



SUPPLIER DEVELOPMENT AND SUPPLY CHAIN PERFORMANCE IN CONSTRUCTION FIRMS IN MOMBASA COUNTY, KENYA

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ABSTRACT

The construction industry in Kenya plays a pivotal role in the country's economic development. However, its supply chain faces numerous challenges that affect project performance, cost-efficiency and sustainability. This study investigated the interplay between supplier development and supply chain performance within the context of construction firms in Kenya, focusing on Mombasa County. The study used descriptive survey research design and targeted construction firms in Mombasa County. The sample size was 36 construction firms. The firms were selected using systematic random sampling while purposive sampling were employed to select the respondents, that is, the management members for the study. Quantitative data was obtained through semi-structured questionnaire. Descriptive statistical analysis involving frequencies and percentages and inferential statistical analysis were carried out. The results were then presented in tables and charts. The findings revealed that there was strong relationship between supplier development and supply chain performance in construction firms in the area. The study recommended that construction firms should conduct regular performance assessments and audits of their suppliers. The firms also need to actively invest in supplier development programs related to performance.

Key Words: *Supplier Communication, Supplier Financing, Supplier Evaluation*

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INTRODUCTION

In the modern construction industry, the significance of procurement risk practices extends beyond project efficiency and cost-effectiveness. Today, there is a growing emphasis on performance, particularly within the supply chain. According to Fozia (2022), procurement risk management practices (PRMP) encompasses a comprehensive set of actions and activities designed to identify, assess, mitigate, and manage risks associated with procurement processes. The ultimate goal of PRMP is to reduce or maintain risks at an acceptable level to ensure the successful and efficient acquisition of goods, materials, services, or assets within an organization. This not only helps mitigate negative impacts but also contributes to more efficient and strategic procurement operations, ultimately benefiting the organization's overall performance and success.

The construction industry has witnessed a paradigm shift towards performance. Environmental, social, and economic concerns have prompted stakeholders to reevaluate their practices. Performance now encompasses responsible sourcing, reduced carbon footprint, ethical labor practices, and waste reduction throughout the supply chain (Man & Jones, 2016). To ensure supply chain performance, construction companies must align their procurement practices with performance goals. This involves selecting suppliers and materials that adhere to eco-friendly standards, promoting fair labor practices, and minimizing waste generation (Fozia, 2022).

In China, the construction industry is navigating a complex landscape that demands a delicate balance between managing procurement risks and advancing supply chain performance. The need to address environmental concerns and regulatory scrutiny has led to a shift in tactics. Initiatives for supplier development are becoming more prevalent as building companies work with regional vendors to advance sustainable practices and ethical procurement (Li et al. 2020). In order to maximise resource utilisation, businesses are also

implementing eco-friendly materials and cutting-edge construction techniques. This includes the use of waste- and energy-saving modular construction techniques. This is consistent with China's increasing focus on environmental preservation.

As highlighted by Bilala and Odari (2021), several key practices stand out in the quest for improved performance within these sectors. First and foremost is eco-design, which entails incorporating environmental considerations into the design and development of products, processes, and infrastructure. By embracing eco-design principles, firms aim to minimize the environmental footprint of their projects, reduce resource consumption, and lower long-term operational costs. This approach aligns with performance goals by focusing on the efficient use of resources and the reduction of waste and emissions.

However, while the impact of supply chain disruptions in the construction sector is becoming more pronounced in Kenya, little is known regarding the procurement risk management practices used for mitigating the supply chain performance in the construction projects in Mombasa County. Previous studies on construction project risks and supply chains such as Kanyora and Okello (2015), Murithi et al., (2017) and Fozia (2022) did not explore the link between procurement risk management practices and supply chain performance in the construction projects. The current study will explore procurement risk management strategies and supply chain performance in construction firms in Mombasa County in Kenya.

Statement of the Problem

The increasing trends towards globalization and increased competitiveness across markets have meant that most businesses are looking to increase efficiency by addressing workforce levels and streamlining internal operations. Businesses are now looking for at the supply chain and procurement to provide additional efficiencies. Strategically a superior supply chain increases business responsiveness and competitive

advantage. In the construction sector, this can lead to reduced project completion times, high quality work and projects completed within the budget. However, volatility is expected to remain high within the procurement environment in the near future and it will affect supply chain performance (Accenture, 2020).

For instance, in the last three years, supply chain disruptions are causing maximum variances of 8 to 10 weeks compared to pre-pandemic times in the construction sector. This means, a custom fixture with an original lead time of 8 weeks is now likely to arrive in 16 weeks. Moreover, it is no longer guaranteed that the client construction firms will get the right quality and quantity of products at the scheduled time and budgeted costs or the projects incur cost overruns. As a result, the projects may not be completed in time and at the agreed standards. Therefore, formal and sustained procurement risk management practices should be enacted to countermand the supply chain trends in the construction industry. It is important to plan for unpredictable delays that will surface throughout construction and account for the expected shipping delays and sequence the schedule accordingly. The contractors could also make advance communication with vendors and suppliers; create a procurement log and track changes daily. However, while the impact of supply chain disruptions in the construction sector is becoming more pronounced in Kenya, little is known regarding the procurement risk management practices used for mitigating the supply chain performance in the construction projects. Previous studies on construction project risks and supply chains such as Kanyora and Okello (2015), Murithi et al., (2017) and Fozia (2022) did not explore the link between procurement risk management practices and supply chain performance in the construction projects, hence, prompting the need for this study. The current study will explore procurement risk management strategies and supply chain performance in construction firms in Mombasa County in Kenya.

Research Objectives

The objective of the study was to examine the influence of supplier development on supply chain performance in construction firms in Mombasa County, Kenya. The research was guided by the following research hypothesis;

- **H₀:** Supplier development does not significantly influence supply chain performance in construction firms in Mombasa County, Kenya.

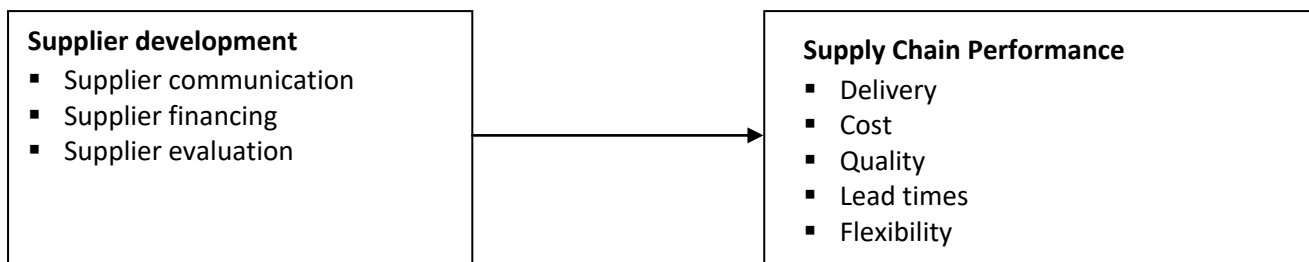
LITERATURE REVIEW

Theoretical Framework

Contingency Theory

Theory by Fred Edward Fiedler asserts that when managers make a decision, they must take into account all aspects of the current situation and act on those aspects key to the situation at hand. Each construction project is unique and with its own complexities and therefore should be managed according to its specific characteristics and environment in that particular period of time (Sawega 2015). The contingency theory recognizes this aspect and attempts to identify practices that best suit the unique demands of different projects. This theory rejects the idea of one best way to manage projects because of the varying management situations. According to Mutema (2013), contingency theory takes into account the interaction and interrelation between the organization and the environment. The theory recognizes that there are a range of contextual variables also referred to as risk factors which influence the project objectives differently. Examples of these variables are: external environment, technology, organizational structure and size, cost, culture, people involved and strategy. Contingencies for both budgets and schedules provide the project manager with the estimating caution they need to protect their projects from cost and time overruns (PMI 2006). Effectively allocating these contingencies can help project managers control much of the projects uncertainties.

Conceptual Framework



Independent variables

Dependent variable

Figure 1: Conceptual Framework

Review of Variables

Supplier development is a strategic approach employed by construction firms to cultivate strong and mutually beneficial relationships with their suppliers. In this context, it plays a pivotal role in ensuring a resilient and sustainable supply chain (Chi, 2017). Collaborative partnerships are at its core, where construction companies work closely with suppliers, going beyond transactional interactions to forge long-term alliances built on trust. Through capacity building initiatives, firms invest in their suppliers, providing training, resources, and support to enhance their capabilities and ensure they meet quality standards and delivery timelines. Sustainability integration is a growing aspect of supplier development, with suppliers encouraged to adopt eco-friendly practices, responsibly source materials, and uphold ethical labor standards. The commitment to continuous improvement drives these efforts, as construction companies and their suppliers work collaboratively to identify areas for enhancement and adapt to changing market conditions. In sum, supplier development is an essential variable that not only mitigates procurement risks but also contributes to the sustainability and resilience of the supply chain (Hsu et al.2021).

Empirical Literature Review

Supplier development

Lintukangas, Kähkönen and Hallikas (2019) examined whether supply management innovativeness and supplier orientation make

positive impacts on firms' overall performance performance in Finland. The study was an empirical study based on a survey targeting large- and medium-sized firms. The findings show that innovativeness in supply management considerably influences a firm's overall performance performance and that supplier orientation positively relates to performance performance. The benefits of innovativeness in supply management and strategic supplier orientation are directly realised in performance performance. Therefore, supply management is not only a gatekeeper against performance risks arising from the supply base but is also a function by which new ideas aiming to influence supply markets and firms' performance are presented. However, these findings may not hold true in different geographic, cultural, or industry contexts. The current study focuses on construction industry in Mombasa County, Kenya.

Ağan, Acar and Neureuther (2018) carried out a study on the importance of supplier development for performance. The findings show that combining social responsibility, environmental consciousness, and economic performance in supply chain operations has led to sustainable supply chain management (SSCM) programs. Thus, supplier development projects can play an important role in performance for the firm and for the supply chain. However, the study did not delve into the effectiveness of these programs. The current study will investigate the actual impact and effectiveness

of SSCM programs in achieving performance goals in construction firms in Mombasa County, Kenya.

Mukherjee and Mandal [42] utilised the Interpretive Structural Modelling (ISM) technique to analyse significant considerations in managing the photocopier remanufacturing business within the realm of sustainable practices. The study revealed that the work environment, utilisation of returns, and marketing challenges related to remanufactured goods exerted the most significant influence. Factors such as product design, remanufacturing technology and equipment, proper planning of disassembly and reassembly, and the role of skilled and experienced workforce exhibited the highest degree of dependency. However, the study by Mukherjee and Mandal appears to focus on the photocopier remanufacturing business. The current study will explore whether the findings from this specific industry and context are applicable to the construction industry in Kenya.

In Kenya, Aura and Juma (2020) carried out a study on the influence of supplier development on operational performance of manufacturing firms. The study adopted the survey research design. The research used the census sampling technique and data will be collected using self-administered questionnaires. The data was analyzed using both descriptive and inferential statistical methods. On the first objective, the study concludes that supplier value management development has a significant influence on operational performance. On the second objective, the study concludes that reverse markets reward a significant impact on operational performance. On the third objective, the study concludes that supplier training have a significant impact on operational performance. The management should have supplier's value management. This will help ascertain the specific areas that suppliers value management Reverse Markets. Similarly, on supplier development in general, management should consider it as influencers of operational performance. However, the study doesn't delve into the underlying causal mechanisms. Further research could explore why

and how these factors influence operational performance in the context of construction firms in Kenya.

Supply Chain Performance

Kosanoglu and Kus (2021) carried out a study on sustainable supply chain performance in construction industry in Turkey. The study utilized the analytic network process methodology to evaluate the performance level of construction sustainable supply chain management by employing the principles of the green buildings performance rating system (LEED). By utilizing the ANP methodology and the LEED principles, the research provided a structured and comprehensive approach for assessing the performance level of supply chain management in construction. This approach enabled a holistic evaluation, taking into account various environmental and performance factors. The research focused on the Turkish context, and the findings may not be directly applicable to other countries or regions with different regulatory frameworks, market conditions, or cultural factors. The current study will explore the generalizability of these findings.

Muthangya (2021) conducted a cross-sectional study to establish the effect of supply chain practices on the performance of building, mining and construction firms in Kenya. The study used a structured questionnaire. The study findings indicated that eco-design & eco labelling, green manufacturing, green procurement and reverse logistics have a positive and significant association with the performance of building, mining and construction firms. The study also found out that building, mining and construction firms have embraced green supply chain practices for effective performance. The study recommended that firms should emphasize on suppliers to have ISO 14001, use life cycle assessment to evaluate environmental load, cooperate with suppliers to standardize packaging and process returned merchandise to improve their performance. The current study will test the veracity of these findings.

Bilala and Odari (2021) conducted an investigation focusing on the impact of sustainable supply chain management practices on the performance of companies operating in Kenya. The study encompassed a population of 102 respondents, from which a sample of 81 participants was selected. The sampling method employed was proportionate stratified random sampling, ensuring that sample sizes in each stratum were appropriately determined. Both descriptive and inferential analyses were applied to evaluate the gathered data. The research outcomes revealed that eco-design, cleaner production, and the adoption of green packaging practices have a substantial influence on the overall performance of manufacturing firms. Notably, these factors emerged as significant predictors of firm performance within the Kenyan context. Based on their findings, the study recommended the recruitment of innovative employees who can actively contribute to the implementation of eco-design and cleaner production initiatives. These employees are expected to play a pivotal role in advancing sustainable supply chain practices within manufacturing firms. Building on these prior findings, the present study aims to rigorously assess the validity and applicability of these conclusions in the specific context under investigation.

METHODOLOGY

The study was carried out using descriptive survey research design. The study was carried out in Mombasa County in Kenya. All construction firms based in Mombasa County were targeted. According to the Mombasa County Register (2018), there are currently 71 registered construction firms in the County. Therefore, the study used a sample of 36 construction firms. The firms were selected using systematic random sampling while purposive sampling was employed to select the respondents, that is, the management members for the study. The study used questionnaires as data collecting instruments. This study used questionnaires after pilot testing them for correctness and accuracy on 10 non-participatory respondent sample. Piloting

was done in among ten construction firms in Kilifi County. This was done by calculating the Cronbach's alpha coefficient for all the sections of the questionnaire from the results of the pilot study. The study adopted face validity, construct validity and content validity which are used to show whether the test items represented the content that the test is designed to measure (Patten & Newhart, 2017). Data obtained from the questionnaires was cleaned and edited before being coded and subjected to further analysis.

RESULTS AND DISCUSSIONS

Response Rate

The high questionnaire response rate was (86%) resulted from the method of administration of the instrument, which was in this case self-administered. This was acceptable according to Veal (2017). This method also ensured that the respondents' queries concerning clarity were addressed at the point of data collection; however, caution was exercised so as not to introduce bias in the process. The other questionnaires were not returned by the respondents, hence, they were not included in the study.

Descriptive Analysis Results

This section presents the results of the descriptive statistical analyses of the data and their interpretations. The descriptive statistics helped to develop the basic features of the study and form the basis of virtually every quantitative analysis of the data. The results were presented in terms of the study objectives.

Supplier development on supply chain performance in construction firms in Mombasa County, Kenya

The first objective of the study was to examine the influence of supplier development on supply chain performance in construction firms in Mombasa County, Kenya. This objective was measured by several statements related to; supplier communication, supplier financing, and supplier evaluation. A five point Likert scale was used to rate

responses of this variable and it ranged from; 1 = strongly disagree to 5 = strongly agree and was analysed on the basis of the mean score and standard deviation. The closer the mean score on each item was to 5, the more the agreement

concerning the statement. A score around 2.5 would indicate uncertainty while scores significantly below 2.5 would suggest disagreement regarding the statement posed. The findings are presented in Table 1.

Table 1: Supplier development on supply chain performance in construction firms

Statement	SA Freq(%)	A Freq(%)	N Freq(%)	D Freq(%)	SD Freq(%)	Mean	Std. Dev.
Suppliers in our supply chain actively collaborate with us on performance initiatives.	7(23)	11(36)	3(11)	6(20)	3(10)	3.93	0.96
We maintain open and transparent communication channels with our suppliers regarding performance goals.	8(23)	15(43)	5(14)	0	3(9)	3.38	0.774
We conduct regular performance assessments and audits of our suppliers	4(14)	12(37)	4(14)	7(23)	4(12)	3.18	0.748
Our organization actively invests in supplier development programs related to performance.	3(8)	3(11)	5(15)	11(36)	9(30)	2.3	0.902
Suppliers provide valuable feedback on our own performance efforts and initiatives.	6(19)	15(46)	4(13)	4(12)	3(10)	3.52	0.784
Aggregate						3.262	0.8336

Table 1 shows that the aggregate mean was, $M = 3.262$ and the standard deviation is, $SDev = 0.8336$. The mean is low and the standard deviation is less than one which indicates that there was low agreement with the statements regarding the influence of supplier development on supply chain performance in construction firms in Mombasa County, Kenya. There were strong indications that suppliers in most supply chain actively collaborate with on performance initiatives (mean = 3.93). However, fewer respondents in comparison agreed that they maintain open and transparent communication channels with their suppliers regarding performance goals (mean = 3.38). Further, fewer firms conducted regular performance assessments and audits of their suppliers (mean = 3.18). However, most respondents disagreed that their firms actively

invests in supplier development programs related to performance (mean = 2.3). The findings, however, indicate that most respondents agreed that suppliers provide valuable feedback on their own performance efforts and initiatives (mean = 3.52).

Supply chain performance in construction firms in Mombasa County, Kenya

The other objective of the study was to analyze the establish the status of supply chain performance in construction firms in Mombasa County, Kenya. This objective was measured by several statements related to; Delivery, Cost, Quality, Lead times and Flexibility. A five point Likert scale was used to rate responses of this variable and it ranged from; 1 = strongly disagree to 5 = strongly agree and was analysed on the basis of the mean score and standard deviation. The closer the mean score on

each item was to 5, the more the agreement concerning the statement. A score around 2.5 would indicate uncertainty while scores significantly

below 2.5 would suggest disagreement regarding the statement posed. The findings are presented in Table 2.

Table 2: Staff competence and performance of preference and reservation scheme

Statement	SA Freq(%)	A Freq(%)	N Freq(%)	D Freq(%)	SD Freq(%)	Mean	Std. Dev.
Within our organization, there is a clear understanding of the importance of supply chain performance.	4(14)	18(60)	4(14)	2(6)	2(6)	4.07	0.456
The organization's performance goals align with its supply chain practices.	5(17)	18(56)	7(21)	1(3)	1(3)	3.84	0.824
We evaluate our suppliers based on their performance.	7(22)	15(49)	6(18)	3(8)	1(3)	3.76	0.603
We collaborate with suppliers to improve performance across the supply chain.	4(14)	5(17)	6(19)	11(35)	5(15)	2.79	1.001
We actively seek eco-friendly alternatives in our supply chain operations.	3(11)	17(55)	7(21)	3(11)	1(2)	3.62	0.859
Aggregate						3.622	0.7486

Table 2 shows that the aggregate mean was, $M = 3.662$ and the standard deviation is, $SDev = 0.7486$. The mean is high and the standard deviation is less than one which indicates that most respondents agreed with the statements regarding the status of supply chain performance in construction firms in Mombasa County, Kenya. There were strong indications that within most firms, there was a clear understanding of the importance of supply chain performance (mean = 4.07). Also, most of the respondents agreed that their organizations' performance goals align with their supply chain practices (mean = 3.84). Most firms evaluate their suppliers based on their performance (mean = 3.75). However, few firms collaborate with suppliers to improve performance across the supply chain (mean = 2.79). Other findings, however, show that most firms actively seek eco-friendly alternatives in their supply chain operations (mean = 3.62).

Inferential Statistical Analysis

Inferential statistics describe the many ways in which statistics derived from observations on samples from study populations can be used to deduce whether or not those populations are truly different. Inferential statistical analysis infers properties of a population, for example by testing hypotheses and deriving estimates. Some common inferential statistical tests include t-tests, ANOVA, chi-square, correlation and regression. In the current study, correlation and regression were used to examine the relationships between the variables for statistical significance.

Correlation Analysis

In this subsection a summary of the correlation analyses is presented. It seeks to first determine the degree of interdependence of the independent variables and also show the degree and strength of their association with the dependent variable separately. These results are summarized in Table 3.

Table 3: Summary of Correlations

		Supplier Development	Supply Chain Performance
Supplier Development	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	84	
Supply Chain Performance	Pearson Correlation	.501**	1
	Sig. (2-tailed)	0.000	
	N	84	84

The first correlation was carried out to determine whether supplier development had significant relationship with supply chain performance in construction firms in Mombasa County, Kenya. The results indicate that the correlation is significant ($r = 0.501$; $p = 0.000$). The correlation is positive and high implying that there was strong relationship between supplier development and supply chain performance in construction firms in the area. This

meant that when construction firms invested in supplier development they were likely to improve their supply chain performance.

In order to determine the importance of supplier development on supply chain performance in construction firms in Mombasa County, Kenya, the beta value was used. The results are given in Table 4 providing a summary of the linear regression analysis correlation coefficients.

Table 4: Multiple linear regression results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	14.21	3.759		3.780261	0.001
Supplier Development	0.563	0.108	0.455	5.213963	0.000

a. Dependent Variable: Supply Chain Performance

It can be deduced from the findings in Table 4 that Supplier Development was very influential to procurement risk management strategy in the model as per the beta values was Supplier Development ($\beta = 0.455$, $p < 0.05$).

Test of Hypothesis

H_0 : Supplier development does not significantly influence supply chain performance in construction firms in Mombasa County, Kenya.

The results showed that supplier development had a significant relationship with supply chain performance in construction firms in Mombasa County, Kenya. Therefore, the null hypothesis was rejected. The study, therefore, concluded that supplier development was an important influential procurement risk management strategy influencing

supply chain performance in construction firms in Mombasa County, Kenya.

SUMMARY

The objective of the study was to examine the influence of supplier development on supply chain performance in construction firms in Mombasa County, Kenya. The results showed that there was strong relationship between supplier development and supply chain performance in construction firms in the area. There were strong indications that suppliers in most supply chain actively collaborate with on performance initiatives. However, fewer firms maintain open and transparent communication channels with their suppliers regarding performance goals. Further, fewer firms conducted regular performance assessments and audits of their suppliers. However, most firms did

not actively invests in supplier development programs related to performance. The findings, however, indicate that most respondents agreed that suppliers provide valuable feedback on their own performance efforts and initiatives.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that there was strong relationship between supplier development and supply chain performance in construction firms in the area. There were strong indications that suppliers in most supply chain actively collaborate with on performance initiatives. Thus, when construction firms invested in supplier development they were likely to improve their supply chain performance.

The study recommended that construction firms should conduct regular performance assessments and audits of their suppliers. The firms also need to actively invest in supplier development programs related to performance.

Recommendations for future studies

The study recommended additional studies of a similar kind be carried out in other counties in Kenya. There is need to examine the influence of supplier financing on supply chain performance in construction firms in Mombasa County, Kenya. There is need to carry out a similar study on procurement risk management strategies and supply chain performance in organizations in Kenya for comparison.

REFERENCE

- Accenture. (2020). High Performance in Procurement Risk Management: Research and Insights developed in collaboration with Massachusetts Institute of Technology.
- Fozia, Nu. (2022). Risk Identification and Supply Chain Performance in Construction Industry in Kenya. *International Journal of Science and Business*, 12(1), 81 -96
- Kanyora, S.M., & Okello, B.O. (2015) Influence of Strategic Management Practices on Performance of Construction Firms in Kenya: A Case of Reliable Concrete Works Limited, Kenya. *International Journal of Economics, Commerce and Management*, 3(6), 1425-1439
- Kumar, V., & Viswanadham, N. (2017) A CBR-based Decision Support System Framework for Construction Supply Chain Risk Management. In *Automation Science and Engineering, 2017. CASE 2017. IEEE International Conference on* (pp. 980-985). IEEE.
- Wong, A. (2019) Total Quality Management in the Construction Industry in Hong Kong: A Supply Chain Management Perspective. *Total Quality Management*, 10(2),199-208.
- Ağan, Y., Acar, M., & Neureuther, B. (2018). The Importance of Supplier Development for Sustainability. https://doi.org/10.1007/978-3-319-62917-9_10.
- Lintukangas, K., Kähkönen, A.-K., & Hallikas, J. (2019). The role of supply management innovativeness and supplier orientation in firms' sustainability performance. *Journal of Purchasing and Supply Management*, 25(4), 100558. <https://doi.org/10.1016/j.pursup.2019.100558>.
- Aura, M., & Juma, D. (2020). Influence of supplier development on operational performance of manufacturing firms listed in the Nairobi Securities Exchange, Kenya. *International Journal of Recent Research in Social Sciences and Humanities (IJRSSH)*, 7(3), 88-105. Retrieved from www.paperpublications.org.
- Cataldo, I., Banaitiene, N., & Banaitis, A. (2021). Developing of Sustainable Supply Chain Management Indicators in Construction. *E3S Web of Conferences*, 263, 05049. <https://doi.org/10.1051/e3sconf/202126305049>.

- Kosanoglu, F., & Kus, H. T. (2021). Sustainable supply chain management in construction industry: a Turkish case. *Clean Techn Environ Policy*, 23, 2589–2613. <https://doi.org/10.1007/s10098-021-02175-z>.
- Muthangya, M. M. (2021). Effect of Green Supply Chain Practices on the Performance of Building, Mining and Construction Firms in Kenya. *The International Journal of Business & Management*, 9(11). <https://doi.org/10.24940/theijbm/2021/v9/i11/BM2111-021>.
- Bilala, H. A., & Odari, S. (2021). Role of Sustainable Supply Chain Management Practices on Performance of Manufacturing Firms: A Case of Unilever Kenya Limited. Thesis, Jomo Kenyatta University of Agriculture and Technology. URL: <http://localhost/xmlui/handle/123456789/5602>.
- Wong, K., Chan, A. H. S., & Teh, P. L. (2020). How Is Work-Life Balance Arrangement Associated with Organisational Performance? A Meta-Analysis. *International Journal of Environmental Research and Public Health*, 17(12). <https://doi.org/10.3390/ijerph17124446>
- Hsu, C.-H., Yu, R.-Y., Chang, A.-Y., Chung, W.-H., & Liu, W.-L. (2021). Resilience-Enhancing Solution to Mitigate Risk for Sustainable Supply Chain—An Empirical Study of Elevator Manufacturing. *Processes*, 9. <https://doi.org/10.3390/pr9040596>
- Cataldo, I., Banaitis, A., Samadhiya, A., Banaitiene, N., & Luthra, S. (2022). Sustainable supply chain management in construction: An exploratory review for future research. *Journal of Civil Engineering and Management*, 28, 536-553. <https://doi.org/10.3846/jcem.2022.17202>
- Kenyatta, J., & Ajewole, J. (2022). Effectiveness of Construction Contract Procurement Processes in Public Projects in Kenya: A Survey Of County Government Projects. <https://doi.org/10.13140/RG.2.2.29251.68643>