

Impact of the Zambian Government's Liberalized Bulk Petroleum Products Procurement Policy on Service Efficiency and Effectiveness: A Case Study of the Ministry of Energy



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ABSTRACT: The study assessed how Zambian Government's Liberalized Bulk Petroleum Products Procurement Policy affected service efficiency and effectiveness through the Ministry of Energy as a government agent in Lusaka, Zambia. It focused on important factors like efficiency, cost-effectiveness, and service quality while examining the policy itself along with competition and transparency. In carrying out this examination, the following objectives were set; to assess the efficiency of procurement processes under the Liberalized Bulk Petroleum Products Procurement Policy, focusing on factors such as transparency, timeliness, and cost-effectiveness, to examine the extent to which liberalization has facilitated perfect competition among suppliers in the bulk petroleum industry in Zambia, and to analyse the effects of government's procurement liberalization policy on quality of service and value. To gather comprehensive insights, the researcher conducted in-depth interviews with 10 senior managers from key organizations in Zambia's petroleum sector. Alongside this qualitative approach, the researcher distributed questionnaires to 49 Oil Marketing Companies (OMCs) to gather quantitative perspectives with 44 being returned representing 89.8%. The sampling technique used was non-probability purposive sampling for qualitative data, and for quantitative data involving OMCs (Oil Marketing Companies), simple random sampling was used. The thematic analysis helped in interpreting the qualitative data, while SPSS supported statistical analysis of the quantitative findings. The research revealed that while the policy led to some improvements in transparency, achieving full transparency across procurement processes remained challenging. Competition among suppliers became more diverse post-liberalization, but achieving perfect competition proved difficult, affecting both cost-effectiveness and service quality in various ways. After liberalization, there was an observation of mixed outcomes in service quality and value, with concerns particularly around adherence to standards and the reliability of supplies. In conclusion, the study highlighted the complex impacts of Zambia's liberalization policy on its petroleum sector. In recommendation, it emphasizes the need to strengthen transparency, streamline operations, and implement effective cost management strategies to maintain positive procurement outcomes and enhance service effectiveness. These insights are vital for shaping future policy reforms aimed at fostering a more competitive, efficient, and effective procurement environment in Zambia's petroleum industry.

KEYWORDS: Liberalized Policy, Bulk Petroleum Procurement Policy, Impact, Efficiency, Effectiveness, Lusaka – Zambia.

1. INTRODUCTORY BACKGROUND

Before the liberalization of procurement of bulk petroleum products in Zambia, the procurement used to be undertaken by a government agency and the price for the products were highly subsidized putting a huge strain on government resources. In an article captured by a local news tabloid, (Lusaka Times, 2021) it was reported that Government had maintained that the recent removal of subsidies and tax incentives on some petroleum products was inevitable as it was an important measure to actualizing the economic reform which Zambia was currently going through.

Director and Spokesperson in the Ministry of Information and Media, explained that due to the continued subsidizing of fuel prices, the government was spending about 67 million United States Dollars per month and over US\$ 800 million per year on fuel subsidies. He further stated that government also accumulated a debt of US \$500 million owed to Oil Marketing Companies for the supply of the commodity. Therefore, with government going on with such reforms, it was imperative that the procurement of bulk petroleum products be left to private sector so that government could concentrate on applying the resources to be saved from removing subsidies to other sectors in the economy like health and education (Lusaka Times, 2021).

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The concept of the liberalization of procurement of bulk petroleum products in Zambia is supported by a number of factors at play. These factors are as outlined by (PMRC, January 2021). In this report, it was stated that, Zambia's total petroleum requirements are through imports as the country has not recorded proven reserves of crude oil. The petroleum industry in Zambia is made up of TAZAMA Pipelines Ltd, which is owned by the Governments of Zambia and Tanzania, Ndola Fuel Terminal, and Bulk fuel storage depots and the Oil Marketing Companies (OMC's). Further, the major activities that take place in the petroleum sector are procurement, transportation, distribution, and supply of petroleum products to various customers at a reasonable cost.

Regarding the pricing of Petroleum Products in determining fuel (Petroleum) prices, the Energy Regulation Board (ERB) uses the Cost-plus Pricing Model, (CPM), which operates on the principle that the final price of petroleum products should cover all the costs incurred in the supply chain. Further, Bulk Fuel Storage Depots have been commissioned by the Government for storage in Northern, Lusaka, Western, Northern-Western and Luapula provinces. The objective of the depots was to decentralize the distribution of petroleum products and provide relief to the Ndola Fuel Terminal.

The petroleum industry plays a crucial role in Zambia's economy. In recent years, the Zambian government as part of the energy sector reforms, has embarked on a liberalization policy to enhance the efficiency and effectiveness of the procurement of bulk petroleum products. This was in a statement by the Energy Minister as reported by (Mwenda, 2021). The Minister reaffirmed the government's position on the liberalization policy and therefore, it is at this stage important to evaluate the effectiveness of this policy. The liberalization of procurement of bulk petroleum products plays a significant role in socio-economic development. It ensures the supply of quality and cost-effective petroleum products, contributing to sustainable socio-economic and national development as reported in an article by (Saleh, 2014), which was a study undertaken in Tanzania. This study in Tanzania will offer a basis for comparison with the Zambian situation.

Zambia, like many other countries, depends greatly on petroleum products for the operation of most sectors such as transportation, industry, and energy. Therefore, it will be important for Zambia to compare the performance of its petroleum industry with the performance of the petroleum industries and the prices of these products in other Countries. Statistics were produced by the (ERB, Mid-Year Statistical Bulletin, 2023).

The petroleum industry in Zambia is regulated by the Energy Regulation Act No. 12 of 2019 and the Petroleum Act No. 28 of 1930. The Petroleum Act (Petroleum Act, 1930) as passed by Parliament has had several amendments made to it such as the Petroleum Act No. 202 of 1964, Amendment Act No.13 of 1994 and the Amendment Act No. 8 of 1995. The Energy Regulation Act No. 12 of 2019 repealed and replaced the Energy Regulation Act of 1994.

Looking into the laws currently governing the petroleum sector shows that the Petroleum Act is outdated and inadequate as was in a paper presented to Parliament (International, The Petroleum Industry in Zambia: Challenges and Opportunities, January 2020). The Petroleum Act continuously refers to local councils to regulate the petroleum industry while this is the role of the Energy Regulation Board (ERB) is playing now as provided in the Energy Regulation Act No. 12 of 2019. Since this role still sits with the local councils as stipulated in the Petroleum Act, there is need to harmonise the provisions of the Energy Regulation Act and the Petroleum Act.

The petroleum supply chain in Zambia comprises Government, the ERB, TAZAMA Pipelines Limited (TAZAMA), INDENI Petroleum Refinery Company Limited (INDENI), Ndola Fuel Terminal, Oil Marketing Companies (OMCs), Dealers and Transporters. This is as reported in a statement by the ERB (ERB, Clarification on Petroleum Supply Chain Functions, 16 September 2020) where functions of all players in the petroleum supply chain in Zambia were clarified. The ERB is governed by the Energy Regulation Act No. 12 of 2019 (Energy Regulation Act, 2019).

Therefore, Government's duty through its agency, Ministry of Energy has the function of formulating and implementing policies related to energy production, consumption, and efficiency, overseeing the management and development of oil pipelines and refining facilities. Other core functions include managing petroleum-related activities, including exploration, production, and distribution and ensuring proper storage facilities and regulating petroleum prices (Mandate of Ministry of Energy, 2016). More recently as reported by (Mwenda, 2021), Energy Minister Peter Kapala reiterated this stance. He emphasized that the government would no longer be involved in the procurement of fuel starting from June 2022. These decisions are intended to enhance efficiency in fuel imports and resolve fiscal insufficiencies. By assigning private companies to procurement of petroleum products, the Zambian government wanted to restructure operations and ensure efficient management of petroleum products.

However, the Ministry of Energy as per its mandate of formulating and implementing policies related to energy production, consumption, and efficiency, overseeing the management and development of oil pipelines and refining facilities and, ensuring proper storage facilities and regulating petroleum prices (Government Gazette, 2016), the Ministry has not finalized the process of repealing the outdated Petroleum Act (Petroleum Act, 1930) to help align the liberalization of the procurement of bulk petroleum products among, other things (International, The Petroleum Industry in Zambia: Challenges and Opportunities, January

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2020). This speaks to independent variable on Liberalization policy of procurement of bulk petroleum product, addressing the process of reducing government control in the petroleum sector which involves measures such as deregulation and the opening up of the sector to private players.

1.1. Problem Statement

The Zambian Government recently liberalized the procurement of bulk petroleum products with the aim of fostering improvement in the industry and development of the economy. However, since the implementation of this policy, there are records of artificial fuel shortages, fuel price fluctuations and illegal fuel vending among others. According to the Energy Regulation Board [ERB] (2021), the Zambian government recently introduced liberalization measures in the procurement of bulk petroleum products, aiming to foster efficiency and perfect competition within the market. Despite these efforts, the effectiveness of these measures remains uncertain, prompting a critical assessment of their impact on various aspects such as the petroleum market dynamics, pricing structures, and overall economic welfare. Key challenges confronting the sector include outdated regulatory frameworks that fail to adequately address the complexities of a liberalized market. Moreover, the absence of a clear and transparent procurement system contributes to inefficiencies and hampers fair competition among suppliers (Muyunda, 2020). Furthermore, the prevalence of illegal fuel vending poses a significant obstacle, disrupting market stability, eroding tax revenues, and potentially posing safety risks. This illicit activity undermines the intended benefits of liberalization by fostering an environment of unfair competition and market distortion (ERB, 2021). Besides, concerns persist regarding service quality and customer satisfaction within the liberalized market framework. Issues such as fuel shortages, erratic price fluctuations, and reports of artificial fuel shortages allegedly orchestrated by Oil Marketing Companies (OMCs) raise doubts about the policy's efficacy in improving consumer experiences and operational reliability (Muyunda, 2020). The energy sector is the engine of socio-economic development and Hapompwe, Banda, and Chalwe (2023) emphasize that “no development can happen in a vacuum devoid of favourable targeted policies with equitable financing, co-operation between the public and private players and prioritized considerations of investment.”

1.2. Study Objectives

- 1.2.1. To assess the efficiency of procurement processes under the Liberalized Bulk Petroleum Products Procurement Policy.
- 1.2.2. To examine the extent to which liberalization policy has facilitated perfect competition among suppliers in the bulk petroleum industry in Zambia.
- 1.2.3. To analyse the effects of government's procurement liberalization policy on quality of service and value.

2. LITERATURE REVIEW

2.1. Empirical Review

The literature review focused on the Impact of the Zambian Government's Liberalized Bulk Petroleum Products Procurement Policy on Service Efficiency and Effectiveness. It also looked at the areas that are supposed to be impacted by this action, which are mainly, availability of the products, pricing, quality, economy and security as critical predicate variables. The knowledge gap that was addressed is the effectiveness of the liberalization policy regarding the procurement of bulk petroleum products.

2.1.1. Global Literature Review

India's journey towards liberalization in petroleum product procurement has been marked by policy shifts, subsidies, and efforts to balance consumer needs, industry stakeholders, and government revenue. In an article by Bhattacharyya (2019), it is reported that, the retail price of petrol, diesel, liquid petroleum gas (LPG), and other energy products in India are a complex mixture of crude prices, taxes, and subsidies by both central and state governments.

These products are necessities with very low elasticity of demand, making them ideal tools for international cartels seeking profits and local governments seeking revenues. The pricing formula is influenced by these interests, leading to a corollary of complex retail prices.

It is also worth noting that energy subsidies place a heavy burden on the government exchequer while often failing to reach targeted beneficiaries. In India, the petroleum sector is heavily subsidized, with fuel subsidies reaching an estimated INR 1.4 trillion in the financial year ending March 2014. For Zambia, it was announced that the government was going to remove subsidies on petroleum products so that the money that will be saved, will be ploughed into the education and health sectors for the benefit of the citizens (Lusaka Times, 2021). So the matter of benefits realized from subsidies not reaching the targeted beneficiaries tends to be a very big challenge and there is need to have a deliberate policy to ensure that benefits realized from subsidies reach the intended beneficiaries.

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2.1.2. Continental Literature Review

In Cameroon, according to a study by Nguetse (2018), it was reported that the impact of liberalization of petroleum product prices on Cameroon's economy, particularly on its macroeconomic aggregates, public finances and people's living standards. The results of the study showed that the oil refining industry was the main channel through which fluctuations in crude oil prices on the international market affected the economy of Cameroon. It further stated that "if the price of oil per barrel is high, it is preferable, both on the economic level (growth, employment, and public revenues) and the social level to maintain a low level of subsidies below 15% and, as a matter of priority, to re-allocate the economies made on these subsidies to social transfer-payment schemes and to measures aimed at sustaining the middle class's purchasing power. But if there is a sharp fall in crude oil prices (below US\$ 50 per barrel), a liberalization of the retail petroleum product prices could have positive effects on economic growth, on labour supply and on poverty reduction". The paper recommended the following: (i) a reduction in the country's dependence on imports of crude oil by restructuring the national refining company; (ii) restructuring of the petroleum product price subsidy policy by adopting an inclusive approach; (iii) a setting up of a special fund for re-allocating the economies made on subsidies to financing targeted social programmes; (iv) diversification of exports and; (v) a setting up of a strategic structure to monitor the trends in and the forecasts of the prices of Cameroon's main exports on the international market.

Another case reviewed is a study undertaken in Nigeria by (Ejele, 2015), who evaluated trade liberalization and petroleum price adjustments in developing Nations. He questioned whether countries with lower policy-induced barriers to international trade grow faster, once other relevant country characteristics are controlled. The researcher revealed that there exists a large empirical literature providing an affirmative answer to this question and the said study was one of such empirical investigations. While utilizing time series annualized data on Nigeria's GDP and petrol pump prices over a 25-year period, the paper evaluated the effect of trade liberalization via subsidy withdrawal on the nation's GDP.

This study concluded that planned liberalization by cautious removal of government subsidy can be promising to nations especially the developing ones like Nigeria. It was however recommended that beforehand, government should provide enabling competitive business environment and necessary reassuring measures before withdrawing subsidy to cushion any negative effect that could arise from such policy action. This researcher will assess whether the liberalization policy in Zambia has such measures in place.

2.1.3. Regional Literature Review

On the regional level, Tanzania and Zimbabwe were reviewed.

According to a study by (Saleh, 2014) Tanzania's Experience with Bulk Procurement System (BPS) and Price Cap reported that: the downstream petroleum sub-sector is regulated by the Energy and Water Utilities Regulatory Authority (EWURA). To address challenges arising from the implementation of liberalization policies, EWURA introduced several reforms, including the price cap of 2009 and the Bulk Procurement System (BPS) of 2012 (Saleh, 2014). In addition to these reforms, Tanzania has continued to make improvements in its BPS as can be seen in this document by (Vallis, 2020) indicating that, regarding transformation into a Single Product Tendering System: Tanzania has transformed its BPS into a single product tendering system, allowing local companies to participate, which was previously challenging due to heavy financial requirements. Monthly Tender Process are undertaken at the beginning of every month, the Petroleum Bulk Procurement Agency (PBPA) requests product requirements from oil marketing companies for the second month from the notice. The PBPA then consolidates these requirements and prepares a tender document indicating the specific quantity of diesel, petrol, Jet A1, and kerosene to be supplied by the winning bidder.

When it comes to prequalification of Suppliers, the Petroleum Bulk Procurement Agency (PBPA) prequalifies suppliers eligible to participate in tenders for the supply of petroleum products in Tanzania. This is done annually, and the process involves international competitive bidding as can be seen the sources of their supply (Agency, 2019).

Further, in the same report (Vallis, 2020), it was reported that, regarding Import Statistics, in 2018, Tanzania imported \$1.77 billion in Refined Petroleum, becoming the 75th largest importer of Refined Petroleum in the world. The main import partners were India, United Arab Emirates, Saudi Arabia, Switzerland, and Oman.

These developments reflect Tanzania's efforts to optimize the BPS to ensure better pricing, quality of imported products, and increased participation of local companies in the petroleum supply chain. Zambia should make efforts to speed the process of stabilizing an institution like the Tanzanian PBPA to manage the procurement of petroleum products which will bring positive effects on the economy. The source of where the commodities are being imported from can bring about reduction in price and maintain quality products.

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These reforms sparked debates about operating efficiency and sustainability. The study aimed to explain the factors leading to these reforms, evaluate their operation, and assess challenges, success, and sustainability. The BPS and price cap aimed to ensure reliable and efficient delivery of petroleum products while protecting the interests of providers and consumers.

In Zimbabwe, according to an article by Bimba (2019), the Impact of Supply Chain Management Practices on Industry Competitiveness: A Mixed Methods Study on Zimbabwean Petroleum Industry, June it was reported that effective supply chain management practices can enhance competitiveness along the supply chain. Fuel supply chain competitiveness requires a reliable flow of products and customer satisfaction. Competitiveness eluded the Zimbabwean petroleum industry over time and so this research looked at the impact of supply chain management practices on industry competitiveness. Owing to the complex nature of the petroleum industry's supply chain, the concurrent parallel mixed methods research design was adopted for its robustness and suitability for researching complex situations. In the qualitative research, in-depth interviews were held with six experienced and knowledgeable executives who were strategically positioned in the petroleum industry. In the quantitative research, data were collected through objective questionnaires from 57 managers who were in charge of supply chain practices in the participating petroleum companies. The research results revealed that the unfriendly business environment that was driven by the shortage of foreign currency, a restrictive tax regime, a weak regulatory system and the lack of stable government policy on fuel industry operations resulted in financial, procurement, inventory, logistics and communication challenges and the weakening of all the supply chain practices. Therefore, the resultant high cost of products, expensive and bureaucratic logistics, lack of investment in fuel distribution technology and poor customer service negatively impacted the petroleum industry's competitiveness. The study recommends the strengthening of the petroleum industry's supply chain management strategies, international benchmarking of industry processes, adopting international best practices and carrying out further research in the industry's supply chain areas like procurement and pricing models for landlocked states.

2.1.4. National Literature Review

In an article by Mwange (2022), it was reported that there were periods in Zambia when there were shortages of fuel in the domestic markets. INDENI oil refinery was put on care and maintenance as it has become obsolete and the country now imports final finished fuel products. The implication of all this is that fuel will now get delivered by road as opposed to delivery by pipeline to INDENI which was refined into various products. Additionally, this decision removes government bureaucrats from making procurement decisions of crude oil and puts procurement decisions of final fuel products in the hands of individual oil marketing companies which sell the products to the final consumers. These developments inadvertently will have a big impact on the price of petroleum products. The result of estimating a VAR model indicates that fuel demand in Zambia is negatively related to price changes in fuel. Past values of fuel consumption are found to be important determinants of the present demand for fuel. GDP surprisingly does not determine fuel demand. This may be an indicator that GDP growth is not filtering through to the ordinary citizen. There is a need to design inclusive economic policies so that benefits from growth filter through to the ordinary citizens.

2.2. Gaps in the Literature

While existing literature provides insights into the effectiveness of government not participating in the procurement of petroleum products, there is a scarcity of empirical research that focuses on this decision. As a result, this study aims to fill this gap by conducting a thorough assessment with a particular emphasis on the Ministry of Energy, Zambia. One of the studies done, only considered the relationship between fuel price and demand in Zambia in an article by Mwange (2022). This did not discuss the effectiveness of the liberalization policy. Further, another study reviewed was done in Zimbabwe by Bimba (2019) which just considered the impact of supply chain management practices on industries' competitiveness. Other studies were done in Cameroon by Neguem (2018) which looked at the impact of the liberalization of petroleum product pricing on the economy of Cameroon.

Another study under consideration was undertaken in Nigeria by Ejele (2015), who interrogated the effects on countries with lower policy-induced barriers to international trade faster growth, once other relevant country characteristics are controlled. He stated that there exists a large empirical literature providing an affirmative answer to this question. This study was one such empirical investigation. Utilizing time series annualized data on Nigeria's GDP and petrol pump prices over a 25-year period, the paper evaluated the effect of trade liberalization via subsidy withdrawal on the nation's GDP. This study, however, did not look at the aspect of procurement, storage of petroleum products and legal frameworks in place, which this research seeks to address. By assessing the effectiveness of this decision, the study will focus on the effectiveness of the liberalization of the procurement of the bulk petroleum products.

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2.3. Theoretical Framework

This study was guided by three (3) fundamental theories deemed relevant to the study focus. These being: Economic Liberalization Theory, Principal-Agent Theory, and Transaction Cost Economics.

2.3.1. Economic Liberalization Theory

This theory according to Degroot (2023) stresses that economist Adam Smith is considered one of the first to advocate for economic liberalization and about free trade in the 1700s in Scotland. He believed competition and the absence of government intervention was the best way to ensure a robust economy. Further, Smith believed in the idea of 'economic man' entailing that "if every individual tries to maximize their self-interest, it will lead to overall economic prosperity in the society". Smith coined the term laissez faire economy. According to this idea, the state shall not interfere in the activities of the market. Smith visualized that a free market can bring about overall national prosperity.

2.3.2. Principal-Agent Theory

Principal-agent theory is a fundamental framework in economics and organizational theory that examines the relationship between two parties: the principal, who delegates tasks or decisions to the agent, who acts on behalf of the principal. According to Nsambo, Nsama & Hapompwe (2024), in the theory's setup, it is assumed that there is a considerable decision-making authority that the principal (shareholders) has over entrusted responsibility to the agent. In the context of government procurement policies, particularly the liberalized procurement of petroleum products, the Ministry of Energy serves as the principal overseeing procurement processes, while suppliers function as agents responsible for supplying the products. This theory provides a lens to analyze how this policy framework influences the alignment of incentives between the Ministry and suppliers, thereby impacting service efficiency and effectiveness. This theoretical framework is particularly relevant in understanding how the liberalization of procurement policies influences the dynamics between the Ministry and suppliers, affecting service efficiency and effectiveness. The significance of applying the Principal-Agent Theory lies in its ability to explore how incentives, monitoring mechanisms, and contract design impact the behaviour and performance of agents (suppliers) in fulfilling the objectives set by the principal (Ministry of Energy). In the case of liberalized procurement of petroleum products, the theory helps in examining whether the policy promotes transparency, reduces costs, and improves the timeliness of service delivery. It also sheds light on potential issues such as moral hazard, where agents may not act in the best interest of the principal due to informational asymmetries or divergent objectives.

By employing Principal-Agent Theory in this study, researchers can analyze the governance structure established by the liberalized procurement policy and its implications for service delivery in the Ministry of Energy. This includes assessing how the policy framework influences supplier behaviour, contractual arrangements, and overall service quality. Insights gained from this analysis can inform policymakers and stakeholders about the effectiveness of the policy in achieving its intended outcomes and identify areas for improvement in procurement practices.

Principal-agent theory provides a robust theoretical foundation for examining the relationship dynamics and incentive structures inherent in government procurement policies, specifically in the context of liberalized procurement of petroleum products. Its application in this study offers valuable insights into the governance mechanisms shaping service efficiency and effectiveness at the Ministry of Energy, thereby contributing to broader discussions on public sector governance and policy implementation

2.3.3. Transaction Cost Economics

Transaction Cost Economics (TCE) is a theoretical framework developed by Oliver E. Williamson that examines the costs associated with transactions between economic agents, emphasizing factors such as information asymmetry, opportunism, and the costs of coordinating and monitoring transactions (Williamson, 1979). In the context of procurement policies, including the liberalization of procurement of petroleum products, TCE provides valuable insights into how changes in procurement arrangements can influence the efficiency and effectiveness of service delivery.

According to Williamson (1996), Transaction Cost Economics focuses on understanding the costs incurred when individuals or firms organize their economic activity through markets rather than within a firm. This theory posits that transaction costs arise due to uncertainties, bounded rationality, and opportunistic behavior, which can affect the efficiency of market transactions. In the context of government procurement, which involves complex transactions and relationships, TCE helps to analyze how the design of procurement policies, such as liberalization, impacts these transaction costs and consequently affects service delivery outcomes.

The significance of applying Transaction Cost Economics in this study lies in its ability to provide a structured framework for evaluating procurement practices and policies. Specifically, in the case of liberalized procurement of petroleum products by the Ministry of Energy, TCE allows researchers to assess whether the policy reduces transaction costs associated with contracting, negotiation, and monitoring of suppliers. This includes examining how liberalization affects information flows between the

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Ministry and suppliers, the degree of opportunistic behavior, and the efficiency gains achieved through enhanced market competition.

Moreover, TCE helps in understanding the implications of different procurement arrangements on service delivery efficiency. For instance, it can elucidate whether liberalization leads to better alignment of incentives between the Ministry and suppliers, resulting in improved timeliness, cost-effectiveness, and overall service quality. By reducing transaction costs and improving information flows, liberalization may foster a more competitive environment among suppliers, thereby enhancing the Ministry's ability to procure petroleum products efficiently.

Empirical studies using TCE have demonstrated its applicability in various sectors, showing how changes in governance structures and transaction arrangements affect organizational performance (Williamson, 1985). In the context of government procurement, TCE provides a rigorous analytical framework for policymakers and researchers to evaluate the impacts of liberalization policies on service efficiency and effectiveness. It facilitates a deeper understanding of the trade-offs between market-based procurement and traditional bureaucratic methods, offering insights into how to design and implement effective procurement strategies.

In conclusion, Transaction Cost Economics offers a comprehensive framework for analyzing the costs and benefits associated with procurement policies, particularly in the context of liberalized procurement of petroleum products by the Ministry of Energy. By examining transaction costs, information asymmetries, and governance structures, TCE helps to assess whether liberalization enhances the efficiency of procurement processes and contributes to achieving organizational objectives.

2.4. Conceptual Framework

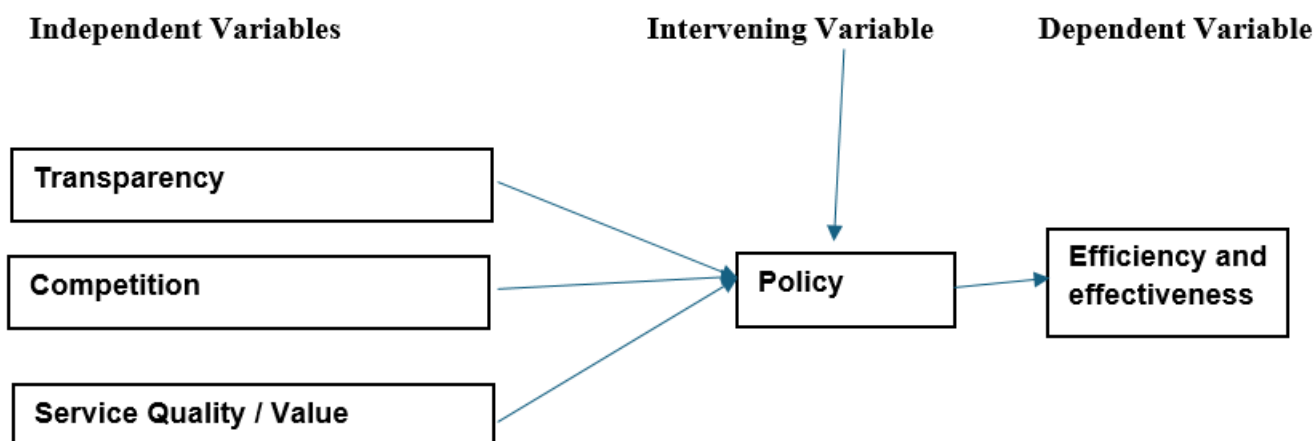


Figure1: Conceptual model.
Source: Authors’ Construction (2024)

This research has identified the independent, intervening and dependent variables. Competition and Service quality/value have been identified as the independent variables of the research. Policy as the intervening variable with efficiency and cost-effectiveness as the dependent variables. Competition considers the competitiveness among suppliers which should have a positive impact on the socio-economic factors resulting in reduced pricing of the products. Further, the variables are consistent with the theories underpinning the study. The levels of transparency, competition among suppliers and service quality, have an effect on the efficiency and cost effectiveness of the system. The framework illustrates that enhanced transparency promotes accountability, reduces corruption risks, and fosters trust among stakeholders, including government agencies, suppliers, and the public. Transparent procurement practices are crucial for ensuring fairness, integrity, and efficiency in the allocation of public resources. Competitiveness among suppliers should have a positive impact on the socio-economic factors resulting in reduced pricing of the products, and service quality will lead to customer satisfaction of the procurement of bulk petroleum products. Efficiency and cost effectiveness will require looking into Institutional framework, Management Capacity, and Regulatory Frameworks of the petroleum industry.

3. METHODOLOGY

This study had the ontological, epistemological, and methodological considerations, in that the researcher(s) believed in the existence of an objective reality (ontology), how knowledge was acquired and validated (epistemology), and the preferred research methods and strategies (David Phair, 2021). This research’s philosophy was pragmatism as it advocated for using multiple

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methods to gain a comprehensive understanding of the research topic. In mixed-method research, pragmatism allowed the researchers to combine quantitative methods with qualitative methods to capture different facets of the research phenomena. The study was undertaken in Lusaka district of Zambia with a target population of senior management personnel from multiple key entities involved in the petroleum sector: The Ministry of Energy, Energy Regulation Board (ERB), TAZAMA, and INDENI. These senior management individuals were targeted for qualitative data collection, totaling 24 participants of which a sample of 10 was reached after reaching saturation. For quantitative analysis, the study population consisted of 55 Oil Marketing Companies (OMCs). These companies were selected to represent a diverse cross-section of entities involved in the distribution and marketing of petroleum products in Zambia and a sample of 49 was obtained. Simple random and purposive sampling techniques were used. The study used both questionnaires and interview schedules. A statistical package, SPSS was used to analyze quantitative data while thematic analysis was used on qualitative data. Ethical considerations and measures of data quality control were strictly considered.

4. FINDINGS

4.1. Efficiency of the Procurement Processes on Transparency

Perceptions of transparency within procurement processes governed by Zambia's Liberalized Bulk Petroleum Products Procurement Policy, based on responses from 44 participants revealed that the majority of respondents perceive transparency levels as moderate (36.4%), followed by high (15.9%) and very high (11.4%). A notable proportion also views transparency as low (22.7%) or very low (13.6%).

Qualitatively, those interviewed had the following common views on this theme:

"In my opinion, the liberalization policy has been largely cost-effective in procuring bulk petroleum products. By introducing competition among suppliers, the policy has incentivized cost-efficiency and price competitiveness in the market. This has resulted in lower procurement costs for the government and potentially lower prices for consumers."

"One notable example of efficiency gains due to the liberalization policy is the significant reduction in procurement lead times. Previously, bureaucratic processes often delayed procurement decisions, whereas now, competitive bidding has streamlined the process. Additionally, cost savings have been observed through more competitive pricing offered by suppliers vying for contracts under the liberalized framework."

"Efficiency in the liberalized bulk petroleum products procurement policy of Zambia can be gauged by analyzing the reduction in bureaucratic delays and the overall speed of procurement processes. By allowing multiple suppliers to compete, the policy has incentivized efficiency improvements across the supply chain, leading to faster procurement cycles and enhanced transparency."

"From my perspective, the policy has been effective in reducing costs associated with bulk petroleum procurement. The introduction of competitive bidding has driven down prices through market forces, resulting in savings for both the government and consumers. Moreover, cost-efficiency has been bolstered by suppliers striving to offer competitive pricing to secure contracts."

4.2. Extent of Facilitation of Competition Among Suppliers by Liberalization

Quantitative findings on the perceived impact of liberalization on competition among suppliers in Zambia's bulk petroleum industry, based on responses from 44 participants indicated that the majority, comprising 68.2% of respondents, believe that liberalization has not significantly increased competition among suppliers. In contrast, 31.8% of respondents perceive that there has been an increase in competition.

Qualitatively, those interviewed had the following collective views:

"The liberalization policy has considerably increased competition among suppliers of bulk petroleum products in Zambia. Previously dominated by a few major players, the market now sees a broader range of suppliers participating in bidding processes. This has not only diversified the supplier base but has also contributed to competitive pricing and improved service delivery."

"Since the implementation of the liberalization policy, market dynamics in Zambia's petroleum sector have shifted significantly. There has been a noticeable decrease in market concentration among suppliers, with smaller and medium-sized companies gaining traction. This shift has fostered innovation and efficiency in product distribution and customer service."

"The liberalization policy has had a positive overall impact on the Zambian economy, particularly in the petroleum sector. It has stimulated investment in infrastructure and distribution networks, creating employment opportunities and contributing to economic growth. The increased competition has also led to more competitive pricing, benefiting both consumers and businesses."

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"The liberalization policy has significantly enhanced competition among suppliers of bulk petroleum products in Zambia. This shift has fostered innovation in product offerings and service delivery as suppliers vie for market share. Enhanced competition has not only diversified supplier options but has also improved accessibility and affordability of petroleum products for consumers."

4.3. Quality and Service Value

Findings from a study examining the impact of the government's procurement liberalization policy on the quality of service and value perceived by respondents are hereby presented. Out of 44 respondents, 9.1% reported a significant improvement in service quality and value, while 18.2% indicated improvement. A majority, 45.5%, noted no change following the policy change. However, 27.3% reported a significant decline in service quality and value. These results suggest a varied response to the liberalization policy, with a notable proportion perceiving negative effects on service quality despite the overall distribution indicating a mix of outcomes ranging from improvement to decline.

The key informants had the following views on the thematic matter:

"There have been noticeable improvements in the level of service provided to customers since the implementation of the liberalization policy. Suppliers are now more responsive to customer needs, offering better delivery schedules and customer support. This competitive environment has incentivized suppliers to enhance service quality as a differentiating factor."

"To ensure customers receive value for their money under the liberalized procurement system, initiatives such as consumer protection regulations and quality assurance programs have been implemented. These measures aim to safeguard consumer interests and promote fair competition among suppliers. Transparency in pricing and service delivery also plays a crucial role in enhancing customer trust and satisfaction."

"The liberalization of bulk petroleum products procurement has had a positive impact on product quality standards in Zambia. Suppliers now compete not only on price but also on product quality and reliability. This competition has incentivized adherence to international quality standards and regulatory compliance, resulting in improved product offerings and customer satisfaction."

5. DISCUSSION OF FINDINGS

5.1. Efficiency of Procurement Processes under the Liberalized Bulk Petroleum Products Procurement Policy, focusing on factors such as transparency, timeliness, and cost-effectiveness.

The findings presented offered valuable insights into the efficiency and effectiveness of Zambia's Liberalized Bulk Petroleum Products Procurement Policy, focusing on transparency, timeliness, and cost-effectiveness. Statistical data reveal that a significant majority of respondents perceive transparency levels within procurement processes as moderate (36.4%), with notable proportions also indicating high (15.9%) or very high (11.4%) levels of transparency. However, a concerning 36.3% of respondents perceive transparency as low or very low. This mixed perception underscores the policy's progress in enhancing visibility into procurement activities but also highlights persistent challenges in achieving comprehensive transparency. Studies such as those by the World Bank emphasize that robust transparency measures are essential for ensuring accountability and mitigating corruption risks (World Bank, 2018). The findings suggest a need for further efforts to standardize disclosure practices and enhance stakeholder trust in Zambia's procurement procedures. The other perceptions of the timeliness of procurement processes under the liberalized policy showed that while 25.0% of respondents acknowledge some degree of improvement, a substantial 40.9% perceive a decline in procurement efficiency. This variability in perceptions reflects the complex impacts of liberalization on operational efficiencies within procurement. McKinsey (2020) highlights that while competition can drive efficiencies, it must be complemented by streamlined processes and effective supplier management to sustain improvements over time. The study's findings underscore the importance of addressing operational bottlenecks and enhancing logistical capabilities to mitigate delays and ensure timely delivery of petroleum products, thereby supporting broader economic stability and growth.

The study's findings provide a comprehensive assessment of Zambia's Liberalized Bulk Petroleum Products Procurement Policy, offering insights into transparency, timeliness, and cost-effectiveness within procurement processes. The mixed perceptions among stakeholder's underscore both the policy's achievements and the ongoing challenges in optimizing procurement efficiency and effectiveness. Future research and policy adjustments should focus on strengthening transparency measures, addressing operational inefficiencies, and enhancing cost management practices to sustainably support Zambia's economic development objectives in the petroleum sector.

5.2. Extent of Facilitation of Perfect Competition among Suppliers by Liberalization

The findings from the interview responses provide a nuanced perspective on the extent to which liberalization has fostered perfect competition among suppliers in Zambia's bulk petroleum industry. Numerical data indicate a stark divide in perceptions, with the majority (68.2%) of respondents believing that liberalization has not significantly increased competition among suppliers. This

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skepticism is reinforced by the fact that only a minority of respondents (20.5% highly competitive + 25.0% competitive = 45.5%) perceive the competition as sufficiently intense. These figures suggest that while some competition exists, it falls short of creating a perfect competitive environment, which ideally involves numerous firms with equal market power and unrestricted entry and exit.

Moreover, the findings underscored the varied impacts of increased competition on procurement outcomes. While 52.3% of respondents acknowledge improvements in supply chain stability due to competition, other benefits such as improved quality (18.2%), increased innovation (15.9%), and lower prices (13.6%) are less frequently cited. This uneven distribution of perceived benefits points to a mixed impact of competition on procurement dynamics in Zambia's petroleum sector.

The interview responses further elucidate these findings by highlighting both positive and critical viewpoints. Several interviewees note that liberalization has indeed diversified the supplier base and reduced market concentration, enabling smaller firms to participate in procurement processes. This shift has fostered innovation and improved service delivery, aligning with studies that emphasize how increased competition can stimulate innovation and efficiency (UNCTAD, 2021). However, the overall sentiment remains cautious, with concerns about the depth and sustainability of competition. Critical perspectives from the interviews raise valid concerns. Some respondents suggest that while there is more competition than before, it has not necessarily translated into optimal market conditions characterized by robust price competition and equitable market access for all players. This echoes findings from global studies on competition policy, which highlight that achieving perfect competition often requires continuous regulatory oversight to prevent monopolistic practices and ensure fair market access (OECD, 2020).

While Zambia's liberalization policy has introduced some competitive elements into the bulk petroleum industry, the evidence suggests that perfect competition remains elusive. The sector shows signs of diversification and modest competition improvements, yet challenges such as market concentration and uneven competitive dynamics persist. Addressing these challenges would require ongoing regulatory vigilance and possibly further reforms to enhance market transparency, regulatory clarity, and equitable market access for all suppliers, ultimately fostering a more competitive and efficient petroleum procurement environment in Zambia.

5.3. To analyse the effects of government's procurement liberalization policy on quality of service and value.

The findings provided a comprehensive overview of how Zambia's government procurement liberalization policy has influenced the quality of service, value, and supply reliability within the bulk petroleum industry. The findings indicated a diverse range of responses among respondents regarding the impact on service quality and value. While 27.3% reported a significant decline, 9.1% noted a significant improvement, and 18.2% observed some level of improvement. A majority of 45.5% perceived no change, reflecting a varied outcome following the policy change.

The other findings delved deeper into specific aspects of quality affected by the liberalization policy. The most notable concern expressed by 36.4% of respondents is compliance with standards, suggesting apprehension about whether suppliers are meeting regulatory requirements consistently. Additionally, 29.5% highlighted issues with the consistency of product quality, which is crucial for maintaining reliability and consumer trust in the petroleum sector. These findings underscore potential challenges in maintaining quality standards amidst market liberalization, as echoed in studies emphasizing the importance of robust regulatory frameworks to mitigate quality fluctuations (UNCTAD, 2021).

Regarding supply reliability, while 52.3% of respondents perceive the supply as either "Very Reliable" or "Reliable," a significant 18.1% view it as either "Unreliable" or "Very Unreliable." The neutral stance taken by 29.5% of respondents reflects uncertainty or mixed experiences regarding the reliability of the supply chain post-liberalization. This variability in perceptions highlights ongoing challenges in ensuring consistent supply chain performance under the new procurement policy, which is crucial for sustaining operational efficiency and meeting market demands. Interview responses further contextualized these findings by illustrating varied perspectives on the policy's impact on service quality, value, and supply reliability. Some interviewees acknowledged improvements in competition and pricing but expressed concerns about lapses in quality control and supply chain reliability. This aligns with broader research suggesting that while liberalization can enhance market dynamics and cost efficiencies, it must be accompanied by stringent oversight and regulatory mechanisms to safeguard against quality degradation (World Bank, 2018).

Furthermore, the research confirms that increased transparency in procurement processes correlates strongly with perceived improvements in cost-effectiveness, timeliness, and overall service quality, validating Objective 1. This is supported by robust correlations (e.g., $r = 0.977$ between transparency and cost-effectiveness, $r = 0.947$ between transparency and timeliness) and a highly predictive regression model ($R^2 = 0.959$) indicating that 95.9% of the variance in improved timeliness can be explained by transparency, competition among suppliers, and service quality. However, while transparency and service quality emerge as

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critical drivers of perceived cost-effectiveness, Objective 2, which focuses on perfect competition among suppliers, shows a less pronounced effect. The modest correlation ($r = 0.359$) between competition and service quality suggests that while competition contributes positively to service outcomes, its impact on cost-effectiveness perceptions is less significant in this context. This aligns with previous literature where competition in procurement contexts often shows mixed effects on efficiency and cost-effectiveness (e.g., Bajari & Ye, 2003; Gomez-Lobo & Shearer, 2017). Moreover, Objective 3, which investigates the policy's effect on service quality and value, finds a strong positive relationship ($\beta = 0.188$, $p = 0.031$) between service quality and cost-effectiveness, echoing findings from studies on service quality's pivotal role in procurement outcomes (e.g., De Boer et al., 2001; Perrin et al., 2008). Thus, while the liberalization policy enhances transparency and service quality, fostering significant improvements in efficiency and effectiveness, ensuring optimal competition among suppliers remains a nuanced challenge that requires further policy consideration and implementation strategies tailored to maximize its benefits (e.g., Anbumozhi et al., 2017; Wu et al., 2020).

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusion

In conclusion, the research findings underscore the multifaceted impacts of Zambia's liberalized bulk petroleum procurement policy on efficiency, competition among suppliers, and service quality. The study's focus on transparency reveals a strong correlation between enhanced transparency in procurement processes and improvements in cost-effectiveness, timeliness, and overall service quality. This validates the fact that transparency plays a pivotal role in driving positive procurement outcomes. In terms of perfect competition among suppliers following the policy's being in effect, an indication is of a more modest impact on perceived cost-effectiveness despite some positive correlations with service quality. This suggests that while competition fosters better service outcomes, its direct influence on cost-effectiveness in this context is less pronounced. There was also a revelation that the critical role of service quality in shaping cost-effectiveness perceptions, affirming that higher service quality contributes significantly to enhanced procurement outcomes. These insights underscore the policy's successes in enhancing transparency and service quality but also highlight the ongoing challenge of optimizing competition among suppliers to maximize efficiency gains. Future policy efforts should focus on refining regulatory frameworks to ensure competitive market conditions while maintaining high standards of service quality, thereby fostering sustainable improvements in procurement efficiency and effectiveness in Zambia's petroleum sector.

6.2. RECOMMENDATIONS

6.2.1. Policy, focusing on factors such as transparency, timeliness and Cost-effectiveness

There is need to formulate and implement robust mechanisms and measures to control cost which will support the economic growth of the country by the Ministry of Energy through the Energy Regulation Board. Address operational bottlenecks by reviewing the Regulatory and Legal Frameworks to strengthen oversight preventing monopolistic practices.

6.2.2. Extent of Facilitation of Perfect Competition among Suppliers by Liberalization

There is need for introduction of the Bulk Petroleum Products Procurement System to encourage competition equal market access to the suppliers by the Ministry of Energy through the Energy Regulation Board.

6.2.3. Quality of Service and Value Refine Cost Management Strategies

There is need to invest in infrastructure and logistical capabilities to improve supply chain reliability and mitigate risks of disruptions in petroleum product supply and reduce the pump price for the petroleum products by the Ministry of Energy through the Energy Regulation Board.

6.3. Future Research Recommendations

6.3.1. **Comparative Analysis with Regional Practices:** Compare Zambia's procurement policies with those of other countries in the region or globally. This comparative analysis could identify best practices, lessons learned, and potential adaptation strategies to further improve Zambia's procurement system.

6.3.2. **Stakeholder Perception Studies:** Conduct in-depth studies focusing on stakeholder perceptions and experiences with procurement policies. Explore how different stakeholders, including government officials, suppliers, and consumers, perceive the impacts of policy changes on transparency, competition, service quality, and overall satisfaction.

6.3.3. **Environmental and Social Impact Assessment:** Expand research to include assessments of the environmental and social impacts of procurement policies. Explore how procurement practices in the petroleum sector affect sustainability, local communities, and broader economic development goals.

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- 6.3.4. **Case Studies on Successful Implementation:** Undertake case studies of specific procurement projects or initiatives that have successfully implemented aspects of the recommended policy changes. Analyze factors contributing to their success and identify replicable strategies for broader application.

REFERENCES

- 1) (2017). 7th National Development Plan. Ministry of Finance and National Planning.
- 2) (2022). 8th National Development Plan. Lusaka: Ministry of Finance and National Planning.
- 3) Abend, G. (June 2008). The Meaning of Theory. *Research Guides*, 173-199.
- 4) Agency, P. B. (2019). Petroleum Bulk Procurement System. Petroleum Bulk Procurement Agency.
- 5) American Psychological Association. (2020). Ethical Principles of Psychologists and Code of Conduct.
- 6) Anjoran, R. (2019). The Different Types of Sampling Plans QC Inspections. *Quality Inspections*.
- 7) Anna Mergoni, K. D. (June 2021). Policy Evaluation and Efficiency. *International Transactions in Operation Research*.
- 8) Arellano.A.L., A. &. (2023). Ethical Consideration in Informed Consent. *Researchgate*.
- 9) Austin Mwange, M. M. (October 2022). An Empirical Analysis of Relationship between Fuel Pricing and Demand in Zambia. *International Journal of Innovation and Sustainable Development*.
- 10) Babbie, E. R. (2020). *The Practice of Social Research*. Cengage.
- 11) Bhandari, P. (2023). *Triangulation in Research/Guide, Types, Examples*. Scribbr.
- 12) Bhattacharyya, A. G. (28 September 2019). Pricing of Energy Goods in India: How is it Done? *Springerlink*.
- 13) Caulfield, J. (2023). *How To Do Thematic Analysis/Step-by-Step Guide & Examples*. Scribbr.
- 14) Community Blog. (2020, October 2). Retrieved from DiscoverPhDs: <https://www.discoverphds.com/>
- 15) Crossley, J. (2023). *How To Write The Methodology Chapter*. Gradcoach.
- 16) David Phair, K. W. (2021). *Saunders' Research Onion: Explained Simply*. Gradcoach.
- 17) Degroot, N. (6 June 2023). *Economic Liberalization, Theory and Example*. Study.com.
- 18) Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57-74
- 19) Ejele, E. (2015). Trade Liberalization and Petroleum Price Adjustments in Developing Nation. *Abuja Journal of Business and Management*, Vol.1, Issue 3(1-10).
- 20) Eldrige, S. (2024). *Data Analysis*. Britannica.
- 21) Elias, P. S. (22 May 2007). *International Relations*. London: Routledge.
- 22) (2019). *Energy Regulation Act*. Lusaka: Ministry of Justice.
- 23) ERB. (16 September 2020). *Clarification on Petroleum Supply Chain Functions*. Lusaka: ERB.
- 24) ERB. (2021). *Energy Sector Report*. Lusaka: ERB.
- 25) ERB. (2022). *Statistical Bulletin*. ERB.
- 26) ERB. (2023). *Mid-Year Statistical Bulletin*. Lusaka: ERB.
- 27) ERB. (2024). *Revision of Petroleum Pump Price for May 2024*. Energy Regulation Board.
- 28) Eteng, O. (2022). *Quantitative Data Analysis: A Comprehensive Guide*. Hevo.
- 29) Gartner. (2024). *What is Data and Analytics*. Gartner.
- 30) George, T. (6 December 2021). *Exploratory Research - Definition, Guide and Example*. Scribbr.
- 31) (2016). *Government Gazette*. Lusaka.
- 32) Happyson Bimba, M. H. (June 2019). The Impact of Supply Chain Management practices on Industry competitiveness: A mixed methods study on Zimbabwean Petroleum Industry. *African Journal of Science Technology Innovation and Development*.
- 33) Hapompwe, C.C., Banda, N., and Chalwe, A.N. (2024). Examining Critical Success Factors for Africa's Sustainable Industrial Development with Special Reference to Zambian Manufacturing Sector – Challenges, Prospects & Opportunities. *Journal of Economics, Finance and Management Studies*. Volume 07 Issue 01, 571-584. DOI: 10.47191/jefms/v7-i1-59. ISSN (print): 2644-0490, ISSN (online): 2644-0504
- 34) Hassan, M. (2024). *Conceptual Framework-Types, Methodology and Examples*. Research Guide.
- 35) Hassan, M. (2024). *Quantitative Data- Types, Methods and Examples*. Research Method.Net.
- 36) Hassan, M. (March 26, 2024). *Scope of Research: Writing Guide and Example*. Research Guide.
- 37) Indeed Editorial Team. (2023). *6 Methods of Data Collection (With Types and Examples)*. Indeed.
- 38) International, C. (January 2020). *The Petroleum Industry in Zambia: Challenges and Opportunities*. Lusaka: CUTS Communications & Advocacy.

Impact of the Zambian Government's Liberalized Bulk Petroleum Products Procurement Policy on Service Efficiency and Effectiveness: A Case Study of the Ministry of Energy

- 39) J.W Creswell, J. C. (2017). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Sage.
- 40) Jaganmohan, M. (2024). *Petroleum Sector in India-Statistics & Facts*. Statista.
- 41) Lakens, D. (2022). *Sample Size Justification*. Collabra:Psychology.
- 42) Lusaka Times. (2021). Removal of Subsidies and Tax incentives on some petroleum products was inevitable-Kawana. Lusaka: Lusaka Times.
- 43) (2016). *Mandate of Ministry of Energy*. Lusaka: Government Gazzette.
- 44) McCombes, S. (2023). *Sampling Methods/Types, Techniques and Examples*. Scribbr.
- 45) Ministry of Energy. (2022). *2022-2026 Strategic Plan*. Lusaka.
- 46) Muyunda, K. (2020). *The Petroleum Industry in Zambia: Challenges and Opportunities*. CUTS International.
- 47) Mwenda, J. (2021, December 20). Government will stop being involved in fuel procurement next year. *News Diggers*.
- 48) Nsambo, S., Nsama, C., & Hapompwe, C.C. (2024). Employees' Perception of the Contributory Pension Scheme (CPS) and Its Implementation Effect in Malawi's Shire Highlands Education Division. *Journal of Economics, Finance and Management Studies* ISSN (print): 2644-0490, ISSN (online): 2644-0504 Volume 07 Issue 01. DOI: 10.47191/jefms/v7-i1-60,
- 49) *Petroleum Act. (1930)*. Ministry of Legal Affairs.
- 50) Pierre J. Nguetse, C. S. (March 2018). *The Impact of Liberalization of Petroleum Product Prices on the Economy of Cameroon*. African Economic Research Consortium.
- 51) PMRC. (January 2021). *Understanding Fuel Procurement in Zambia: Part 2*. Lusaka: PMRC Zambia.
- 52) QuestionPro Collaborator. (n.d.). *Qualitative Data Analysis: What is it, Methods + Examples*.
- 53) Rakner, L. (01 October 2003). *Political and Economic Liberalization in Zambia 1991-2001*. The Nordic Africa Institute.
- 54) Research Wap Admin. (2020). *How To Write Chapter Three of Your Research Project (Research Methodology)*. ResearchWap.
- 55) Sacred Heart University. (18 July 2023). *Organising Academic Research Papers: Types of Research Designs*. Sacred Heart University.
- 56) Saleh, I. Z. (2014). Bulk Procurement System and Retail Price Cap on Downstream Subsector in Tanzania, Challenges, Success and Sustainability. *International Journal of Mnagement Science and Business Research*, volume 3 - Issue 5.
- 57) Sambit Mohanty, & R. (2019). *Analysis: India's Move to Liberalized Fuel Retailing Signals more Competition*. S&P Global Commodity Insights.
- 58) Sheppard, V. (2020). *Research Methods for the Social Sciences: An Introduction*. BCcampus.
- 59) Survey Point Team. (2024). *7 Powerful Steps in Sampling Design for Effective Research*. SurveyPoint.
- 60) Tadalaluru, S. (2024). *Introduction to Sampling Techniques/Different Sampling Types and Techniques*. Greatlearning.
- 61) Taylor & Francis. (2022). *Why is Accessibility Important for your Research Paper*. Author Services.
- 62) Tegan, G. (2023). *Mixed Methods Research/Definition, Guide & Examples*. Scribbr.
- 63) Timm Betz, A. P. (2021). *Liberalization*. Oxford Academic.
- 64) Vallis. (2020). *The Petroleum Industry in Tanzania*.
- 65) Williamson, O. E. (1979). Transaction-cost economics: The governance of contractual relations. *Journal of Law and Economics*, 22(2), 233-261.
- 66) Williamson, O. E. (1985). *The economic institutions of capitalism*. Free Press.
- 67) Williamson, O. E. (1996). *The mechanisms of governance*. Oxford University Press
- 68) Writers, I. (2016). *How To Calculate Reliable Sample Size Using Taro Yamane Method*.
- 69) Zambian Governmet to leave product procurement to private sector. (2016, November 24). *African Energy News Letter*, p. Issue 335



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