

The Impact of Multi-Currency System on Public Sector Procurement Performance in Zimbabwe

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Abstract

The purpose of the study was to examine the impact of multi-currency system on public sector procurement performance in Zimbabwe using evidence from government ministries of agriculture, defence and local government. In line with the positivism philosophical framework the study used correlational research design, deductive research approach, quantitative research methodology and a structured questionnaire to collect primary data from 171 participants comprising of procurement and finance officers in the three ministries. The study confirmed a statistically significant impact of multi-currency system on public sector procurement performance. All multi-currency system dimensions that include exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation were found to significant positive predictors of both procurement cost and supplier price. Exchange rate fluctuations were confirmed to have the greatest positive impact on both procurement cost and supplier price in the public sector.

Keywords: Multi-currency system, public sector, procurement performance, public procurement, exchange rate fluctuations, foreign currency shortage, inflation, Procurement cost, Supplier price.

1.0 INTRODUCTION

Public procurement is a key pillar that helps the government to procure goods effectively, economically and efficiently, in order to achieve government targets and ensure effective service delivery in the public sector (Government of Zimbabwe, 2020). Like any other sectors, it has not been spared from the effects of multiple currency regime in Zimbabwe. In that context, the purpose of this research is to statistically examine the impact of multi-currency system on public sector procurement performance in Zimbabwe. The study will provide valuable insights to policy makers on how to address public procurement challenges triggered by a multiple currency regime, thereby optimising service delivery and enabling the government to attain its vision 2030 of becoming an upper middle-income economy (Government of Zimbabwe, 2020).

1.1 Background of the study

In 2008, the problem of hyperinflation reached its climax/ crescendo (Ben, 2016). The country of Zimbabwe reached an unprecedented inflation rate of 231 million which was the highest in the world during that year (Masiyandima, Ngundu, Kupeta, Moyo & Ngwenya, 2018). It resulted in a total collapse of the local currency. Most companies shut down their operations with a handful, operating below their normal capacity. In a bid to arrest the problem of hyperinflation, the government of Zimbabwe introduced the

United States Dollar in the year 2009 (Newman, Rusvoto & Sitsha, 2023). Indeed, inflation drastically dropped to a single digit in that same year. Retailers started to restock again (ibid).

Manda and Sibanda (2020) revealed that the basket of foreign currencies introduced in 2009 included the United States Dollar, the South African rand, British pound, Euro and Botswana Pula. In the year 2014, the Reserve Bank of Zimbabwe (RBZ) widened the basket of foreign currency to include Japanese yen, Indian rupee, Chinese yuan and Australian dollar (RBZ, 2014). In the year 2019, a new local currency known as the RTGs dollars was introduced by the RBZ (Zhao, 2020). Hence, the multiple currency also now includes the Zimbabwean dollar up to date. The government has extended the use of multiple currencies to the year 2030, in line with its vision of growing the economy into an upper middle-income economy through Statutory Instrument (SI) 218 of 2023 (Government of Zimbabwe, 2023). However, the USD was the most predominantly used currency within the basket of currencies. The major worrying trend has been the drastic deterioration of the new local currency known as the RTGs dollars against the USD as shown by the table below from the year of introduction to date.

Table 1.1: Trend analysis of exchange rates between the RTGs dollars (ZWL) and the USD

Year	Exchange rate	Margin of deterioration (%)
2018	1	0%
2019	16.7734	-1577%
2020	81.7866	-388%
2021	108.66600	-33%
2022	684.3339	-530%
2023	5,912.2494	-764%
Cumulative		-591125%

Source: RBZ (2018-2023)

From table 1.1 above, it can be observed that the Zim dollar deteriorated drastically by an unprecedented rate of 1577% between its year of launch in 2018 and December 2019. The deterioration trend continued by a margin of 388% between December 2019 and December 2020. In 2021, the margin of deterioration increased by 33%. In 2022, a further deterioration of the Zim dollar by 530% was witnessed. By December 15, 2023 the Zim dollar has already declined by 764%. Between 2018 and 2023, the exchange rate has declined by 591125%, clearly signalling that the yesteryear problem of hyperinflation is back in the country. The deterioration trend of the Zim dollar against the USD, shows that the local currency is losing its purchasing power. Very few organisations and individuals including suppliers still have dollar in the Zim dollar. Hence, practices such as forward pricing and pegging value of goods in parallel market rates became rampant. This directly affects total procurement cost among other overheads.

Whilst the multiple currency has been viewed as a panacea to economic problems facing the country, it also has its fair share of flaws (Mhungu & Sibanda, 2017). Multi-currency is the use of more than one currency as a legal tender in a country (Islam & Karim, 2023). Major elements or issues associated with a multicurrency system include huge exchange rate fluctuations, shortage of foreign currency and multiple currency induced inflation. These issues directly affect supplier price and ultimately affect total procurement cost.

Earlier studies revealed contradictory findings. Prior empirical researchers dismally failed to reach consensus on the relationship between multicurrency and procurement performance. For example, Oyelaran-Oyeyinka and Alaba (2020) confirmed a significant negative impact of exchange rate fluctuations on public procurement. The results differ from those of Bae and Lee (2018) who revealed that exchange rate fluctuations have a positive impact on public procurement performance in developing countries. The results are also contradictory with those of Yoo and Lee (2020) who demonstrated that exchange rate fluctuations have no significant impact on public procurement performance in developed countries.

Public procurement performance is the extent to which goods or services procured by the organisation realises value for money (Aguilar, 2022). In Zimbabwe, the public sector procurement system is guided by the Public Procurement and Disposal of Assets Act (PPDAA) (2007), which clearly establishes the frameworks and guidelines for procurement practices in the public sector. The Procurement Regulatory Authority of Zimbabwe (PRAZ) is the regulator. Despite the regulation, the use of multiple currency poses major challenges on public procurement activities and procedures. Most government ministries especially defence, agriculture and local government have been severely affected their ability to deliver services (Auditor General report, 2021). It is against this background that the study sought to examine the impact of multicurrency system on public sector procurement performance.

1.2. Research problem

Theoretically, the adoption of a basket of currencies including the US dollar can drastically reduce inflation thereby producing favourable organisational performance in both financial and procurement terms (Ngamanya, Munhupedzi, & Chidakwa, 2017). However, as the rate of adoption of multiple currency increased since 2009, in a bid to arrest hyperinflation, government ministries continued to face a deterioration in procurement performance. The notable deterioration in public procurement performance as measured by excessively huge supplier prices and high procurement costs against the background of high exchange rate fluctuations, severe shortage of foreign currency and hyperinflation linked to use of multiple currency signals existence of a major problem. For instance, in 2018 the USD was trading at 1:1 with the Zimbabwean dollar but as of 15 December 2023, 1USD was trading at 5,912.2494 at the official market and over ZWL10 000-00 at the parallel market (RBZ, 2023). This is a grave concern to policy makers and industry captains as it directly affects supplier prices and consequently total procurement cost. As evident from the background, earlier studies on the relationship between multiple currency and public procurement performance showed contradictory findings. Some showed significant relationship while others showed that the relationship is insignificant (Oyelaran-Oyeyinka & Alaba 2020; Yoo & Lee, 2020). Additionally, there is limited literature on the relationship between the two variables in the context of Zimbabwe. Hence, the current study seeks to close the gap by scientifically examining the impact of multicurrency system on organisational performance from a public procurement perspective.

1.3 Research objectives

The primary goal of the research is to unpack the impact of multi-currency system on organisational performance in the public sector procurement. In order to fulfil the needs for this goal, the following specific objectives were generated:

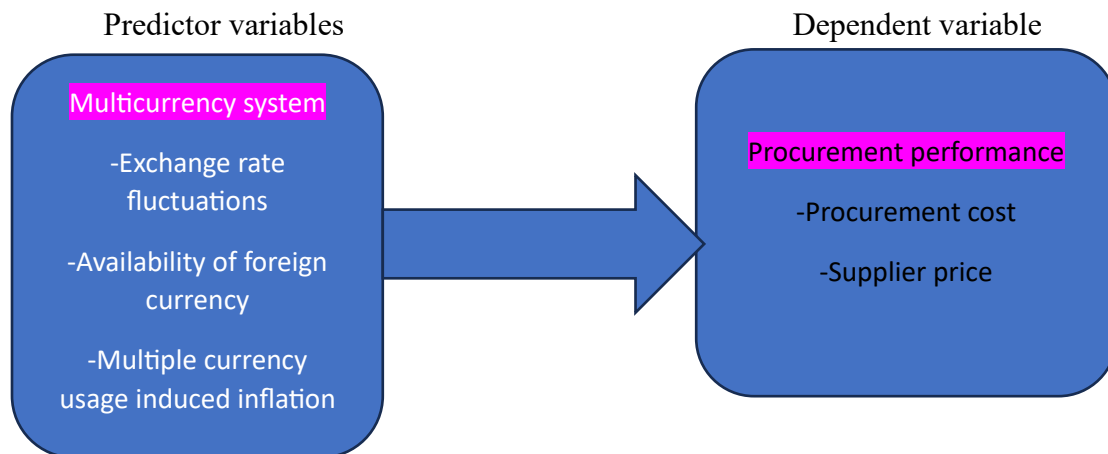
- 1.3.1 To establish the effect of exchange rate fluctuations on public procurement performance.
- 1.3.2 To determine the impact of available foreign currency on public procurement performance.

1.3.3 To assess the influence of multiple currency usage induced inflation on public procurement performance.

LITERATURE REVIEW

2.0 Conceptual framework

A conceptual framework diagrammatically illustrates the independent and dependent variables in a study (Creswell, 2022). Figure 1 below shows the conceptual framework for this study.



Source: Author (2023)

2.1 Multi-currency system

Multi-currency system is a monetary regime whereby the country utilises more than one currency as a medium of exchange (Ngu & Nguyen, 2022). The country uses a basket of currencies including local currency and foreign currencies. Common issues associated with a basket of currencies used in an economy entail exchange rate fluctuations, availability of foreign currency and multiple currency usage induced inflation. These were adopted as indicators of multi-currency system. Such indicators were supported by prior studies of Adegbenmi and Adeyemi (2022); Oyelaran-Oyeyinka and Alaba (2020) and Kusnierz and Sowa (2020).

2.2 Exchange rate fluctuations

Exchange rate fluctuations is the positive or negative movement of value of one currency in relation to another currency in the basket (Mwangi & Njagi, 2019). It directly impacts on the purchasing power of the government ministries and other institutions and or individuals in the country. The total procurement cost can either rise or fall depending on the direction of the exchange rate fluctuation.

2.3 Availability of foreign currency

Availability of foreign currency is the ease with which organisations are able to access foreign currency required to procure goods and services (Asante & Owusu-Ansah, 2020). The demand of local currency in the region has a significant effect on availability of foreign currency. For example, a country with a history of hyperinflation and economic volatility can not attract enough foreign currency required for public procurement. This can trigger excessive delays in procurement and huge rise in total procurement costs. Thus, shortage of foreign currency can result in organisation securing the foreign currency at exorbitant exchange rates on the parallel market. This leads to a sharp rise in total procurement costs.

2.4 Multiple currency usage induced inflation

Multiple currency usage induced inflation is inflation caused by changes in the value of at least one of the currencies in the basket (Moloi & Mphahlele, 2022). The multiple currencies used trigger inflationary pressures due to the fluctuations in the exchange rates of the currencies. This can cause a rise in costs of good procured. It also reduces purchasing power of government institutions, private sector firms and individuals in the country. Therefore, it directly affects procurement performance as measured from the total procurement costs dimension.

2.5 Public procurement performance

According to Aguilar (2022) public procurement performance is the extent to which goods or services procured by the organisation realises value for money. This includes a key consideration of three major factors that comprise of cost, quality and timeliness. In line with this definition the study considered procurement cost and supplier price reasonableness as major indicators of public procurement performance. These indicators have been validated by earlier studies of van der Merwe and van der Merwe (2018) and Prasad and Rao (2019).

2.6 Procurement cost

Procurement costs refer to the total expenditure incurred by organisations in acquiring goods or services from the supplier including related overheads (Adeyemi, Adeniyi & Adeyemo, 2020). When the procurement costs are low, the organisation procurement performance is considered as high because it suggests that the organisation is enjoying value for money. However, when the total procurement costs are low, it suggests that the organisation is excessively spending on procurement and it reduces profitability of the organisation. It impacts adversely on the organisational performance as measured from the economy dimension. Changes that occur in multicurrency elements for example an increase in exchange rate and also a substantial rise in multiple currency induced inflation can trigger an exponential rise in total procurement costs. Hence the two factors are related.

2.7 Supplier price reasonableness

This relates to how sensible and or reasonable are the price charged by a supplier when compared to others in the same industry locally, regionally and globally, taking into account both quality and quantity of the product (Al-Quran, Jarallah & Al-Saleh, 2020). For instance, after adjusting for transport and import duty costs on inputs, price charged by suppliers locally must fairly or reasonably compare with others in the region. Even within the same country similar products are expected to be charged similar prices given that all of the suppliers are operating in the same multicurrency regime. However, in cases where some charge excessively low prices whilst others are charging extremely high prices, there is need to investigate. A very high price charged by a supplier is regarded as unreasonable while a very low price may point to a substandard product. A moderate price may indicate that the organisation is realising value for money. Changes in multicurrency system affect reasonableness of the price. For example, a huge rise in foreign currency exchange rate forces suppliers to drastically increase price of their products charged in Zimbabwean dollars.

2.8 Empirical review

Oyelaran-Oyeyinka and Alaba (2020) conducted an empirical study on the relationship between exchange

rate fluctuations on public procurement performance using evidence from developing countries. The study confirmed a significant negative impact of exchange rate fluctuations on public procurement. The study recommended procurement managers to direct more attention to exchange rate fluctuations to mitigate its adverse impact on public procurement performance. The results differ from those of Bae and Lee (2018) who revealed that exchange rate fluctuations have a positive impact on public procurement performance in developing countries. The results also contradictory with those of Yoo and Lee (2020) who demonstrated that exchange rate fluctuations have no significant impact on public procurement performance in developed countries.

Another research was also conducted by Wang and Chen (2019) in China to establish the association between foreign currency exposure and public procurement performance. The study confirmed a statistically significant impact of foreign currency exposure on public procurement performance in the Asian nation. The study recommended fleet managers to pay special attention to foreign currency exposure of their procurement contracts because it is a significant driver of public procurement performance.

In light of the above submissions the study makes the following hypothesis:

H₁: Foreign currency fluctuations have statistically significant impact on public procurement performance
In West Africa, precisely in Nigeria, Adegbenmi and Adeyemi (2022) examined the statistical relationship that exists between foreign currency availability and public procurement performance. The study showed that there is a significant positive impact of available foreign currency on public procurement performance in Nigeria. The study recommended government of Nigeria to secure more foreign currency in order to improve public procurement performance.

In People's Republic of China, Li and Li (2020) carried out research on the relationship between foreign currency risk and public procurement performance. The study revealed that foreign currency risk produces a statistically significant negative impact on public procurement performance. In light of these findings, the study hypothesized as follows:

Given the above review of literature the following research hypothesis was made:

H₂: Availability of foreign currency has a statistically significant effect on public procurement performance

A study by Kusnierz and Sowa (2020) showed that inflation negatively impacts on public procurement performance. The study demonstrated that a rise in inflation erode the purchasing power of local currency and trigger huge total procurement costs due to associated exchange rate losses. The study recommended procurement managers to monitor inflation of the currencies in the basket when making procurement decisions and deciding on the best currency to use in order to mitigate the adverse impact of the inflation on public procurement performance. The results are consistent with those of Wang and Chen (2019) who unearthed that currency fluctuations have a significant impact on public procurement performance.

In light of the foregoing literature review, the study makes the following hypothesis:

H₃: Multiple currency usage induced inflation has a statistically significant influence on public procurement performance

From the above reviewed literature, it can be deduced that most of the studies on multiple currency elements that include availability of foreign currency, foreign currency fluctuations and inflation extensively covered foreign countries including China and Nigeria. This leaves a geographical and contextual gap filled by this study given the economic environment, fiscal and monetary policy of these countries significantly differ from that of Zimbabwe. It is also evident from the above reviewed literature that some studies produced significant relationship whilst others showed insignificant relationship

between the multiple currency elements and public procurement performance. In light of such contradiction, there is need for further research in the context of Zimbabwe.

2.9 Theories

Two major theories were adopted in this research. This includes the transaction cost theory and the Purchasing Power Parity theory.

2.9.1 Transaction Cost Theory

The Transaction Cost Theory is a brainchild of Oliver Williamson (Adeyemo & Akingbade, 2020). It states that firms consider a number of costs when making their business decisions (ibid). Some of the costs considered entail contracting costs, storage and handling costs, information costs and opportunity costs (Ndlovu & Chinyenze, 2022). In the context of this research the major costs considered include currency conversion costs and exchange rate risk (ibid). Currency conversion costs is the additional expenses incurred by the organisation by converting one currency to another for use in procurement decisions (Kumar & Kumar, 2022). For instance, the organisation may need to spend more Zim dollars to buy foreign currency to procure spare parts outside the country. Higher conversion costs can discourage both buyers and suppliers from engaging in transactions, leading to delays and increased expenses. This adversely affect total procurement costs incurred by the government ministries. Exchange rate risk is linked to volatility of currencies in the basket (Olowookere & Adeyemi, 2023). During periods of huge currency fluctuations, government will be uncertain of both its revenue and procurement expenditure. This uncertainty can trigger a substantial increase of transaction costs, as parties may need to hedge against exchange rate fluctuations or bear the risk of currency devaluation. Hence, this directly affects public procurement performance.

2.9.2 The Purchasing Power Parity (PPP) theory

The Purchasing Power Parity (PPP) theory is an economic theory which can be traced to renowned authors that include Gustav Cassel in 1918 and other proponents of the theory that include Roy Radner and Sidney Winter (Adeyemo & Akingbade, 2020). It clearly and categorically states that if two nations have the same price level for a basket of goods and services, then their exchange rates are supposed to be also be the same (Kamarudin, & Hasan, 2020). The theory is particularly relevant to this study from various dimensions that include exchange rate fluctuations, procurement decisions, supplier selection and inflation. Exchange rate fluctuations affect purchasing power of public sector organisations and total procurement cost incurred. For example, a sharp depreciation of the local currency can increase the price of imported goods and services, which can adversely impact public sector procurement performance (Gozun & Gozun, 2022). This can also trigger a shift from foreign suppliers to local suppliers, hence it directly affects key procurement decisions and supplier selection as well. Exchange rate fluctuations affect the price of goods and services, which can cause changes in inflation rates. Hence, the theory is valid for this research.

RESEARCH METHODOLOGY

3.0. Research design and methodology

The study used a correlational survey research design. The design enabled the researcher to establish the nature, direction, magnitude and statistical significance of the relationship between each element of multicurrency system (exchange rate fluctuations, availability of foreign currency and multiple currency usage induced inflation) and public sector procurement performance (Neuman, 2022).

3.1 Research methodology

In line with the positivism research philosophy and deductive research approach embraced the study employed an explanatory research method. The explanatory research method addresses the how and why questions of a research phenomenon (Creswell & Creswell, 2022). In the context of this research the researcher was interested in establishing how the multicurrency system statistically affect public procurement performance to guide policy makers in Zimbabwe. Hence, it was the best research method for adoption to address the key research question.

3.2 Quantitative study

A quantitative study uses scientific, statistical and mathematical techniques to resolve a research problem (Bryman, 2021). In order to resolve the research problem, the study adopted a quantitative research method. Five-point Likert scale statements on the three elements of multicurrency system including exchange rate fluctuations, availability of foreign currency and multiple currency usage induced inflation were generated guided by prior empirical studies to represent the predictor variables. Similarly, Likert scale statements on public procurement performance were also created as representative of dependent variable. Responses on both the predictor variables (exchange rate fluctuations, availability of foreign currency and multiple currency usage induced inflation) and response variable (public procurement performance) were regressed to establish the statistically significance of the relationship.

3.3 Research philosophy

A research philosophy is the underlying perspective adopted by researchers in conducting their study. The current study adopted the positivism research philosophy given the quantitative nature of the three study objectives. Earlier studies that include Asante and Owusu-Ansah (2020) adopted the same philosophical stance and obtain valid findings.

3.4 Target population

The target population was 299 as displayed on table 3.1. It includes procurement and finance officers in three government ministries and local suppliers. These participants were knowledgeable of the multiple currency system and public procurement performance. The finance officers are the one who pay and makes key decisions on type of currency to use to procure goods and services and this has an impact on public procurement. They also compute the exchange rate losses linked to use of multiple currency to procure goods. The procurement personnel appreciate the procurement performance in terms of both total procurement costs and reasonableness of supplier prices and even multicurrency issues. The suppliers are the ones who charge low price, moderate price and exorbitant price in line with the ruling exchange rate. Hence, it was justified to include them. The three used ministries have been on the spotlight for deterioration of public procurement performance and their headquarters where key procurement decisions are made are in Harare. Hence, the study was confined to Harare. The study used 18-65 years of age participants as post that age, most of the civil servants will have retired and lost memory of the latest trends at both the official and parallel currency market.

Table 3.1: Target Population

Target Respondents	Population Size
Ministry of defence procurement and finance officers	85

Ministry of agriculture procurement and finance officers	128
Ministry of local government procurement and finance officers	71
Local suppliers	15
Total	299

Source: Human resources database of the government ministries (2024)

3.5. Sampling strategy

In line with the quantitative research method, the study used probability sampling techniques. More precisely, the study used simple random and stratified sampling techniques to select the desired sample size. Stratified sampling was done through establishing four strata of Ministry of defence, agriculture and local government. The last strata were that of suppliers. Each stratum in the target population was fairly represented in the final sample size (Cooper & Schindler, 2020). Within each stratum, participants were randomly selected guided by the employee numbers. This gave an equal chance to every participant (Sekaran & Bougie, 2022).

3.6 Sample size

The study used Taro Yamane sample size formulae to reach an appropriate sample size.

$$n = N / (1 + N * (e^2))$$

where by:

n is the sample size

N is the target population size =299

e is the margin of error=0.05

$$n = 299 / (1 + 299 * (0.05^2))$$

$$n = 299 / (1 + 299 * 0.0025)$$

$$n = 299 / (1 + 0.7475)$$

$$n = 299 / 1.7475$$

$$n \approx 171$$

Hence, the appropriate sample size for a target population of 299 with a 5% margin of error based on Taro Yamane formulae is 171 participants. Table 3.2 shows the breakdown of the sample size.

Table 3.2: Sample size

Target Respondents	Population Size	Proportion	Sample size
Ministry of defence procurement and finance officers	85	0.284	49
Ministry of agriculture procurement and finance officers	128	0.428	73
Ministry of local government procurement and finance officers	71	0.238	41
Local suppliers	15	0.05	9
Total	299	1	171

Source: Author computations (2024)

3.7 Data collection

Primary data was collected participants on multicurrency system and public procurement performance using a 5-point Likert scale. The questions were adopted from prior empirical studies that include Oyelaran-Oyeyinka and Alaba (2020) and Li and Li (2020) among other researchers. The questions were easy to code and analyse. The questionnaire was physically dispatched to participants. The method was more effective as participants were concentrated at head offices of the three government ministries in Harare.

3.8 Data analysis

With the aid of statistical package for social sciences (SPSS 25) the study used multiple linear regression analysis to examine the impact of multicurrency system on public procurement performance guided by the model below.

$$P = a + B_1X_1 + B_2X_2 + B_3X_3 + e$$

Where X_1 , X_2 and X_3 are five predictor variables that include exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation; P is the dependent variable (public procurement performance as measured by total procurement cost and supplier price) and e is the error term (unexplained variation in public procurement performance-not accounted for by the three independent variables). B_1 to B_3 are regression coefficients of the independent variable. Then e is the y-intercept which means the value of public procurement performance when exchange rate fluctuations, availability of foreign currency and multiple currency usage induced inflation are equal to zero.

3.9 Pilot study

A pilot study with three respondents noted some typo errors and a few vague questions which were corrected and the finetuned questionnaire was then dispatched to participants. This enhanced both validity and reliability of the questionnaire.

3.10 Validity and reliability

Validity measures the degree of accuracy of the research instrument in measuring what it claims to measure while reliability is the consistency of a measure (Trochim & Donnelly, 2022). This was achieved through pilot testing of the structured questionnaire and adoption of prior empirical study questions. Additionally, a Cronbach Alpha score of more than 0.70 obtained in the questionnaire confirmed that a reliable questionnaire was used in the research (Brown & Green, 2022).

3.11 Limitations of quantitative research

There was limited ability to provide in-depth understanding of why the relationship between the predictor variables and response variable was significant or not. The study captured views of various ministries and also suppliers to mitigate the limitation of the impact on the study. Some participants were reluctant to share information on their public procurement performance with the researcher. The researcher fully explained to participants that the research was exclusively for academic use and convinced them to participate.

3.12 Ethical considerations

The researcher asked for permission to conduct the study from the responsible officials of the three go-

vernment ministries. The researcher elaborated to participants purposes of the research and obtained informed consent (Creswell, 2022). Participants were advised that their participation was voluntary and should they feel the need to withdraw, they were free to do so without consequences (Bryman, 2021). Participants were not subjected to any harm either physical or emotional through this research (Cooper & Schindler, 2020). The researcher respected rights of participants to confidentiality, privacy and anonymity (ibid). Participants were advised not to reveal their identities on the questionnaires used. Collected results were reported as shown by primary data findings. The researcher exercised highest level of integrity in reporting results.

DATA PRESENTATION AND ANALYSIS

4.1 Response rate

Table 4.1 below shows questionnaire response rate.

Table 4. 1: Response rate

Instrument	No. Administered	Actual returned	Response rate
Questionnaires	171	147	86%
Total	171	147	86%

Source: Surve Data (2023)

Table 4.1 above shows that of the 171 questionnaires dispatched to participants, a total of 147 was returned, which gives a response rate of 86%. Campbell (2020) submitted that a response rate of within a range of 50% to 70% is acceptable and shows that the results are credible and fairly represent the target population. Since, this study surpassed the 50%-70% threshold, it can be deduced that results are credible and this form a basis of formulating sound conclusions and recommendations. The results also showed that most respondents in the three government ministries of defence, agriculture and local government were willing to participate in the study. Constant telephone and physical follow ups contributed to this overwhelming response rate.

4.2 The impact of multi-currency system on public sector procurement performance in Zimbabwe.

Tables 4.2 to 4.5 provide a summary of the impact of multi-currency system on public sector procurement performance as measured by total procurement cost and supplier price in Zimbabwe.

Table 4.2 Summary model on the impact of multi-currency system on public sector total procurement cost

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935 ^a	.874	.865	.41048
a. Predictors: (Constant), exchange rate fluctuations, foreign currency shortage, multiple currency usage induced inflation.				
b. Dependent Variable: Total procurement cost				

Source: Survey Data (2023)

Table 4.2 shows that there is a strong positive correlation between the predictor variables (exchange rate fluctuations, foreign currency shortage, multiple currency usage induced inflation) and the response variable (Total procurement cost) as denoted by Pearson correlation coefficient of 0.935. A coefficient of determination of 0.874 suggests that the values of exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation can perfectly predict total public procurement cost by 87.4%. The adjusted R Square of 0.865 shows that exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation fit to the model by approximately 86.5%. Hence, a strong model was employed in this study. It can be inferred that there is a strong positive relationship that exists between multi-currency system and total procurement cost in the public sector of Zimbabwe.

Table 4.3 Summary model on the impact of multi-currency system on public sector supplier price

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.927 ^a	.860	.850	.33233
a. Predictors: (Constant), exchange rate fluctuations, foreign currency shortage, multiple currency usage induced inflation.				
b. Dependent Variable: Supplier price				

Source: Survey Data (2023)

Table 4.3 indicates that there is a strong positive linear relationship between the predictor variables (exchange rate fluctuations, foreign currency shortage, multiple currency usage induced inflation) and the dependent variable (Supplier price) as reflected by Pearson correlation coefficient of 0.927. A coefficient of determination of 0.860 implies that 86% of the variation in supplier price in the public sector is exclusively attributable to exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation. Exogenous factors beyond the scope of the model account for 14% of the variation in supplier price. The adjusted R Square of 0.850 shows that exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation fit to the model by approximately 85%. Therefore, a strong model was used in this research. It can be deduced that there is a strong positive relationship that exists between multi-currency system and supplier price in the public sector of Zimbabwe.

Table 4.4 Regression coefficients on the impact of multi-currency system on public sector total procurement cost

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.273	.696		6.142	.000
	Exchange rate fluctuations	1.368	.079	.989	17.368	.000
	Foreign currency shortage	.301	.082	.207	3.697	.001

	Multiple currency usage induced inflation	.363	.072	.279	5.046	.000
a. Dependent Variable: Total procurement cost						

Source: Survey Data (2023)

Table 4.5 Regression coefficients on the impact of multi-currency system on public sector supplier price

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.646	.563		2.922	.005
	Exchange rate fluctuations	1.042	.064	.980	16.337	.000
	Foreign currency shortage	.197	.066	.176	2.984	.005
	Multiple currency usage induced inflation	.177	.058	.177	3.039	.004
a. Dependent Variable: Supplier price						

Source: Survey Data (2024)

4.3 The effect of exchange rate fluctuations on public procurement performance.

H_1 : Foreign currency fluctuations have statistically significant impact on public procurement performance

4.3.1 Exchange rate fluctuations on Total procurement cost

From table 4.4 above, the regression coefficient of 1.368 implies that for every 1 unit rise in exchange rate fluctuations, there is 1.368 rise in total procurement cost incurred by public sector organisations. The probability value of 0.000 is lower than 5%, suggesting that the positive effect of exchange rate fluctuations on total procurement cost is statistically significant. Hence, the hypothesis which stated that *foreign currency fluctuations have statistically significant impact on public procurement performance* was validated at 5% level of significance. The results suggest that a rise in exchange rate fluctuations trigger exchange rate losses which ultimately increase total procurement costs.

4.3.2 Exchange rate fluctuations on supplier price

Table 4.5 also shows a regression coefficient of 1.042 which indicates that for every 1 unit rise in exchange rate fluctuations, supplier price increase by 1.042 units. The p-value of 0.000 is below 5% margin of error, suggesting that the positive impact of exchange rate fluctuations on supplier price is statistically significant. The result also supports the hypothesis which stated that foreign currency fluctuations have statistically significant impact on public procurement performance. The result shows that suppliers are sensitive to fluctuations in exchange rates. They do not want to incur exchange rate losses. Hence, the adjust their price in line with exchange rate fluctuations. Such cost is passed to the government as the buyer, hence high total procurement costs are incurred which ultimately lower the financial savings anticipated from buying from local suppliers. It can also be inferred that exchange rate fluctuations have

the highest regression coefficient suggesting that it is the most powerful driver of supplier price and total procurement cost in the public sector. Exchange rate fluctuations also cause huge volatility and uncertainty in the market. In such environments suppliers charge huge prices to ensure that they will not suffer any loss linked to exchange rate movement.

The results are supported by literature. Oyelaran-Oyeyinka and Alaba (2020) study confirmed a significant impact of exchange rate fluctuations on public procurement. The results are also supported by Bae and Lee (2018) who revealed that exchange rate fluctuations have a significant impact on public procurement performance in developing countries. The results are also in line with those of Wang and Chen (2019) in China who confirmed a statistically significant impact of foreign currency exposure on public procurement performance. However, the results are contradictory with those of Yoo and Lee (2020) who demonstrated that exchange rate fluctuations have no significant impact on public procurement performance in developed countries. The difference in results is due to the fact that Zimbabwe is a developing country whilst the study of Yoo and Lee (2020) focused on developed countries only.

4.4 The impact of available foreign currency on public procurement performance.

H₂: Availability of foreign currency has a statistically significant effect on public procurement performance

4.4.1 Foreign currency shortage and Total procurement cost

As displayed on table 4.4 above the regression coefficient of 0.301 shows that for every 1% increase in foreign currency shortage there is 30.1% increase in total procurement cost. Whilst foreign currency has the least regression coefficient it is still a significant predictor of total procurement cost because the p-value of 0.001 is below the 5% level of significance. Therefore, the hypothesis which stated that *availability of foreign currency has a statistically significant effect on public procurement performance* was validated. The result implies that when there is a shortage of foreign currency organisations in the public sector secure the foreign currency in the parallel market at exorbitant rates. This increases the total procurement costs incurred by public sector institutions.

4.4.2 Foreign currency shortage and supplier price

As can be observed on table 4.5 above, the regression coefficient of 0.197 implies that for every 1% rise in foreign currency shortage, supplier price is adjusted upwards by 19.7%. In light of the significant value of 0.005 which is equal to 5% margin of error, it can be deduced that the positive impact of foreign currency shortage on supplier price is statistically significant. This corroborates the earlier finding where it was confirmed that availability of foreign currency has a statistically significant effect on public procurement performance. However, in terms of weight the result showed that foreign currency shortage is number two powerful determinant of supplier price in the public sector. The result suggests that if there are foreign currency shortage suppliers are unable to import sufficient input for production. They buy from local input suppliers who use forward pricing to hedge against foreign currency exchange loss. It also implies that the RBZ foreign currency auction will not have sufficient money to support suppliers. Hence, funds can only be secured at parallel market at exorbitant rates. Therefore, huge prices are charged which significantly reduce profitability of organisations.

The findings are supported by Adegbelemi and Adeyemi (2022) who showed that there is a significant impact of available foreign currency on public procurement performance in Nigeria. These findings are also consistent with those of Li and Li (2020) who revealed that foreign currency risk produces a statistically significant impact on public procurement performance.

4.5 The influence of multiple currency usage induced inflation on public procurement performance.

H₃: Multiple currency usage induced inflation has a statistically significant influence on public procurement performance

4.5.1 Multiple currency usage induced inflation and Total procurement cost

Results on table 4.4 shows a regression coefficient of 0.363 suggesting that for every 1% increase in multiple currency usage induced inflation, there is 36.3% rise in total procurement cost. The p-value of 0.000 confirm that the positive influence of multiple currency usage induced inflation on Total procurement cost is statistically significant. Therefore, the hypothesis which indicated that *multiple currency usage induced inflation has a statistically significant influence on public procurement performance* was supported by empirical evidence presented.

4.5.2 Multiple currency usage induced inflation and Supplier price

Findings displayed on table 4.r shows a regression coefficient of 0.177 suggesting that for every 1% increase in multiple currency usage induced inflation, there is 17.7% increase in supplier price. The p-value of 0.004 confirm that the positive influence of multiple currency usage induced inflation on supplier price is statistically significant. Therefore, the hypothesis which indicated that multiple currency usage induced inflation has a statistically significant influence on public procurement performance was further supported. The result implies that suppliers do not want to incur losses. Hence, they include the inflation premium in their product pricing decisions. The inflation premium captured increase the total procurement cost incurred by public sector firms. This substantially affect public sector procurement performance. The results are supported by literature. A study by Kusnierz and Sowa (2020) showed that a rise in inflation erode the purchasing power of local currency and trigger huge total procurement costs due to associated exchange rate losses. The results are also consistent with those of Wang and Chen (2019) who unearthed that currency fluctuations have a significant impact on public procurement performance.

5.0 Recommendations and Conclusions

5.1.1 Conclusions

The study concluded that there is a statistically significant impact of multi-currency system on public sector procurement performance in Zimbabwe. It was further concluded that all the three elements of multi-currency system that include exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation are significant predictors of public sector procurement performance. Exchange rate fluctuations are the most significant and powerful driver of public sector procurement performance in a multicurrency regime. It was also concluded that within the basket of currencies, it is the local currency (ZWL) that drastically loses its value and significantly inflate total procurement costs.

5.1.2 Recommendations

- The government of Zimbabwe is strongly recommended to implement a cocktail of measures to improve availability of foreign currency. These measures include availing huge support to tobacco farmers so that they can export it and bring the much-needed foreign currency. The other measure is for the government of Zimbabwe to avail more export incentives so that the country can be a net exporter of goods. Currently imports exceeds exports, a situation which further increase shortage of foreign currency. In the same context, the study recommends the government of Zimbabwe to increase its foreign currency reserves in light of huge diamonds, platinum, chrome and gold exports. The government of Zimbabwe is also urged to promote foreign direct investments and lure more diaspora remittances. Promotion of foreign direct investments can be realised through provision of a stable

political and economic environment. The government must put an end the election mode whereby by elections are conducted frequently and direct its attention to economic growth and development as such manoeuvres scare away potential foreign direct investors. Tax incentives can also be offered to foreign direct investors. Removal of the 2% tax charge and other fees can go a long way in increasing diaspora remittances in the country.

- It is high time that public sector firms can start to implement foreign currency hedging strategies to mitigate the adverse impact of foreign currency fluctuations. Some of these strategies include forward contracts and currency options. They help to reduce foreign currency exposure of public sector organisations thereby reducing foreign currency exchange rate losses.
- The Reserve Bank of Zimbabwe is also recommended to increased the frequency of foreign currency auctions and the amount of funds available at each auction in order to reduce the foreign currency shortage which is adversely affecting public sector procurement performance.
- The government of Zimbabwe is recommended to avail incentives to local suppliers that are willing to accept local (Zim dollar) currency. This will increase demand for local currency and appreciation of the local currency thereby reducing inflation linked to use of a basket of currency. Most government institutions receive largest portion of their budget in form of local currency, hence buying from suppliers who accept local currency reduce issues of exchange rate losses.
- The government of Zimbabwe is urged to support local suppliers. This will improve their capacity and competitiveness. They will be able to supply enough products locally. It will reduce huge dependence on foreign suppliers that usually demand foreign currency. This reduces the demand for foreign currency as a significant amount of goods can be procured using the Zimbabwean dollar.
- The government of Zimbabwe through Procurement Regulatory Authority of Zimbabwe is also recommended to regularly update its procurement policies to account of the dynamic and latest market challenges linked to exchange rate fluctuations, foreign currency shortage and multiple currency usage induced inflation because they are significant determinants of total procurement cost and or supplier price which ultimately affect public sector procurement performance.
- The government of Zimbabwe is urged to work on a framework to reintroduce the Zimbabwean dollar and deal away with the multiple currency regime, once the economic fundamentals are fixed as the public sector procurement costs are significantly driven by the basket of currencies including the USD which is one of the strongest currency the world over.
- Lastly, future researchers are recommended to replicate the study in the private sector and also in the public sector of other countries outside Zimbabwe and compare results for consistency.

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