SUPPLIER PRE-QUALIFICATION AND PERFORMANCE OF PETROLEUM COMPANIES IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

The general objective was to assess the influence of supplier pre-qualification on performance of petroleum companies in Nairobi city county, Kenya. The specific objectives were to determine influence of supplier identification, and supplier capacity on performance of petroleum companies in Nairobi city county, Kenya. The study was guided by Resource-Based View theory, and human capital theory. The researcher employed descriptive research design. The target population for the study were 105 procurement (35), supply chain (35), and finance (35) managers in the 35 Petroleum companies in Nairobi. This study adopted a census technique hence all 105 managers were sampled. This research used a questionnaire to collect primary data. The pilot test comprised of 10% of the sample size selected hence 10 procurement managers. The study used content and construct validity. To test reliability of the instrument, the researcher used Cronbach alpha. Descriptive statistics were used to analyze the data in frequency distributions percentages, and. Relationship between study variables was tested using regression. The regression equation shows that; a unit change in supplier identification would predict a unit increase in performance of petroleum companies in Nairobi city county by a factor of 0.317, a unit change in supplier capacity would cause a unit increase in a unit increase in firm performance by a factor of 0.354. The petroleum firms should carry out a through market research to identify and evaluate suitable suppliers. This should be through intensive scrutiny of documents submitted by the suppliers. They should also make efforts to contact the previous customers. The firms should invest in high technology that will enable then to detect procurement fraud and other malpractices in the procurement process. This will save the firms procurement function costs and also a good brand name for the firm. They should also improve on supplier delivery capacity assessment through regular visits to the suppliers to check on their production ability.

Key Words: Supplier pre-qualification, Petroleum companies, Supplier identification, Supplier capacity

Background of the Study

The concept of pre-qualification of suppliers in the procurement function is a strategic activity in public institutions in Kenya. It fosters competition in contracting, acquisition and disposal of goods and services. The procurement function in the business industry has been associated with adverse practices such as corruption and escalation of costs. The purpose of supplier prequalification is to allow a procuring entity to identify a shortlist of potential bidders who have the experience, technical, financial capacity as well as legal suitability to provide the product/service needed to be procured (Bansah &Ackah, 2017).

Supplier prequalification is the process of selecting preferred suppliers for an organization (Lyson & Farrignton, 2018). Preferred suppliers are providers of complementary goods and services of strategic importance who have been placed by purchasers on an approved list of suppliers after a process of supplier prequalification. Suppliers add value to the overall supply chain network. They supply the resources needed by the enterprise for production of merchandise. The criteria for supplier prequalification for various outlined categories should be determined by a selected team of representative from various units in the organization (Rajan, 2016).

To a great extent, the growing economies in Asia, South America and Africa depend heavily on petroleum and its products to run its rapidly expanding industrial base. The East African economies, in particular, depend heavily on crude oil and refined oil products mainly from the Middle East region, with few multinational companies dominating this lucrative business in the entire region. Petroleum industry thus has a great need for sound financial management to enhance profitability and stability (Suraw, & Kariuki, 2018). The Petroleum products play a central role in the economic development of most countries in the world. It is also important to note that most households in developing countries rely heavily on petroleum products as sources of energy such as lighting and running of small and medium enterprises (SMEs), this is according to the Kenya Association of Manufacturers (KAM reports, 2018). In essence, petroleum products have a huge macro and microeconomic effect on the economies of most countries (Suraw, & Kariuki, 2018).

Statement of the Problem

The Kenyan petroleum industry contributed an estimated 2.8% to GDP in 2019 with net domestic sales of petroleum products increasing by 6.5% to 5,044.2 thousand tonnes (KPA, 2020). The oil marketing sector has an annual average growth rate of 14%, therefore the petroleum companies have been forced to come up with effective strategies to sustain their performance and growth (Muchiri, Ombui, & Iravo, 2017). Currently there is no local crude oil production and activity in the upstream industry that is centered on exploration and the development of infrastructure to facilitate production. Within the upstream oil and gas sector, the level of business participation has been irregular and declining. In 2017, 30% of Tullow Oil's supplier spend was with Kenyan businesses, down from 33% in 2016, albeit with a higher absolute value due to increased expenditure related to the 2017 South Lokichar appraisal campaign (Tullow Oil plc, 2018). The petroleum sector in Kenya is very competitive because the products are almost homogeneous and the 94 registered petroleum companies by the Energy and Petroleum Regulatory Authority is high (Omai, Njeru, & Memba, 2018.

The petroleum industry in Kenya has been dodged with a lot of challenges in the last two decades. The demand for oil across the world fell rapidly as mitigation measures instituted against the spread of the COVID-19 pandemic slowed down economic activities in 2020. According to Lawrence and Lorsh (2020) the profitability of most petroleum companies in Kenya fell by 66% as a result of covid 19 pandemic. Kotler and Armstrong (2016) indicate that the hostile business environment has been made worse by the introduction very strict and tough tax regime. The introduction stringent tax regimes in 2005 by the Kenya Revenue Authority requiring upfront prepayment of taxes on oil imports has put a significant financial impact on oil industry in Kenya. Usually, KRA imposes an upfront payment of 50% taxes on imported petroleum products. For

instance, Kenol has reduced its petroleum sales to bulk buyers like airlines and emergency power producers citing low margins in these transactions. This saw its revenues fall 19.2 per cent to Sh34.8 billion in the half year ended June 2019, dipping Sh8.3 billion in absolute terms (Kenya Economic Survey, 2019). Its rival Total Company limited also recorded a decline in wholesale supplies to smaller oil marketers, a move that saw its turnover drop 32.6 per cent to Sh55.7 billion in the same period (businessdailyafrica.com, 2019. Covid-19 has impacted individuals, businesses and economies across the globe. The petroleum industry is no exception. According to Frost and Sullvian, (2020), 76% of the petroleum companies are having difficulties in locally sourcing or importing raw materials and 67% found access to market challenging. This has also resulted to decline in profitability of the petroleum companies. Supplier pre-qualification influence firm performance.

A number of studies have been done on supplier pre-qualification and how they relate with performance. They include: challenges facing procurement systems in manufacturing industries (Migwe, 2018); total quality management for purchasing management (Gali 2016); the role of strategic purchasing in the efficiency of industries in Kenya (Mulwa, 2018); evaluation of the purchasing department in local authorities (Kimuyu, 2018) and factors influencing the implementation of E-procurement among companies listed in the Nairobi Stock Exchange in Kenya (Kiburi, 2019). The results of these studies do not explain the impact of prequalification of suppliers on organizational performance. It's through pre-qualification of supplies that organizations are able to optimize returns while cutting costs, enhancing competition and accountability, fostering the culture of fair play in the business industry and eradication of corruption. In this regard, therefore, a study on relationship between supplier pre-qualification and performance of petroleum companies in Nairobi city county, Kenya is important. In addition, the dearth of empirical evidence on effect of pre-qualification of suppliers on organizational performance explains to some extent, the necessity of conducting research in this area. This study intended to fill the research gaps on the relationship between supplier pre-qualification and performance of petroleum companies in Nairobi city county, Kenya

Research Objectives
The general objective of the study was to establish the relationship between supplier pre-qualification and performance of petroleum companies in Nairobi city county, Kenya
   i.   To assess the influence of supplier identification performance of petroleum companies in Nairobi city county, Kenya.
   ii. To determine the influence of supplier capacity on performance of petroleum companies in Nairobi city county, Kenya.

LITERATURE REVIEW
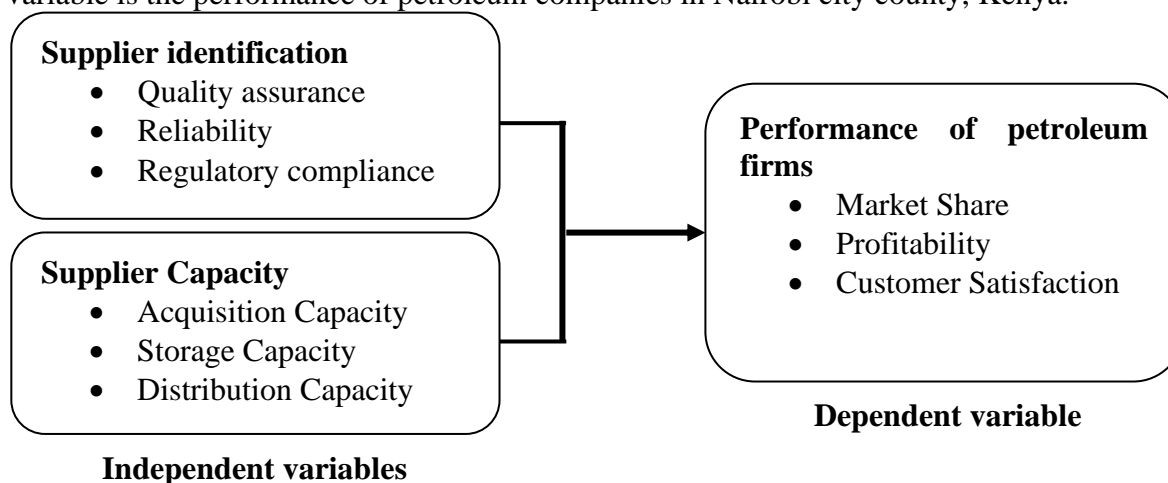
Theoretical Review

Grey Theory
Grey theory was introduced by Deng (1982). The author aimed at addressing the strategic choices in uncertain circumstances where information could be scanty. In real world of business and other fields most decision problems are in grey form due to uncertainty and scanty information (Karmakar & Mujumdar, 2008). Under such circumstances decision still needs to be made. Grey theory provides a useful platform for decision making problem under such uncertainties. Supplier selection consists of uncertainties which may not be solved by fuzzy or probability theory. Through supplier evaluation criteria can help procuring entities to reduce the risks and uncertainties associated with suppliers (Kanagaraj et al., 2014) Evaluation criteria is very critical in-order to reduce the operational costs by selecting the most optimal supplier (Wang et al., 2009). The grey theory model is appropriate for deciding on how to select suitable suppliers from a pool of many suppliers who have shown interest in supplying a company.

Human Capital Theory

Human capital theory was developed by Schultz (1961) but was developed extensively by Becker (1964). Schultz (1961) in an article entitled "Investment in Human Capital" introduces his theory of Human Capital. Schultz argues that both knowledge and skills are a form of capital, and that this capital is a product of deliberate enterprise growth. Therefore, an organization should invest in people through education and training. According to Schultz acquisition of knowledge and skills is compared to acquiring the means of production. In the theory Schultz argues that investment in education and training leads to an increase in human productivity, which in turn leads to a positive rate of return and hence of growth of organizations. The theory stresses the value addition that people contribute to an organization. According to this theory people are regarded as assets and it stresses that investments by organizations in people will generate worthwhile returns. Human capital theory will be used in this study to assess the influence of supplier capacity on performance of petroleum companies in Nairobi city county, Kenya.

Conceptual Framework

A conceptual framework is a representation of the relationship expected to be seen between variables, or the characteristics or properties that needs to be studied. Conceptual frameworks can be written or visual and are generally developed based on a literature review of existing studies about your topic. In this study, the independent variables are supplier identification, supplier capacity, supplier professional advice and supplier professional experience while the dependent variable is the performance of petroleum companies in Nairobi city county, Kenya.

Supplier identification
- Quality assurance
- Reliability
- Regulatory compliance

Supplier Capacity
- Acquisition Capacity
- Storage Capacity
- Distribution Capacity

Independent variables

Performance of petroleum firms
- Market Share
- Profitability
- Customer Satisfaction

Dependent variable

Figure 1: Conceptual Framework

Supplier Identification

Supplier identification and evaluation is the process of searching for potential suppliers who will be able to deliver products, materials, or services required by companies. The outcome of this process is to compile a list of potential suppliers (Anzetse, 2016). According to Narasimhan (2015), identifying a supplier is critical to the procurement process and provides a significant potential for a business to minimize cost, improve effectiveness, and boost customer satisfaction. Das and Buddress (2017) regarded supplier identification as the most important aspect of organizational success since suppliers may influence the price, quality, availability of the organization's goods, and delivery dependability. Agburum, and Adiele (2022) noted that companies frequently evaluate and select suppliers based on some fundamental performance aspects, such as their ability to achieve certain quality requirements, their delivery schedule, and the price they offer. Nonetheless, modern management must treat suppliers as the organization's best intangible assets in order to flourish and achieve excellent supply chain performance through long-term supplier relationships. Supplier evaluation is hence an important part of logistics and supply chain management success.

Akudo (2016) asserts that supplier selection is often a complex process as this process is under the influence of a number of unforeseen factors and uncontrollable factors which affect the decisions to be taken. Supplier selection is a Multiple Attribute Decision Making (MADM) problem that is affected by several quantitative and qualitative factors, some of which may conflict. The decision making preferences always expressed on alternatives or on the attributes of suppliers that can be used to help rank the suppliers. Organizations have various rules and factors in effect when selecting suppliers. Policies are typically approved by an organization's Board of Directors or other senior governance entity, whereas procedures or standards are created and implemented by senior executive officers. According to Taherdoost and Brard (2019), the primary goal of the supplier selection process is to reduce purchase risk, optimize total value to the customer, and create affinity and long-term relationships between buyers and suppliers.

Supplier Capacity

Capacity is the maximum level of output that a company can sustain to make a product or provide a service. Planning for capacity requires management to accept limitations on the production process. Supplier capacity is cumulative and any unused capacity from one planning time bucket carries forward into the next bucket. Supplier capacity constraints determine how much new material can be ordered from a supplier within a given time bucket. If the supply planning process can't find any alternatives to meet demand on time, then supplier capacity is overloaded to fulfill the demand on time (Carter, Auskainis, & Ketchum, 2016).

According to Yang et al. (2017), a supplier can play a supplier-only position, be the market's sole vendor, or use a dual-channel approach and contend with its downstream purchaser. Furthermore, in the case of constricted capacity, the downstream customer may acquire the complete capacity of the supplier and deliberately withhold some stockpile from being distributed to the market, even if there is no underlying supply-side or demand-side volatility. Mohammaditabar et al. (2017) suggest a decentralized supply network with a single buyer and numerous suppliers.

According to Wachiuri (2020), a buyer should prioritize suppliers who have listed the name and address of the manufacturing facility, whose amenities have met ISO 9001 standards, and are completely culpable. In addition, the supplier should have documentary evidence of manufacturing expertise, and the age of the machinery should be evaluated. A purchaser should evaluate a supplier's capability in terms of production capacity, which is influenced by a range of factors. Wachiuri (2020) further relates capacity factors to machinery, paying special attention to: the accessibility of the entire line of machinery needed for producing a desired products, processes to counter machinery shortages, evidence of good housekeeping, adoption of technology in production, and maintenance practices. However, decentralized supply networks become even more complex when suppliers face capacity limitations and must form alliances to meet total demand.

Empirical Review

Supplier Identification and Firm Performance
Hiamey and Aba (2019) explored supplier selection and relationship management in hotels in the Accra Metropolis of Ghana. The study employed an explorative qualitative multiple case study design. The results revealed that supplier identification was through the direct approach, agents/experts search, professional networks, request for proposal and supplier-self reconnaissance. Efficiency and effectiveness, cost of service, supplier credibility and inside knowledge were important in the selection process. The findings also reveal that relationship management was cardinal to safeguarding the buyer-supplier relationship. Contracts, job evaluation, downtime/lead time, supplier trustworthiness and guest comment cards were essential tools used in relationship management.

Westhuizen and Ntshingila (2020) investigated the impact of supplier selection, supplier development, and information exchange on business performance in South Africa. Descriptive survey was adopted. The sampled included 300 business owners and managers. Questionnaires were used to collect data. The findings revealed a strong and significant relationship between supplier selection and business success. The ability of business owners and managers to identify the correct supplier had a significant impact on business performance. Mukarumongi, Mulyungi, and Saleh (2018) explored the role of supplier assessment on procurement performance at the country's Ministry of Health, Rwanda. A descriptive research design was used. The target included 650 staff and stratified random sampling was used in sampling 230 staff. Questionnaires and interviews were used for data collection. The findings revealed that suppliers' quality commitment, financial capacity, and competence have a significant influence on the effectiveness of the procurement function.

Krop and Iravo (2016) investigated effect of supplier selection on procurement performance in the public sector. Targeted populace was 25 staffs that were sampled purposively. Questionnaires were used to collect data. Results showed that supplier selection significantly affects procurement performance. Ekiyor, Amino, and Altan (2019) investigated the impact of supplier selection parameters on pharmacy operational performance. Simple random sampling was used in sampling 100 respondents. Interview schedules were used for data collection. Findings showed that supplier selection technique positively impacted operational performance.

Supplier Capacity and Firm Performance

Pirzadeh et al. (2013) conducted research on supplier capacities and their impact on competition in the automobile sector. Primary data was gathered and evaluated from 117 test samples at Proton's suppliers. The research findings supported the existence of a favorable connection between the collaboration between new product development and the capacities of Proton suppliers. The survey results also revealed a favorable and substantial connection between supplier capacities of producing, manufacturing, and research and development.

Agburum and Adiele (2022) examined the connection between supplier evaluation and shipping company supply chain performance in Rivers State, Nigeria. Both primary and secondary data collection techniques were used to gather relevant data. A questionnaire was used for collecting data. The population of the research consisted of the 45 transportation companies working in Rivers State, as listed in the Nigerian oil and gas industry report of 2020. The researchers chose two senior management personnel from each company, yielding a sample of 90 respondents. The results showed the presence of a significant and positive relationship between supplier evaluation and supply chain performance of Nigerian companies.

Ojadi et al. (2017) sought to comprehend the capacities of Nigerian suppliers of high-value goods and services. Data on supplier capacity was gathered from nearly 500 prospective suppliers across 28 product groups. According to the results, only a small minority of prospective suppliers met the necessary standards of performance, and very few businesses have appropriate operational capacities or corporate citizenship behavior. Furthermore, significant variations in performance were discovered between service and product providers.

Ogendo (2018) investigated the impact of supplier selection factors on the organizational success of the County Government of Kisumu. A stratified sampling method was used in the research, with 132 survey participants representing the target group of 200. The primary research method used by the researcher to gather data was a questionnaire. According to the findings of the research, financial capacity and production capability have a strong connection with organizational success. As a result, in order to improve overall performance, organizations should stress the use of

financial capacity, production capability, and workforce development base as supplier selection variables.

RESEARCH FINDINGS AND DISCUSSIONS

The sample size of study was 105 respondents.   The pilot test respondents were 10% of the total hence 10 procurement managers. The researcher distributed 95 questionnaires to the respondents and 74 were successfully filled and returned. Thus, the response rate was 78% which a very good response rate for analysis.

Supplier Identification

The first objective sought to assess the influence of supplier identification on performance of petroleum companies in Nairobi city county, Kenya. Respondents were asked their opinion on supplier identification. Findings are presented in Table 1.

Table 1: Supplier Identification

Key: 1-Strongly disagree, 2-Disagree, 3-Not sure, 4-Agree, 5-Strongly agree

Statements	SD		D		N		A		SA		M
	F	%	F	%	F	%	F	%	F	%	
Supplier identification process has always identified suppliers meeting companies quality standards	3	4.1	8	10.8	3	4.1	44	59.5	16	21.6	3.34
The criteria for firm selection ensures that only suppliers with high performance indicators are contracted	12	16.2	7	9.5	5	6.8	35	47.3	15	20.3	3.46
The selection process has often identified suppliers with the history of high performance	9	12.2	7	9.5	1	1.4	43	58.1	14	18.9	3.62
Supplier identification is always guided by supplier product and service information	6	8.1	5	6.8	3	4.1	38	51.4	22	29.7	3.88
Supplier identification criteria ensure that only those suppliers whose financial position is strong are selected	7	9.5	3	4.1	16	21.6	26	35.1	22	29.7	3.72
The process of supplier evaluation is always determined by supplier ability to meet buyer objectives	8	10.8	6	8.1	0	0	27	36.5	33	44.6	3.96
Supplier selection is based on the suppliers' financial stability	10	13.5	14	18.9	5	6.8	1	1.4	44	59.5	3.74
Quality considerations are key in the selection of a supplier	16	21.6	1	1.4	0	0	29	39.2	28	37.8	3.70

Findings show that the respondents agreed that; the process of supplier evaluation is always determined by supplier ability to meet buyer objectives (M=3.96), supplier identification is always guided by supplier product and service information (M=3.88), supplier selection is based on the suppliers' financial stability (M=3.74), supplier identification criteria ensure that only those suppliers whose financial position is strong are selected (M=3.72), quality considerations are key in the selection of a supplier (M=3.70), the selection process has often identified suppliers with the history of high performance (M=3.62), the criteria for firm selection ensures that only suppliers with high performance indicators are contracted (M=3.46), and supplier identification process has always identified suppliers meeting companies quality standards (M=3.34). Findings imply that the petroleum firms are very keen when identifying their suppliers. The process enables them to identify and select suppliers that can deliver quality products and service on time. The key considerations when identifying suppliers are ability to meet buyer needs, financial stability,

quality, and a performance record. Findings are in agreement with Mukarumongi, Mulyungi, and Saleh (2018) that suppliers' quality commitment, financial capacity, and competence have influence the effectiveness of the procurement function.

Supplier Capacity

To second objective aimed to determine the influence of supplier capacity on performance of petroleum companies in Nairobi city county, Kenya . Respondents were asked their opinion on supplier capacity. Findings are presented in Table 2

Table 2: Supplier Capacity

Key: 1-Strongly disagree, 2-Disagree, 3-Not sure, 4-Agree, 5-Strongly agree

Statements	SD		D		N		A		SA		M
	F	%	F	%	F	%	F	%	F	%	
The firm assess a supplier productivity	8	10.8	22	29.7	6	8.1	23	31.1	15	20.3	3.20
Our suppliers are able to use systems for capacity planning	23	31.1	39	52.7	2	2.7	3	4.1	7	9.5	2.26
Suppliers have an appropriate fleet management to ensure goods and services are delivered on time	8	10.8	3	4.1	5	6.8	42	56.8	16	21.6	3.74
The firm have a computerized method of preventing suppliers' fraud and abuse	12	16.2	35	47.3	8	10.8	12	16.2	7	9.5	2.45
The firm conducts sites visits to established supplier capacity	5	6.8	8	10.8	5	6.8	25	33.8	31	41.9	3.93
The firm conducts due diligence to establish the capacity of the of suppliers	8	10.8	12	16.2	5	6.8	42	56.8	7	9.5	3.38
The suppliers are always required to provide proof of their technology competence in order to be considered for supply	5	6.8	6	8.1	2	2.7	48	64.9	13	17.6	3.49
The competency level of suppliers determines the quality of services and products	5	6.8	16	21.6	6	8.1	32	43.2	15	20.3	3.96
The education level of suppliers determines the quality of services provided	7	9.5	5	6.8	6	8.1	22	29.7	34	45.9	3.57

Findings show that the respondents agreed that; the competency level of suppliers determines the quality of services and products(m=3.96), the firm conducts sites visits to established supplier capacity(m=3.93), suppliers have an appropriate fleet management to ensure goods and services are delivered on time (m=3.74), the education level of suppliers determines the quality of services provided(m=3.57), the suppliers are always required to provide proof of their technology competence in order to be considered for supply (m=3.49), the firm conducts due diligence to establish the capacity of the of the suppliers (m=3.38), and the firm assess a supplier productivity (m=3.20). The procurement managers disagreed that the firm have a computerized method of preventing suppliers' fraud and abuse (m=2.45) and the suppliers are able to use systems for capacity planning (m=2.26).

Findings imply that the firms evaluates supplier capacity which is based on the ability to deliver quality services and products. The procurement managers make efforts to visit the suppliers to assess the ability to deliver, logistics ability, and also test the quality of products processed by the suppliers. The petroleum firms however lack the systems for capacity planning implying that there is not plan to measure delivery capacity of suppliers. The suppliers do not have a system to

detect fraud which may result to losses and the suppliers are not able to use systems for capacity planning. Findings are in support of Ogendo (2018) that in order to improve overall performance, organizations should stress the use of financial capacity, production capability, and workforce development base as supplier selection variables.

Firm Performance

The procurement managers were further asked to indicate their level of agreement on performance of the petroleum firms. Findings are presented in Table 3.

Table 3: Firm performance

Key: 1-Strongly disagree, 2-Disagree, 3-Not sure, 4-Agree, 5-Strongly agree

Statements	SD		D		N		A		SA		M
	F	%	F	%	F	%	F	%	F	%	
Our customers are treated with courtesy, respect and Service is responsive and meets the needs of customers	5	6.8	14	18.9	5	6.8	33	44.6	17	23.0	3.58
Our customers complaints have reduced significantly	5	6.8	2	2.7	3	4.1	30	40.5	34	45.9	4.16
The firm has consistently recorded improved performance	34	45.9	32	43.2	2	2.7	2	2.7	4	5.4	2.22
The firm had gained a significant market share	6	8.1	3	4.1	14	18.9	28	37.8	23	31.1	2.40

Findings show that respondents' agreed that their customers complaints have reduced significantly (m=4.16), and their customers are treated with courtesy, respect and Service is responsive and meets the needs of customers (m=3.58). Procurement managers disagreed that the firm had gained a significant market share (m=2.40), and the firm has consistently recorded improved performance (m=2.22). Findings imply that the petroleum firms deliver quality services and products which has reduced customers' complaints. The customers are also treated with courtesy, respect, and their needs are met. However, the firms are still facing financial performance challenges and are struggling to gain a significant market share.

Coefficient of Correlation

The study used Karl Pearson's coefficient of correlation (r) to determine the correlation between the independent and dependent study variables. Findings are presented in Table 4.8 below.

Table 4: Correlation Analysis

Variables		Performance	Supplier identification	Supplier capacity
Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
Supplier identification	Pearson Correlation	.351[**]	1	
	Sig. (2-tailed)	.000		
Supplier capacity	Pearson Correlation	.562[**]	.363	1
	Sig. (2-tailed)	.000	.094	

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

Results in Table 4 show that; there is a moderate significant relationship between supplier identification and firm performance (r=0.351, p=0.000), a strong significant relationship between supplier capacity and firm performance (r=0.562, p=0.000). Findings support various scholars who conducted similar studies. The researchers include Krop and Iravo (2016) that supplier selection

significantly affects procurement performance, Agburum and Adiele (2022) a significant and positive relationship between supplier evaluation and supply chain performance.

Regression Analysis

The researcher further conducted multiple regression analysis. Multiple regression aims at proving better understanding of the relationship between the independent and dependent variables. The coefficient of determination was conducted to assess how well the statistical model was expected to forecast future results. Table 5 presents the Model Summary.

Table 5: Model Summary

Model	R	r^2	Adjusted r^2	Std. Error of the Estimate
1	0.787	0.619	0.574	0.976

Predicators: (constant) supplier identification, supplier capacity

The results show that the value of R^2 is 0.619. This shows that supplier pre-qualification practices account for 61.9% variations in firm performance. Therefore, other supplier pre-qualification practices excluded from this study account for 38.1% variations in performance of petroleum companies in Nairobi city county, Kenya.

Table 6: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117.483	4	13.054	13.716	.000[b]
	Residual	72.331	81	0.952		
	Total	189.814	85			

Predicators: (constant) supplier identification, supplier capacity,
Dependent variable: firm performance

Results show that the model was significant (p-value = 0.000) at the 0.05 level in describing the linear relationship between the study variables, as shown in Table 7. The F-statistic of 2.703 indicates that the model is capable of predicting the relationship between the independent and dependent variables.

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant/Y Intercept	2.423	.548		4.421	.000
Supplier identification	.317	.089	.342	2.459	.001
Supplier capacity	.354	.144	.343	3.577	.016

According to findings in Table 7, the equation

$Y = \beta0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$ becomes;

Firm performance = 2.423 + 0.317 (supplier identification) + 0.354 (supplier capacity)

The regression equation shows that; a unit change in supplier identification would predict a unit increase in performance of petroleum companies in Nairobi city county by a factor of 0.317, a unit change in supplier capacity would cause a unit increase in a unit increase in firm performance by a factor of 0.354,

All variables (supplier identification, supplier capacity, supplier professional advice and supplier professional experience) cause a significant change on firm performance sig<0.5. The t statistics show that supplier capacity had the greatest effect on firm performance (3.577) followed by supplier identification (2.459),

Conclusion

The petroleum firms have effective supplier identification practices. This enables the firms to identify qualified suppliers in the petroleum sector. Identification is based on supplier ability to meet the objectives of the company to deliver quality products which enhances customer satisfaction, helps to attract more customers and attain a higher market share. The procurement managers take time to research on the products and services offered by interest suppliers and identify suppliers that offer products that they are interest in. Identification is also based on financial stability of a supplier which builds faith on the firms that the supplier will be able to deliver continuously. The history of performance is also sought out. A good performance record shows that the supplier is able to deliver quality products and services that meet a companies standards.

Evaluating the capacity of the supplier enhance firm performance. Supplier evaluation capacity is achieved through visiting the suppliers, sampling the products offered by the suppliers, and production capacity. Since petroleum products are transported mostly through the road, the firms makes efforts to evaluate the suppliers logistics capability. Good fleet management ensures that the lead time is observed and prevents delay in delivery. Majority of the firms are however unable to detect suppliers' fraud and abuse. The suppliers are required to provide proof of technology competence to be considered for as qualified suppliers. This is important in the digital era where business are conducted online hence saving time and resources.

Recommendations

The petroleum firms should carry out a through market research to identify and evaluate suitable suppliers. This should be through intensive scrutiny of documents submitted by the suppliers. They should also make efforts to contact the previous customers. The firms should invest in high technology that will enable then to detect procurement fraud and other malpractices in the procurement process. This will save the firms procurement function costs and also a good brand name for the firm. They should also improve on supplier delivery capacity assessment through regular visits to the suppliers to check on their production ability.

Areas for Further Study

A similar study should be conducted in other petroleum firms operating in Kenya since the study only focused on petroleum firms in Nairobi

A study should be conducted incorporating other variables that probably predict 38.1% of firm performance

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