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Influence of Procurement Policies on Local Content Growth in Rwanda's Construction Industry: A Case of NPD Ltd

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Abstract: *This study examined the influence of procurement policies on local content growth at NPD Ltd in Rwanda's construction industry. The four dimensions were procurement planning policy, supplier selection policy, contract management policy, and risk management policy. Guided by the Resource-Based View, Agency Theory, Institutional Theory, and Transaction Cost Economics, the research employed descriptive and correlational designs using quantitative questionnaires and qualitative interviews. The population comprised 224 NPD Ltd employees, from whom 144 respondents were selected using Slovin's formula, stratified sampling, and simple random sampling. Of the questionnaires distributed, 129 were returned complete (89.58%). Instrument validity was supported by a content validity index of 0.862, while overall Cronbach's alpha was 0.869. Data were analyzed using SPSS version 29, Pearson correlations, and multiple regression. The four procurement-policy variables were positively associated with local content growth ($r = 0.792, 0.898, 0.741$, and 0.805, respectively; $p < 0.001$). The combined regression model explained 87.8% of variation in local content growth ($R^2 = 0.878$; $F = 221.600$, $p < 0.001$). Supplier selection policy showed the largest standardized coefficient ($\beta = 0.486$, $p < 0.001$), followed by procurement planning ($\beta = 0.233$, $p < 0.001$), contract management ($\beta = 0.211$, $p < 0.001$), and risk management ($\beta = 0.126$, $p = 0.046$). All four null hypotheses were rejected. NPD Ltd should improve local-supplier evaluation, procurement forecasting, contract monitoring, and supply-chain risk mitigation to strengthen local content growth.*

Keywords: *Procurement Policies, Procurement Planning Policy, Supplier Selection Policy, Contract Management Policy, Risk Management Policy, Local Content Growth*

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1. Introduction

Procurement policies have shifted from administrative procedures toward strategic mechanisms for strengthening domestic production and local enterprise participation. In construction, sourcing decisions increasingly consider socioeconomic outcomes alongside acquisition costs, particularly where procurement can help domestic suppliers gain market access and capabilities (Baily et al., 2022).

In Rwanda, the Made in Rwanda approach promotes domestic manufacturing and local sourcing in both public and corporate procurement. Preference for locally produced materials is intended to strengthen local firms and reduce dependence on imported construction inputs. However, the implementation of such preferences depends on whether organizational procurement policies translate national priorities into everyday procurement decisions (Gatare & Uwizeye, 2023).

The procurement planning dimension concerns forecasting, budgeting and timely communication of purchasing needs. Early identification of material

requirements may enable local producers to prepare production capacity and compete for procurement opportunities. In Rwanda's private construction sector, weaknesses in procurement planning have been associated with emergency imports and reduced opportunities for domestic suppliers (Mugisha, 2023).

Supplier selection decisions can affect the extent to which domestic enterprises participate in construction supply chains. Criteria addressing technical capability, reliability, quality and total cost can create space for qualified local suppliers, whereas exclusive reliance on the lowest immediate price may disadvantage them. The contribution of supplier selection therefore merits evaluation alongside broader local-content objectives (Karakoç et al., 2024).

Contract management and risk management also shape local sourcing outcomes. Contractual performance monitoring, payment terms and mechanisms for resolving disputes influence the stability of supplier relationships. Meanwhile, supply disruptions and supplier-capacity risks require appropriate assessment and mitigation rather than automatic avoidance of local suppliers (Mbonera, 2024).

Despite national initiatives to encourage domestic production, the dissertation identified persistent reliance on imported inputs and a limited understanding of how firm-level procurement policies contribute to local content growth. NPD Ltd therefore provided a case for examining the respective statistical relationships of procurement planning, supplier selection, contract management and risk management policies with local content growth in Rwanda's construction industry (Rwanda Development Board, 2023).

1.1 General Objective

The general objective of this study was to assess the influence of procurement policies on local content growth in Rwanda's construction industry, using NPD Ltd as a case study.

1.2 Specific Objectives

The study addressed four specific objectives corresponding to the procurement-policy dimensions under investigation.

1. To determine the influence of procurement planning policy on local content growth at NPD Ltd.
2. To examine the influence of supplier selection policy on local content growth at NPD Ltd.
3. To assess the influence of contract management policy on local content growth at NPD Ltd.
4. To analyze the influence of risk management policy on local content growth at NPD Ltd.

2. Literature Review

This section examines theories and empirical studies explaining how procurement policies can influence local content growth in construction supply chains.

2.1 Theoretical Review

The theoretical review considers four complementary perspectives on strategic resources, contractual incentives, institutional pressures, and transaction costs.

2.1.1 Resource-Based View (RBV)

Theory Barney (1991, as cited in Ristyawan et al., 2023) formally articulated the Resource-Based View (RBV) to explain how firms achieve sustainable competitive advantage. The theory posits that organizations should look inside the company to find the sources of competitive advantage instead of looking at the competitive environment. It argues that resources which are valuable, rare, inimitable, and non-substitutable (VRIN) enable firms to outperform competitors. Over the decades, this theory has become a cornerstone of strategic management literature (Ristyawan et al., 2023).

RBV suggests that a firm's unique capabilities, including its supply chain relationships, are critical assets. It emphasizes that simply acquiring resources is not enough; the firm must be organized to exploit these resources effectively. Scholars have expanded this to include the extended resource base, implying that suppliers are external resources that add value. This perspective shifts procurement from a clerical function to a strategic resource generator (Baily et al., 2022).

RBV argues that developing local suppliers creates a unique resource that competitors cannot easily replicate. By investing in local content, firms build a dedicated and responsive supply network that enhances operational agility. It supports the idea that internal capabilities determine how well a firm can leverage external opportunities. The theory discourages reliance on generic global markets in favor of cultivated specific assets (Smith & Weber, 2023).

Resource-Based View explained how NPD Ltd can use procurement policies to cultivate local suppliers as a strategic resource. By treating local vendors as valuable partners, NPD can create a competitive edge through faster delivery times and reduced logistics costs. The theory supports the variable of Supplier Selection and Development. This study utilized RBV to analyze how internal policies build local capacity.

2.1.2 Agency Theory

Jensen and Meckling (1976, as cited in Matinheikki et al., 2022) developed Agency Theory to explain the relationship between principals (owners) and agents (managers/employees). The theory addresses the agency problem, which occurs when the desires or goals of the principal and agent conflict. It also deals with the issue of risk sharing when the principal and agent have different risk preferences. This theory has been fundamental in designing corporate governance and contract structures (Matinheikki et al., 2022).

Agency Theory focuses on determining the most efficient contract to govern the principal-agent relationship. It suggests that clear contracts and monitoring mechanisms are necessary to ensure the agent acts in the best interest of the principal. The theory highlights the costs associated with monitoring and the potential for moral hazard. It is widely used to understand outsourcing relationships and performance-based contracting (Chen et al., 2024).

The buying firm acts as the principal and the supplier as the agent. The theory posits that without strict contract management, suppliers (agents) may cut corners to maximize their own profit at the expense of the buyer's quality. It emphasizes the need for comprehensive agreements that align the supplier's incentives with the buyer's goals. This perspective is crucial for understanding compliance and performance issues (Matinheikki et al., 2022).

Agency Theory was used to analyze the Contract Management Policy at NPD Ltd. It helped explain how the firm structures its agreements with local suppliers to ensure they deliver quality materials. The theory underscores the importance of monitoring mechanisms in the growth of local content. It provided the lens for examining how NPD mitigates the risk of non-performance by local agents.

2.1.3 Institutional Theory

DiMaggio and Powell (1983, as cited in Nsiah-Sarfo et al., 2023) significantly advanced Institutional Theory, exploring how organizational structures and actions are shaped by external pressures. It suggests that firms become similar (isomorphism) due to coercive, mimetic, and normative pressures from the environment. The theory argues that organizations adopt certain practices not just for efficiency, but to gain legitimacy and social acceptance. It explains why companies comply with regulations and follow industry trends (Nguyen & Le, 2023).

The theory posits that organizations operate within a social framework of norms, values, and taken-for-granted assumptions. It distinguishes between the technical environment (efficiency) and the institutional environment (legitimacy). Firms often adopt policies, such as sustainability or diversity mandates, to satisfy stakeholders and regulators. This leads to the standardization of practices across an industry (Hassan & Mahmoud, 2022).

Institutional Theory explains why companies adopt Local Content policies even if they are not immediately profitable. Coercive pressure comes from government laws (like Made in Rwanda), while normative pressure comes from professional standards. Mimetic pressure occurs when firms copy successful competitors who prioritize local sourcing. It frames procurement as a social activity embedded in a legal and cultural context (Nguyen & Le, 2023).

This study employed Institutional Theory to understand the external drivers behind NPD Ltd's Procurement Planning and Policy formulation. It explained how government regulations and societal expectations influence the firm to adopt local content growth strategies. The theory validates the need for compliance with national development agendas. It links the external regulatory environment to internal policy adoption.

2.1.4 Transaction Cost Economics (TCE)

Theory Williamson (1981, as cited in Sent & Kroese, 2022) popularized Transaction Cost Economics to explain why firms exist and how they decide between making or buying. The theory posits that every economic exchange involves transaction costs, such as search, negotiation, and enforcement costs. It argues that firms choose the governance structure (market vs. hierarchy) that minimizes these costs. TCE relies on the assumptions of bounded rationality and opportunism. TCE suggests that when transaction costs are high (due to complexity or uncertainty), firms prefer to produce internally or form close partnerships. Conversely, when costs are low, they rely on the open market. The theory identifies asset specificity, uncertainty, and frequency as key drivers of transaction costs. It provides a framework for deciding the boundaries of the firm (Mwangi & Kamau, 2024).

TCE is used to analyze the Make or Buy decision and supplier relationship management. It suggests that selecting local suppliers might initially involve high transaction costs (search and verification) but can lower long-term logistics and coordination costs. It also addresses the risks associated with supplier opportunism in the absence of alternative sources. TCE guides the structuring of efficient supply chains.

Transaction Cost Economics supported the analysis of Risk Management and Supplier Selection Policies. It helped explain the cost trade-offs NPD Ltd faces when choosing between established international suppliers and developing local ones. The theory highlights the economic rationale behind procurement decisions. It was

used to assess whether high transaction costs are a barrier to local content growth.

2.2 Empirical Review

This review summarizes studies relevant to each specific objective, including evidence on planning, supplier selection, contract management, and procurement risk.

2.2.1 Procurement Planning Policy and Local Content Growth

Tan and Wang (2022) conducted a study in China examining the impact of strategic planning on domestic supply chain integration in the construction sector. The study utilized a quantitative method with a sample of 120 firms to assess forecasting accuracy. The findings revealed a strong positive correlation (r=0.68) between long-term material forecasting and the ability to utilize local steel suppliers. The authors concluded that early engagement allows local firms sufficient lead time to meet demand. They recommended that firms adopt rolling forecast policies to stabilize local production schedules.

Schmidt and Bauer (2023) investigated public procurement planning in Germany, focusing on sustainability and local SME participation. Using a mixed-methods approach, they analyzed tender documents from 50 municipalities. The results indicated that bundling small contracts into large packages negatively affected local SME participation, reducing local content by 20%. The study concluded that procurement planning must consider lot-sizing to accommodate the capacity of local vendors. Recommendations included breaking down large tenders to foster local economic growth.

Adeboye (2021) explored the role of procurement budgeting in the Nigerian oil and gas sector's local content compliance. The researcher employed a descriptive survey design targeting 200 procurement officers. Key findings showed that 65% of variance in local content growth was attributed to rigid budgetary planning that prioritized immediate low costs over local development. The conclusion was that flexible budgeting policies are essential for supporting developing local industries. The study recommended policy reforms to allow for price preferences in budget planning.

Kamau and Njoroge (2024) studied the effect of annual procurement plans on the growth of local manufacturing in Kenya. The study used secondary data from the Kenya Association of Manufacturers and primary data from 80 procurement managers. Regression analysis indicated that transparent publication of procurement plans significantly increased local supplier preparedness (R2=0.55). The authors concluded that information sharing in the planning phase is a critical driver of local content. They recommended strict enforcement of plan publication regulations.

Mugisha (2023) assessed the challenges of procurement planning in Rwanda's private construction sector. Through a case study of three major firms in Kigali, the study utilized interview guides to collect qualitative data. Findings revealed that ad-hoc planning was the primary reason for the reliance on emergency imports, bypassing local options. The conclusion was that a lack of systematic planning policy undermines the Made in Rwanda initiative. Recommendations focused on automating the planning process to improve visibility.

Uwase (2025) analyzed the relationship between needs assessment and the uptake of local construction materials in Rwanda. The study employed a cross-sectional survey of 100 civil engineers. The results demonstrated that detailed specification planning increased the usage of local volcanic stone by 40%. The study concluded that when local specifications are integrated early in the design phase, local content growth is enhanced. It recommended training engineers on available local material specifications.

2.2.2 Supplier Selection Policy and Local Content Growth

Kim and Lee (2022) conducted a study in South Korea on the impact of green supplier selection criteria on domestic supply chain resilience. Using Structural Equation Modeling (SEM) on data from 150 electronics firms, the study found that prioritizing proximity and environmental standards significantly favored local suppliers. The findings showed that adding location as a weighted criterion increased local sourcing by 30%. The study concluded that selection policies are powerful tools for localization. Recommendations included revising evaluation scorecards to weight geographical proximity.

Dupont (2021) examined supplier pre-qualification criteria in the French construction industry. The research utilized a comparative analysis of 40 large-scale infrastructure projects. Key findings indicated that stringent financial turnover requirements systematically excluded 70% of capable local subcontractors. The conclusion was that standard selection policies often inadvertently discriminate against smaller local entities. The author recommended using technical competence rather than just financial size as a primary selection metric.

Okonkwo (2023) investigated the influence of preferential procurement policies on indigenous contractors in Ghana. The study adopted a descriptive survey design with a sample of 90 public sector entities. Findings revealed a significant positive relationship between margin of preference policies and the survival rate of local firms. The study concluded that without affirmative action in selection, local firms cannot

compete with multinationals. It recommended increasing the preference margin for wholly-owned local companies.

Musyoka (2024) analyzed the effect of e-procurement selection systems on local supplier access in Uganda. The study used a longitudinal design to track tender awards over three years. Results showed that automated selection systems reduced corruption and increased the award rate to local firms by 25%. The conclusion was that transparency in selection builds trust and participation among local vendors. Recommendations centered on the full digitalization of the selection process.

Bizimana (2023) studied the criteria used for selecting cement suppliers in Rwanda's housing projects. Using a correlation research design, the researcher surveyed 60 project managers. The findings indicated that price was the dominant determinant (80%), often leading to the selection of imported cement over local brands. The study concluded that a policy shift towards Total Cost of Ownership would favor local suppliers due to lower logistics costs. It recommended educating buyers on value-based selection.

Kalisa (2025) assessed the impact of vendor rating policies on the performance of local construction material suppliers in Rwanda. The study employed a causal-comparative design with data from NPD Ltd and other firms. Findings showed that constructive feedback mechanisms in selection policies improved local supplier quality by 15% annually. The conclusion was that selection policies should be developmental rather than purely punitive. Recommendations included integrating supplier development programs into the selection policy.

2.2.3 Contract Management Policy and Local Content Growth

Singh and Patel (2022) studied the role of contract flexibility in supporting local MSMEs in India's manufacturing sector. The research conducted a survey of 200 supply chain managers. Key findings revealed that flexible payment terms significantly correlated with the growth of local suppliers. The conclusion was that rigid contracts suffocate cash-poor local firms, hindering their growth. The authors recommended incorporating advance payment clauses for local vendors.

Andersson (2021) examined the enforcement of social clauses in public works contracts in Sweden. The study utilized a document analysis of 30 finalized contracts. Results showed that contracts with specific penalty clauses for failing to meet local labor quotas achieved 95% compliance. The study concluded that contractual enforcement is necessary to translate policy into practice. Recommendations emphasized the inclusion of clear Key Performance Indicators (KPIs) regarding local content in contracts.

Mensah (2023) investigated the effect of dispute resolution mechanisms on local contractor retention in Sierra Leone. The study adopted a qualitative case study approach. Findings indicated that arbitration clauses that were too costly forced local firms to exit contracts early. The conclusion was that accessible dispute resolution is vital for sustaining local business partnerships. The study recommended simplified mediation processes for local contracts.

Kibaki (2024) analyzed the impact of long-term framework agreements on the stability of local suppliers in Tanzania. The study used regression analysis on data from the medical supplies agency. The results showed that multi-year contracts increased local investment in production capacity by 50%. The conclusion was that contract security encourages local firms to expand. Recommendations focused on shifting from spot buying to framework contracting.

Gasana (2022) assessed the influence of payment promptness on the operational growth of local transporters in Rwanda. Through a survey of 50 transport companies serving construction sites, the study found a strong correlation between payment delays and bankruptcy. The findings revealed that a policy of paying within 30 days increased fleet expansion by 20%. The conclusion was that financial contract management is the lifeline of local content. It recommended strict adherence to payment schedules.

Mukamana (2025) explored the role of performance monitoring in contract management in Rwanda's road sector. The study used a descriptive design involving 70 site supervisors. Key findings were that regular performance reviews helped local contractors correct defects early, preventing contract termination. The study concluded that supportive supervision improves local content retention. Recommendations included mandatory monthly performance review meetings.

2.2.4 Risk Management Policy and Local Content Growth

Yamamoto (2022) researched supply chain risk mitigation strategies in Japan's automotive industry. The study used a simulation model based on 500 supplier tiers. Findings showed that dual sourcing (one global, one local) reduced operational risk by 40%. The conclusion was that maintaining a local supply base is a critical risk buffer. The author recommended that risk policies should mandate a minimum percentage of local backup suppliers.

Popova (2021) investigated the perception of risk associated with local procurement in Russia. The study utilized a perception survey of 150 procurement directors. Results indicated that 60% of managers viewed local sourcing as high-risk due to quality variability, leading to avoidance. The conclusion was that risk

perception is a major psychological barrier to local content. Recommendations involved establishing local quality certification bodies to reduce perceived risk.

Diop (2023) analyzed the impact of currency fluctuation risks on procurement decisions in Senegal. The study used an econometric analysis of import data. Key findings revealed that high exchange rate volatility drove firms to source locally to avoid currency risk. The conclusion was that macroeconomic risk favors local content growth if policies are aligned. The study recommended promoting local sourcing as a financial hedging strategy.

Wanjiku (2024) studied the effect of supply chain disruption risks on the adoption of local food suppliers in Kenya. The study employed a comparative analysis of pre- and post-pandemic procurement data. Findings showed that firms with robust business continuity plans increased local procurement by 60% during global disruptions. The conclusion was that risk preparedness drives localization. Recommendations included making local sourcing a mandatory part of crisis management plans.

Nshuti (2023) assessed the risk of supply failure among local construction material producers in Rwanda. The study used a qualitative approach with focus group discussions. Findings revealed that the lack of financial guarantees was the biggest risk factor for buyers. The conclusion was that risk management policies requiring excessive collateral exclude local firms. It recommended the use of insurance bonds instead of cash retention to mitigate risk.

Iradukunda (2025) examined the influence of health and safety risk compliance on the eligibility of local contractors in Rwanda. The study engaged 80 safety officers in a survey. Results showed that helping local firms upgrade their safety standards reduced the risk of accidents and increased their hire rate. The study concluded that risk management should be collaborative, not exclusionary. Recommendations emphasize capacity building in safety for local firms.

3. Methodology

This section explains the research design, sampling, data collection, pilot testing, statistical analysis, and ethical procedures adopted at NPD Ltd.

3.1 Research Design

Research design establishes a systematic structure for collecting and analyzing evidence to address a research question (Creswell & Creswell, 2023).

The study employed descriptive and correlational research designs using both quantitative and qualitative approaches. A structured questionnaire assessed the relationships between procurement-policy practices and local content growth, while interviews with senior managers provided additional explanations of policy implementation.

3.2 Study Population

The target population comprised 224 NPD Ltd employees: 126 finance and skilled-labour staff, 31 administrative staff, and 67 logistics, supply-chain and procurement staff. These categories participated in or supported procurement-related functions.

3.3 Sampling Design

A sampling design guides the selection of a subset of individuals from the study population (Saunders et al., 2023).

Using Slovin's formula with a 5% margin of error, the researcher obtained a sample of 144 employees. Stratified random sampling allocated 81 respondents to finance and skilled labour, 20 to administrative staff, and 43 to logistics, supply-chain and procurement staff; simple random selection was used within strata. Managers were selected for qualitative interviews.

3.4 Data Collection Instruments

The research used structured five-point Likert-scale questionnaires for quantitative measurement and semi-structured interview guides for qualitative insights. NPD Ltd procurement policies, annual reports and strategic records supplied supporting documentary evidence (Creswell & Creswell, 2023).

3.5 Pilot Study, Validity and Reliability

A pilot test checks the clarity and suitability of research instruments before the principal data collection exercise (O'Neill, 2022).

The pilot study was conducted at Horizon Construction Ltd with 15 participants, approximately 10% of the intended sample, who were excluded from the final study. It enabled the researcher to identify ambiguous questionnaire items and improve their clarity. The supervisor and two industry experts assessed content validity. Of 29 questionnaire items reviewed, 25 were judged relevant, producing a Content Validity Index (CVI) of 0.862, above the stated 0.70 threshold.

Internal consistency was examined using Cronbach's alpha. Procurement planning policy recorded $\alpha = 0.812$; supplier selection policy, $\alpha = 0.826$; contract management policy, $\alpha = 0.839$; risk management policy, $\alpha = 0.817$; and local content growth, $\alpha = 0.851$. Across 25 substantive questionnaire items, overall $\alpha = 0.869$. All

values exceeded 0.70, supporting the reliability of the instruments used to assess procurement policies and local content growth at NPD Ltd.

3.6 Data Analysis

Questionnaire responses were checked, coded, and processed using SPSS version 29. Pearson correlation coefficients measured bivariate associations, and a combined multiple linear regression model examined the four procurement-policy variables in relation to local content growth. Statistical decisions were based on $p < 0.05$, with qualitative interview information interpreted thematically alongside inferential findings (Hair et al., 2022).

3.7 Ethical Considerations

Official permission was obtained from NPD Ltd management before data collection. Respondents were informed of the purpose of the study, participated voluntarily, and provided consent. They could withdraw without penalty. Identifying information was omitted from analysis and reporting, and responses were handled confidentially and used exclusively for academic purposes.

4. Results and Discussion

This section reports questionnaire participation, Pearson correlations, the combined regression model, and decisions on the four null hypotheses. Descriptive statistics are not reproduced in the manuscript.

4.1 Response Rate

The response rate establishes the proportion of usable questionnaires obtained from the selected sample.

Table 1: Questionnaire Response Rate

Questionnaires	Frequency	Percentage (%)
Returned Complete	129	89.58
Returned Incomplete	11	7.64
Not Returned	4	2.78
Total	**144**	**100.00**

Source: Field Data (2026).

Of 144 questionnaires distributed at NPD Ltd, 129 were returned complete (89.58%); 11 were returned incomplete (7.64%), and four were not returned (2.78%). The inferential analyses were based on the 129 complete questionnaires.

4.2 Inferential Statistics

Inferential analysis tested the relationships between procurement planning, supplier selection, contract management, risk management, and local content growth.

4.2.1 Correlation Analysis

Pearson correlation analysis assessed the direction, strength, and significance of the relationships between the five study variables.

Table 2: Pearson Correlation Matrix

		Procurement planning policy	Supplier selection policy	Contract management policy	Risk management policy	Local content growth
Procurement planning policy	Pearson Correlation	1	.712**	.624**	.650**	.792**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	129	129	129	129	129
Supplier selection policy	Pearson Correlation	.712**	1	.656**	.859**	.898**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	129	129	129	129	129
Contract management policy	Pearson Correlation	.624**	.656**	1	.525**	.741**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	129	129	129	129	129

Risk management policy	Pearson Correlation	.650**	.859**	.525**	1	.805**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	129	129	129	129	129
Local content growth	Pearson Correlation	.792**	.898**	.741**	.805**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	129	129	129	129	129

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2026).

Local content growth was positively and significantly associated with procurement planning policy (r = 0.792), supplier selection policy (r = 0.898), contract management policy (r = 0.741), and risk management policy (r = 0.805); all reported p-values were below 0.001. Supplier selection had the strongest bivariate correlation with local content growth. Correlations among the predictors, particularly supplier selection and risk management (r = 0.859), also indicated overlap that warranted examination in the regression diagnostics.

4.2.2 Multiple Regression Analysis

The regression model estimated the conditional association of each procurement-policy dimension with local content growth while accounting for the other three predictors.

Table 3: Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.937a	.878	.874	.1220	1.556

a. Predictors: (Constant), Risk management policy, Contract management policy, Procurement planning policy, Supplier selection policy

b. Dependent Variable: Local content growth

Source: Field Data (2026).

The combined model yielded R = 0.937, R^2 = 0.878 and adjusted R^2 = 0.874, explaining 87.8% of variation in local content growth among the 129 completed questionnaires. Durbin–Watson was 1.556. These estimates represent model fit and do not independently establish causality.

Table 4: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.298	4	3.324	221.600	.000b
	Residual	1.845	124	.015		
	Total	15.143	128			

a. Dependent Variable: Local content growth

b. Predictors: (Constant), Risk management policy, Contract management policy, Procurement planning policy, Supplier selection policy

Source: Field Data (2026).

The ANOVA results confirmed that the joint model was statistically significant, F(4, 124) = 221.600, p < 0.001. Accordingly, the four predictors jointly explained a statistically significant proportion of variation in local content growth at NPD Ltd.

Table 5: Multiple Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.237	.139		1.705	.090		
	Procurement planning policy	.207	.042	.233	4.929	.000	.440	2.271
	Supplier selection policy	.476	.070	.486	6.800	.000	.192	5.204
	Contract management policy	.155	.032	.211	4.844	.000	.510	1.962
	Risk management policy	.110	.055	.126	2.000	.046	.254	3.941

a. Dependent Variable: Local content growth

Source: Field Data (2026).

Supplier selection policy recorded the largest positive standardized coefficient (β = 0.486, B = 0.476, t = 6.800, p < 0.001), followed by procurement planning (β = 0.233, B = 0.207, t = 4.929, p < 0.001), contract management (β = 0.211, B = 0.155, t = 4.844, p < 0.001), and risk management (β = 0.126, B = 0.110, t = 2.000, p

= 0.046). All four predictors were statistically significant in the combined model. Variance inflation factors ranged from 1.962 to 5.204, with the strongest overlap involving supplier selection and risk management.

4.2.3 Decisions on Null Hypotheses

The four null hypotheses were assessed against a significance threshold of 0.05 using the regression coefficient p-values.

Table 6: Decision on Null Hypotheses

Hypothesis	Sig.	Decision
$H_0$1: Procurement planning policy has no significant influence on local content growth at NPD Ltd.	0.000	Rejected
$H_0$2: Supplier selection policy has no significant influence on local content growth at NPD Ltd.	0.000	Rejected
$H_0$3: Contract management policy has no significant influence on local content growth at NPD Ltd.	0.000	Rejected
$H_0$4: Risk management policy has no significant influence on local content growth at NPD Ltd.	0.046	Rejected

Source: Field Data (2026).

All four null hypotheses were rejected because their corresponding p-values were below 0.05. The significant conditional relationships support the relevance of each procurement-policy dimension to local content growth within the NPD Ltd sample.

4.3 Discussion of Research Findings

The findings are discussed according to the four objectives, linking each regression result to an applicable theory and relevant studies presented in the empirical review.

4.3.1 Influence of Procurement Planning Policy on Local Content Growth

Procurement planning policy had a strong positive correlation with local content growth ($r = 0.792$, $p < 0.001$) and a positive conditional regression coefficient ($\beta = 0.233$, $B = 0.207$, $p < 0.001$). The result implies that stronger forecasting, timely purchasing schedules, and clearer anticipation of material requirements were associated with greater local content growth at NPD Ltd.

Institutional Theory links formal rules and organizational routines to procurement behavior. The result is consistent with the proposition that clear procurement planning policies can translate local-content priorities into repeatable sourcing procedures (Nsiah-Sarfo et al., 2023).

Tan and Wang (2022) reported that advance material forecasting supported local-supplier preparedness in China, while Mugisha (2023) identified ad hoc procurement planning as a contributor to emergency imports among construction firms in Kigali. These findings are consistent with the positive planning relationship recorded at NPD Ltd.

4.3.2 Influence of Supplier Selection Policy on Local Content Growth

Supplier selection policy produced the strongest bivariate relationship ($r = 0.898$, $p < 0.001$) and largest standardized regression coefficient ($\beta = 0.486$, $B = 0.476$, $p < 0.001$). This indicates that vendor evaluation criteria were the strongest conditional predictor of local content growth among the four policy dimensions in the fitted model.

The Resource-Based View explains how capable local suppliers can become valuable resources through deliberate selection and development. The result supports evaluating suppliers on more than immediate acquisition price, including quality, reliability, and the potential to strengthen domestic procurement capacity (Ristyawan et al., 2023).

Kim and Lee (2022) found that including proximity in supplier evaluation criteria supported domestic sourcing, while Kalisa (2025) reported that vendor feedback mechanisms improved local supplier quality in Rwanda. These findings are consistent with the importance of structured supplier selection at NPD Ltd.

4.3.3 Influence of Contract Management Policy on Local Content Growth

Contract management policy was positively correlated with local content growth ($r = 0.741$, $p < 0.001$) and remained statistically significant in the combined model ($\beta = 0.211$, $B = 0.155$, $p < 0.001$). The association indicates that stronger contract monitoring, payment discipline, and balanced obligations may support sustained participation by domestic construction suppliers.

Agency Theory emphasizes the importance of clear contractual obligations and monitoring to align buyer and supplier interests. The findings suggest that transparent contract implementation and performance

oversight can support local suppliers without weakening accountability (Matinheikki et al., 2022).

Singh and Patel (2022) reported a positive relationship between flexible contract terms and growth among local suppliers in India; Gasana (2022) identified payment promptness as important for local transport firms in Rwanda. The evidence is consistent with the positive contract-management result at NPD Ltd.

4.3.4 Influence of Risk Management Policy on Local Content Growth

Risk management policy had a positive relationship with local content growth ($r = 0.805$, $p < 0.001$) and a smaller but statistically significant conditional coefficient ($\beta = 0.126$, $B = 0.110$, $p = 0.046$). The result indicates an association between constructive procurement-risk controls and local sourcing outcomes after accounting for the other policy dimensions.

Transaction Cost Economics explains the role of risk-reducing governance in uncertain sourcing relationships. By managing quality, delivery and contractual uncertainties, NPD Ltd may improve the feasibility of procurement from domestic suppliers (Sent & Kroese, 2022).

Yamamoto (2022) emphasized local backup sourcing as a means of reducing supply risk, while Nshuti (2023) identified collateral requirements as a constraint facing local construction-material producers in Rwanda. These studies help explain why appropriately designed risk management, rather than avoidance of local sources, can accompany local content growth.

Overall, all four dimensions were positively and significantly associated with local content growth in the combined regression model. Supplier selection exhibited the largest standardized coefficient, whereas risk management showed the smallest statistically significant coefficient. The findings should be interpreted as conditional associations within a single-organization, cross-sectional dataset rather than definitive causal effects.

5. Conclusions and Recommendations

This section presents objective-specific conclusions and recommendations derived from the inferential findings at NPD Ltd.

5.1 Conclusions

Procurement planning policy showed a positive and statistically significant relationship with local content growth. Reliable forecasting and budgeting therefore remain important for enabling domestic suppliers to anticipate and meet procurement needs.

Supplier selection policy recorded the largest statistically significant standardized coefficient. A transparent evaluation process that recognizes local supplier capacity, quality and total value is therefore central to strengthening local content growth.

Contract management policy also contributed significantly. Clear contractual obligations, supplier performance monitoring, and timely payment practices can help maintain continuity in relationships with local construction suppliers.

Risk management policy had a positive and statistically significant conditional relationship with local content growth. Appropriate assessment, contingency planning and supplier development can reduce sourcing uncertainty without automatically excluding domestic suppliers.

5.2 Recommendations

Recommendations are directed to NPD Ltd and stakeholders responsible for procurement and construction-sector supplier development.

1. NPD Ltd management should institutionalize annual procurement forecasts and share realistic material requirements with qualified local suppliers in sufficient time for capacity preparation.
2. Procurement officers should strengthen supplier selection procedures by using transparent criteria that assess technical capability, reliability, total acquisition cost, and local-content contribution.
3. Contract-management teams should monitor supplier performance consistently, streamline invoice approvals, and consider proportionate contract terms that do not unnecessarily exclude capable domestic SMEs.
4. Risk-management teams should establish local-supplier contingency arrangements, early warning indicators, and development support addressing quality and delivery risks.
5. Future studies should compare several construction firms and use longitudinal or administrative procurement data to test whether observed associations remain stable over time.

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