The Influence of Budget Allocation in the Adoption of Green Procurement: The Case of Mwanza City Council

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Abstract:

This study examined the influence of budget allocation in adopting green procurement at Mwanza City Council. The study used a cross-sectional research design while stratified and purposive sampling strategies were deployed to select 102 respondents. The data were collected through questionnaires and interviews. The data collected through questionnaires were analysed using descriptive and regression analysis with the aid of SPSS, while data collected through interviews were analysed using content analysis. The study found that the correlation between budget allocation and the adoption of green procurement has a Pearson correlation coefficient of 0.901. This correlation is highly significant at the 0.01 level (2-tailed), indicating a strong positive relationship between these variables. This implies that organisations will likely adopt green procurement practices as budget allocation towards green procurement increases. The study concludes that budget allocation is crucial in the adoption of green procurement for several reasons, primarily because transitioning to environmentally friendly practices often involves initial investment and ongoing expenses. Implementing green procurement practices involves purchasing environmentally friendly products and technologies, which could have higher upfront costs compared to conventional alternatives. The study recommends that the organisation should allocate a budget for training programs to educate employees about the principles and benefits of green procurement. This can involve workshops, seminars, or online training modules to ensure that all stakeholders understand the importance of sustainability and are equipped with the necessary knowledge to make informed decisions.

Keywords: *Budget Allocation, Green Procurement, Mwanza City Council, Organizational Sustainability, Environmental Impact.*

Introduction

Green Procurement, a pivotal concern in global procurement, involves acquiring environmentally friendly products and services, selecting contractors, and establishing environmental criteria within procurement contracts (Kamugisha, 2017). While many local authorities in developed countries have embraced environmental management systems and green procurement policies (Hervani et al.,

2021), the public sector, in general, has lagged in this regard.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, underscores the need for transformative actions to steer the world toward sustainability and resilience. It comprises 17 global Sustainable Development Goals (SDGs) with 169 targets. Goal 12 emphasises sustainable consumption and production patterns, including promoting green and sustainable procurement practices through national policies and priorities (UNEP, 2022).

Budget allocation emerges as a critical factor in the adoption of green procurement. Green procurement often involves eco-friendly materials, energy-efficient technologies, and sustainable products. A designated budget enables organisations to invest in these sustainable practices, reducing their environmental impact and fostering sustainability (Challe, 2019). Furthermore, budget allocation encourages innovation in developing sustainable products and services, leading to eco-friendly technologies and practices that can drive down costs in the long run (Chari, 2018).

Despite the global push for green procurement, like many developing countries, Tanzania needs help in its adoption. Under-qualified staff, limited budgets, and management commitment hinder its implementation. The Mpwapwa District Council (MDC) illustrates, where the lack of knowledge, skills, and budget constraints hinder green procurement adoption (Challe, 2019). In addition, management at MDC needs to cover the costs of staff attending green procurement workshops and continue to procure environmentally harmful products and equipment. Challenges persist despite Tanzania's Public Procurement Act, 2011 and its 2016 update in 2013 (Nasiche, 2018).

However, the specific influence of budget allocation on adopting green procurement within Mwanza City Council still needs to be explored. Therefore, this article aims to scrutinise the impact of budget allocation on adopting green procurement within this context.

Literature Review

Theoretical Literature Review

Resource-based theory (RBT), formulated by Barney in 1991, asserts that an organisation's internal resources and competencies are the primary drivers of competitive advantage. Resources must be diverse and immobile to achieve this advantage, meaning they differ among organisations and are difficult for competitors to replicate. This perspective, grounded in the Resource-Based View (RBV), distinguishes between visible resources (such as the workforce and financial assets) and intangible resources (including knowledge and skills). The theory highlights the value of these resources in shaping competitive advantage. However, it is vital to empirically determine the value of resources for practical application, as the theory needs more specific managerial implications. In green procurement, this theory underscores the need for material and intangible resources, like financial capital and skilled personnel, to implement sustainable procurement practices successfully.

Therefore, Resource-Based Theory provides a foundation for understanding how organisations can gain and sustain a competitive edge by leveraging diverse and immobile resources. This perspective holds significance for green procurement, emphasising the importance of resources, both tangible and intangible, for the effective adoption of eco-friendly procurement practices.

Empirical Literature Review

Willy (2019) conducted a study on the challenges faced by public organisations in North Sudan when adopting green procurement practices. The study involved interviews and questionnaires with 30 participants from all North Sudanese public institutions. Notably, the research highlighted the significant role of information technology in green procurement adoption. It emphasised how the initial cost of eco-friendly products influences the effectiveness of green procurement due to factors related to production processes, product costs, and limited design and technological

options. The study also suggested that information sharing, institutional knowledge sharing, and the competence of staff in information and communication technology (ICT) all play pivotal roles in green procurement adoption.

Dolver (2017) explored the level of green procurement in Norway and stressed the importance of staff training in enhancing the knowledge and skills of procurement personnel. This knowledge, in turn, facilitates the acceptance and implementation of green procurement practices in government-owned organisations. Momanyi (2017) investigated the factors affecting green construction practices in commercial structures, using Nairobi County malls as an example. The study involved 110 respondents out of a total of 152 participants. It revealed financial factors' influence on Kenya's green building practices adoption. Senior management's perspective on innovation was also identified as a key determinant of green technology adoption. Financial, institutional, and human considerations influenced the adoption of green building concepts in commercial constructions, focusing on reducing long- and short-term operational costs.

Salam (2017) explored the adoption of green procurement in Indonesia's manufacturing supply chain and emphasised the role of employees in its successful implementation. The education level of the staff was identified as a crucial factor for the success of green procurement. Nhamo's (2017) study on the evaluation of green procurement methods in South African metropolitan municipalities stressed the importance of employee competency in green procurement adoption. Kipkorir and Wanyoike (2017) examined various factors influencing green procurement adoption in multinational tea firms in Kericho, employing structured questionnaires and descriptive data collection methods. The study found that a lack of financial support poses a significant obstacle to green procurement. Participants cited the cost of adopting non-ozone-depleting materials and the inability to purchase recyclable goods as barriers to embracing green procurement.

Wallace and Omachar (2016) highlighted the role of budget allocation in the effective implementation of green procurement, emphasising the importance of sufficient finances for enhancing green procurement's effectiveness. Gatari and Were (2017) discussed the pivotal role of top management in implementing green procurement, focusing on the norms and legislation governing green procurement. Pembere (2016) delved into supply chain performance and green procurement practices, emphasising the need for top management's awareness of the regulations and policies enabling green procurement implementation.

Kimbwereza (2016) analyzed the Morogoro Municipal Council's case study regarding green public procurement in Tanzania, noting the need for more guidelines, norms, and legislation governing green public procurement. The study identified the need for legislation, awareness campaigns, and training programs to address green public procurement and increase competitiveness.

Bote (2019) highlighted the importance of multiple seminars to familiarise implementers with green procurement practices. Gerson's (2018) research on the factors impacting the adoption of green procurement in the public sector, particularly in the Kilolo district, found that organisational support, sufficient financing for policy formulation, political will, staff competency, training, exposure to employees, and the legislative framework governing procurement are essential factors in green procurement adoption. Lyanga (2018) identified inadequate financial resources as a significant obstacle to green procurement in Tanzania, emphasising the cost of non-ozone-depleting materials as a major barrier to purchasing recyclable goods.

Chale (2019) examined the factors affecting the adoption of green procurement in the public sector, specifically within the Mwanza City Council (MDC). The study investigated the impact of staff expertise, economic factors, and legal considerations on MDC's green public procurement adoption. Using a descriptive study

design and a positivist research paradigm, the research collected data from 56 respondents through questionnaires, interviews, and supporting materials. The findings underscored the importance of top management's familiarity with the various laws, rules, and regulations relevant to green procurement, facilitating its effective implementation.

Thus, it becomes evident that numerous studies have examined the factors influencing the adoption of green procurement practices in diverse organisational settings. These studies have shed light on the significance of various factors, including budget allocation, staff competency, top management support, and legislative frameworks. However, despite this substantial body of research, a notable gap persists in understanding the specific influence of budget allocation in the context of Mwanza City Council's green procurement adoption. While some studies have explored the broader role of budget allocation in green procurement, they have yet to hone in on the unique challenges and opportunities within MDC. Thus, this gap presents an essential avenue for further investigation, offering the potential to provide targeted insights into the dynamics at play in Mwanza City Council and the broader context of green procurement adoption. This research addresses this gap by focusing on Mwanza City Council, delving into the nuanced interplay between budget allocation and green procurement, thereby contributing to a more comprehensive understanding of this vital area.

Methodology

In this section, the research methodology employed for this study is described. It encompasses the study area, research design, research approach, targeted population, sample size, sampling procedures, data collection methods and data analysis, and considerations for validity, reliability, and ethical standards.

Study Area

The research was conducted in Mwanza City Council, situated in northwest Tanzania along the southern shore of Lake Victoria. Covering an area of 256.45 square kilometres, with 72% as dry land and 28% as water, Mwanza City's unique landscape comprises grassy hills, valleys, agricultural plains, and forests, of which approximately 173 square kilometres are urbanised. This study focuses on the Mwanza City Council as a key stakeholder in the decision-making process concerning the adoption of green procurement (Mwanza City Council, 2017).

Research Design and Approach

The research employed a cross-sectional design, allowing for the simultaneous collection and comparison of data from various subjects. A mixed-methods approach was chosen to gather quantitative and qualitative data, providing a comprehensive understanding of the topic (Cohen et al., 2014; Creswell, 2014; Malhotra, 2018).

Targeted Population, Sample Size, and Sampling Procedure

The targeted population consisted of 470 administrative centre workers at Mwanza City Council. The sample size was determined through quantitative (97 respondents through Slovin's formula) and qualitative (5 respondents through saturation) methods. resulting in 102 respondents. Stratified sampling was used for operational staff, ensuring unbiased data collection, while purposive sampling was employed to select senior department or unit heads. This technique of selection is similar to that of Alvi (2016).

Data Collection Methods and Data Analysis

Data was collected through questionnaires and in-depth interviews. Questionnaires were distributed to operational staff, and in-depth interviews were conducted with key informants (Kumar, 2017; Lancaster, 2017). Data analysis involved using SPSS for quantitative data through descriptive analysis (Cohen et al., 2014) and content analysis for qualitative data.

Validity, Reliability, and Ethical Considerations

Validity and reliability were ensured through expert consultation and pre-testing of research

instruments. Ethical considerations were upheld by obtaining informed consent from participants and ensuring data confidentiality and anonymity (Lacanster, 2017).

Results

In this section, the study's findings and their implications are presented and discussed. The findings shed light on the influence of budget allocation on adopting green procurement practices within Mwanza City Council. This discussion will provide valuable insights into the role of financial resources in fostering sustainable and environmentally friendly procurement processes.

The Influence of Budget Allocation in the Adoption of Green Procurement

The objective of this study was to explore the impact of budget allocation on adopting green procurement practices. This objective is paramount, as the allocation of financial resources plays a pivotal role in facilitating the transition towards environmentally sustainable practices within organisations. The study findings related to budget allocation are presented in Table 1:

Table 1. Descriptive Statistics of Budget Allocation

	N	Minimum	Maximum	Mean	Std. Deviation
Budget allocation	100	4	5	4.45	.500
The organisation has enough budget to adopt green procurement.	100	1	5	3.93	1.066
The organization have set aside cost of green products in order to implement green procurement	100	1	5	4.20	1.015
Normally, the Government provide financial support to the organisation to adopt GP	100	1	5	4.13	1.089
Environmentally friendly product's prices are fair	100	1	5	4.20	.932
Organisations have plans for green procurement adopted yearly	100	1	5	4.21	1.018
Valid N (listwise)	100				

Source: Field Data, 2023

The study found that most respondents with a mean=3.93 and std deviation=1.066 agreed that the organisation has enough budget to adopt green procurement. Most respondents with a mean=4.20 and std deviation=1.015 agreed that the organisation had set aside the cost of green products to implement green procurement. Likewise, most respondents with a mean=4.13 and std deviation=1.089 agreed that normally, the government provides financial support to the organisation to adopt green procurement. Lastly, most respondents with a mean and std deviation=1.018 agreed that organisations plan to adopt green procurement yearly. During an interview, the researcher wanted to know why budget allocation is crucial in adopting green procurement. All interviewed had similar views concerning the importance of a budget. For example, one of the key informants said that:

"Green procurement often involves purchasing products that are environmentally friendly, energy-efficient, or made from sustainable materials. These products might have higher upfront costs than their conventional counterparts. Allocating a specific budget for green procurement allows organisations to invest in these sustainable products without compromising on their financial stability" (Interview, 2023)

Correlation Analysis

Table 2 shows the correlation between budget allocation and the adoption of green procurement. The Pearson correlation

coefficient is 0.901, which indicates a strong positive correlation between the two variables. This means that as budget allocation increases, the adoption of green procurement also increases. The significance of this correlation is also shown, with a p-value of 0.000 (2-tailed). This means that the correlation is highly statistically significant, and it is unlikely that the observed correlation is due to chance. The table suggests a strong positive correlation between budget allocation and the adoption of green procurement, with a Pearson correlation coefficient of 0.901 and a p-value of 0.000 (2-tailed).

Table 2. Correlation Analysis

		Budget allocation	Adoption of green procurement
Budget allocation	Pearson Correlation	1	.901**
	Sig. (2-tailed)		.000
	N	100	100
Adoption of green procurement	Pearson Correlation	.901**	1
	Sig. (2-tailed)	.000	
	N	100	100

Source: Field Data, 2023

Discussion

The findings of this study reveal important insights into the influence of budget allocation on adopting green procurement practices within Mwanza City Council. The study observed that most respondents acknowledged the organisation's ability to allocate budgets for green procurement, indicating its readiness to embrace environmentally responsible practices. This aligns with the idea that organisations recognise the long-term cost savings associated with green procurement. While some green products or services may incur higher initial costs, they often result in substantial financial benefits over time. For instance, energy-efficient appliances and vehicles may have greater upfront expenses but significantly reduce energy consumption and operational costs in the long run. This perspective resonates with the findings of Dolver (2017), underlining the growing awareness of environmental concerns and the shift towards eco-conscious consumption patterns among consumers, prompting organisations to incorporate green procurement into their operations to meet customer expectations, enhance brand reputation, and maintain a competitive edge.

Additionally, the study indicates that the organisation has allocated funds for purchasing green products to implement green procurement. This allocation signifies a strategic move that aligns with the organisation's environmental and sustainability goals. By doing so, Mwanza City Council ensures compliance with regulations, avoids penalties, and advances its reputation, fostering customer loyalty and attracting sustainability-conscious clientele. Moreover, it allows organisations to access government incentives like tax credits or grants, reducing costs while contributing to the larger goal of sustainable procurement. This finding resonates with Gerson's (2018) argument that organisations demonstrate their commitment to environmentally responsible practices by allocating budgets for green products. In some regions, regulations or government incentives encourage or mandate sustainable products, which such allocation ensures.

Furthermore, the study highlights that the government provides financial support to organisations to adopt green procurement practices. This support is driven by various factors, including promoting environmental sustainability, long-term cost reduction, stimulating economic growth, and aligning with national or international sustainability

commitments. The government's role in encouraging organisations to make sustainable choices is pivotal. By providing financial support, the government offsets the initial costs associated with adopting green procurement practices, enabling businesses to align with sustainability objectives and reduce their carbon footprint. This finding is consistent with Salam (2017), who emphasised that green procurement leads to significant cost savings over time, offsetting the higher initial investments through reduced operational costs and environmental benefits.

The study also reveals that environmentally friendly products are perceived to have fair prices. This perception is underpinned by several factors, including their design and manufacturing processes, which aim to minimise negative environmental impacts throughout the product's lifecycle. Additionally, the fair pricing of environmentally friendly products considers external costs often associated with traditional products, such as pollution and resource depletion. Traditional products hide these costs, usually borne by society or future generations. In contrast, green products aim to reduce or eliminate these external costs, making their prices more competitive and fair. This perspective aligns with Momanyi's (2017) assertion that environmentally friendly products are considered to have reasonable prices due to their long-term cost savings and the benefits they offer.

Finally, the study indicates that organisations have annual plans for adopting green procurement. These yearly plans are crucial for organisations to adapt to changing circumstances, meet evolving sustainability goals, and seize new opportunities to reduce environmental impact. They enable organisations to remain compliant with relevant regulations and adopt a proactive and dynamic approach to sustainability. This finding resonates with Kimbwereza (2016), who emphasises the importance of rules and standards in reducing the environmental impact of business operations and organisations' compliance with these regulations through green procurement plans.

In summary, these findings corroborate the principles of resource-based theory, which posits that organisations gain a competitive advantage by utilising valuable and rare resources. Green procurement practices represent a valuable resource that organisations can harness to achieve cost savings, reduce environmental impacts, and enhance their reputation and brand image. This resource is central to their long-term success and sustainability, aligning with the resource-based view of organisational performance.

Conclusions

This study thoroughly investigated the adoption of green procurement practices within Mwanza City Council, specifically focusing on the influence of budget allocation. The research findings offer valuable insights into the organisation's readiness to embrace environmentally responsible procurement and its strategic approach. Notably, the study revealed that Mwanza City Council is well-prepared for green procurement, as most respondents acknowledged the organisation's capacity to allocate budgets for such practices. This readiness is underscored by understanding the long-term cost savings associated with green products and services, aligning the organisation's financial goals with its commitment to environmental sustainability. The study emphasised the critical role of government support in encouraging green procurement, promoting sustainability, reducing long-term costs, and stimulating economic growth.

Furthermore, the organisation has earmarked specific funds to purchase green products, highlighting the strategic importance of this decision. This allocation aligns with environmental and sustainability objectives and positions Mwanza City Council to comply with regulations, enhance its brand reputation, and leverage government incentives. The perception that environmentally friendly products have fair prices further supports their adoption. The study underscores the importance of organisations having annual plans for green procurement, enabling them to adapt to changing

circumstances while consistently pursuing sustainability goals. In conclusion, this study highlights that Mwanza City Council is well-positioned to integrate green procurement practices into its operations, not only as a responsible choice but also as a financially prudent one. It is a valuable resource for organisations globally seeking to address environmental concerns and exhibit their commitment to sustainability.

Recommendations

Based on the study's findings, it is recommended that the Mwanza City Council continue to prioritise and allocate budgets for green procurement practices. This proactive approach ensures environmental responsibility and contributes to long-term cost savings, compliance with regulations, enhanced brand reputation, and the utilisation of government incentives. Moreover, the organisation should maintain its annual plans for green procurement, fostering adaptability in pursuing sustainability objectives. These recommendations can serve as a blueprint for organisations worldwide seeking to adopt environmentally responsible and cost-effective procurement strategies.

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