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Original Research

Effect of Sustainable Supplier Selection on Procurement Performance of Chartered Public Universities in Kenya

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Abstract

Public universities have recognized the power they hold as influential entities within communities, and with this power comes the responsibility to select suppliers who share on their vision. By prioritizing sustainability in their procurement strategies, universities can lessen their environmental impact and serve as examples for other organizations. Embracing sustainability in supplier selection requires the acknowledgement of the interrelatedness between economic, social, and environmental factors. It mandates organizations to consider long-term consequences of traditional purchasing considerations, such as cost and quality, rather than short-term gains. However, the absence of clear guidelines and policies on sustainable supplier selection results in inefficiencies in decision-making within most universities. Consequently, their ability to prioritize partnerships with eco-friendly, socially responsible, and economically viable suppliers is hindered. The purpose of this study was to analyze the impact of sustainable supplier selection (SSS) on the procurement performance of public universities. A cross-sectional research design was employed, utilizing a population of 40 employees from the procurement department, selected from ten chartered public universities in Kenya. The findings revealed that public universities have embraced sustainable supplier selection, although to varying degrees. Moreover, the coefficient of determination was 0.472 implying that the sustainable supplier selection criteria used by the universities accounted for 47.2% of their procurement performance. The study constitutes a model utility for fostering sustainable procurement practices within the confines of public universities. It recommends the development of robust approaches to evaluating supplier environmental and social performance that could significantly heighten business sustainability levels.

Keywords: Environmental purchasing, Supplier selection, Sustainability.

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Introduction

Sustainability in procurement has become increasingly important in today's world where organizations are realizing the social, economic, and environmental impacts of their purchasing practices. The process of choosing suppliers entails making strategic decisions to enable successful implementation of green supply chain management practices (Gupta and Barua 2017; Yu *et al*. 2018). Consequently, supplier selection is crucial for the sustainable development of an organization (Lo *et al*. 2018)

In today's volatile business environment, marked by growing demands from customers, organizations often prefer to outsource rather than produce all components in-house to meet delivery requirements. As a result, the importance of selecting suitable suppliers cannot be emphasized enough as it is a vital component for achieving success within the organization (Wetzstein *et al.,* 2016).

Public universities in Kenya are no exception to this trend and have recognized the benefits of sustainable supplier selection. The successful operation of public universities in Kenya depends heavily on a sustainable supply chain system. Universities need to select suppliers who can provide goods and services that are not only of high quality but also sustainable. Sustainable suppliers help universities to reduce their carbon footprint and promote social welfare by ensuring that the sourcing and distribution of goods and services are ethical (Barbosa & Behdad, 2019).

According to Luthra, Garg & Haleem, (2017), consumers and investors both are becoming increasingly aware of ethical and environmental responsibilities of businesses and corporations. They argue that suppliers play a significant role in achieving these responsibilities, and companies have started to realize the importance of sustainable supplier selection in order to source materials or goods that are not only ethically produced but also have minimal environmental impact.

Sustainable supplier selection involves a thorough evaluation of a supplier's environmental and social performance, as well as their financial stability and performance. The evaluation should also consider the supplier's diversity and their adherence to ethical standards. Sustainable supplier selection leads to the procurement of high-quality products and services, increased competitiveness, job creation, and promotion of a sustainable supply chain (Bakeshlou *et al.,* 2017).

The ISO 14001 certification for green suppliers is utilized as a chief evaluation criterion in the procurement process to promote eco-consciousness. Gavronski *et al.* (2011) argue that to effectively extend sustainable practices throughout the supply chain, environmental considerations must be incorporated into supplier selection, assessment, and collaboration. Partnering with eco-friendly suppliers in the early stages enhances the possibility of implementing green practices in subsequent phases. The procurement of sustainable materials is reliant on the vital roles played by eco-friendly suppliers. Collaborations with said suppliers can bring about environmental benefits, influence customer perceptions of a company, and ultimately affect sales and revenue (Green Purchasing Guide, 2011).

Criteria Used for Identifying Sustainable Suppliers

The literature review examines different factors that are used to evaluate suppliers in supplier selection processes. These factors can be classified into two main categories: economic characteristics, such as pricing, quality, and throughput times, and environmental characteristics, such as greenness, resource consumption, and pollution emission (Yu *et al*., 2018). However, it is important to note that supplier selection criteria can vary based on different factors, including the country and industry in which the selection is taking place. Additionally, these criteria are heavily influenced by cultural norms, government regulations, as well as political and environmental conditions (Mathiyazhagan *et al*., 2018).

The selection of green suppliers greatly influences both the initial costs and ongoing costs in green procurement (Dubey *et al*., 2013). Hence, the authors were motivated to identify the key factors that impact supplier selection in green procurement. Previous studies have reported multiple criteria that have been considered in the supplier selection problem. Bakeshlou *et al.* (2017) considered cost, quality, service, technological capability, and environmental aspects, while Gupta and Barua (2017) included collaboration, environmental investments, resource accessibility, environmental management, research and design, green procurement capabilities, regulatory pressures, and customer demands.

Recently, Islam *et al.* (2018) considered various factors such as environmental criteria, suppliers using non-hazardous chemicals, energy saving and waste reduction initiatives, eco-friendly transportation, suppliers operating with environmental objectives, carbon reduction targets, collaboration, knowledge transfer, technical know-how, and supplier environmental conformance. Another study by Mathiyazhagan *et al*. (2018) considered management, technology, manufacturing, and cost as key criteria in supplier selection. For this research, the researcher reviewed existing literature and consulted industry experts to finalize the parameters relevant to the Kenyan. Ultimately, nine criteria were identified as significant in the selection of green suppliers within the university procurement structure:

Supplier Understanding of green policy: It is imperative that suppliers possess a comprehensive understanding of the green policy and procedures employed by customer firms. The green policy primarily aligns with the business objectives and operational objectives of the firm, taking into consideration the political, economic, social, and technological environment. Green policy assists green procurement professionals in identifying the most appropriate green procurement process and procedures that enable the firm to achieve its sustainability goals (Ahsan and Rahman, 2017).

Supplier awareness of the environmental consequences associated with their products: Being knowledgeable about the complete life cycle of a product and its effects on the local environment greatly assists in the development of environmentally friendly products with minimal ecological impacts. To ensure this knowledge is effectively applied, customers are responsible for accurately conveying the necessary specifications and technical know-how to suppliers, thereby enabling them to adhere to required quality standards (Bakeshlou *et al*., 2017).

Supplier firm senior management support for green initiatives: The active involvement of senior management is essential in order to successfully adopt green procurement programs. It is imperative to promptly approve budgets and allocate funds without unnecessary delays to enable the upgrading of infrastructure to meet the specific requirements of green procurement (Mosgaard, 2015). Opting for suppliers who prioritize sustainability can significantly impact a company's own sustainable practices. When suppliers are committed to sustainability, it creates a ripple effect along the supply chain, promoting sustainable practices at every stage of production. This collaboration allows companies to align their sustainability goals with those of their suppliers, resulting in a more environmentally responsible supply chain.

Supplier's clear strategic goals on green program: The green procurement policy and performance measures of the supplier firm must be in line with the strategic vision and mission of the company. Otherwise, there will be a cost and loss implication for the firm due to the mismatch. Additionally, the purchasing structure should align with the firm's strategic goals to fully benefit from green procurement programs. The utilization of third-party audits by supplier firms has proven to be advantageous both directly and indirectly. Specifically, third-party audits that focus on green procurement goals, policies, and performance standards are crucial for the advancement of green programs. These audits aid firms in identifying gaps, obstacles, threats, and vulnerabilities, evaluating mitigation strategies, assessing crisis management plans, and evaluating the firm's insurance coverage. This comprehensive approach ensures safety, security, and sustainability (Ahsan and Rahman, 2017).

Supplier's Internal Environmental Coordination: It is essential for suppliers to establish effective coordination mechanisms that ensure harmony and efficiency within their internal operations. Effective internal coordination within a supplier's organization leads to better productivity, enhanced operational efficiency, and improved overall performance. When all employees are aligned towards a common goal and equipped with clear roles and responsibilities, they can work harmoniously towards achieving organizational objectives. By synchronizing processes, departments, and individuals, suppliers can eliminate redundancy, streamline operations, and reduce operational costs. Moreover, internal coordination enables suppliers to respond quickly to market changes and customer demands.

Supplier Social Responsibility: To achieve sustainable sourcing, companies must collaborate with suppliers who share their commitment to social responsibility. This entails evaluating suppliers based on certain criteria such as their environmental practices, labor conditions, community impact, and adherence to ethical standards. It becomes essential to select suppliers who demonstrate strong social responsibility and are aligned with the company's sustainability goals.

Ensuring fair labor conditions is another crucial aspect of supplier social responsibility. Suppliers must provide safe and healthy working conditions for their employees, comply with local labor laws and regulations, and respect workers' rights. They should also prohibit child labor, forced labor, and any form of discrimination. Compliance with international labor standards, such as those set by the International Labour Organization (ILO), is highly encouraged.

Suppliers have a responsibility to positively impact the communities where they operate. They can achieve this by supporting local initiatives, promoting community development, and engaging in philanthropic activities. This could include investing in education and healthcare, supporting local businesses and industries, and contributing to social welfare programs. By actively participating in community development, suppliers demonstrate their commitment to social responsibility.

Finally, adherence to ethical standards is also fundamental to supplier social responsibility. Suppliers must conduct their business with integrity and transparency, ensuring fair competition, and respecting intellectual property rights. They should also comply with anti-corruption laws and ensure responsible sourcing of raw materials. Collaboration with suppliers who uphold such ethical standards ensures a sustainable and responsible supply chain.

Supplier's ability to provide innovative, sustainable solutions or products: With the increasing demand for sustainable practices, it is essential for companies to collaborate with suppliers who can offer environmentally-friendly alternatives. Innovation often leads to the development of more sustainable practices and products. Suppliers who are constantly researching and implementing innovative ideas can offer new, greener alternatives that can replace traditional, less sustainable options. These advancements may include the discovery of new materials, more efficient manufacturing processes, or the introduction of eco-friendly packaging. Ultimately, this commitment to innovation promotes sustainability throughout the supply chain and helps companies stay at the forefront of environmentally-friendly practices.

*Suppliers ISO Certification***:** The ISO 14001 certification specifically focuses on environmental management systems. Suppliers with this certification have demonstrated their commitment to minimizing their environmental impact and adhering to sustainable practices. By selecting suppliers with ISO certifications, organizations can have greater confidence in their sustainable procurement practices. These certifications provide documented evidence that suppliers have implemented effective environmental management systems, reducing the risks of environmental non-compliance. Consequently, organizations can mitigate reputational damages associated with any kind of sustainability misconduct by their suppliers. Moreover, Supplier ISO certification fosters a culture of continuous improvement. ISO requires certified suppliers to regularly monitor and review their environmental performance, setting objectives for improvement. By opting for certified suppliers, organizations can be assured that their partners are actively working towards enhancing their sustainability practices and aligning with evolving global standards.

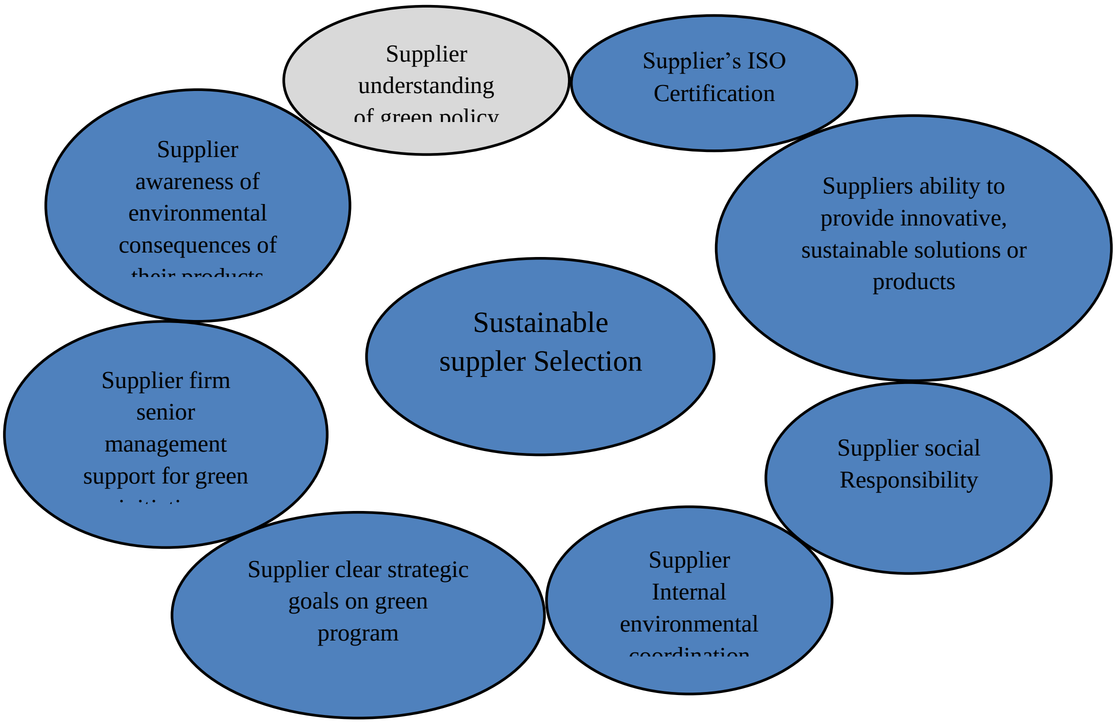

Figure1. Measures of Sustainable Supplier Selection
Source: Modified from Ahsan and Rahman (2017), Bakeshlou *et al* (2017) and Islam *et al* (2018)

Statement of the Problem

Public universities in Kenya play a crucial role in fostering educational growth and development within the nation. As they operate within limited financial resources, sustainable supplier selection becomes imperative to achieve their goals effectively. However, these institutions face inherent challenges, such as inadequate supplier evaluation systems resulting in suboptimal decision-making processes. Without appropriate evaluation criteria, universities struggle to identify suppliers who align with sustainability standards in areas such as environmental protection, labor practices, and product quality. Consequently, they may inadvertently engage with suppliers that fail to meet sustainability requirements, leading to ethical and reputational risks. Furthermore, the absence of clear guidelines and policies on sustainable supplier selection continues to create inefficiencies in decision-making in most of these universities. This hampers their ability to prioritize partnerships with eco-friendly, socially responsible, and economically viable suppliers. Urgent measures are thus needed to address these challenges and foster a more sustainable supplier selection process within Kenyan public universities.

Research Objective

The main aim of the study was to examine the Effect of Sustainable Supplier Selection on Procurement Performance of Chartered Public Universities in Kenya

Literature Review

Theories Guiding the study

Effective and sustainable supplier selection is a crucial aspect of supply chain management for organizations aiming to promote social and environmental sustainability. With growing concerns about ethical sourcing, companies are increasingly seeking to collaborate with suppliers that align with their sustainability goals. The study on sustainable supplier selection incorporates theories and approaches to facilitate informed decision-making. These include the following:

Sustainable Development Theory

At the core of studying sustainable supplier selection lies the theory of sustainable development. This theory according to Carter & Rogers, (2008) emphasizes the need to meet the present needs of a society without compromising the ability of future generations to meet their own needs. By integrating sustainable development principles into supplier selection, organizations strive to ensure that economic, environmental, and social aspects are given equal weight. This theory propels the exploration of methodologies, tools, and criteria that can effectively assess the sustainability performance of suppliers.

The adoption of sustainable development theory introduces additional criteria for supplier evaluation. Traditional supplier selection primarily focuses on cost and quality, but sustainable development theory expands this scope to include environmental and social factors. Organizations carefully assess potential suppliers based on their environmental impact, ethical practices, labor conditions, and commitment to sustainable resource management. This holistic evaluation ensures that suppliers align with the principles of sustainable development.

By incorporating sustainable development theory into supplier selection, organizations promote forward-thinking procurement practices that yield both immediate and long-term benefits. Sustainable suppliers typically provide products or services with reduced environmental impact, ensuring minimal resource depletion and waste generation. Additionally, these suppliers often maintain high social standards, maintaining fair labor practices and respecting human rights. By sourcing from such suppliers, organizations enhance their brand reputation and minimize the risk of harmful incidents or scandals related to supplier misconduct. In addition, sustainable suppliers frequently exhibit greater resource efficiency, leading to reduced waste and energy consumption, thereby resulting in cost reduction for organizations. Moreover, sustainable practices stimulate innovation and technological advancements, thereby improving operational efficiency and lowering production costs. Consequently, organizations can simultaneously meet their economic and environmental objectives.

Sustainable development theory also mitigates supply chain risks, further enhancing procurement performance. Organizations relying on unsustainable suppliers face a range of risks, including legal liabilities, reputational damage, and disruptions due to unethical practices or environmental non-compliance. Selecting suppliers based on sustainable practices minimizes these risks by promoting transparency, accountability, and compliance with regulatory frameworks. Therefore, a sustainable supply chain is better equipped to withstand external shocks, ensuring continuity and business resilience.

Triple Bottom Line Theory

The triple bottom line theory, coined by John Elkington (1998), suggests that organizations should not only focus on financial profitability but also consider the social and environmental consequences of their actions. This theory emphasizes the need to achieve a balance between profit, people, and the planet. By incorporating these three dimensions, organizations can make informed decisions that promote sustainability and create long-term value.

The triple bottom line theory is fundamental concept within sustainable supplier selection. Also referred to as the three-pillar approach. Organizations using this theory in supplier selection strive to balance these three pillars in their decision-making process. Through assessing suppliers' performance in terms of social responsibility, environmental impact, and economic viability, companies can make more sustainable choices. The theory advocates for evaluating a supplier's commitment to fair labor practices, health and safety standards, and environmental stewardship. By prioritizing socially and environmentally responsible suppliers, organizations can align their procurement practices with sustainable goals (Johnson, (2019).

According to Smith & Martin, (2020),the implementation of the triple bottom line theory in supplier selection enhances transparency and accountability among suppliers, as it necessitates their adherence to ethical practices and sustainable processes. This heightened transparency ensures that suppliers are held responsible for their actions, resulting in a more conscientious supply chain. Moreover, organizations gain a competitive advantage by choosing suppliers who align with the principles of the triple bottom line. Such suppliers are increasingly appealing to consumers due to their commitment to social and environmental responsibility, thereby boosting a company's reputation and fostering customer loyalty and market share. Additionally, integrating the concept of the triple bottom line into supplier selection enables organizations to proactively minimize risks. By assessing suppliers' sustainability performance, organizations can identify potential risks associated with environmental compliance, labor issues, or disruptions in the supply chain. This proactive approach equips organizations to effectively manage uncertainties and mitigate adverse impacts.

Life Cycle Assessment Theory

The life cycle assessment theory(LCA) plays a significant role in sustainable supplier selection as it emphasizes the importance of evaluating the full life cycle impact of products. This theory considers all stages of a product's life, from raw material extraction to disposal. By assessing suppliers based on their life cycle impact, organizations gain a comprehensive understanding of the sustainability performance of their suppliers. This theory aids in discouraging environmentally damaging practices and encouraging suppliers to adopt more sustainable alternatives.

Life Cycle Assessment (LCA) theory involves the systematic evaluation of products or services considering their entire life cycle. It encompasses three main stages: the inventory analysis, impact assessment, and interpretation. Through LCA, organizations can identify the environmental impact at each stage of a product's life cycle, allowing for informed decision-making based on sustainability criteria. Organizations incorporate LCA theory into the supplier selection process to ensure that they choose suppliers with the lowest environmental impact across the product's life cycle. By analyzing raw material extraction, production processes, transportation, usage, and disposal, LCA provides objective data that supports sustainable supplier selection. By utilizing this theory, companies can evaluate suppliers based on their environmental impact, helping to identify those who are engaging in environmentally conscious practices.

Empirical Literature Review

Zhu, Liu, Li, Yang, and Miao (2022) conducted an empirical study on Sustainable Supplier Selection and Evaluation (SSSE) for Effective Supply Chain Management. The objective of this research was to explore methodologies and techniques that can be employed to choose and assess suppliers in a manner that promotes sustainability within the supply chain. The authors emphasized the growing significance of sustainability considerations for organizations in today's business landscape. To accomplish their objectives, the researchers gathered primary data from a sample of companies across different industries. They employed a structured questionnaire to collect information pertaining to supplier selection and evaluation criteria, with a specific focus on factors related to sustainability. The major findings of this study included the identification of specific evaluation criteria for the selection of sustainable suppliers, such as considering suppliers' environmental certifications, waste management practices, and adherence to regulatory standards. The researchers also highlighted the importance of assessing suppliers' dedication to social responsibility, including their policies on human rights, labor conditions, and community engagement.

Ouko and Juma (2020) conducted a study to examined the impact of supplier evaluation on the performance of the procurement function in private health institutions located in Kisumu County, Kenya. The study used a cross-sectional survey with a population consisting of 75 procurement personnel from 25 private health institutions. The findings demonstrated that the supplier quality commitment, supplier financial stability, and supplier competence, had a significant impact on the performance of the procurement function within private health institutions. It was concluded that supplier quality commitment is an essential requirement for enhancing the effectiveness of the procurement function. Additionally, supplier financial stability helps to optimize procurement performance by reducing costs related to the re-advertisement of tenders. Furthermore, supplier competence was found to have a positive influence on procurement performance. The study recommended prioritization of supplier quality commitment in order to ensure the procured goods and services meet the required standards and customer needs.

Johnson and Peacock, (2018) conducted a study focusing on the relationship between sustainable supplier selection criteria and firm performance. The research analyzed the importance of sustainable supplier selection in achieving enhanced business outcomes.

To investigate the relationship, the authors used a quantitative research approach. They collected data through a comprehensive survey that was distributed to a sample of organizations across diverse industries. The survey included questions related to sustainable supplier selection criteria and the subsequent impact on firm performance. Responses were collected and analyzed using statistical measures. The study revealed a positive correlation between sustainable supplier selection criteria and firm performance meaning that organizations that prioritize sustainable supplier selection experience several benefits, including improved operating efficiency, reduced costs, enhanced reputation, and increased customer loyalty.

Sabiti and Mulyungi (2018) conducted a study to investigate the impact of supplier selection on the procurement performance of manufacturing firms in Rwanda, specifically focusing on the case of Bralirwa. The study utilized a Descriptive Research Design and targeted a population of 550 individuals, including shareholders, contractors, suppliers, and employees of Bralirwa Ltd. The sample size chosen for the study was 55, which represented 10% of the target population. The findings of the study revealed that supplier selection contributed to a significant increase of 76.4% in procurement performance. Consequently, the study concluded that supplier selection played a crucial role in enhancing the efficiency of procuring goods and services, improving the overall supply chain competency within Bralirwa Ltd departments, optimizing resource utilization, and ultimately enhancing market position and profitability for the company.

Changalima, Ismail, and Mchopa (2023) conducted a study that aimed to investigate the impact of supplier selection and supplier monitoring on the efficiency of public procurement in Tanzania. The researchers employed a structured questionnaire to collect survey data from 179 public entities involved in procurement activities in Tanzania. The collected data was then analyzed using structural equation modeling (SEM). The findings of the study indicated that both supplier selection and supplier monitoring have a positive and significant influence on the efficiency of public procurement in terms of reducing costs. Consequently, this study offers valuable insights to procurement professionals on the importance of choosing appropriate suppliers and implementing supplier monitoring practices to enhance procurement efficiency and achieve cost reduction objectives.

Salam and Ali (2020) conducted a study investigating the correlation between sustainable supplier selection (SSS) and the financial performance of buyers in an emerging economy. They aimed to understand the factors that drive SSS and explore its impact on a buyer's financial performance. Data was collected from 235 professionals in supply chain and procurement in Thailand. The study utilized partial least squares based structural equation modeling (PLS-SEM) and the PROCESS tool to test the structural relationship. The findings indicated that firms that prioritize sustainability during supplier selection achieve better financial results compared to their competitors. The analysis identified six potential paths that explain SSS, with suppliers' focus on human rights and safety being the most influential determinants. Additionally, the study found significant evidence supporting the relationship between SSS and buyers' financial performance. Lastly, it revealed that resource investment has a significant moderating effect on sustainability efforts.

In their study, Hussain & Al-Aomar (2018) developed a model to evaluate the influence of sustainable supplier selection on the performance of service supply chains. The assessment of supplier sustainability was based on five main criteria, which were derived from previous literature and validated by industry experts. These criteria include Environment Management, Social Responsibility, Green Products, Technology Standards, and Health and Safety Management. Each criterion was further characterized by three sub-criteria. In order to validate the model, empirical data was collected from a large sample of supply chain experts working in major service firms in the United Arab Emirates (UAE). Structural Equation Modeling was employed to analyze the collected data and draw conclusions. The results of the study demonstrated a valid structure of the proposed model, based on the selected criteria as latent variables, and confirmed their positive influence on the performance of service supply chains. This confirmed the suitability of the model for assessing supplier sustainability in service supply chains. However, the criteria related to Environmental Management and Technology Standards were found to have a higher impact on performance, while the competitiveness aspects of performance were deemed more important compared to economic factors.

Nsikan, Affiah, Briggs, and Koko (2022) conducted a research study focusing on Sustainable supplier selection factors and supply chain performance within the Nigerian healthcare industry. The objective of the study was to examine the key sustainability factors that were mostly taken into consideration by supply chain managers in Nigeria's healthcare sector during the supplier selection process.The study employed a quantitative survey approach to collect and analyze primary data from a considerable sample size of 116 logistics and supply chain executives working in 58 healthcare organizations across Nigeria.Results from the study indicated that economic sustainability emerged as the most significant factor influencing the selection of healthcare suppliers in the context of this research. Furthermore, the selection of economically sustainable suppliers was found to have a strong positive correlation with the overall supply chain performance. On the other hand, the selection of suppliers based on social sustainability factors exhibited a moderate correlation with performance.

Laulita (2021) conducted a study with the objective of examining the impact of implementing sustainable supplier selection on supplier performance in the mining industry in Indonesia, while also considering the moderating effect of ethical culture. The study employed hypothesis testing and gathered data from 104 participants. The data analysis was conducted using the Structural Equation Model. The findings revealed that the dimensions of sustainable supplier selection, encompassing economic, social, and environmental aspects, have a direct and significant influence on supplier performance in the mining industry. Additionally, the research highlighted the significant moderating effect of ethical culture on the relationship between sustainable supplier selection and supplier performance.

Govindan *et al* (2023) conducted an analysis at a home appliances company in India to evaluate and select suppliers. The study presented a theoretical framework based on the practice-based view approach to examine key performance indicators (KPIs) for establishing sustainable collaboration. Additionally, the researchers proposed a novel three-phase model for supplier evaluation and selection, which assessed current suppliers based on KPIs to demonstrate the applicability of the theoretical framework. The model

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utilized the best-worst method (BWM) to determine the weights of KPIs and employed the TODIM approach for supplier evaluation., a supplier classification grid was developed to analyze the impact of different selection strategies. The BWM analysis revealed that "quality" emerged as a strong KPI in terms of suppliers' potential, while "information disclosure" gained importance when considering suppliers' desirability for strengthening sustainable relationships. The TODIM grid analysis indicated that suppliers performing well in both metrics should be retained as the best suppliers, while those performing poorly in both areas should be switched.

Summary of Literature and Research Gaps

A considerable gap in knowledge and research exists regarding sustainable supplier evaluation in Kenyan public universities. Despite the country's dedication to sustainable development and growing emphasis on responsible sourcing, there is a lack of studies examining the vital connection between sustainable supplier evaluation and overall sustainable practices. An analysis of existing literature reveals the scarcity of research in this crucial area, highlighting a significant knowledge gap that needs attention. The only comparable study conducted in Kenya, Ouko and Juma's (2020) research on the impact of supplier evaluation on procurement function performance in private health institutions in Kisumu County, discovered that supplier quality commitment, financial stability, and competence significantly influenced procurement performance. However, other studies reviewed from various parts of the world, such as the works of Johnson and Peacock (2018), Nsikan, Affiah, Briggs, and Koko (2022), Laulita (2021), and Hussain & Al-Aomar (2018), also found that sustainable supplier selection is a predictor of procurement performance. However, these studies were carried out in various private sectors. Nonetheless, within the Kenyan context, public universities have been grappling with unpaid bills, putting them at loggerheads with their suppliers and threatening their normal operations yet there is alarming scarcity of studies exploring this fundamental aspect of sustainability in supplier selection.

Research Methodology

Research Design

The study used cross sectional research design. According to Creswell & Creswell (2017), Cross-sectional research design is widely employed to gather data at one specific point in time. This research design is relevant to this study because it aims to provide a snapshot or a cross-section of a population or a sample, enabling researchers to analyze various factors and explore associations between variables meaning that it helps to identify relationships between variables within a particular population or sample. Smith, (2015) however argues that this research design does not capture changes or developments over time but it’s relatively efficient and cost-effective, and is limited in its ability to establish temporal causality.

Area of Study

The research was carried out in ten public universities in Central Kenya, the Coast region, the Rift Valley region, and the Nyanza region of Kenya, all of which are chartered and ISO 9001 certified. These universities have well-established and efficient quality management systems that govern the operations of all departments within their respective university communities. The opinions of participants from these selected public universities were deemed representative of the entire public university community, as they all adhere to similar procurement procedures and are guided by the Public Procurement and Disposal Regulations of Kenya, 2020.

Data Collection Method

Prior to the distribution of the data collection instrument, the respondents were initially identified selectively and informed about the intent of the survey though telephone communication. To carry out the survey, a structured questionnaire in Microsoft Forms was distributed electronically for the respondents to complete. The collected data was then analyzed to produce the final results of the study. According to González-Ramírez, *et al.* (2019), Microsoft Forms was chosen as the tool for this study because it allows researchers to create and customize surveys in various formats, including multiple choice questions, rating scales, and open-ended responses. Additionally, it facilitated the distribution of the questionnaire through email or a link, enabling a broad audience to be reached within a limited timeframe. The utilization of Microsoft Forms was also preferred for data collection due to its capability to promptly capture and analyze data in real-time.

Data Analysis

The data was analyzed using a combination of descriptive and inferential statistics. Descriptive analysis involved the use of frequencies and percentages. Additionally, measures of central tendency such as mean and mode were utilized whenever relevant.

Table 1. displays the results indicating the extent to which public universities have implemented sustainable supplier selection, as identified in the study. It is evident that most universities have adopted these practices, except for one criterion: considering supplier social responsibility. This criterion received a below-average mean score of 2.4250.

The survey also revealed that public universities place significant importance on the supplier's understanding of the green policy, their clear strategic goals regarding green programs, and their awareness of the environmental consequences linked to their products. These criteria received high mean scores of 3.75, 3.60, and 3.52, respectively. These findings demonstrate that the surveyed institutions have embraced the evaluation criteria established in the study, although there are variations among the different universities.

However, it is worth noting that the procurement departments of these universities do not prioritize suppliers' ISO certification, particularly in relation to environmental management efforts. This oversight may compromise the quality of the goods and services provided by the suppliers. Additionally, the survey found that there is also a lack of emphasis on supplier firm senior management support for green initiatives, with a mean score of 2.95. This may contribute to delayed payments to suppliers, as dissatisfied customers are likely to arise from this inadequate support.

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Table 1. Extent of SSS Criteria by Public Universities in Kenya

Supplier selection strategies		very high	high	average	low	very low	Mean
Supplier understanding of green policy	Count	11	16	8	2	3	3.7500
	N %	27.5%	40.0%	20.0%	5.0%	7.5%	
Supplier awareness of environmental consequences associated with their products	Count	11	15	2	8	4	3.5250
	N %	27.5%	37.5%	5.0%	20.0%	10.0%	
Supplier firm senior management support for green initiatives	Count	7	8	7	12	6	2.9500
	N %	17.5%	20.0%	17.5%	30.0%	15.0%	
Supplier clear strategic goals on green program	Count	14	11	6	3	6	3.6000
	N %	35.0%	27.5%	15.0%	7.5%	15.0%	
Supplier internal environmental coordination	Count	9	9	8	6	8	3.1250
	N %	22.5%	22.5%	20.0%	15.0%	20.0%	
Supplier social responsibility	Count	5	4	8	9	14	2.4250
	N %	12.5%	10.0%	20.0%	22.5%	35.0%	
Supplier's ability to provide innovative, sustainable solutions or products	Count	9	7	8	12	4	3.1250
	N %	22.5%	17.5%	20.0%	30.0%	10.0%	
Supplier's ISO certification	Count	6	9	10	7	8	2.9500
	N %	15.0%	22.5%	25.0%	17.5%	20.0%	

Table 2. indicate that all criteria used to select and evaluate suppliers in public universities had positive and significant coefficients. The constant term was also positive, suggesting that an increase in any of the criteria used for supplier selection would result in an improvement in the procurement performance of the universities. The unstandardized beta (β) coefficients demonstrate the change in the dependent variable when the independent variable increases by one unit, while holding all other variables constant. In this case, a one-unit increase in the supplier's understanding of green policy would lead to a 0.341 increase in the universities' procurement performance. This relationship applies to all other criteria used for selecting sustainable suppliers.

These findings align with the research conducted by Ouko and Juma (2020), who investigated the impact of supplier evaluation on the performance of the procurement function in private health institutions in Kisumu County. They discovered that factors such as supplier quality commitment, supplier financial stability, and supplier competence significantly influenced the performance of the procurement function in private health institutions.

Similarly, Johnson and Peacock (2018) examined the relationship between sustainable supplier selection criteria and firm performance. Their study revealed a positive

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correlation, indicating that organizations that prioritize sustainable supplier selection experience several benefits in terms of their overall performance.Sabiti and Mulyungi (2018), Changalima, Ismail, and Mchopa (2023), and Salam and Ali (2020) also obtained similar results in their respective studies. However, Salam and Ali's study differed slightly from the present study as they focused on the correlation between sustainable supplier selection and the financial performance of buyers in an emerging economy. Nonetheless, their findings supported the idea that firms prioritizing sustainability during supplier selection achieve better financial results compared to their competitors.

On the other hand, Laulita (2021) conducted a study specifically in the mining industry and found that the dimensions of sustainable supplier selection, encompassing economic, social, and environmental aspects, directly and significantly influenced supplier performance. This suggests that sustainable supplier selection not only positively affects buyers but also positively impacts suppliers.

Table 2. Effect of Sustainable Supplier Selection Criteria on Procurement Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.052	1.140		1.800	.082
	Supplier understanding of green policy	.341	.155	.336	2.195	.000
	Supplier awareness of environmental consequences associated with their products	.052	.141	.059	.371	.001
	Supplier firm senior management support for green initiatives	.136	.156	.144	.875	.000
	Supplier clear strategic goals on green program	.376	.194	.353	1.937	.002
	Supplier internal environmental coordination	.231	.154	.239	1.502	.000
	Supplier social responsibility	.210	.133	.232	1.581	.000
	Supplier's ability to provide innovative, sustainable solutions or products	.427	.155	.433	2.759	.000
	Supplier's ISO certification	.306	.141	.321	2.161	.000

Table 3. displays the R-square value, also referred to as the coefficient of determination, which signifies the proportion of the variance in the dependent variable that can be explained by the independent variables in this regression model. The calculated R-square for this model is 0.472. This indicates that sustainable supplier selection contributes to only 47.2% of the procurement performance of public universities in Kenya. On the other hand, the adjusted R-square, which serves the purpose of penalizing the inclusion of unnecessary variables in the model and avoiding overfitting,

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has a value of 0.336. The difference between these two values, also known as the shrinkage, amounts to (0.472-0.336) = 0.136. As stated by Field (2018), a shrinkage in a regression model should fall within the range of 5% to 10%, indicating a good fit for the model. According to Greene (2012), the Durbin Watson statistic for the regression model was 1.435, which is in proximity to 2. This value suggests the absence of autocorrelation in the regression analysis.

Table 3. Model summary

Model	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	
1	.687[a]	.472	.336	1.07298	.472	3.465	8	٣١	.006	1.435

a. Predictors: (Constant), Supplier's ISO certification, Supplier firm senior management support for green initiatives, Supplier social responsibility, Supplier understanding of green policy, Supplier's ability to provide innovative, sustainable solutions or products, Supplier internal environmental coordination, Supplier awareness of environmental consequences associated with their products, Supplier clear strategic goals on green program

b. Dependent Variable: Procurement performance

Summary of the Findings and Conclusion

In conclusion, it has been determined that public universities in Kenya acknowledge the significance of sustainable supplier selection as a procurement practice and have taken measures to include corresponding criteria in their procurement policy guidelines. Nevertheless, these criteria differ among various public universities, with supplier social responsibility being least prioritized when selecting sustainable suppliers. The investigation additionally confirmed that the inclusion of sustainability practices in the supplier selection process greatly enhances the procurement performance of public universities. These enhancements manifest in various ways, including cost reduction, procurement of environmentally friendly products, shorter lead times, waste reduction, and improved control of stores.

Study's Recommendations

Public universities in Kenya play a crucial role in shaping the future of the nation by imparting knowledge and skills to the next generation of professionals. As centers of excellence, these institutions have a responsibility to uphold sustainable practices in all aspects of their operations. It is therefore on this backdrop that the study puts forward the following recommendations:

The study recommends the development of robust approaches to evaluating supplier environmental and social performance that could significantly heighten business sustainability levels. Those in decision-making roles would benefit from further study into efficient strategies for balancing cost-rise and sustainable supplier selection. Future research might also consider the transformational influence of technological advancements on the sustainability of supplier selection processes.

The universities should prioritize suppliers that demonstrate a commitment to ethical practices. This means that they should seek suppliers who adhere to fair trade policies, thus promoting social justice. Suppliers who provide fair and equitable working conditions, uphold human rights, and pay their employees a fair wage should be given preference.

Public universities should prioritize suppliers that have implemented environmentally friendly practices. This includes selecting suppliers who are keen on sustainable sourcing, waste management, and reduce their carbon footprint. By engaging with environmentally conscious suppliers, the universities contribute to the larger goal of environmental preservation and encourage a culture of sustainability within the academic community.

Public universities should establish partnerships with suppliers who are willing to engage in a sustainable dialogue. Suppliers who actively participate in discussions and initiatives aimed at improving sustainability practices should be encouraged. This collaborative approach fosters innovation and allows universities and suppliers to work together towards shared sustainability goals.

Public universities should consider the local community impact when selecting suppliers. Engaging with local suppliers not only supports the local economy but also reduces the environmental impact by minimizing transportation and carbon emissions. When possible, universities should prioritize local suppliers who align with their sustainability goals.

Continuous monitoring and evaluation are necessary to ensure the sustainability of supplier relationships. The universities should regularly assess suppliers' performance against agreed-upon sustainability criteria. This can be done through periodic audits or engagement with external organizations that specialize in sustainability assessments. This allows public universities to identify areas for improvement and make necessary adjustments to maintain sustainable supplier relationships.

Contributions of the Study to Policy and Academia

Policy Implications:

The findings of this research can have notable policy implications. Governments and regulatory bodies can use the findings of this study to develop guidelines and regulations that encourage businesses to adopt sustainable procurement practices. This research contributes to the wider social and environmental sustainability agenda by promoting responsible sourcing, reducing carbon footprints, and supporting initiatives for waste reduction and ethical labor practices. Policymakers are now equipped with evidence-based recommendations for implementing sustainable supplier selection processes, enabling them to design effective policies.

Academic Contributions:

The study on sustainable supplier selection yields invaluable contributions to both policy formation and academic pursuits. Additionally, it constitutes a model utility for fostering sustainable procurement practices within the confines of public universities. The produced insights not only enrich the theoretical body, but also provide practical orientations for the promotion of sustainability in procurement processes. Researchers can develop new conceptual frameworks that help assess supplier sustainability beyond traditional economic considerations. These frameworks integrate environmental and social dimensions, allowing for a comprehensive evaluation of suppliers' overall sustainability performance.

Moreover, the findings of this study will enrich the existing body of academic literature in multiple disciplines. It can contribute to operations management, supply chain management, environmental management, and sustainable business practices. By investigating various aspects of sustainable supplier selection, researchers will generate empirical evidence and theoretical insights that can substantially contribute to the academic community's understanding of the topic.

Limitations of the Study

A number of shortcomings in this study were identified during the research process. First, the use of selective sampling may have omitted participants whose viewpoints would have considerably benefited in the formulation of theories and the testing of hypotheses. However, prior to the analysis, the gathered data underwent thorough examination and cleansing, including the consideration of non-responses and outlier responses, with the aim of enhancing the precision and validity of the findings.

Since the study used cross-sectional research design that relies on a single snapshot of data, it fails to capture changes or developments over time. Sustainable supplier selection is an ongoing process, subject to evolving practices, regulations, and market conditions. Without considering temporal effects, the study may miss important trends or fail to provide a comprehensive understanding of the supplier selection dynamics.

Finally, cross-sectional research that was used in this study is often limited in terms of its ability to generalize findings to a broader population. In this case, the study focused solely on public universities in Kenya, making it difficult to extend the findings to other higher education institutions or industries.

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Original Research

The Effect of Internal Audit and Audit Committee Formation History on the Company's Performance: Moderating Role of Firm Age

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Abstract

Conflict of interests between shareholders and managers and other problems have led to the creation of corporate governance mechanisms. But, firms' performances and the effect of corporate governance mechanisms on firm performance are still of interest to researchers. The objective of this study is to investigate the effect of internal audit formation history and audit committee formation history on the company's performance and also to investigate the moderating effect of firm age on these relationships. The population in this research includes all the companies listed on the Tehran Stock Exchange during 2018 to 2022, and the sample includes 120 companies. Research data were analyzed through multivariate regression model and by Stata software. The results show that the internal audit formation history has a positive and significant effect on the company's performance and also the audit committee formation history has a positive and significant effect on company's performance. The results also show that firm age is a positive and significant effect on company's performance. Moreover, the results show that firm age has no significant effect on the relationship between the internal audit formation history and the company's performance, but firm age has a positive effect on the relationship between the audit committee formation history and the company's performance.

Keywords: Audit Committee, Company's Performance, Firm Age, Formation History, Internal Audit.

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Introduction

Increasing the wealth of the company's shareholders in the long term is the most important goal of the company, which will be the only result of the company's optimal performance. In general, the importance of evaluating the financial performance of companies makes the way of financial reporting important, because the users of financial information demand complete and correct information about the performance of companies. In order to increase their wealth, the shareholders seek to improve the performance of company, and for this reason, evaluating the company performance is very important (AbuZraiq and Hanim, 2018). After the emergence of agency problems, companies seek to provide clear information and align the interests of company owners and managers. Therefore, companies use various mechanisms such as creating a theoretical framework and compiling accounting standards, the structure of internal controls, internal audit, audit committee, and the presence of independent managers in the board of directors. However, there are still problems in the performance of companies. Corporate governance can lead to the improvement of the company's performance. In fact, corporate governance creates a structure by which the objectives of the business unit can be adjusted and the achievement of the company's goals and the monitoring of the company's performance are facilitated. These mechanisms create the necessary motivation to realize the company's goals in management and provide effective supervision and as a result, companies use resources more effectively (Farooque et al. 2020). Van den Berghe believes that the company's performance is the result of many interconnected criteria and factors, among which the corporate governance mechanisms are an important and influential factor on the company's performance (Zhou et al. 2018). According to the studies, if the companies seek to strengthen the corporate governance mechanisms, this will lead to improved performance and even an increase in the value of the company. Optimal corporate governance mechanisms will create sustainable economic development, because it is expected that corporate governance mechanisms can improve the performance of companies and increase attention to financial performance, and thus cause the growth and development of investments and increase productivity and economic growth. Therefore, companies that use corporate governance mechanisms in a more efficient and effective way are expected to have better financial performance (Al-matari, 2022). The internal audit function as well as the audit committee are among the most important regulatory mechanisms and important part of corporate governance. Internal audit as the internal advisor of managers and also the audit committee as a supervisory mechanism on the internal control system are factors in optimizing the internal processes of companies and are effective in assessing the company's risk. Therefore, the performance of internal audit and the audit committee can be one of the most important tools to improve the performance of companies. Monitoring the company's performance is one of the important tasks of the company's management, for which the help of units such as the internal audit and the audit committee can reflect a clear picture of the organization's operations (Davidson et al. 2004). If these units perform their duties with sufficient accuracy and effective supervision, they will promote corporate governance and improve the performance and value of the company.

At the same time as the growth and age of a company, many of its features and characteristics have changed and these factors will affect the behavioral aspects of the company. With regard to corporate governance mechanisms, there are many studies that

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claim that companies with a longer history and a longer lifespan apply corporate governance mechanisms more effectively (Dina et al. 2017). According to the substitution theory, firm age is considered as a factor of market power, and the longer-lived firms evaluate and control the firm's operations more effectively by incurring less debt. Therefore, as companies grow and their lives and reputations increase, they usually become more profitable and diversify their operations. Firms with more growth opportunities will have greater relative cost advantages in external growth funding (Chijoke-mgbame et al. 2020). Therefore, firm age is expected to affect the financial performance of the companies. Also, the results of previous researches show that various corporate governance mechanisms are more effective in the case of companies with a longer history and a longer lifespan. For example, Johnson et al. (2016) state that the benefits of acquiring power as well as performance change with the age of the firm. They emphasize that the impact of control and monitoring mechanisms on the performance of companies can undergo evolution and change with the growth of the company and the increase of the life of the companies.

Past researches have investigated the effect of various factors on the performance of the company. Many studies consider the weak performance of companies as a result of weak corporate governance and regulatory mechanisms in the company. Corporate governance mechanisms represent the set of relationships between managers, shareholders, auditors and other people inside and outside the organization, which causes the establishment of a control system to respect the rights of shareholders and owners and prevent fraud. The review of previous researches showed that factors such as the size of the board of directors, independence of the board of directors, institutional ownership, managerial ownership and in fact most of the ownership and management characteristics have been investigated. However, the impact of internal audit formation history and audit committee formation history as advisors to managers and important supervisory factors on financial reporting in the field of companies' performance has not been given enough attention, or little research has been done regarding their necessity.

Based on above arguments, the objective of this study is to investigate the effect of internal audit formation history and audit committee formation history on the company's performance and also to investigate the moderating effect of firm age on these relationships. Therefore, this research seeks to answer these questions: Is there a significant relationship between internal audit formation history and the audit committee formation history with the company's performance? Does the firm age affect these relationships? In next sections, the relevant literature and conceptual framework to develop research hypotheses are discussed. Then, the research methodology including population, sample selection and research models are explained. The research results are analyzed in next section and finally the conclusions of study and suggestions for future researches are discussed in final section.

Theoretical Framework

The concept of financial performance is defined by efficiency and effectiveness, because effectiveness indicates the extent to which goals are achieved, and efficiency refers to how the resources are used economically to achieve goals, and they can be considered as two important dimensions of financial performance. Companies should use internal and external indicators to achieve better financial performance (Paolone et al. 2022). Corporate governance mechanisms are some controlling factors which might have effect on firm performance. Among the corporate governance mechanisms, the audit committee has a special and effective position in the company and has the task of monitoring the activities and affairs of the organization, which has caused it to be emphasized and investigated among researchers and experts. Due to the broad responsibilities, especially in large companies with more reputation and longevity, it is important to closely and directly monitor all aspects. In fact, by forming sub-committees such as the audit committee, the board of directors tries to manage effectively and improve the performance of the company (Zhou et al, 2018). The audit committee is one of the important supervisory mechanisms to improve the quality of the company's internal control system, which leads to the reduction of agency costs and the improvement of the company's performance. Many previous studies have investigated the role and impact of the audit committee in improving the quality of reporting, economic performance and dimensions of independent auditing. Their results indicate the positive impact of the audit committee on improving the quality of financial reporting and improving economic performance (Rezazadeh et al., 2016).

Tangsiri et al. (2018) investigated the impact of audit committee characteristics on the performance of companies listed on Tehran Stock Exchange. In this research, characteristics such as accounting expertise, independence and the size of the audit committee were examined. The data of 90 companies during 2011 to 2013 were collected. The results of research showed that the accounting expertise of the audit committee members and the size of the audit committee did not affect the performance, but the independence of the audit committee members had a positive effect on the company's performance. Abu Zaraq and Hanim (2018) also examined the relationship between the audit committee and the performance of Jordanian companies. Their sample included 228 industrial and service companies and concluded that the relationship between audit committee size and company performance is positive, while the relationship between audit committee size and earnings per share is also positive. Also, the results showed that the number of audit committee meetings is positively affect company's performance. The age of the company is one of the determining factors of the capital structure, reputation and performance of the company. According to the hierarchical theory, the longer life of the company will increase its capacity to improve internal resources and will reduce its need for external financing. On the other hand, start-up companies, in order to preserve their internal resources, consider themselves obliged to use external financing in the first years of their life. This relationship has been confirmed in the researches of Jordan et al. (1998), Hall et al. (2004) and Barid and Laki (2010). Majumdar (2014) concluded that the age of the company has an effect on the performance level of the company in such a way that companies with shorter life have more profitability. The results of Sarsarshahi and Oladi's (2016) indicate that there is a relationship between the age of the company and the research and development costs and the financial performance of the insurance and banking companies listed on Tehran Stock Exchange. On the other hand, corporate governance mechanisms such as the audit committee are very effective for the continuation of activity and success and growth of companies and cause the survival of companies in today's competitive world. Therefore, it is expected that older companies have a stronger regulatory and governance structure due to greater reputation, which leads to improved performance in such organizations.

Internal audit is a subset of the audit committee, whose members are non-commissioned or independent managers and have no executive responsibility. This committee is organized in order to increase the interests of shareholders and with the aim of reducing information asymmetry between managers and shareholders (Azad and Bakhtiari, 2019). Internal audit plays a significant role in the organization's value-adding ability in the design, establishment and monitoring of the implementation of internal controls, prevention of errors and frauds, and providing necessary advice to the management through the audit committee. If the independent auditor evaluates the control risk at a low level during the planning and gaining knowledge of the accounting and internal control systems, through a favorable evaluation of the internal audit unit's performance, it means that he can gain reasonable confidence in the operation and monitoring of the organization's internal controls (Babajani and Tahriri, 2012). Another indicator that determines the performance of a company is firm age. This criterion is directly related to the size of the company. That is, the greater the age or the number of years that have passed since the establishment of the company, it indicates that the company is bigger. It can be expected that companies with a longer lifespan have stronger governance mechanisms, and as a result, the internal audit unit will be older and more efficient and effective, and the company's performance will improve (Arslan et al., 2006). Abbasian (2018) examined the impact of the audit committee and internal audit performance on the earning management of companies listed on the Tehran Stock Exchange. The research samples included 99 companies and the research period was from 2008 to 2017. The results of the research showed that the presence of an audit committee has a negative relationship with earning management, and the presence of an internal auditor in the implementation of internal audits has a negative relationship with earning management. Also, the results showed that the meetings between the audit committee and the internal auditor have no negative relationship with earning management. Azadi et al. (2018) examined the relationship between the characteristics of the board of directors, the audit committee and the formation of the audit committee with the performance of companies. The statistical population of this research was all the companies listed on Tehran Stock Exchange in the period from 2013 to 2017. The results of this research showed that there is a positive and significant relationship between the formation of the audit committee and the complexity of the company's operations with the company's performance. However, there is no significant relationship between the size of the board of directors and the performance of the company, and the size of the audit committee and its formation do not moderate the relationship between the size of the board of directors and the performance of the company.

Chejuk-Magbam et al. (2020) investigated the impact of the presence and number of female directors on the board of directors and the audit committee on company performance among African companies. The samples included 77 companies and the research period was from 2008 to 2016. The results of this research showed that the presence of expert women on the board of directors has a positive and significant effect on the financial performance of companies, and the results also showed that the number of women on the board of directors has a positive effect on performance, so that the more women on the board of directors, the better the performance of the companies. Al-Mataari (2022) investigated the impact of corporate governance characteristics such as the expertise and tenure of the head of the audit committee on the company's performance. The research samples included 195 companies listed on Saudi Stock Exchange in the period from 2015 to 2019. The results of this research showed that the characteristics of corporate governance, such as the tenure and expertise of the head of the audit committee, have a positive and significant effect on the financial performance of companies. But the multiple management of the head of the audit committee has no relationship with the company's financial performance. Paolone et al. (2022) analyzed the effect of board of directors' tenure and audit committee tenure on environmental performance. The sample was European Union listed companies and research period was from 2018 to 2020. They found that longer board tenure and longer audit committee tenure enhance environmental performance, showing that firms could view the tenure rate as a proxy of the quality of the board monitoring. On the contrary, the interaction between board tenure and audit committee tenure is negatively related to environmental performance, showing that when two boards have a low rotation, companies may achieve lower environmental performance. These findings help understand the dynamic and complex nature of tenure in corporate governance mechanisms.

Firm age is another factor which has effect on firm reputation, capital structure and also firm performance. This factor is directly associated with firm size. Based on hierarchical theory, longer firm life will increase firm's capacity to upgrade domestic resources and reduce the need for external financing. Older firms usually may have better performance due to more experience that they have in managing the firm's affairs and having more knowledge about business situation (Kallunki et al., 2015). Majumdar (2014) mentioned that firm age has effect on the level of firm performance and older firms are more profitable. Also, Sarsarshahi and Oladi (2017) indicated that there is a significant relationship between firm age with research and development costs and financial performance. Moreover, corporate governance mechanisms such as internal audit and audit committee are very effective for the continuity of activity and success and growth of firms and led to survival of firms in today's competitive world. Therefore, older companies are expected to have a stronger regulatory and governance structure due to their greater reputation, which will lead to improved performance in such organizations. Based on above discussion and theoretical framework, the research hypotheses are as follows:

H_1: Internal audit formation history has a positive and significant effect on the company's performance.

H_2: Audit committee formation history has a positive and significant effect on the company's performance.

H_3: Firm age has a positive and significant effect on the relationship between internal audit formation history and company's performance.

H_4: Firm age has a positive and significant effect on the relationship between audit committee formation history and company's performance.

Methodology

This study is applied research in terms of purpose and based on research data, it is quantitative and post-event type and based on analyzes, it is a descriptive-correlation type.

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The statistical population of this research includes all the companies listed on Tehran Stock Exchange in the period from 2018 to 2022. According to the considered limitations in total, 120 companies were selected as samples and analyzed. The research model is

$$FP_{it} = \beta_0 + \beta_1 IAFH_{it} + \beta_2\ ACFH_{it} + \beta_3 FA_{it} + \beta_4 IAFH * FA_{it} + \beta_5 ACFH * FA_{it} + \beta_6 Size_{it} + \beta_7 LEV_{it} + \beta_8 Loss_{it} + \varepsilon$$

FP: firm performance (ROA): return on assets

IAFH: internal audit formation history

ACFH: audit committee formation history

FA: firm age

Size: the size of company

LEV: leverage ratio

Loss: the loss of company

The dependent variable is the performance of the company, which is measured through the two criteria of return on assets and return on equity. Return on assets, which is the ratio of net profit to total assets. Return on equity, which is the ratio of net profit to total book value of equity. Independent variables include internal audit formation history and audit committee formation history, which are measured by the age of the internal audit and age of the audit committee. In this research, the moderating variable is the firm age, which is obtained through the natural logarithm of the number of years of company's activity. Control variables include firm size, financial leverage, and company losses. The size of the company was measured through the natural logarithm of the assets and the financial leverage was measured through the division of the sum of liabilities by the sum of the assets and losses of the company was a dummy variable of zero and one in such a way that if the company had accumulated losses in the given year it takes 1 and otherwise zero.

Results

Table 1. shows the descriptive statistics of research variables.

Table 1. Descriptive Statistics of Research Variables

Variables	Mean	Median	Max	Min	SD
ROA	0/17	0/14	0/71	-0/42	0/18
IAFH	0/53	1	1	0	0/50
ACFH	0/62	1	1	0	0/49
FA	3/76	1/85	4/25	2/91	0/34
SIZE	15/01	1/64	20/77	1/37	1/72
LEV	0/56	0/55	1/28	0/04	0/23
LOSS	0/09	0	1	0	0/28

In the descriptive statistics, the mean is the main indicator which represents the balance point and the distribution center, and is a good indicator of the centrality of the data. For example, the average value for a variable ROA is 0/17, which indicates that most data is centered on this point. One of the most important dispersion parameters is the standard deviation, the value of this parameter for the return on assets is 0.18. Also, it can be said that the highest and lowest values for the variables of this research are as follows: for the return on assets variable, the highest value is 0.71 and the lowest value is -0.42. For the audit committee and internal audit variable and the company's loss, which are dummy variables, the highest value is 1 and the lowest value is 0.

For analyzing data, assumptions of multivariable regression model are examined through normality test, multicollinirity test and variance homogeneity test which confirm the assumptions of the classical model. First, for the purpose of testing the normality of the data, the Jarque-Bera test is used. According to the results of this test, the Jarque statistic with a probability of 0.00 indicates that data is normal. Also, Brosh-GadFerry test is used to detect heterogeneity of variance. The results of this test show that the variances are heterogeneous. The Brosh-GadFerry test is also used to test the multicollinirity between variables. If the probability value is more than 5%, then the assumption zero of the test for multicollinirity is rejected and, conversely, if the probability of the statistics is less than 5%, multicollinirity is not rejected. Due to the result which is greater than 5% and is 0.159, there is no multicollinirity.

For testing research model, first the data type is determined using f-limer and hausman tests. The f-limer test results show that the research data are panel data and the hausman test results showed that fixed effect is exist. The adjusted R^2 is used to test the relationship between dependent and independent variables. The results of testing hypotheses (multiple regression analyses) are presented in Table 2.

Table 2. The results of data analysis for testing research hypothesis

Variables	Coefficient	Std. Error	Z-Statistic	P-Value
C	0/1006	0/0263	1/91	0/00
Iafh	0/0596	0/0294	0/01	0/02
Acfh	0/2699	0/0235	0/57	0/01
Fa	0/0026	0/005	0/26	0/00
Fa*Iafh	-0/1083	0/007	-0/695	0/08
Fa*Acfh	0/0552	0/001	2/505	0/00
Size	0/0019	0/006	0/16	0/37
Lev	-0/2331	0/007	-17/41	0/00
Loss	-0/0779	0/003	-10/82	0/00
R^2: 0/55 Prob: 0.00				

Discussion and Conclusion

The conflict of interests between managers and owners has caused the creation of control mechanisms in companies. However, the state of performance and efficiency of companies and the factors affecting them are still of interest to researchers. In this research, the effects of internal audit formation history and audit committee formation history on the company's performance are examined. Also, the effect of firm age on the relationship between internal audit formation history and company’s performance and also the effect of firm age on the relationship between audit committee formation history and company’s performance are investigated. The statistical population of the research included all the companies listed on Tehran Stock Exchange in the period from 2018 to 2022, and the number of samples was 120 companies according to the systematic elimination method. To collect data, library and document mining methods were used, and data and information needed for the research were extracted from the Codal website. Multiple regression method and Stata software were used to analyze the data. Based on research results, internal audit formation history has a positive and significant effect on the company's performance. Internal audit as a control mechanism and complementary to the internal control structure can play an important role in preventing fraud and mistakes in financial statements, informations and reports. In fact, an experienced internal audit improves the internal control structure, helps in risk management and ensures transparency in the organization's internal and external reports and leads to an increase in the company's performance. Therefore, according to the results, the longer the history of the internal audit formation in a company, the better and more efficient the company's performance. The results of this hypothesis are consistent with the research results of Abbasian (2018), Raghib Talab et al. (2018) and are against the results of Muslih (2021).

According to the research results, the audit committee formation history has a positive effect on company’s performance. The audit committee is actually responsible for monitoring the activities of independent and internal auditors, as well as monitoring the financial reporting process. Since the audit committee oversees the financial reporting process and providing information to users, investors will have more confidence in the information provided by companies with stronger and more experienced audit committees, which will lead to improved investment status. in these companies and improve their performance. In fact, the existence of a powerful and long-standing audit committee is a strong support for the accuracy of financial reports and is one of the company's powerful governance tools, which improves the company's internal controls and financial performance and increases the company's value. The results of this hypothesis is consistent with the research results of Oradi et al. (2016), Azadi et al. (2018), Aldamen et al. (2012). Moreover, based on the results, firm age has a positive effect on the relationship between audit committee formation history and company’s performance. The life of the company means the period of time that the company has been operating since its establishment. In general, the longer the company's life, the greater the company's ability to achieve desired performance and efficiency. In fact, increasing the life of the company increases the expertise of the company in the field of business, increases the relations with the stakeholders, increases the capital of the company and increases the human power. These factors are very important for the company to achieve its business goals and improve its performance. Since company life can improve company performance, it can also strengthen the impact of audit committee on company’s performance. The longer the company's life, the older the audit committee, which is a sign of the experience and history of the audit committee, aligns with the experience of the managers and employees of the company and leads to the improvement of the company's performance. The results of this hypothesis is consistent with the results of Muslih (2021).

There are some limitations in this research such as, the time period is limited to 2018 to 2022 and it was conducted among manufacturing companies, so the generalization of the results to other time periods and companies removed from the sample should be done with caution. Information and financial statements are not adjusted for inflation and this issue can affect the results of the research. The practical suggestions are as follows: 1. it is suggested to the senior executive managers of the organizations to establish and give importance to the internal audit and employ experienced and effective people in the internal audit unit, because the experience and background working and continuing cooperation with these members will lead to the improvement of the company's performance, try to strengthen this unit and take these matters into consideration. 2. it is suggested to the managers of the companies to try to strengthen the audit committee unit. Also, investors are suggested to consider the seniority of the company's audit committee when investing. For future studies, it is suggested that in order to use the results of the research as much as possible and to help clarify the factors affecting the company's performance and efficiency, more attention should be paid to the following issues: 1. Examining the impact of individual characteristics of managers and environmental factors in the company such as organizational culture on the performance and efficiency of the company. 2. Examining the impact of audit quality as an external variable on the relationship between the internal audit formation history and the audit committee formation history with the performance and efficiency of the company.

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Original Research

Internal Marketing and Sales Force Performance of Beverage Manufacturing Firms in Nigeria

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Abstract

This study was designed to investigate the influence of internal marketing on the sales force performance of beverage manufacturing firms in Nigeria. The underpinnings of internal marketing were internal communication and internal training. The population of the study included the salespersons that were involved in the sales of beverage-manufactured drinks, both alcoholic and non-alcoholic, in Nigeria. A sample size of 152 was investigated. A structured questionnaire served as the primary instrument for data collection. The structured questionnaire was administered to every member of the population, and 144 copies of the instrument were filled out and returned in useable form. Data collected were analysed using percentage analysis, and hypotheses formulated were tested using simple linear regression analysis. Findings from the study revealed that there is a significant relationship between the internal marketing variables (i.e., internal communication and internal training) and sales force performance. Based on the empirical findings, the author concluded that internal marketing strategies influence the sales force performance of beverage manufacturing firms in Nigeria. The researchers recommended that management show more interest in communication and training to improve and enhance sales through the performance of the sales team.

Keywords: Internal communication, Internal marketing, Internal training, Methods of sales force training, Sales force performance.

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Introduction

Internal marketing is the practice of promoting an organisation's goals, procedures, culture, brands, products, and services to its own employees. This concept advocates that to have a satisfied customer, organisations must also have satisfied employees (Baran and Arabelen, 2017; Braimah, 2016). Historically, internal marketing concepts have existed for more than three decades. In the early writings of Berry, Hensel, and Burke (1976), internal marketing was presented as a strategy that designed an organisation's campaign and the marketing of such a campaign to its employees as though they were the organisation's customers. Internal marketing deals with marketing activities that focus on employee satisfaction (Udonde, Akpan, and Awah, 2022).

Internal marketing forms part of the broader organisation's objectives. Studies have shown that internal marketing is used to develop inter-functional relationships, enhance sales force creativity, improve understanding, and minimise departmental conflict (Braimah, 2016). Internal marketing calls for the implementation of a series of strategies directed at motivating, developing, and retaining the sales force and, as a result, fulfilling the expectations of customers. Intense competition and increasing customer awareness and complexity are now causing the brewing industries to adopt an internal marketing strategy to increase their external customer base, creating product awareness and enhancing market share with their customers in order to satisfy and secure customers' loyalty (Etuk, Usani, and Udoh 2021).

Internal marketing remains one of the strategies adopted by best-practice organisations to satisfy and win the loyalty of customers. Studies have found a positive relationship between internal marketing and its dimensions on employee performance (Shrestha, 2020; and Munir, Othman, Shukur, Ithnin, and Rusdi, 2015). Nonetheless, measuring internal marketing dimensions remains challenging. Despite this, some researchers suggest some dimensions. For example, Udonde *et al*. (2022) suggest motivation and promotion; Berry and Parasuraman (2004) identify training and development. Yeun, Wee, and Bang (2020) considered communication, training, and information as internal marketing dimensions, while Varey (2002) identified motivation and training. In this study, the researchers adopt the dimensions of internal marketing, summarised as internal communication and internal training, to predict sales force performance in the beverage manufacturing firms operating in Nigeria.

Statement of the Problem

Internal marketing is the process of making internal products (jobs) available to meet the needs of a key customer (the sales force) while also satisfying the organisation's overall objectives. Parasuraman *et al*. (2013) believe that customer satisfaction and attitudinal loyalty are determined by the quality of the service provided. It depends on the people providing the services if they have a propensity to provide customers with services of this calibre. This demonstrates why the human (sales force) aspect must always be prioritised. An organisation's primary goal is to increase employee performance, and in order to do so, it must adopt the appropriate internal marketing underpinnings that can have an impact on sales force performance (Udonde *et al*., 2022). Despite the increased interest in internal marketing literature, it appears that there is little study on internal marketing and its dimensions (internal communication and training) as they relate to sales force performance. To the best of the researchers' knowledge, no research has yet looked into the relationship between internal marketing's dimensions and sales force performance in the beverage manufacturing firms in Nigeria, which was overlooked in prior studies. This research looks into that missing relationship. The main objective of this research was to investigate the relationship between internal marketing and sales force performance in the selected beverage manufacturing firms operating in Nigeria. The specific objectives include:

1. To investigate the relationship between internal communication and sales force performance of the selected beverage firms in Nigeria.

2. To ascertain the link between internal training and the sales force performance of the selected manufacturing firms in Nigeria.

Hypotheses for Research

In line with the research objectives, the following research hypotheses were formulated:

H_{01}: There is no significant relationship between internal communication and the sales force performance of the selected beverage firms in Nigeria.

H_{02}: Internal training does not have any link with the sales force performance of the selected firms in Nigeria.

Review of Related Literature

Overview of Internal Marketing

The internal marketing philosophy was first introduced by Berry in 1981. This philosophy was based on the principle that organisations should treat their employees (sales force) as their clients (Anaza and Rutherford, 2012; Peltier, Nill, and Schibrowsky, 2013). Various scholars have come up with different definitions of internal marketing. According to Chandrika (2014), internal marketing is a traditional marketing approach that focuses on basic marketing mix principles, which include the sales force as the product, and uses price, place, and promotion to build the product's popularity. Internal marketing, according to Chang and Chang (2008), aims to hire, educate, and inspire internal staff members to understand and value customer satisfaction, as well as support and collaborate with the marketing department to deliver superior customer service. Kotler (2010) sees internal marketing as the job of hiring, training, and motivating a competent sales force that wants to serve customers.

Dimensions of Internal Marketing

Internal Communication

Internal marketing's main goal is to develop salespeople who are aware of client satisfaction and service quality. This can only be accomplished if the sales representatives are aware of the organisation's core values, guiding principles, vision, marketing strategies, long- and short-term objectives, market segmentation, consumer needs and expectations, etc. (Bansal, Verma, Bansal, and Mann, 2020). Effective communication, in the opinion of Etuk (2018), is a two-way process in which employees and managers both listen to one another and promote mutual relationships. Communication refers to the process of exchanging information between a sender and a receiver, where the message flows from one person to another through communication channels (Kozaric, 2015; Ebitu, 2015).

Internal Trainings

According to Anyadighibe *et al.* (2019), training is a learning process that involves the acquisition of knowledge and the sharpening of skills, concepts, rules, attitudes, and behaviours to enhance the performance of employees. Internal training can be defined as a set of events and processes aimed at developing the employees' skills and knowledge to improve their performance and achieve positive results for both the organisation and the employees. Training is important not only for ensuring that employees perform their jobs satisfactorily, but it also helps to promote a sense of belonging among employees. Organisations may use training to teach new hires what seasoned employees know. This creates an environment where interactional skills can flourish, enabling staff members to provide courteous, kind, and empathic service (Wilson, Zeithaml, Bitner, and Gremler, 2008; Narteh, 2012).

Methods of Sales Force Training

There are diverse methods of sales force training in an organisation, but for the purpose of this study, the different methods of training will be grouped into two categories: on-the-job training and off-the-job training.

On-the-job training method

On-the-job training is just learning through practise and experience. This strategy gives employees the chance to develop their skills or talents through practical work experience. The point about on-the-job training is that learning is taking place as the job is going on; the learner does not leave his job for training; rather, he learns through practise and experience on the job with the help of experienced or senior colleagues on the job. There is a learner and a supervisor, both located at a defined place of work. Though the learner is as much an employee as a supervisor, the former has to 'learn the ropes' from the latter, who is expected to be more knowledgeable and experienced. The supervisor need not be academically more qualified than the learner. What is crucial is that the supervisor has more experience born out of a longer exposure to the job than the new person or learner (Ubong, 2007).

Off-the-job training

Off-the-job training is learning that takes place off-the-job, away from the work place, or the centre may be near the work place. It takes the form of lectures, discussions, demonstrations, and role-playing. The lecture method is the most efficient way to present company policies, procedures, and selling concepts and principles. Lectures provide the new salesperson with an introduction to the company and the subject of selling. The discussion method provides salespeople with the opportunity to state their ideas and opinions on a variety of subjects related to personal selling and company policies. Demonstration involves showing rather than explaining the best way to sell a product. Sales force personnel can see how their jobs may be performed instead of merely hearing explanations. Through role-playing, sales trainers are brought closer to the real-world sales environment by having them pitch a product in an imagined setting (Ebitu, 2012).

Concept of sales force Performance

The sales force People are also known as personal sellers, salesmanship,salespersons," and sales representatives." They serve as a point of contact between the customers and the organisation. Their work is to search for purchase responses from customers, persuading them to make a buying decision (Kotler and Armstrong, 2010). The sales force consists of all the employees of an organisation whose job it is to persuade customers to buy their organisation’s product (Anyadighibe *et al.*, 2019). According to Esu (2012), sales force is an interpersonal communication during which a seller uncovers and fulfils a buyer’s wants for the mutual long-term advantage of both parties. Anyadighibe *et al*. (2019) explain that the definition of Esu points to the fact that selling is more than making a sale and getting orders; the functions are performed to enhance mutual relationships. Hence, sales force performance has the capacity to translate the organisation's inputs into outputs (products and services) at the lowest achievable cost (Elgaed, 2019).

Functions of the Sales Force

The sales force performs functions like: gathering useful information that enables the company to know what the consumers want and how to serve them excellently well; portraying a good image of the organisation to the customers; ensuring customer satisfaction by informing the marketing department about the needs and wants of the customers; and also insisting that the wishes of the consumers must be treasured by providing what they wish for. They also conduct marketing research about the behaviour of customers, such as why they accept or reject a particular product in relation to other products, which enables top management to formulate decisions and marketing strategies.

Theoretical Framework

The anchor theory for this study is the resource-based view of competitive advantage propounded by Wernerfelt (1984). The theory argues that competitiveness can be achieved by innovatively delivering superior value to customers in a way that customers consider appropriate. This theory underscores the firm as a unique collection of resources, although the theory highlights that not all of these resources possess the potential to provide the firm with a sustained competitive advantage (Nyongesa, 2014). A resource-based view is one of the substantial theories of strategic management. This theory suggests that an organisation's internal resources make up the majority of the factors that influence how it performs. The theory holds that organisational internal resources are more important than external factors in developing and retaining competitive advantage (David, 2011). This theory is significant to this study because it explains how beverage firms in Nigeria can use internal training and internal communication as resources to improve sales force performance and gain a competitive advantage.

Empirical Review and conceptual framework

Al-Khasawneh (2016) used the city of Jordan as a case study for his investigation into the impact of internal marketing on employee job satisfaction in Islamic banks. The aim of the study was to evaluate the influence of internal marketing strategies on employee satisfaction. The study discovered that each of the internal marketing dimensions—empowering employees, training programmes, incentives and rewards, and internal communication—had a significant effect on employees’ job satisfaction in the Islamic banks in Jordan.

A study entitled "The Impact of Internal Marketing on NPD" was undertaken by Alamro (2015). The goal of the article was to integrate new product development (NPD) with internal marketing dimensions (training, communication, motivation, and reward) in the Jordanian manufacturing industry. The research findings demonstrate how internal marketing dimensions help favourably boost new product development.

A research work conducted by Efe and Akyol (2019) on the effect of internal marketing on internal branding: empirical research on participation banks in Turkey The study's goal was to assess how internal marketing strategies affected internal branding strategies in Turkey’s banking industry. Their results showed that motivated employees who have received training by their organisations played a significant role in the success of their associated organisation’s branding process.

In Calabar, Cross River State, Nigeria, Anyadighibe *et al.* (2019) conducted a study on the impact of sales representative training and motivation on the sales performance of service marketing firms (First Bank Plc, Guaranty Trust Bank, and Premium Pension Limited). The study evaluated the impact of training and motivation, both financial and non-financial, on the sales performance of service marketing organisations in Calabar. Their study findings demonstrated that training and motivation for sales representatives significantly affected how well service marketing organisations performed in terms of sales.

A study on internal marketing and employee commitment in the hospitality industry was conducted by Braimah (2016). The study looked at internal communication, employee development, motivation, and the impact of information and communication technology (ICT) on employee commitment. The study's conclusion demonstrated that every aspect of internal marketing had a substantial effect on employees' commitment.

A quantitative study was conducted by Baran and Arabelen (2017) to examine how internal marketing affected the job satisfaction of ship agents. The authors’ aim was to examine how internal marketing and its underpinnings affect employees’ satisfaction. Their research conclusion showed that internal marketing (development, vision and communication, and reward system) enhances the job satisfaction of container line ship agents' office staff in Zmir.

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At the Multination Beverage Company in Iraq,Ibrahim and Yesiltas (2021) conducted a study on the effects of internal marketing on customer relationships, loyalty, and promotion while accounting for the mediating roles of training, motivation, and reward. According to the study findings, incentives and rewards had the greatest influence on the relationship between internal marketing and employee loyalty, whereas training showed a significant, distinct trend in terms of customer relationships and promotion. This shows that a well-trained employee can deliver great service to the client and connect with them more effectively to support the advancement of the organisation’s vision.

Existing studies reviewed showed that the application of internal marketing strategies can significantly enhance the performance of business organisations in Nigeria and around the world. The conceptual framework reveals how the independent variables are related to the dependent variable. In this study, sales force performance was held as a one-dimensional construct. Hence, the relationships are portrayed by the conceptual framework developed and presented in Figure 1. to support this investigation.

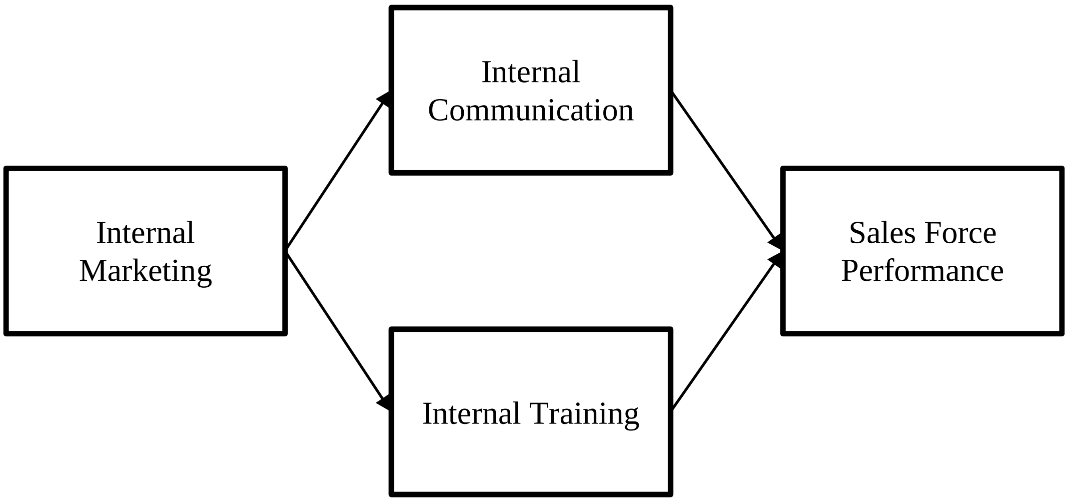

Figure 1. Conceptual framework of internal marketing and sales force performance.

Methodology

The survey research design was utilised for this investigation, and the population of the study consisted of all persons involved in the sales of beverages (alcoholic and non-alcoholic) in Nigeria. These people are sales representatives (SR), depot managers (DM), regional trade marketing managers (RTMM), district sales managers (DSM), regional business managers (RBM), and van salesmen. All together, they made a total of 152 people who were posted to work in the three (3) senatorial districts of Akwa Ibom State. The research instruments were distributed to every member of the population using the census method of statistical enumeration. The instrument was divided into two sections. The first section sought demographic information on the respondents, and the second portion gathered data on internal marketing underpinnings and sales force performance. The dependability of the instrument was examined using the Cronbach (Alpha) model. A reliability coefficient for Cronbach's alpha of 0.714 and 0.662 was obtained for internal communication and internal training. while 0.813 was obtained for sales force

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performance. The use of the instrument was thought to be justified at this level of Cronbach's coefficient. The data for the study were analysed using descriptive statistics, and the formulated hypotheses were tested using simple linear regression analysis. Each hypothesis was tested at a significance level of 5%.

Model Specification

Sales force performance is estimated to be a function of some internal marketing dimensions such as internal communication and internal training. This can be expressed mathematically as;

$Y = F(X_1, X_2)$

Recoded to represent the variables as;

Sfp = F (IC and IT)

The simple regression model that will represent the effect that exists between the independent variables (X_1, X_2,) and the dependent variable (Y) will be expressed in this form;

$H_{01:}$ $Y = a_0 + \beta_1 x_1 + e$

$H_{02:}$ $Y = a_0 + \beta_2 x_2 + e$

To represent the variables in use, the simple linear regression equations are presented as:

$H_{01:}$ $Sfp = a_0 + \beta_1 Ic + e$

$H_{02:}$ $Sfp = a_0 + \beta_2 It + e$

Where: Sfp (Y)= Sales force performance

IC (X_1) = Internal Communication

IT (X_2) = Internal Training

e = error term

The above estimated equation is a linear function which was used in testing the model separately.

Findings

Data Presentation and Analysis

Out of the total of 152 copies of the questionnaire distributed to respondents, 144 copies were accurately filled out and returned. This constitutes 95% of the total copies of the questionnaire that were found relevant for the study; 8 copies of the questionnaire

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were returned incompletely filled. Hence, they were discarded. The breakdown of respondents' feedback is shown in Table 1.:

Table 1. Demographic Data of the Respondents

Variables	No. of Respondents	Percentage (%)
Gender		
Male	110	69.9
Female	34	30.1
Total	144	100
Educational Background		
NCE/ND	78	57.2
HND/B.SC	51	35.7
MSC/NBA	15	7.1
Total	144	100
Length of Time Spent on Current Job		
1-5 years	71	52.8
6-10 years	52	24.2
Above 10 years	21	23
Total	144	100

Table 1. indicates that 110 (69.9%) of the respondents were male, while 34 (30.1%) of the respondents were female. This implies that more males are employed as sales representatives than females. For educational qualifications, 78 (57.2%) of the respondents were holders of ND or NCE, 51 (35.7%) of the respondents were holders of HND or BSC, and 15 (7.1%) of the respondents were holders of Msc or MBA. This indicated that the respondents under study were all educated and knowledgeable of the structured questions for the study. In terms of length of time spent, 71 (52.8%) of the respondents affirmed that they had spent 1–5 years, 52 (24.2%) of the respondents said they had spent between 6–10 years, and 21 (23.0%) of the respondents also said they had spent 10 years and above with their respective companies. This indicates that more respondents have stayed with the breweries in Nigeria, indicating that the respondents involved in the study are knowledgeable enough to participate in the study.

Data Presentation and Interpretations

H_{01}: There is no significant relationship between internal communication and sales force performance in the selected beverages firms.

Table 2. reveals the correlation coefficient of determination of R = 0.801, which indicates that there is 80.1% relationship between the dependent and the independent variables. The R-squared value of 0.647 implies that about 64.7% of the variation in the sales force's performance was explained by internal communication. The F-calculated value of 411.869 and P-value of 0.000 implies that the model was adequate, that is, the independent variable was able to explain the dependent variable very well. The constant value of 7.913 indicates that by keeping internal communication constant, the sales force's performance will remain at 7.913. The coefficient of internal communication was 0.223,

which means that a unit change in internal communication will lead to a 22.3-unit change in sales force performance. Since the P-value is less than 0.05, the null hypothesis was rejected. This indicates that there is a significant positive relationship between internal communication and sales force performance.

Table 2. Results of Simple Linear Regression Analysis between internal communication and sales force performance

	B_1	SE	B_2	t-value	Significant (2 tailed)
Constant	7.913	0.333	-	45.239	0.000
Internal Communication	0.223	0.018	0.815	20.393	0.000
Dependent variable: Sales force performance R= 0.801[a] R^2= 0.647 Adjusted R-square= 0.646 Std. Error estimate= 0.479 F= 411.869					
*significantly related at 5% ($p<0.05$). B_1 = unstandardized beta, B_2 = standardized beta, SE = standard error.					

H02: Internal training does not have any link with sales force performance of the selected firms.

Table 3. Results of Simple Linear Regression Analysis between internal training and sales force performance.

	B_1	SE	B_2	t-value	Significant (2 tailed)
Constant	7.520	0.757		9.928	0.000
Internal training	0.600	0.49	0.603	12.353*	0.000
Dependent variable: Sales force performance R = 0.603[a] R^2 = 0.364 Adjusted R-square = 0.361 Std. Error of estimate = 2.14263 F = 152.584 Significance = 0.000					
*significantly related at 5% ($p<0.05$). B_1= unstandardized beta, B_2= standardized beta, SE= standard error.					

$Y = a_0 + \beta_2 x_2 + e$

$Sfp = a_0 + \beta_2 It + e$

Hence, to justify the simple linear regression equation the resulting equation is;

$Sfp = 7.520 + 0.600It$

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Table 3. shows the correlation coefficient of determination of 0.603, which indicates that 60.3% of the variations in sales force performance were explained by internal training. The F-calculated (152.584) is greater than the critical F-value, which means that there is a significant regression link between the dependent variable and the independent variable. The beta coefficient of 0.600 was obtained for internal training (= 0.600, S.E. = 0.049, t = 12.353, p = 0.000 p 0.05). Since the P-value is less than 0.05, the null hypothesis is rejected. Therefore, there is a significant relationship between internal training and sales force performance.

Discussion

The study was structured on an operational framework that showed the predictor variables (internal communication and internal training) on the criterion variable (sales force performance) with two hypotheses stated and tested. The results from the first hypothesis indicated that there exists a significant and positive relationship between internal communication and sales force performance in the beverage manufacturing firms operating in Nigeria. This result is in agreement with the findings of Al-khasawneh (2016), Efe and Akyol (2019), and Braimah (2016), who in their findings at different geographical locations found that internal communication positively relates to employees' performance and commitment in an organisation.

Also, the second hypothesis examined the link between internal training and sales force performance. Thus, it was tested, and the results showed a significant positive relationship. The null hypothesis was also rejected. Based on that, it was concluded that internal training boosts sales force performance. This finding is in tandem with the works of Anyadighibe *et al.* (2019), Ibrahim and Yesiltas (2021), and Al-Khasawneh (2016), who, similarly, found that training has a significant relationship with employee performance. Training energises, encourages, and inculcates skills with confidence. With this, the sales force can perform and speak positively about the organization's products and services.

Conclusion

The communication and training of sales representatives are key to the sales performance of service marketing companies. The importance of sales representative training cannot be overstated since it plays a crucial role in enhancing their knowledge, boosting their confidence, and motivating them to perform at the top of their game. Based on the findings of this study, the following conclusions were reached: Empirically, the study established that internal marketing has a significant positive effect on the sales force performance of beverage manufacturing companies in Nigeria. Also, the two dimensions of internal marketing (internal communication and internal training) were tested and applied separately to the effectiveness of the sales force, which showed a significant positive relationship.

Recommendations

Based on the findings and conclusion of the research, the researchers made the following suggestions:

1. Communication is a two-way process that fosters mutual relationships between the parties involved. The company should maintain an open communication channel through which the sales force can interact with the company's top management. In doing this, the company will improve its image, enhance relationships, and increase productivity.

2. For the breweries in Nigeria to be successful, management must prioritise educating its sales team. Various training techniques must be used to provide the sales force with the necessary information and guidance on how to conduct themselves ethically when representing the company. Annual conferences and seminars should be held to improve the expertise of the sales staff. It's important to recognise the value of a more experienced employee's direct supervision and mentoring of sales reps since those who are less experienced or newer to the industry can benefit from their knowledge.

3. Last but not least, management should establish a policy that directs the retraining and training of the sales force, enhance an effective communication strategy, and provide mutual relationships.

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We sincerely acknowledge the work of my senior friends and colleagues, Dr. Ini Smart Udoh, Dr. Andrew Amuamuziam Okudu, and Dr. Uduak E. Joseph, on top management commitment and sales force performance of beverage manufacturing companies in Nigeria. Indeed, your work was a guide to effectively structuring my investigation. We say thank you for allowing me access.

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Original Research

The Relationship Between Budgetary Evaluation, Organizational Decentralization and Firm's Performance

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Abstract

Certainly, the use of the achievement of budgetary objectives as a criterion for evaluating individual performance of managers (budgetary evaluation) is considered a controversial subject. It has been the subject of some research studies to understand its diversity and its impact on firm's performance. In this context, the aim of this paper is twofold. First, it tests the impact of organizational decentralization on budgetary evaluation practices. Second, it investigates the contribution of budgetary evaluation in firms' global performance improvement according to organizational decentralization. Data were collected from 62 Moroccan firms, operating in different industries, via a questionnaire survey. Based on descriptive statistics and some statistical tests (linear regressions), the study results show that organizational decentralization has a positive significant impact on budgetary evaluation, implying that "strict" budgetary evaluation especially based on the achievement of budgetary targets in individual performance evaluation is adopted more by decentralized firms. In addition, the firms' global performance is significantly and positively impacted by the budgetary evaluation in decentralized companies. This relationship is not significant in centralized firms. Among the implications of this study, we can highlight that its results are very useful for companies' managers. The use of a "strict" budgetary evaluation is more suitable for decentralized firms. While centralized companies are indifferent between adopting "strict" and "flexible" budgetary valuation.

Keywords: Budgetary evaluation, Firm's performance, Organizational decentralization, Moroccan firms.

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Introduction

Since its first use in the early 20th century in US manufacturing firms, management control is always considered as a set of tools allowing companies' managers to make good decisions and thus improve global firm's performance. Among these tools, budgets remain crucial for planning and performance evaluation (Ekholm and Wallin, 2000; Marginson and Ogden, 2005, Anthony and Govindarajan, 2007; Libby and Lindsay, 2010; Merchant and Van der Stede, 2012; etc.). According to Drury (2006), budget can be defined as a "plan expressed in quantitative, usually monetary term covering a specific period of time usually one year. In other words, a budget is a systematic plan for utilization of manpower and material resources".

The budget as a component of the Management control system, especially the budget practices have been the subject of several research studies in the world. Among these practices, we find the budgetary evaluation or RAPM (reliance on accounting performance measures). Harrison (1993, p. 319) considers RAPM to be ".....the extent to which superiors rely on, and emphasize those performance criteria which are quantified in accounting and financial terms, and which are pre-specified as budget targets". Unfortunately, these researches were conducted only in developed countries like Australia (Brownell and Dunk, 1991; Brownell and Hirst, 1986; Ross, 1994, 1995), the USA (Hopwood, 1972; Govindarajan, 1984), Canada (Kaplan and Mackey, 1992; Williams et al, 1990), the UK (Otley, 1978; Dunk, 1992), etc.

Regarding to the use of budgetary and accounting data in the evaluation of individual manager's performance, Hopwood (1972) identified three main styles.

- First, the Budget Constrained (BC);
- Second, the Profit Conscious (PC);
- and third, the Non- Accounting (NA) style.

To better understand this diversity, several contingency factors are studied like firm size (Merchant, 1984; Sponem, 2006; Elhamma, 2015; etc.), business strategy (Govindarajan, 1988; Gupta, 1987, Van der Stede, 2001; Elhamma, 2013; etc.), environmental uncertainty (Hirst, 1983; Merchant, 1984; Govindarajan, 1984; Simons, 1987; Ezzamel, 1990; etc.). In this context, we note that the organizational decentralization is rarely used by researchers in this field. In front of this situation, the aim of this paper is twofold. First, it tests the impact of organizational decentralization on budgetary evaluation practices. Second, it investigates the contribution of budgetary evaluation in firms' performance improvement according to organizational decentralization. In order to achieve these two objectives, linear regression technique was adopted based on sample of 62 Moroccan firms. The study results show that organizational decentralization has a positive and significant impact on budgetary evaluation, implying that "strict" budgetary evaluation based especially on the achievement of budgetary targets in individual performance evaluation is adopted more by decentralized firms. In addition, the firms' performance is significantly and positively impacted by the budgetary evaluation in decentralized companies. This relationship is not significant in centralized firms.

Compared to previous work researches, this present study has two mains characteristics. The first, this paper presents the results of one of the rare studies on budgetary evaluation conducted in African and Arab countries. The second, in this research, we will use both positive and normative contingency theory. To the author's knowledge, the latter is rarely used by researchers. This research work is very useful to firms' mangers in North African countries. The use of "strict" budgetary evaluation is more beneficial for decentralized firms.

The remainder of the paper is structured as follows. In the second section, we provide literature review and hypotheses development. In the third section, we present our methodological choices. In the fourth section, we report the empirical results. Finally, in the fifth section, we report summary and conclusion.

Theoretical framework and formulation of hypotheses

Theoretical framework

Our objective in this research is to investigate the possible impact of organizational decentralization on budgetary evaluation and its relationship with improving global firm's performance. To achieve these two objectives, we have chosen to use the contingency theory. According to Fisher (1995, p. 32), "…the contingent control literature is based on the premise that a correct match between contingent factors and a firm's control package will result in desired outcomes (i.e. higher performance)". According to Wolinksi (2010), the contingency theory states "that a leader's effectiveness is contingent on how well the leader's style matches a specific setting or situation". The contingency theory is defined by Donaldson (2001) as "organizational results result from fitting organization characteristics to contingencies that reflect the organization's situations".

Impact of organizational decentralization on budgetary evaluation

Since the seventies of the 20th century, the state of the RAPM's literature is paradoxical. According to Brownell and Dunk (1991, p.703), it constitutes one of the research avenues in management control with a "critical mass of empirical work". Hopwood (1972) defined evaluative styles as "the extent and manner in which budgetary data are used in performance evaluation". He developed three styles of evaluation performance which make distinctly different use of the accounting data (table 1).

To better explain this diversity of budgetary evaluation styles, we will use the contingency theory. Donaldson (2001, p. 1) defined it as follows: "organizational effectiveness results from fitting characteristics of the organization, such as its structure, to contingencies that reflect the situation of the organization". Several factors are usually used in the contingency literature in management control (Chenhall, 2003). According to Donaldson (2001), "a contingency is any variable that moderates the effect of an organizational characteristic on organizational performance". Several contingency factors are used to explain the diversity of the budgetary evaluation: environmental uncertainty

(Hirst, 1983; Govindarajan, 1984; etc.), budget participation (Brownell, 1982; Brownell and Hirst, 1986; etc.), business unit strategy (Govindarajan and Gupta, 1985), national culture (Harisson 1983; etc.), etc. In this research, we will use the organizational decentralization. Chenhall (2003) considered, in the contingency theory, the organizational structure as a one of the determining factors in the design of management control, specifically, the degree of its decentralization (Chapman, 1997).

Table 1. Hopwood's (1972) taxonomy of budget evaluation styles

Style	Main characteristics
Budget constrained style (BC)	The evaluation of manager's performance is done by using of accounting data and the achievement of budgetary targets
Profit conscious style (PC)	The budgetary and accounting data are used flexibly in the individual and collective performance evaluation
Non accounting style (NA)	The budgetary information has not a great role in the evaluation of manager's performance.

Source: Hopwood (1972)

The contractual logic was the main source of the introduction of the budget in US firms. According to this logic, the budget is considered as a contract through which the managers of the centres are obliged to achieve the budgeted targets. Thus, the use of the results obtained was associated with the measurement of the individual performance of these managers of the centres. This passage from a Taylorist (autocratic) conception of power to a negotiated delegation favours that the results of each individual's actions are measured not by a subjective evaluation (direct supervision), but by an objective evaluation (evaluation by the results). Results-based monitoring is more adapted with the processes of decentralization and delegation of decision-making.

Pugh et al. (1969) have shown that organizations characterized by increased decentralization of decision-making generally put in place management control based on standardized and formalized performance evaluation systems. This result has been confirmed empirically by Merchant (1981). When there is more independence given to the lower echelons in decision-making, the budget is more used as a post-evaluation tool.

H_1: There is a significant and positive effect of the organizational decentralization on the budgetary evaluation.

Performance of budgetary evaluation

The relationship between budgetary evaluation and firm's performance remains among the most controversial subjects in management control research. Theoretical and empirical researches have reported inconsistent findings. Two opposite groups can be highlighted. The first group of researchers found a negative relationship between budgetary evaluation and performance. Hopwood (1972, 1973) found greater JRT (job-related tension) and dysfunctional behaviours amongst managers who were supervised by BC. This result is confirmed recently by Merchant and Van der Stede (2007) and

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Marginson et al. (2009). These authors have shown that the use of the financial measures such as profit and return on capital employed encourage dysfunctional behavior. In this context, Kaplan and Norton (1992) who proposed the Balanced Scorecard condemn the exclusive use of accounting measures for evaluating a manager's performance. In the same sense, Lau and Moser (2008) argued that the use of financial measures may be problematic. For the second group of authors, especially Stedry (1960), Otley (1978) and Simons (1988), the firm's performance is greatest when budgetary evaluation system based on the achievement of the budget targets. Recently, Dahlan et al. (2007) found a positive relationship between tight budgetary control and organizational performance.

These conflicting results and according to several researchers, especially Otley and Pollanen (2000, p. 483), we must introduce the contingency variable used in this study which is the organizational decentralization. Therefore, we can formulate these hypotheses:

H$_2$: There is a significant and positive effect of strict budgetary evaluation on the organizational performance in decentralized firms.

H$_3$: There is a non-significant effect of strict budgetary evaluation on the organizational performance in centralized firms.

Methodology of research

Study context and sample

This study was conducted in Morocco that is located in Northern Arica and has a population of 33 million. In this country, the management control is largely drawn on the French model (Elhamma and Moalla, 2015). However, recently, Moroccan firms have to adopt managerial innovations like Activity Based Costing (ABC) method (Elhamma and Zhang, 2013); the balanced scorecard (Elhamma, 2014; Achibane and Elhamma, 2016); International Financial Reporting Standards (IFRS) (Elhamma, 2023); etc.

Questionnaires were sent directly or by post to 412 companies located in different regions of Morocco. The total number of responses retained and analyzed was 62, making a response rate of 15%. In front of the non-availability of an exhaustive list of Moroccan companies that adopt "budgetary management", we opted for the random sampling method.

The questionnaires were completed by 18 chief financial officers (29%), 23 management controllers (37%), 17 accountants (27%) and 4 other managers (6%). The sample consists of 48 industrial firms (77%), 6 building and public works (10%), 6 services (10%) and 2 commercial firms (3%). 48% of the sample consists of SMEs (small and medium firms) (less than 200 employees) and 52% of large firms (more than 200 employees).

Measurement of variables

Budgetary evaluation

To operationalize the budgetary evaluation in this research, we selected four items. A scale with five points (ranging for “1: not agree at all” to “5: totally agree”) allows a respondent to indicate their agreement with each of these situations:

- “the evaluation of the manager is based on its ability to realize the budget targets”;
- “you grant bonuses for responsible coming to realize the budget targets”;
- “you decide promotions for responsible coming to realize the budget targets”
- and “you punish responsible not coming to realize the budget targets”.

A high total score means a strict budgetary evaluation (budgetary evaluation system based especially on the achievement of the budget targets) and vice versa. Cronbach's Alpha is 0.867, suggesting that the items have high internal consistency.

Organizational decentralization

Decentralization was studied with both horizontal and vertical dimensions (Kalika, 1987). Vertical decentralization can locate the level at which decisions are made. Horizontal decentralization refers to the participation of different business managers in decision making.

To measure vertical and horizontal decentralization, we used an instrument developed by Kalika (1987) and used by Germain (2004). For vertical decentralization, we asked respondents to specify the hierarchical level at which decisions are made. The five following types of decisions were given, "recruitment/dismissal", "launch a new product," "choice of suppliers/customers", "pricing sale" and "operational reorganization operations”. A score is assigned to each hierarchical level: "1: general manager and more", "2: functional managers" and "3: operational managers”. A low score indicates a low vertical decentralization and a high score indicates a high vertical decentralization. Cronbach's Alpha is 0.822, suggesting that the items have high internal consistency.

Horizontal decentralization concerns the participation of a different responsible party in decision making. A five-point Likert scale is used to indicate the extent to which respondents agree with the following statements: "you are involved in making all the decisions, including minor decisions because you think that everything must be controlled”, " you can take important decisions only after consulting your collaborators”, "your collaborators always consult you before the implementation of their decisions" and "you let your employees take decisions alone within their area of responsibility”. A high score indicates that the degree of horizontal decentralization of decision-making is high and vice versa. For the first and third affirmation, the score was reversed. Cronbach's Alpha is 0.726, implying that the items have relatively high internal consistency.

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Global performance

In front of the impossibility to isolate the performance generated by the management accounting methods, we had chosen a perceptual approach. This approach involves an assessment of the respondent on a five-point scale (ranging from “very low” to “very high”), the average contribution of the management accounting method adopted in the improvement of three dimensions of performance: "profitability", "competitiveness" and "productivity". Also, to measure profitability, we have not used data from the financial statements because it is considered confidential by the surveyed companies.

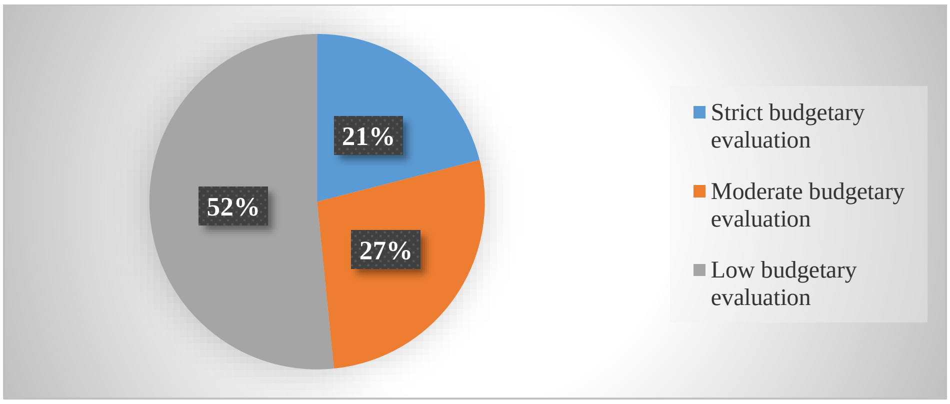
Results and discussion

Impact of organizational decentralization on budgetary evaluation

The study results show that the budgetary evaluation practices are diversified in surveyed firms. According to the results of hierarchical classification by «Ward algorithm", we have identified three main categories of budgetary evaluation practices (table 2).

Table 2. Main styles of budgetary evaluation in studied firms

Group		%
GROUP 1	Strict budgetary evaluation	21%
GROUP 2	Moderate budgetary evaluation	27.4%
GROUP 3	Low budgetary evaluation	51.6%
Total		100%



Graph 1. Main styles of budgetary evaluation in studied firms

The study results show that 79% of the surveyed companies do not focus exclusively on accounting and budget data to evaluate individual performance of managers (low and moderate budgetary evaluation). On the other hand, 21% of the sample declared that they use exclusively this type of accounting and budgetary data to evaluate the individual performance of managers (strict budgetary evaluation). This result is in line with those of Libby and Lindsay (2010). These two researchers found in their study on 558 North-American companies that the strict budgetary evaluation and the use of accounting

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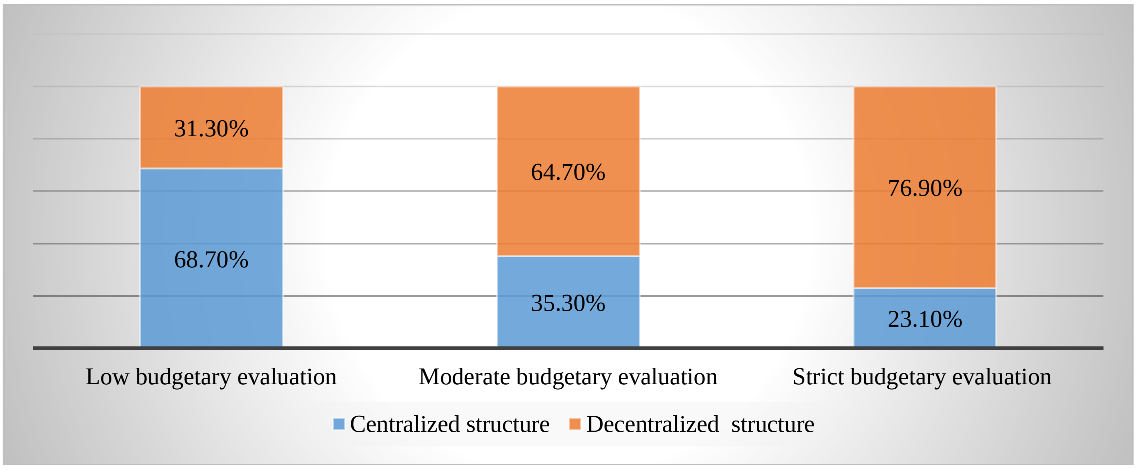
information for ex-post performance evaluation is much less adopted, and subjective factors are used frequently.

The main results relating to the budgetary evaluation practices according to the organizational decentralization can be as follows:

Table 3. Budgetary evaluation according to the organizational decentralization

	Low budgetary evaluation		Moderate budgetary evaluation		Strict budgetary evaluation	
	N.	%	N.	%	N.	%
Centralized structure*	22	68.7%	6	35.3%	3	23.1%
Decentralized structure*	10	31.3%	11	64.7%	10	76.9%
Total	32	100%	17	100%	13	100%

* Distinction between "centralized" and "decentralized" structure was done by using the median value.



Graph 2. Budgetary evaluation practices according to organizational decentralization

The first results of our study on the relationship between budgetary evaluation and organizational decentralization seem to confirm the hypothesis H1. On the one hand, about 77% of companies adopting a "strict budgetary evaluation" are decentralized firms. On the other hand, about 69% of the companies adopting a "low budgetary evaluation" are centralized firms. To test statistically the relationship between the two variables, we use the linear regression (table 4).

The results of the linear regression show that organizational decentralization has a positive and significant impact on budgetary evaluation (β= 0.337, p <1%). The first variable explains about 11.4% of the variance known by the second variable. This result confirms the validation of the first research hypothesis H1 according to which there is a significant and positive effect of the organizational decentralization on the budgetary evaluation. Our study results are in line with some research showing that mechanism controls must be tightened to reduce the risks associated with greater decentralization of

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decision. In their study, Davila et al. (2018) found that "decentralization has a positive effect on the tightness of control".

Table 4. Linear regression of the budgetary evaluation according to the organizational decentralization.

Independent Variable (organizational decentralization)	Dependent Variable (budgetary evaluation)
β t-statistic	0.337 2.776*
R^2	0.114
F-value	7.707*

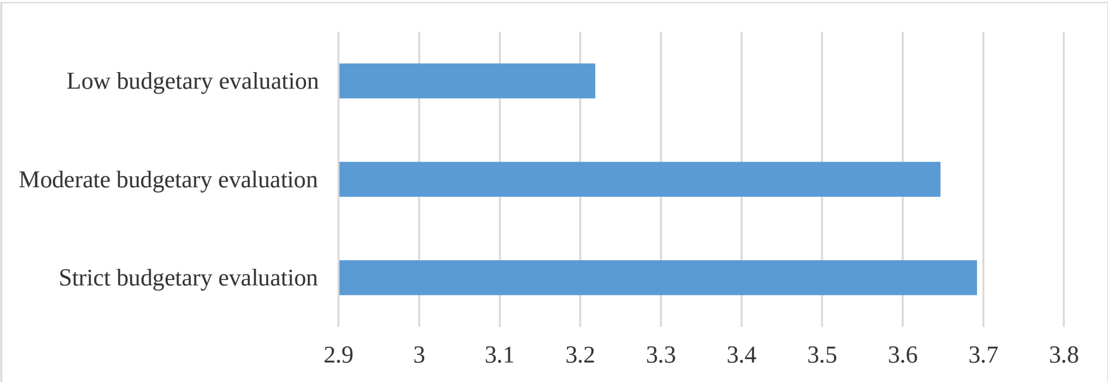
** Significant at 1% level*

Impact of budgetary evaluation on global firm's performance

The main results of the performance of different budgetary evaluation practices are shown in table 5.

Table 5. Performance average compared between the different budgetary evaluations systems

Variable	Strict budgetary evaluation	Moderate budgetary evaluation	Low budgetary evaluation
Competitiveness	3.6923	3.6471	3.2188
Profitability	3.6923	3.6471	3.2813
Productivity	3.4615	3.3529	3.1563
Performance	**10.8462**	**10.1774**	**9.6563**



Graph 3. Impact of budgetary evaluation on competiveness

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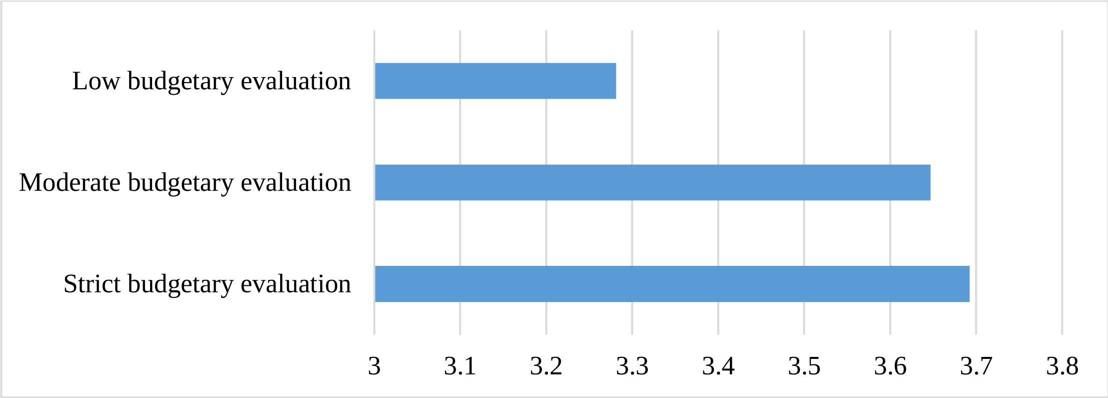
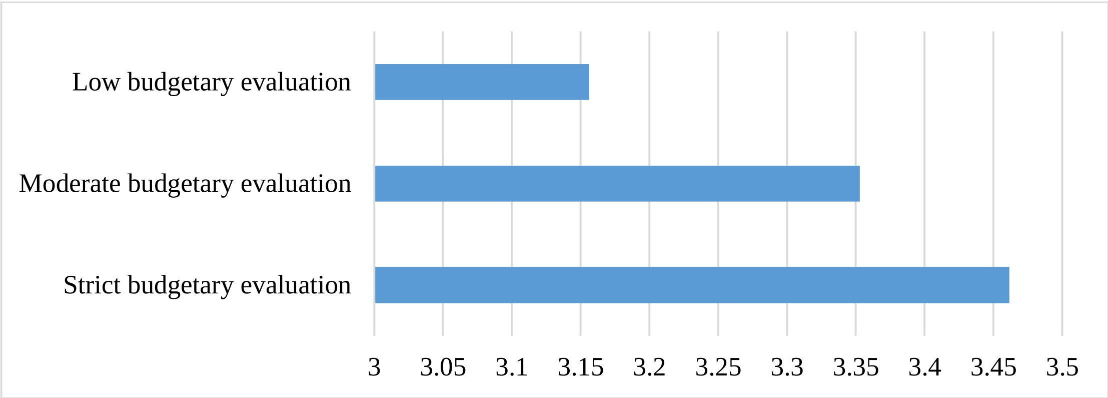
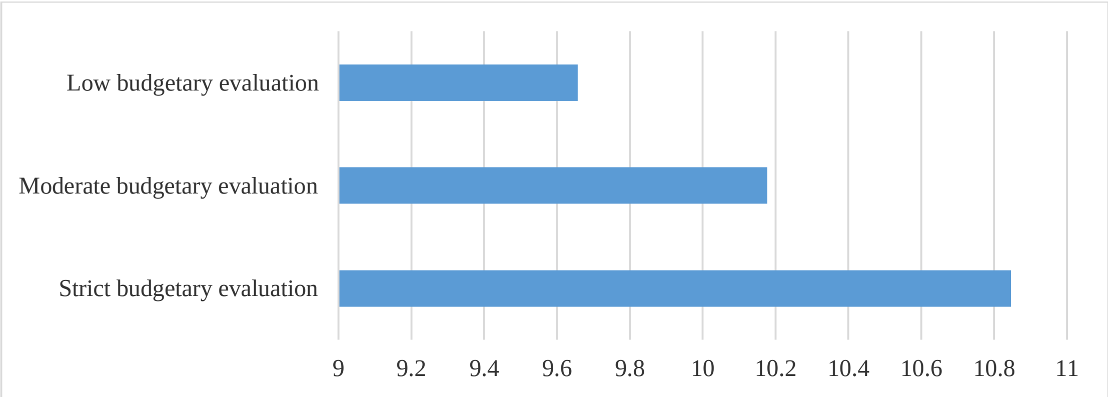


Graph 4. Impact of budgetary evaluation on profitability



Graph 5. Impact of budgetary evaluation on Productivity



Graph 6. Impact of budgetary evaluation on global performance

The "strict budgetary evaluation" contributes more than the two other budgetary evaluation styles in the firm's performance improvement. To confirm statistically this finding, we use the linear regression (table 6).

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Table 6. Linear regression between budgetary evaluation and performance

Independent variable (budgetary evaluation)	Dependent variables			
	Competitiveness	Profitability	Productivity	Performance
β t-statistic	0.330 2.711*	0.318 2.594**	0.188 1.486^{ns}	0.333 2.731*
R^2	0.109	0.101	0.035	0.111
F-value	7.384*	6.727**	2.208^{ns}	7.460*

** Significant at 1% level   ** Significant at 5% level ^{ns} Not Significant*

The study results show that competitiveness (β=0.33; p<1%), profitability (β=0.318; p<5%) and global performance (β=0.333; p<1%) are impacted positively and significantly by the strict budgetary evaluation. 11.1% of the variability of the firm's performance can be explained by the variability of the budgetary evaluation. The model identified is statistically significant at 1% level (F=7.460; p<1%). This implying that individual performance evaluation systems based especially on the achievement of budgetary targets are crucial to improve the global performance of the studied firms. The present study results are not consistent with those obtained in some previous researches. Historically, research works studying reliance on accounting performance measures (RAPM) showed generally dysfunctional consequences, such as "deterioration of human relationships in organizations, budgetary gaming, short-termism, data manipulation and inhibition of new-idea generation, arise (Argyris, 1952; Hartmann, 2000; Hofstede, 1967; Hopwood, 1972; Merchant, 1990)" (Masuya and Yoshida, 2021).

Impact of budgetary evaluation on firms' performance according to organizational decentralization

To test statistically the hypotheses H2 and H3, we use the linear regression between the firm's performance and budgetary evaluation in both centralized and decentralized firms (table 7 and 8).

Table 7. Linear regression between budgetary evaluation and performance in centralized firms

Dependent variable	Centralized firms			
	Competitiveness	Profitability	Productivity	Performance
β t-statistic	0.039 0.210ns	-0.062 -0.334ns	0.072 0.387ns	0.023 0.126ns
R^2	0.002	0.004	0.005	0.001
F-value	0.044ns	0.112ns	0.150ns	0.016ns

^{ns} Not Significant

In decentralized firms, the budgetary evaluation is highly and positively correlated with competitiveness (r = 0.416, p <5%), profitability (r = 0.504, p <1%), productivity (r = 0, 362, p <5%) and global performance in general (r = 0.505, p <1%). But, all these relationships are not significant in the centralized firms. These results allow us to confirm the hypotheses H2 and H3 according to which there is a significant and positive effect of strict budgetary evaluation on the organizational performance in decentralized firms and there is a non-significant effect of strict budgetary evaluation on the organizational performance in centralized firms. These results can be explained by the fact that firms' superiors frequently use, especially in decentralized enterprises characterized by more delegation of decisions, a budget-emphasis style of individual evaluation because of its objectivity (Merchant, 1998; Emsley, 2001; etc.). According to this budgetary evaluation style, achievement of budgetary targets results in bonuses, pay raises and promotions, etc. therefore this budgetary evaluation style can be considered as an important source of motivation of managers in decentralized companies. In addition, the use of the achievement of budgetary targets in the individual performance evaluation produces generally budget pressure (Davis et al., 2006). This pressure "is sometimes a positive thing. Positive pressure may keep managers focused on a task, improve performance or bring a real sense of achievement as the result of overcoming a new challenge" (Huang and Chen, 2010).

Table 8. Linear regression between budgetary evaluation and performance in decentralized firms

Dependent variable	Decentralized firms			
	Competitiveness	Profitability	Productivity	Performance
β t-statistic	0.416 2.465**	0.504 3.144*	0.362 2.093**	0.505 3.147*
R^2	0.173	0.254	0.131	0.255
F-value	6.077**	9.883*	4.380**	9.904*

** Significant at 1% level ** Significant at 5% level*

Conclusion

This investigation was conducted to provide some empirical evidence of the effect of the organizational decentralization on the budgetary evaluation and its performance according to organizational decentralization. By using a data from 62 Moroccan firms, we found the main following results:

- The organizational decentralization has a significant and positive impact on the budgetary evaluation. A "strict" budgetary evaluation focused especially on the achievement of the budget targets is adopted especially by the decentralized firms.

- The budgetary evaluation has a significant positive impact on the firm's performance in decentralized enterprises. This impact is not significant in centralized firms. To improve its performance, the first category of firms has an interest to adopt a "strict" budgetary evaluation based on the achievement of the budget targets, but the second group of enterprises is indifferent between adoption and not adoption of this budgetary evaluation system.

This study makes important contributions to the literature. This study contributes to understand the relationship between budgetary evaluation styles and organizational decentralization. Unlike the majority of previous research studies that have focused especially on the effects of organizational decentralization on budgetary evaluation by using positive contingency approach, this study is among the firsts in developing countries that use the normative contingency approach and examining the effects of organizational decentralization on budgetary evaluation by using a third variable which is the global firm's performance. In addition, our results have important managerial implications for companies' managers in developing countries. In decentralized organizations, the use of strict budgetary evaluation is more suitable.

Finally, we present the study limitations alongside the directions for further research. Indeed, two main limitations should be discussed in the present investigation. First, the modest size of the sample. Second the use of a perceptual approach to collect data. We used in this research organizational decentralization to explain the diversity of the budgetary evaluation and its performance in Moroccan firms. In this context, many avenues of research are considered. First, it is necessary to use other organizational variables like strategy, environment uncertainty, firm size, etc. Second, it is important to use non organizational determinants (behavioral) like leadership styles, the culture of leadership, legal ownership (independent or subsidiary of a Moroccan or foreign companies), etc.

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