additionally, regression analysis indicated that supplier partnerships are significant in accounting for the variation in purchasing performance. The researcher therefore concluded that supplier partnerships influence the purchasing outcomes in geothermal development company limited in Nakuru.

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