

# Effect of Organizational Environment on Procurement Performance of Sugar Firms in Kenya

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## Abstract

Organizational environment consist of a set of all elements that exist outside the boundaries of an organization and have the potential to affect all or part of the organization. This study determined the effect of organizational environment on procurement performance. Data were gathered from 70 departmental heads in the 10 sugar manufacturing firms in Kenya using self-administered questionnaires. Theoretical model and hypothesis of this study were tested using regression analysis. Results revealed that organizational environment have significant and positive effect on procurement performance ( $R^2 = 0.646$ ,  $p < 0.05$ ). The study recommends that sugar firms should be keen to the changing business environments and put up measures that would help them in adapting to the environmental changes to improve on performance.

## Keywords

Environmental Uncertainty, Organizational Task Environment, Procurement Performance, Procurement Processes

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## 1. Introduction

Organizational environment consist of elements outside the boundary of an organization that have the potential to affect all or part of it [1]. Organizational environment is also viewed as forces or institutions surrounding an organization that affect performance, operations, and resources [2]. The operational environmental factors expose firms to some level of uncertainty that influence their performance regardless of strategy chosen and the context of operation [3, 4]. Procurement performance entails effectiveness and efficiency of procurement processes within an organization [5].

Findings of empirical studies in Kenya on the influence of organizational environment on procurement performance indicate contradictory results. A study by [6] on accountability, bidding, lead time and internal process indicated that the variables account for 88.5% of the

procurement process, implying that others not studied account for only 11.5%. Contrary, findings of a study by [7] indicated that staff competency alone accounted for 20.1%. Other similar studies [8, 9, 10, 11] generalised that the organizational environment affects procurement processes. Arguably, the above empirical studies indicate mixed results on the effect of organizational environment on procurement performance. This study aimed to establish the actual situation by analysing the effects of the organizational environment on procurement performance of sugar firms in Kenya.

### 1.1. Purpose of the Study

Although procurement is core to organizations' competitive edge, the uncertain environments within which sugar firms in Kenya operate pose variety of challenges which adversely affect the efficiency and effectiveness of the procurement processes. This has led to increased cost of production -

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almost double at between \$600 and \$700 per tonne as compared to other COMESA countries - at average of \$350. Both internal and external organizational environment are known to greatly influence procurement. For example, legal pressures, unfair competition among others have been cited as key, affecting up to 30% of procurement. Sources in the sugar firms indicated that new policies focus more on service than manufacturing organizations while the existing legislations do not address fair competition. The sub-sector reports of 2013 indicated a decline of 8.3% in sugar production and 14% in cane procurement. While organizations are dependent on their environments for better performance, not much intervention has been made to address the challenges that the operational environment pose to manufacturing sector, both at government and company level. Previous studies relating organizational environment and performance are inconsistent in the findings. These

inconsistencies call for in-depth analysis of the organizational operations as synergic contributors to firm performance. The purpose of the study was therefore to analyse the effect of the organizational environment on procurement performance of sugar firms in Kenya.

H<sub>1</sub>: Organizational environment had no significant effect on procurement performance of sugar firms in Kenya.

## 1.2. Conceptual Framework

Organizational environment was conceptualised to predict procurement performance. Competitors, suppliers, regulators and management/control activities were adopted as constructs of organizational environment. Procurement performance was measured in terms of efficiency and effectiveness.

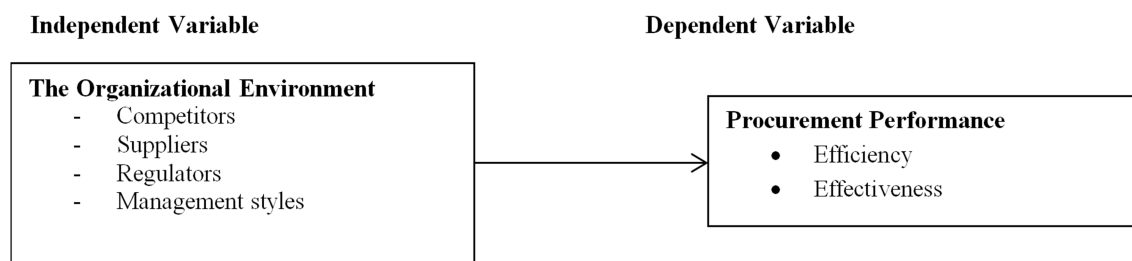


Figure 1. Conceptual Framework of the Effect of Organizational Environment on Procurement Performance.

Note. From [12]

## 2. Literature

### 2.1. Contingency Theory

Founded by Fiedler in 1960s, contingency approach to management is based on the theory that management effectiveness is contingent or dependent upon the interplay between the application of management behaviours and specific situations i.e. one size does not fit all [13]. According to [14], the essence of contingency theory is that best practices depend on the contingencies of the situation. In strategic management, contingency theorists propose that environmental attributes have major implications for all aspects of management, including strategy, structure, process and organizational outcomes - hence, organizational environment is a major source of the contingencies faced by managers [15, 16, and 17]. Contingency theory is seen as an approach to the study of organizational behaviour in which explanations are given as to how contingent factors such as technology, culture and the external environment influence the design and function of organizations [18]. Contingency theory of organizational structure is also viewed to be more succinctly as structural contingency theory [19]. Studies by [20, 21] and [22] postulate that organizational structure is

contingent on contextual factors such as technology, dimensions of task environment and organizational size.

The underlying assumption of the contingency theory is that no single type of organizational structure is equally applicable to all organizations. Rather, organizational effectiveness is dependent on a fit or match between the type of technology, environmental volatility, the size of the organization, the features of the organizational structure and its information system. Accordingly, most management researchers accept both that an organization's environment is of the greatest importance to its existence and that there is indeed a close relationship between an organization's environmental attributes and the managerial choices made [18]. Sugar firms, as with other organizations, are dependent on the environment - both internal and external for their survival. The environmental contexts within which the firms exist may differ or be similar in terms of the opportunities and threats they face. As such, the environment may pose same or unique set of threats and opportunities that require adoption of varied managerial choices or strategies for the firm's survival. The contingency theory thus allows for analysis of the organizational environment within which sugar firms operate and determination of what factors

influence adoption of strategic choices on risk management to improve on the firms' performance.

## 2.2. Organizational Environment

An organization does not exist in isolation; rather, it interacts with its environment. Given that managers are operating in the context of their organization's environment, the attributes of this environment affect the scope of their actions [17]. An organization's environmental factors consist of both physical and social factors that have the potential to influence the firm in various ways. According to the resourced based theory, the organization is managed and controlled by its environment. The concept of organization's environment by classifying its structure into two broad categories: internal environment and external environment [23]. Internal environment is a relationship and interaction amongst the members of the organization, and considers other organizations and individuals as external environment of the organization [23].

According to [24] organizational environment is a set of all elements that exist outside the boundaries of an organization and have the potential to affect all or part of the organization. The environment, he argues, comprises of several sectors or subdivisions of the external environment that contain similar elements. He identifies ten sectors that can be analysed for each organization: industry, raw materials, human resources, financial resources, market, technology, economic conditions, government, sociocultural, and international.

On the other hand, [25] noted that an organization's environment is composed of institutions or forces outside the organization that potentially affect the organization's performance. These typically include suppliers, customers, competitors, government regulatory agencies, public pressure and the like. Organization's environment can be classified as internal – employees, manager and owners; and external – suppliers, society, government, creditors, customers and shareholders [26]. Three components of internal environment and five components of external environment are identified by [3]. The internal environment consists of personnel, functional and staff unit, and organizational-level components while the external environments are: customers, suppliers, competitors, socio-political forces and technology.

According to [27], the organization's environment can be dynamic or static. Organizations in dynamic environments face challenges characterised by rapidly changing government regulations that may affect business, new competition, difficulties in acquiring raw materials, continually changing product preferences by customers among others. Static environments create significantly less uncertainty for managers than do dynamic ones. Thus dynamic environments pose greater risks to the organization

as well as its functional operations.

According to [28], procurement practitioners world over face challenges; each with its own economic, social, cultural and political environment. Internal challenges include: professionalism, type of goods required, staffing levels, procurement organizational structure, internal controls and legislative oversight and interactions between these elements while external are: market; legal; political; and, socio-economic environmental forces. Most developing countries lack the basic elements for sound procurement system: adequate set of policies and procedures; strong and effective procurement system; insufficient number of competent and dedicated procurement staff; and, overseer and adjudicator to assure compliance [29].

Organization's external environment can be specific (task environment) or general [24, 30]. The external environment includes a wide variety of needs and influences that can affect the organization, but which the organization cannot directly control. According to [30], the external environments that affect business organizations can be categorized as general or specific. General environmental influences can be political, economic, ecological, societal and technological in nature while specific environment include the customers, suppliers, competitor, regulators and strategic partners [30]. The players in the external environment make demands on other organizations in different ways like competitive prices and desirable goods and services.

Environmental influences that affect open systems can be described as either specific or general. The specific environment refers to the network of suppliers, distributors, government agencies, and competitors with which organization interacts. The general environment encompasses four influences that emanate from the geographic area in which the organization operates. These include: cultural values which shape views about ethics and determine the relative importance of various issues; economic conditions, which include economic upswings, recessions, regional unemployment, and many other regional factors that affect an organization's ability to grow and prosper; legal and political environment, which effectively helps to allocate power within a society and to enforce laws. The legal and political systems in which an open system operates can play a key role in determining the long-term stability and security of the organization's future in terms of creating a fertile environment for the business community, ensuring regulations pertaining to operation and taxation needs of the larger community; quality of education, which is an important factor in high technology and other industries that require an educated work force [31].

Specific environment include sectors with which the

organization interacts directly and that have a direct impact on the organization's ability to achieve its goals. They are: the industry (competitors), raw materials (suppliers), and market sectors (customers), and perhaps the human resources (regulators) and international sectors (partners) [24]. According to [32], the specific environment may create asymmetric information between core employees and their direct supervisors; asymmetric information creates opportunities for hidden action by employees and uncertainty about outcomes for supervisors. They further argue that complex, variable and non-routine tasks require employees' knowledge of specific circumstances and ability to deal with problems as they emerge, and consultation among co-workers to address particularly complicated situations.

Management style can be understood as a way to manage an organization. According to [33], management style is "the adhesive that binds diverse operations and functions together". It is the philosophy or set of principles by which the manager capitalizes on the abilities of the workforce. It is a way of life operating throughout the enterprise and permits an executive to rely on the initiative of the personnel of an entity. Effective management style is the extent to which a leader continually and progressively leads and directs followers to a predetermined destination agreed upon by the whole group. It is the manner of approach to issues of the managers towards achieving the goals of their organization by transforming various resources available to any organization into output through the functions of management [34].

Management can identify environmental factors of specific interest rather than having to deal with more abstract dimension of the general environment. These include: suppliers, customers, competitors, regulators (government agencies), competitors and strategic partners [30]. These affect business organizations in various ways: competitors – influence the policies of a firm as it tries to be ahead of competition; customers – customers satisfaction ensures a firm's survival; suppliers – ensures steady inflow of quality raw materials; regulators – control, regulate or influence an organization's policies and practices; and, strategic partners – influences the activities of a firm in various ways [30].

### 2.3. Procurement Performance

Performance provides the basis for an organisation to assess how well it is progressing towards its predetermined objectives, identifies areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements. Procurement performance starts from purchasing efficiency and effectiveness in the procurement function in order to change from being reactive to being proactive to attain set performance levels in an entity

[24]. Purchasing performance is a result of two elements: purchasing effectiveness and purchasing efficiency [7]; thus, purchasing performance is not an end in itself but a means to effective and efficient control and monitoring of the purchasing function [35].

Depending on the organization, several procurement performance metrics are available. Eighty-nine measures grouped into six categories were suggested by [32] to measure efficiency and/or effectiveness. These include: Purchase Cost Savings / Avoidance; Managing Supplier Base; Internal Customer Satisfaction; Procurement Cost; Resource Utilization; and, Others (number of benchmarking visits, number of benchmarking ideas implemented, materials cost vs. sales price of major items, etc.). Some authors proposed product price variance, effective contract utilization, supplier performance, procurement cycle time, procurement cost [36, 37], staff training, transparent price information, transparent tendering [36].

### 2.4. Organizational Environment and Procurement Performance

A study was conducted in Netherlands between 1998 and 1999 by [38] to provide an empirical evidence for the relation between customer satisfaction and business performance. The study findings indicated positive relationship between customer satisfaction and organisational performance indicators; although the authors contended that the relationship was not very strong. The study identified quality dimensions among others as the underlying factor that influence the time lag between change in customer satisfaction and an expected effect in sales, margin, or other output indicators. This study only looked at one dimension of the environment on performance. Moreover, the study contends that there is a weak association between customer satisfaction and business performance.

In a dynamic and multi-sectorial structure survey research, [35] studied the impact of internal and external factors on the performance of fast-growing small and medium businesses in Croatia. The study that examined and analysed variables between 1990 and 2010 indicated that eight internal factors (business entity size, life cycle stages, technology and product innovation, organizational autonomy, centralization and formalization, market roles, and type/importance of goals) and three out of the five analysed external factors (general state of the economy, sector, and type of customers), depending on the period (life cycle stage and general state of the economy), exercise a more or less significant impact on the performance/effectiveness (sales growth and achievement of goals) of SMBs. The study however, failed to provide clarity on the strength of the impacts of the internal and external factors on performance. The study also focused on

SMBs which may be non-manufacturing businesses.

In Africa, [39] conducted a survey study in the food and beverage industry in Nigeria to determine the impact of external business environment on organizational performance. In this study information was collected from 150 respondents in 3 companies. The findings of the study indicated that the external business environment (political, economic, socio-cultural and technological) has effect on organisational performance (effectiveness, efficiency, increase in sales and achievement of corporate goals). The study recommends that organisations should pay more attentions to their environment by doing periodic scanning. The study which was conducted in the service industry was too general on the organizational environment.

In an attempt to examine the impact of the external organizational environment on performance of 163 community-based organizations (CBOs) in Nairobi County, Kenya, [40] carried a descriptive survey study from January to March 2013. The findings of this study indicated that the external environment impacts on the organizations' effectiveness, efficiency, relevance and financial viability. External environment was evaluated from dimensions of uncertainty, domain consensus, heterogeneity, capacity and dynamism. The findings indicated significant positive relationship between the external environment and CBOs effectiveness. This study, though was based in service non-profit organization, failed to address other dimensions of the environment e.g. regulation.

A qualitative case study of D&R Cambric Communication was conducted by [41] to determine the impact of leadership on performance. The objectives of the study in which twenty nine (29) respondents were involved were: to find out the concepts and types of leadership behaviours and to investigate the impact of leadership behaviour on organizational performance. The findings of the study indicated that leadership behaviours and organizational performance had strong correlation. This study considered only on leadership, hence the need to investigate other factors.

In a study to investigate the main effects of leadership styles (*laissez-faire*, transactional and transformational) on organizational performance of state-owned corporations in Kenya, [42] adopted a descriptive research based on thirty (30) state-owned corporations in Mombasa. The findings of the study indicated the following: moderate positive correlation between transformational leadership and organizational performance; low correlation between transactional leadership and organizational performance; and, insignificant correlation between *laissez-faire* and organizational performance. The study recommended discarding *laissez-faire* leadership by managers. Instead, they

should strive to be role models. This study focuses only on leadership while ignoring other aspects of organizational environment.

Studies on the influence of organizational factors on procurement performance have also indicated similar trends. In a multiple research approaches to study Public Procurement in Ghana, [43] conducted a study in 49 procurement entities in 49 District Assemblies and Metropolitan and Municipal Assemblies in the Ashanti and BrongAhafo Regions of Ghana. The study identified major factors as: low capacity of procurement professionals; low interaction between public entities and Public Procurement Authority; deliberate control of competition, lack of funds and non-cooperativeness of suppliers to impediment on the implementation of the Public Procurement Law. The study recommended sanitization of the procurement process by training procurement officers and suppliers; contractors and consultants to understand the procurement processes and to enable them apply the law to the letter. It also recommended punitive measures be put in place to deter officers who deliberately abuse the procurement process. This study however failed to consider the risks associated with procurement that would otherwise be impediments to the implementation process.

In Uganda, [44] conducted a survey study about procurement processes and performance: efficiency and effectiveness of the procurement function. The study aimed at identifying how procurement processes contribute to improved performance of the procurement function. The respondents of the study were made up of 30 staff members of the managerial level of a public entity. The findings indicated that poor performance in procurement results from non-adherence to proper processes and procedures. They argue that both financial and non-financial factors contribute significantly in the procurement process and performance. This study is too general on the procurement processes which are more of the internal environment. It did not look at the contribution of the external environment on procurement performance.

A case study to investigate factors affecting procurement performance in constituency development funds in Makadara, Nairobi, Kenya, [9] adopted descriptive approach to determine the influence of board size, managerial skills, training, ICT and organization structure on procurement performance. The study population which comprised of 400 committee members found that the board lacked proper management skills which contributed to poor performance. Low levels of training and ICT adoption also affect procurement performance. This study focused majorly on the internal organizational factors; in which the strength of the effect was not indicated. Information about the external

environment and the degree of association between the factors of study and procurement performance remains unknown.

A study by [11] investigated challenges facing procurement committees in implementing the procurement act. The case study of secondary schools procurement committees in Kisii County, Kenya adopted a cross-sectional research to interview eighty two (82) procurement committee members. Challenges cited in this study include: corruption, lack of information sharing, poor communication, incomplete/inaccurate records, politics and financial control. The study finding indicated that the experience with the reforms has been quite varied. The study concludes with the need for: strengthening the democratic political process, and public accountability; creating real market conditions; and improving work ethics in which public good is valued more than individual. The study recommended for the creation of procurement structures, provision of Procurement information that help the procurement committees to be effective. This study, however, failed to consider the challenges the external environment except politics which could as well influence implementation of the act (law) negatively.

A survey study conducted by [45] investigated the effects of public procurement policies on organizational performance of water services regulatory board in Kenya. Information was sought from a staff population of 41 using questionnaires. The study established that procurement policy influences integrity, fairness, accountability and professionalism at WASREB. The study recommended review of existing policies to effectively govern procurement activities in the water sector. This study considered only one dimension of the environment: regulation. It states correlation analysis to establish association between the variables of study. However, the study failed to show any association between procurement policies and organizational performance.

A study was conducted by [10] to identify challenges affecting public procurement performance in Kenya. The study acknowledged that ICT adoption, ethics, procurement process and supplier relationship management are some of the key challenges to procurement performance. The paper highlighted that these challenges were propagated by the fact that existing legislation do not foster the use of technology and formation of long term buyer-supplier relationships. The study suggests review of the existing legislation to foster use of technology, formation of long-term relationships with suppliers and stakeholder involvement in public procurement. However, the findings of the extent of how the challenges studied affect procurement performance are not clear. Moreover, the study failed to recognize the fact that external factors also influence procurement performance. Research design adopted for the study to reach the conclusion is not clear.

A descriptive survey study of government ministries in Kenya was conducted by [46] to investigate internal factors affecting procurement process of supplies in the public Health-Care sector. The findings of the study in which 84 respondents were involved indicated that the variables studied: accountability, ICT adoption and ethics affected procurement process to a great extent. The study recommended adequate controls to reduce opportunities for corruption. This study concentrated on the internal factors affecting procurement process in the service industry.

In a case study in the ministry of Energy in Kenya, [7] aimed to ascertain the determinants of public procurement. The study in which seventy two (72) staff members participated sought to establish the impact of: procurement planning, resource allocation, staff competency and contract management on procurement performance. The findings of the study depicts that planning accounts for only 26.9%, resource allocation 17.2%, staff competency 20.1% while contract management 23.3% of the variations in procurement performance. Although the study sought the determinants of internal environment on procurement performance in the service sector, the findings indicate that the factors account for only a small variations in performance. The factors that accounts for greater variations in performance therefore need to be investigated.

Study by [47] was conducted to assess the factors affecting efficiency of procurement function in public institutions in Kenya. The descriptive case study of supplies branch in Nairobi employed semi-structured questionnaire to gather information from forty (40) respondents. Specifically, the study sought the effect of: ICT, staff competency, legal framework and institutional culture on efficiency of procurement function in public institutions. The findings indicated that study variables positively affect efficiency of procurement function and recommended professionalism and review of legislation to ensure compliance with the international standards. The study however failed to indicate the strength of the relationship despite the fact that findings are similar to those by [8, 46] and [7]. Moreover, it failed to link external organizational factors and performance.

In an attempt to establish the role of procurement function in enhancing performance in devolved governments in Kenya, [8] conducted a case study of Machakos County government. The study in which eighty (80) members of county government staff were involved adopted a descriptive survey design. The factors of study that enhances performance were: technology, stakeholder, staff competency and government policy. Study findings indicate the independent factors of study have great positive influence on performance. The findings of this study however contradict those of other studies. For example, [7] found out that staff competency

influence performance by only 20.1% while in the study by [8] this factor had the greatest positive influence.

In the ministry of roads, mechanical and transport department in Kenya [6] carried out a case study to determine factors affecting procurement process. The study sought to determine the effect of accountability, bidding, lead time and internal process on procurement process. The study adopted a descriptive survey design. Findings of this study indicate that the factors account for 88.5% of the procurement process. From the findings, it implies that other internal as well as external organizational factors not studied explains only 11.5% of the procurement process. This contradicts findings by other studies e.g. by [7] which indicated that staff competency alone explains 20.1% of the procurement. The variations in these studies call for clarification.

In a descriptive survey research, [48] investigated factors affecting performance of procurement function among public technical training institutions in Kisumu County in Kenya. The study determined the effect of IT, staff competency and ethics on procurement performance. The findings indicated that the study variables positively affect procurement performance and recommended enhanced use of IT, promotion of employee competence and work ethics. These findings contend to those in the earlier studies that indicated positive relationship [7, 6, 38] among others. The study also failed to indicate the strength of the relationship between the variables and procurement performance. Moreover, external organizational factors were not considered.

### 3. Methodology

A correlational research design was adopted for the study. Self-administered questionnaires were used to obtain primary data from seven departments directly related to procurement in all the 10 sugar firms in Kenya. The departments included: Procurement, Sales/Marketing, Operations/Production, Transport/Agriculture, ICT, Public Relations, and Risk management. The research instrument was pre-tested before final administration to the respondents. The research instrument contained eleven items of organizational environment and eleven dimensions of procurement performance. Reliability of the questionnaire was pilot-tested with 10% of the firms and evaluated through

Cronbach’s Alpha for internal consistency. The analysis gave  $\alpha$  values as in Table 1, which is considered adequate for reliability the instrument [49].

**Table 1.** Reliability Statistics.

	Constructs	Cronbach's Alpha
Organizational Environment		
Competitors	3	0.750
Suppliers	4	0.763
Regulators	2	0.719
Management/Control activities	2	0.785

*Note.* From survey data, 2018

Both descriptive and inferential statistics were used to analyse data. In this study, equation below was used to represent the relationship between dependent and independent variables:

$$Y = \beta_0 + \beta_1X + \epsilon$$

Where:

Y = Procurement Performance (Dependent Variable)

$\beta_0$ = the intercept of line of best of fit

$\beta_1$ =the regression parameter (coefficient) on X

X = Organizational Environment ( $x_1, x_2, x_3, x_4$ ) (Independent variable)

$x_1$ = Competitors

$x_2$  = Suppliers

$x_3$ = Regulators

$x_4$ = Management/Control Activities

$\epsilon$  = independent random error:  $N = (0, \delta^2)$

### 4. Results and Discussions

Results of regression analysis of organizational environment factors against procurement performance (Table 2) indicated that  $R = .804$ ,  $R^2 = .646$  at  $p < 0.05$ . This means that organizational environment significantly explains 64.6% of the variance in procurement performance (at  $p < 0.05$ ). The Durbin-Watson value of 1.953 shows almost lack of autocorrelation between the dependent variables. This implies that all the four elements of organizational environment under this study cannot be ignored.

**Table 2.** Effect of Organizational Environment on Procurement Performance.

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
				R Square Change	F Change	df1	df2	Sig. F Change	
.804	.646	.611	.36195	.646	18.242	4	40	.000	1.953

a. Predictors: (Constant), Organizational Environment

b. Dependent Variable: Procurement Performance

*Note.* From survey data, 2018

**Table 3.** Collinearity Statistics: Organizational Environment and Procurement Performance.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.942	.303		3.112	.003		
Competitors	.187	.074	.258	2.510	.016	.835	1.198
Suppliers	.199	.064	.346	3.092	.004	.708	1.412
Regulators	.142	.065	.240	2.171	.036	.724	1.382
MgtActivities	.205	.077	.281	2.661	.011	.795	1.257

a. Dependent Variable: Procurement Performance

MgtActivities = Management Activities

Note. From survey data, 2018

The regression results also gave the contribution of individual dimensions of organizational environment that were under study (Table 3). From Table 3, competitors had a significant positive effect on performance ( $\beta_1 = 0.258$ ,  $p < 0.05$ ). This has the implication that whenever there is a standard unit increase in strategies to counteract the effect of competitors, there would be 0.258 increases in procurement performance. Suppliers had significant positive effect on performance ( $\beta_2 = 0.346$ ,  $p < 0.05$ ), implying that a standard unit increase in investment on supplier development programmes would result into 0.346 increases in procurement performance. Regulators and management

/control activities also had significant positive effects ( $\beta_3 = 0.240$ ,  $p < 0.05$  and  $\beta_4 = 0.281$ ,  $p < 0.05$ ); implying that standard unit increases in regulatory and management/control activities would result into 0.240 and 0.281 increase in procurement performance respectively.

The regression analysis also gave ANOVA results as in Table 4. The ANOVA results shows that  $F(4, 40) = 18.242$  at  $p < .05$ , an indication that there was significant relationship between organizational environment and procurement performance. The hypothesis that organizational environment has no effect on procurement performance of sugar firms was thus rejected.

**Table 4.** ANOVA: Organizational Environment and Procurement Performance.

Model		Sum of Squares	df	Mean Square	F	Sig.
Regression		9.560	4	2.390	18.242	.000
Residual		5.240	40	.131		
Total		14.800	44			

a. Dependent Variable: Procurement Performance

b. Predictors: (Constant), Organizational Environment

Note. From survey data, 2018

The study sought to analyse the effect of organizational environment on procurement performance of sugar firms in Kenya. As observed by [30] elements of organizational factors affect business organizations in various ways: competitors influence the policies of a firm as the firm tries to be ahead of competition; customer satisfaction ensures a firm's survival; suppliers ensures steady inflow of quality raw materials (and other supplies); regulators control, regulate or influence an organization's policies (and actions).

The study finding indicated that organizational environment has a significant strong positive effect on procurement performance. This study finding supports those by [4] who indicated that the environmental uncertainty level influences organizational performance regardless of chosen strategy and the context of operation. The study findings also support those by [37] who asserted that the characteristics and quality of the environment can also influence organizational performance. The results further support the findings by [4] who also found a strong positive relationship between the factors forming the organizational environment and

performance.

On the contrary, the findings of a study by [50] indicated that organizational environment does not influence performance. Similarly, the current study findings contradicts the previous research findings that organizational environment has no direct relationship with performance [19, 51, 52, 53].

On the effect of the individual dimensions of organizational environment, the study found out that the constructs have significant positive effects on procurement performance. The findings support those by [54] who found out that there is a significant relationship between supplier-buyer relationships and organizational performance. The findings further support those by [55] who also indicated that supplier development in the early stages positively influences firm performance. Firms in Kenya mostly rely on the local suppliers (cane farmers) for the supply of the core raw material for operation. Most of the cane suppliers (farmers) operate on small scale basis and lack enough capability to produce sugarcane to meet both the quality and quantity required for production of quality white sugar. Likewise, sugar firms that work closely



with their cane farmers in terms of provision of cane production facilities, financial support and even offering technical skills to their suppliers indicated increased performance.

The study findings showed significant and positive effect of regulators on procurement performance. Contrary to the expectations that regulations (changes in government policies governing procurement) by the regulator (government) would negatively influence procurement performance, the findings are in line with those of [56] who found that regulation factors linked with government policies significantly and positively influence performance. Procurement rules and regulations and government policies provide conditions that favour fair competition among firms; fair treatment of suppliers and customers; labour relations policies among others,; and, hence improve performance. The results further supports those by [57] who also indicated that policy and regulatory framework creates a level playing fields for organizations hence leading to improved performance. However, the findings of this study on regulation are contrary to those by [44] who found out that regulation of procurement processes negatively affect procurement performance. Probably non-adherence to procurement procedures and processes in most organizations during the previous studies impacted negatively to their performance (procurement).

Regarding competition, the current study findings are in line with those by [36] who found that competition directly influences performance of mobile telecommunications. In their study, new market entrants, competitive rivalry and buyer power affects performance of the firms in the industry were listed to account or 61.2% of the firms' performance. Likewise, the current study reveals that competitors in the sugar industry have significantly and positively influenced performance of procurement function. As new entrants enter the sugar industry, each firm tries to offer attractive services to both its suppliers and customers. Quality of services and end products in the sector improves as competition intensifies.

Regarding internal controls/management style, the findings of the current study indicate a significant positive effect of this construct on performance. This supports the findings by [58] who also found a significant positive effect of internal controls on the performance. The study finding further supports those by [54] who also indicated a positive relationship between internal controls and financial performance of manufacturing firms in Kenya.

Hypothesis  $H_1$  predicted no significant effect of organizational environment on procurement performance. However, the study outcomes provided a significant strong positive effect of organizational environment on procurement

performance ( $R^2 = 0.646$ ). This implies that positive changes in the organizational environment contribute significantly and positively to procurement performance. The study findings are largely in agreement to those by other scholars [38, 12]. Based on the research findings, hypothesis  $H_1$  was thus rejected.

## 5. Conclusion

From the results of this study, it can be concluded that the organizational environment positively affects procurement performance of sugar manufacturing firms in Kenya. This suggests that presence of healthy competition in the industry, adequate supplies of operational materials, proper regulations governing procurement practices and presence of favourable structures and reward systems is likely to improve procurement performance of the sugar firms. This is due to the fact that appropriate organizational environment motivates employees to become more proactive and innovative in their actions. Healthy competition and proper regulations will enable equity in sharing of key production resources with an aim of meeting and exceeding customer demands. Establishing realistic structures allows for open communication, autonomy and transparency while adoption of commensurate reward systems motivates employees towards novelty and commitment.

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