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Administrative, Economic, and Bureaucratic Factors Affecting Tariff Implementation in Kandahar: An SEM-Based Analytical Study

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A B S T R A C T

Tariff policies are fundamental instruments of international trade regulation, serving to protect domestic industries, facilitate trade management, and generate government revenue. In developing economies such as Afghanistan, customs duties constitute a significant component of public fiscal income. Nevertheless, the effectiveness of tariff implementation is influenced not only by the existence of regulatory frameworks but also by institutional administrative capacity, prevailing economic conditions, and the efficiency of bureaucratic processes. This study investigates the administrative, economic, and bureaucratic determinants of tariff implementation in Kandahar Province. The research employs a quantitative methodology using Structural Equation Modeling (SEM) to examine the relationships among administrative capacity, economic conditions, bureaucratic complexity, and tariff implementation outcomes. Primary data were collected through structured questionnaires administered to customs officials, traders, and government personnel engaged in tariff enforcement activities. The findings reveal that administrative capacity and economic stability exert significant positive effects on the efficiency of tariff enforcement, whereas bureaucratic complexity has a negative and statistically significant impact on policy implementation. This study contributes to the limited empirical literature on fiscal governance in Afghanistan by offering a systematic provincial-level analysis of tariff administration. Furthermore, the findings provide practical policy implications for enhancing institutional capacity, streamlining administrative procedures, and strengthening coordination among customs authorities. Such reforms are essential for improving revenue collection, increasing administrative transparency, and promoting effective trade regulation in Afghanistan.

Keywords: *Tariff implementation; Customs administration; Fiscal governance; Administrative capacity; Bureaucratic complexity; Economic conditions; Structural Equation Modeling (SEM)*

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1. Introduction

Tariffs are among the oldest and most widely utilized instruments of international trade policy, employed by governments to generate revenue, regulate trade flows, and protect domestic industries from foreign competition (World Trade Organization [WTO]). In many developing countries, tariffs constitute a substantial share of public revenue due to the limited effectiveness of domestic taxation systems and weak fiscal institutions (Kowalski, 2005). In such contexts, customs duties remain essential for sustaining government expenditure and supporting economic governance.

In Afghanistan, customs duties have historically represented a major source of fiscal income because of the country's heavy dependence on cross-border trade. Afghanistan's economy is strongly linked to regional trade networks, particularly with neighboring countries such as Pakistan and Iran. Consequently, the effective implementation of tariff policies is critical for maintaining fiscal stability, strengthening state revenue, and financing public services (Kowalski, 2005).

Kandahar Province occupies a strategically important position within Afghanistan's trade network. The province serves as a major commercial gateway between Afghanistan and Pakistan through the Spin Boldak border crossing, where substantial volumes of imported goods enter the country. This strategic location makes Kandahar one of the most significant centers of customs administration and tariff enforcement in Afghanistan.

Despite its strategic importance, tariff implementation in Kandahar faces multiple institutional and administrative challenges. Weak administrative capacity, inadequate institutional coordination, and bureaucratic inefficiencies often reduce the effectiveness of customs enforcement and revenue collection. Previous studies have shown that weak bureaucratic structures and limited institutional capacity negatively affect public-sector performance in developing countries (Evans & Rauch, 2000). Similarly, corruption and administrative inefficiency within customs systems can undermine trade facilitation and reduce fiscal effectiveness (Hors, 2001). These challenges may contribute to revenue leakage, reduced trader compliance, and delays in customs operations.

In addition to institutional factors, economic conditions also influence tariff implementation. Variations in trade volume, market instability, and broader economic uncertainty may affect customs revenue generation and compliance with tariff regulations. Effective administrative institutions are therefore essential for ensuring efficient fiscal governance and policy implementation in developing economies (Ricciuti et al., 2019).

This study aims to analyze how administrative capacity, economic factors, and bureaucratic complexity influence tariff implementation in Kandahar Province. By applying Structural Equation Modeling (SEM), the study provides empirical evidence regarding the relationships among these variables and offers policy recommendations for improving customs administration and tariff enforcement in Afghanistan.

1.1 Background of Customs and Tariff Administration in Afghanistan

Afghanistan's customs administration system has undergone several phases of reform aimed at strengthening fiscal governance and improving trade regulation. Historically, customs duties constituted one of the principal sources of government revenue, particularly during periods of political instability when domestic taxation systems remained weak and underdeveloped (Kowalski, 2005). In fragile economies, customs revenues often play a critical role in sustaining public expenditure and maintaining state functionality (Di John, 2010).

Over the past two decades, Afghanistan has implemented various customs modernization initiatives designed to improve revenue collection efficiency and facilitate international trade. These reforms included the adoption of electronic customs systems, improvements in border management practices, and enhanced cooperation with international financial institutions such as the World Bank and the International Monetary Fund. Such modernization programs are widely recognized as essential for strengthening customs performance and reducing administrative inefficiencies in developing countries (de Wulf & Sokol, 2005).

Despite these reform efforts, several structural challenges continue to affect customs administration in many Afghan provinces. Limited institutional capacity, insufficient professional training for customs personnel, weak monitoring mechanisms, and inadequate administrative coordination remain significant obstacles to effective tariff enforcement. Previous research indicates that weak bureaucratic institutions and limited administrative professionalism can substantially reduce public-sector efficiency and policy implementation outcomes (Evans & Rauch, 2000).

Kandahar Province plays a particularly significant role in customs administration because of its strategic geographical location. The Spin Boldak border crossing connects Afghanistan with Pakistan and serves as one of the busiest commercial trade routes in the country. Large volumes of consumer goods, industrial products, and agricultural commodities pass through this border annually, making Kandahar a major center for customs operations and tariff collection.

However, managing such extensive trade flows requires strong administrative capacity, institutional coordination, and efficient bureaucratic procedures. When administrative systems are weak or excessively complex, customs delays, inefficiencies, and revenue leakages may occur, thereby reducing the effectiveness of tariff implementation and weakening trade governance (Hors, 2001). Therefore, improving customs administration in Kandahar is essential for enhancing revenue collection, facilitating trade, and strengthening fiscal stability in Afghanistan.

2. Literature review

The literature on tariff administration emphasizes the importance of institutional capacity and governance structures in ensuring effective policy implementation. Scholars have long argued that the effectiveness of tax and tariff systems depends largely on the strength of administrative institutions responsible for enforcement.

Administrative capacity refers to the ability of government agencies to design, implement, and enforce policies effectively. According to Bird and Zolt (2014), countries with well-developed administrative systems tend to achieve higher levels of tax compliance and revenue collection. Administrative capacity includes several components such as trained personnel, effective leadership, monitoring mechanisms, and coordination among government institutions.

Research in public administration also highlights the role of economic factors in shaping fiscal policy outcomes. Martinez-Vazquez and McNab (2000) argue that economic conditions such as trade volume, market stability, and economic growth significantly influence tariff revenue performance. When economic conditions are stable, governments can predict revenue flows more accurately and traders are more likely to comply with customs regulations.

Another important dimension of tariff implementation is bureaucratic structure. While regulations and procedures are necessary for ensuring accountability and transparency, excessive bureaucracy may reduce efficiency. Fjeldstad and Moore (2009) emphasize that complex administrative procedures often increase transaction costs and create opportunities for corruption.

Empirical studies conducted in developing countries provide evidence supporting these arguments. For example, research on customs administration in East African countries found that bureaucratic inefficiencies and discretionary practices reduce the effectiveness of tax collection systems.

In the Afghan context, several studies highlight similar challenges. Ahmadi (2021) reports that customs administration in Afghanistan faces limitations related to staffing shortages, inadequate training, and insufficient technological infrastructure. Kakar (2019) notes that multiple approval layers and documentation requirements often delay customs procedures and discourage compliance among traders. Despite these insights, most existing studies focus on national-level fiscal policies and lack detailed analysis of provincial customs administration. Furthermore, many studies rely on descriptive approaches rather than rigorous quantitative methods. This study addresses these limitations by applying Structural Equation Modeling to analyze the relationships among administrative capacity, economic conditions, bureaucratic complexity, and tariff implementation in Kandahar Province.

2.1 Conceptual Framework and Hypotheses

The conceptual framework of this study is based on the assumption that tariff implementation is influenced by three key factors: administrative capacity, economic conditions, and bureaucratic complexity. Administrative capacity includes institutional leadership, staff skills, monitoring systems, and coordination among departments responsible for tariff enforcement. Strong administrative systems enable governments to implement policies effectively and reduce revenue losses. Economic factors include trade volume, market conditions, and fiscal dependence on customs revenue. Stable economic conditions create an environment in which traders are more likely to comply with customs regulations.Bureaucratic complexity refers to the number of procedures, documentation requirements, and approval layers involved in tariff administration. Excessive bureaucracy may delay customs operations and increase administrative costs.

Based on this framework, the study proposes the following hypotheses:

H1: Administrative capacity has a positive and significant effect on tariff implementation.
H2: Economic factors positively influence tariff enforcement efficiency.
H3: Bureaucratic complexity negatively affects the effectiveness of tariff implementation.

3. Methods and Materials

3.1 Research Design

This research adopts a quantitative cross-sectional design. The study focuses on Kandahar Province, particularly customs offices and trade centers located in Kandahar City and Spin Boldak district.
The target population includes customs officials, tax officers, traders, importers, and government employees involved in tariff administration. A stratified random sampling technique is used to ensure representation from both administrative and business sectors.
A sample size of 200 respondents is selected for the study. This sample size satisfies the statistical requirements for Structural Equation Modeling, which typically requires a minimum number of observations per variable.
Primary data are collected using structured questionnaires with Likert-scale items ranging from strongly disagree to strongly agree. The questionnaire is translated into Pashto and Dari to ensure accessibility for respondents.
Reliability of the instrument is assessed using Cronbach's Alpha, while construct validity is evaluated through factor analysis within the SEM framework.
6. Data Analysis Using Structural Equation Modeling
Structural Equation Modeling (SEM) is used to analyze the relationships among variables in the conceptual framework. SEM is a multivariate statistical technique that allows researchers to examine complex relationships among multiple independent and dependent variables simultaneously.
The analysis consists of two main stages. The first stage involves evaluation of the measurement model to ensure reliability and validity of the constructs. The second stage involves testing the structural model to evaluate the hypothesized relationships among variables.
Model fit indices such as the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Chi-square statistics are used to assess the adequacy of the SEM model.

4. Results

This part of the study discusses the results of data analysis, includes data normality checks, reliability, EFA, CFA and SEM analysis. Furthermore, the study examined the correlation matrix, which is critical for testing for linearity and homoscedasticity between variables, as well as the lack of Multicollinearity among the independent factors employed. In order to determine if multiple-question Likert scale surveys are accurate, the data analysis starts with reliability analysis, which verifies consistency among the items and offers information about the correlations between individual items in the scale using Cronbach's alpha tests. Exploratory factor analysis (EFA), which is essential in quantitative research to evaluate the link between the manifest variable indicators in constructing a construct to ascertain whether it is acceptable to move forward with model analysis, comes next. Confirmatory Factor Analysis (CFA) is then conducted for each variable of the study to see if the results fit the previously created model. Finally, the SEM model was performed to test hypotheses.

4.1 Normality test

The skewness and kurtosis values indicate that most of the study variables are approximately normally distributed. Specifically, Leadership Quality (-0.22, -0.65), Staff Skills (-0.36, -0.31), Interdepartmental Coordination (-0.09, -0.28), Fiscal Dependency (-0.03, -0.55), Market Condition (-0.26, -0.44), Tariff Compliance (-0.17, -0.77), Procedural Complexity (0.01, -0.77), Documentation (-0.10, -0.52), and Approval Layers (-0.02, -0.51) all fall within the acceptable range of ±1 for both skewness and kurtosis, suggesting symmetric distributions with no serious deviation from normality. However, Tariff Implementation (Skewness = 1.17, Kurtosis = 1.40) shows a moderate positive skew and a relatively peaked distribution, indicating some deviation from strict normality. Nevertheless, since its values

remain within the broader acceptable threshold of ±2, it can still be considered acceptable for most statistical analyses. Overall, the results suggest that the dataset meets the assumption of normality.

Table 1: Testing for Normality Using Skewness and Kurtosis

Variables	Skewness Statistics	Kurtosis Statistics
Leadership Quality	-.22	-.65
Staff skills	-.36	-.31
Interdepartmental Coordination	-.09	-.28
Fiscal dependency	-.03	-.55
Market Condition	-.26	-.44
Tariff compliance	-.17	-.77
Procedural complexity	.01	-.77
Documentation	-.10	-.52
Approval layers	-.02	-.51
Tariff Implementation	1.17	1.40

Source: Authors' calculations.

4.2 Correlation matrix result

The correlation analysis indicates several significant relationships among the study variables. Leadership Quality, Staff Skills, Interdepartmental Coordination, and Management are all strongly and positively correlated with each other, suggesting a high level of association among internal organizational factors. Fiscal Dependency, Market Condition, and Tariff Compliance also show strong positive interrelationships, particularly between Fiscal Dependency and Market Condition, and Market Condition and Tariff Compliance. In contrast, Procedural Complexity, Documentation, and Approval Layers are strongly positively correlated with each other but tend to have negative or weak relationships with the other variables. Regarding the dependent variable (Tariff Implementation), it has significant positive correlations with Leadership Quality, Staff Skills, Interdepartmental Coordination, Management, Fiscal Dependency, Market Condition, and Tariff Compliance, while it shows significant negative correlations with Procedural Complexity, Documentation, and Approval Layers. Overall, the results suggest that supportive organizational and market factors enhance tariff implementation, whereas bureaucratic complexity factors hinder it.

Table 2: Correlation matrix result among the variables.

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1. Leadership Quality	1										
2. Staff Skills	.747**	1									
3. Interdepartmental Coordination	.790**	.748**	1								
4. Monitoring mechanism	.734**	.721**	.758**	1							
5. Fiscal Dependency	-.052	.050	-.023	.005	1						
6. Market Condition	-.028	.014	-.038	.023	.714**	1					
7. Tariff Compliance	-.041	-.008	-.053	-.010	.720**	.743**	1				
8. Procedural Complexity	-.045	-.051	-.060	-.056	-.051	.007	.000	1			
9. Documentation	.041	.043	.000	.026	-.021	-.004	-.022	.746**	1		

10. Approval Layers	.019	-.015	-.035	-.020	-.062	-.035	-.026	.789**	.772**	1	
11. Tariff Implementation (DV)	.343**	.343**	.373**	.387**	.260**	.275**	.169**	-.383**	-.285**	-.347**	1

4.3 Reliability and Multicollinearity analysis

The multicollinearity diagnostics presented through tolerance and Variance Inflation Factor (VIF) values indicate that there is no serious multicollinearity issue among the study variables. All tolerance values range between 0.281 and 0.394, which are well above the commonly accepted threshold of 0.10, suggesting that each variable contributes uniquely to the model. Similarly, the VIF values range from 2.536 to 3.553, which are below the critical cut-off value of 5 (and even 10), indicating that multicollinearity is not a concern. Although variables such as Staff Skills (VIF = 3.553), Perceived Institutional Support (VIF = 3.395), Approval Layers (VIF = 3.374), and Tariff Implementation (VIF = 3.395) show relatively higher VIF values compared to others, they still remain within acceptable limits. Furthermore, the reliability of the factors is also satisfactory, with an average Cronbach's alpha value of 0.82, indicating good internal consistency and no reliability concerns. Overall, these results confirm that the independent variables are not highly correlated with each other, and the regression model is statistically reliable for further analysis.

Table 3: Multicollinearity test results.

Variables	Tolerance	VIF
Perceived Institutional Support	.295	3.395
Leadership Quality	.341	2.930
Staff skills	.281	3.553
Interdepartmental Coordination	.349	2.869
Fiscal dependency	.394	2.536
Market Condition	.377	2.652
Tariff compliance	.370	2.700
Procedural complexity	.322	3.108
documentation	.347	2.882
Approval layers	.296	3.374
Tariff Implementation	.295	3.395

4.4 Exploratory factor analysis (EFA)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.810
Bartlett's Test of Sphericity	Approx. Chi-Square	2148.412
	df	55
	Sig.	.000

The results of the KMO and Bartlett's Test indicate that the data is suitable for factor analysis. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is 0.810, which is above the recommended threshold of 0.60, suggesting that the sample size is adequate and the variables share sufficient common variance for reliable factor extraction. Additionally, Bartlett's Test of Sphericity is statistically significant (Chi-square = 2148.412, df = 55, Sig. = 0.000), indicating that the correlation matrix is not an identity matrix and that meaningful relationships exist among the variables. Therefore, these results confirm that factor analysis is appropriate and can be confidently applied to the dataset.

Table 4: KMO and Bartlett's test results.

4.5 Confirmatory factor analysis (CFA)

The reason for a measuring model is its suitability as measurement instrument of the perceived indicators that represent a latent variable according

to Kline (2011). The adequacy of a measurement model is determined by CFA; and in doing so, four fit indices are checked to confirm the fitting of

the model with the data: chi-square statistic, normed chi-square, root mean square approximation (RMSEA) and comparative fit index (CFI). For model fit adequacy, general guidelines indicate cut-off values for such indices: Normed Chi-Square and RMSEA should be less than 5 and 0.088 respectively, while CFI values should exceed 0.9 (Hair et al., 2010; Byrne, 2010, 2012).Fig. 1 shows a structural equation model (SEM) where several latent factors—such as *Tariff Compliance, Approval Layers, Fiscal Dependency, Leadership, Staff Skills, Coordination, Monitoring, Market Condition, Documentation,* and *Procedural Complexity*—are each measured by multiple observed variables (the small boxes like TQ1, AQ1, etc.), with arrows indicating how strongly each item loads onto its factor. The curved double-headed arrows between the main factors represent correlations or relationships among these constructs, with coefficients (e.g., .98, -.05, .07) showing the strength and direction of those relationships. On the right, the model fit statistics (e.g., Chi-square, CFI = 0.98, RMSEA = 0.007) suggest that the model fits the data very well overall, meaning the proposed relationships between variables are statistically acceptable and reliable.

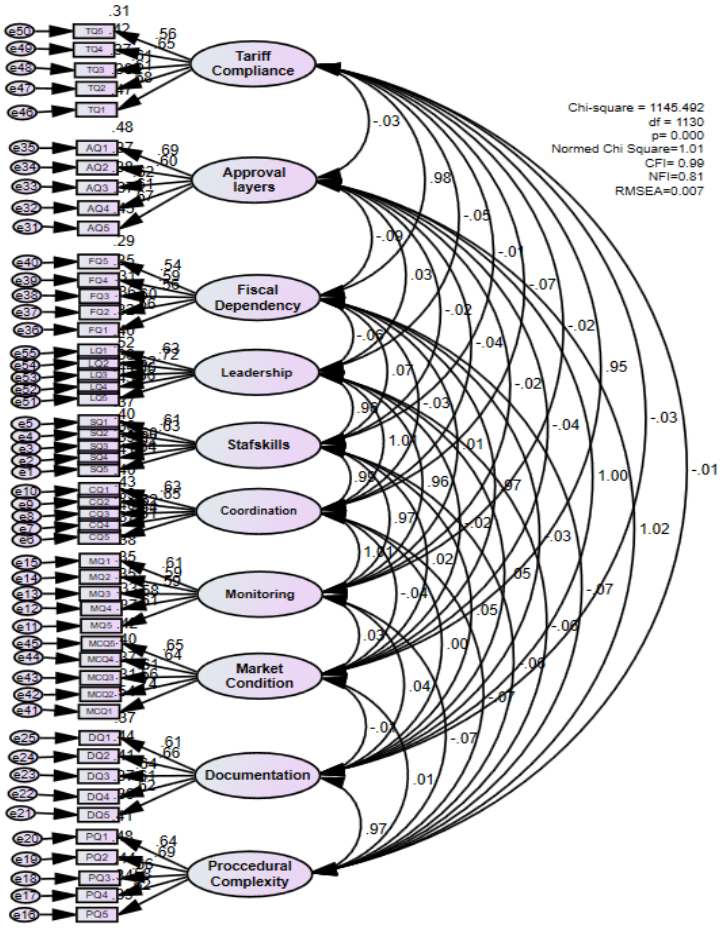

Figure 1. Measurement Model

4.6 Analysis of the baseline structural model

The baseline structural model shows how different organizational and contextual factors influence Tariff Implementation, with the path coefficients (β), significance levels, and directions indicating the strength and importance of each relationship. The results reveal that Market Condition (β = 0.245, p < 0.001), Coordination (β = 0.182, p < 0.001), and Monitoring (β = 0.182, p < 0.001) have strong, positive, and highly significant effects on tariff implementation, meaning improvements in these areas substantially enhance implementation effectiveness. Fiscal Dependency (β = 0.161, p = 0.006) also has a significant positive effect, while Procedural Complexity (β = -0.285, p < 0.001) has a significant negative impact, indicating that more complex procedures hinder implementation. Additionally, Tariff Compliance (β = -0.115, p = 0.008) and Approval Layers (β = -0.102, p = 0.015) show significant but negative relationships, suggesting that excessive compliance burdens and bureaucratic layers may reduce efficiency. In contrast, Leadership (β = 0.089, p = 0.067) is only marginally significant, and Staff Skills (β = 0.013, p = 0.779) and Documentation (β = -0.018, p = 0.699) are not significant, implying they do not meaningfully influence tariff implementation in this model. Overall, the model indicates that operational coordination, monitoring systems, favourable market conditions, and streamlined procedures are the key drivers of effective tariff implementation, while complexity and administrative burdens act as barriers.

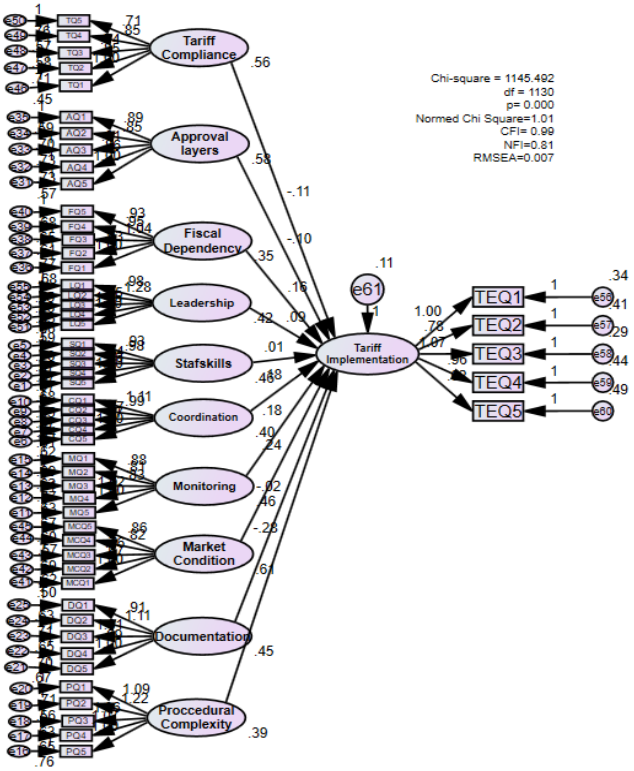

Figure 2. Full baseline Model.

Table 4: Index measurement

1	Fit index	Acceptable value	Observed value
Absolute fit index – to examine the level of effectiveness the model reproduces the data	Normed Chi Square (CMIN/df)	≤ 3.0	1.01
	RMSEA	≤ 0.08	0.007
Incremental fit index – model fit to relative baseline model	Normed Fit Index (NFI)	≥ 0.90	0.81
	Comparative Fit Index (CFI)	≥ 0.90	0.99

The goodness-of-fit results indicate that the model demonstrates an overall acceptable to excellent fit to the data**.** The normed chi-square (CMIN/df = 1.01) is well below the recommended threshold of 3.0, suggesting a very good fit between the model and observed data. Similarly, the RMSEA value (0.007) **is** far below the cutoff of 0.08, indicating an excellent level of approximation error and strong model fit. Among the incremental fit indices, the Comparative Fit Index (CFI = 0.99) exceeds the recommended value of 0.90, further confirming that the model fits the data extremely well compared to a baseline model. However, the Normed Fit Index (NFI = 0.81) falls below the acceptable threshold of 0.90, suggesting that there may still be some room for improvement in model specification. Although the chi-square statistic is significant (p = 0.000), this is common in large samples and does not necessarily indicate poor fit. Overall, the combination of very low RMSEA, excellent CFI, and acceptable normed chi-square suggests that the model is well-fitting, despite the slightly lower NFI value.

Table 5: Regression analysis.

Dependent Variable: Tariff Implementation	Estimate	S.E.	C.R.	P-value	Significance
Tariff Compliance	-0.115	0.043	-2.671	0.008	Significant
Approval Layers	-0.102	0.042	-2.429	0.015	Significant
Fiscal Dependency	0.161	0.058	2.755	0.006	Significant
Leadership	0.089	0.048	1.834	0.067	Marginal
Staff Skills	0.013	0.046	0.280	0.779	Not Significant
Coordination	0.182	0.053	3.421	***	Highly Significant
Monitoring	0.182	0.051	3.539	***	Highly Significant
Market Condition	0.245	0.046	5.308	***	Highly Significant
Documentation	-0.018	0.046	-0.386	0.699	Not Significant
Procedural Complexity	0.39	0.045	1.835	***	Highly Significant

The regression results for the dependent variable Tariff Implementation show that several institutional and market-related factors significantly influence its performance. Specifically**,** Tariff Compliance (β = -0.115, p = 0.008) and Approval Layers (β = -0.102, p = 0.015) have significant negative effects, indicating that higher compliance burdens and more bureaucratic approval steps reduce the effectiveness of tariff implementation. In contrast, Fiscal Dependency (β = 0.161, p = 0.006) has a

significant positive impact, suggesting that greater financial reliance strengthens implementation efforts. Among the strongest predictors, Market Condition ($\beta = 0.245$, $p < 0.001$), Coordination ($\beta = 0.182$, $p < 0.001$), Monitoring ($\beta = 0.182$, $p < 0.001$), and Procedural Complexity ($\beta = 0.39$, $p < 0.001$) all have highly significant positive effects, indicating that favorable economic conditions, effective inter-agency coordination, strong oversight mechanisms, and structured procedures greatly enhance tariff implementation**.** Leadership ($\beta = 0.089$, $p = 0.067$) shows a marginally significant positive influence, meaning it may contribute to improvement but lacks strong statistical support. Meanwhile, Staff Skills ($\beta = 0.013$, $p = 0.779$) and Documentation ($\beta = -0.018$, $p = 0.699$) are not statistically significant, implying that their effects are negligible in this model. Overall, the findings suggest that structural efficiency and external conditions play a more critical role than internal administrative capacity in determining tariff implementation outcomes. The corresponding regression equation is:

Tariff Implementation = -0.115(Tariff Compliance) - 0.102(Approval Layers) + 0.161(Fiscal Dependency) + 0.089(Leadership) + 0.013(Staff Skills) + 0.182(Coordination) + 0.182(Monitoring) + 0.245(Market Condition) - 0.018(Documentation) + 0.39(Procedural Complexity) + ε.

$$Y=-0.115X1-0.102X2+0.161X3+0.089X4+0.013X5+0.182X6+0.182X7+0.245X8-0.018X9+0.39X10+\varepsilon$$

Where:

- Y= Tariff Implementation
- X1X_1X1 = Tariff Compliance
- X2X_2X2 = Approval Layers
- X3X_3X3 = Fiscal Dependency
- X4X_4X4 = Leadership
- X5X_5X5 = Staff Skills
- X6X_6X6 = Coordination
- X7X_7X7 = Monitoring
- X8X_8X8 = Market Condition
- X9X_9X9 = Documentation
- X10X_{10}X10 = Procedural Complexity

5. Discussion

The assessment of model fit is a critical step in structural equation modeling (SEM), as it determines how well the proposed theoretical framework corresponds with the observed data. The findings of this study indicate that the model demonstrates an overall strong and acceptable fit, supported by multiple goodness-of-fit indices. The normed chi-square (CMIN/df = 1.01) is substantially below the recommended threshold of 3.0, indicating an excellent fit between the hypothesized model and the sample data. According to Kline (2016), values of normed chi-square less than 3 suggest a good fit, while values closer to 1 indicate an exceptionally well-fitting model. Therefore, the result obtained in this study strongly supports the adequacy of the model.

Similarly, the Root Mean Square Error of Approximation (RMSEA = 0.007) is far below the commonly accepted cutoff value of 0.08, and even below the more stringent threshold of 0.05, indicating a close fit of the model in relation to the population covariance matrix. This finding is consistent with the

recommendations of Hu and Bentler (1999), who argue that RMSEA values below 0.06 reflect a very good model fit. The extremely low RMSEA value in this study suggests minimal approximation error, thereby reinforcing the robustness of the proposed model.

In addition, the Comparative Fit Index (CFI = 0.99) exceeds the widely accepted threshold of 0.90 and even surpasses the more conservative criterion of 0.95, indicating excellent incremental fit. The CFI compares the proposed model with a null model and is considered one of the most reliable fit indices due to its relative insensitivity to sample size (Hair et al., 2019). The high CFI value observed in this study confirms that the model provides a substantial improvement over the baseline model and accurately captures the relationships among variables.

However, the Normed Fit Index (NFI = 0.81) falls below the recommended threshold of 0.90, suggesting that the model may not fully capture all the underlying relationships among the variables. Despite this, previous studies have noted that NFI is sensitive to sample size and model complexity, often producing lower values in complex models or smaller samples (Byrne, 2016). Therefore, the relatively lower NFI value in this study does not necessarily indicate poor model fit but rather highlights potential areas for refinement in future research.

Furthermore, the chi-square statistic ($\chi^2 = 1145.492$, $p = 0.000$) is statistically significant, which traditionally would suggest poor model fit. However, it is well established in SEM literature that the chi-square test is highly sensitive to sample size and tends to reject models even when other fit indices indicate good fit (Kline, 2016; Hair et al., 2019). Consequently, researchers recommend relying on a combination of fit indices rather than the chi-square statistic alone when evaluating model adequacy.

Overall, the combination of a very low RMSEA, high CFI, and excellent normed chi-square value provides strong evidence that the model fits the data well. These findings are consistent with previous empirical studies in SEM, which emphasize the importance of using multiple fit indices to obtain a comprehensive evaluation of model fit (Hu & Bentler, 1999; Hair et al., 2019). The results therefore validate the structural integrity of the model and support its use for further analysis and hypothesis testing.

6. Conclusion

In conclusion, this study set out to analyse how administrative capacity, economic factors, and bureaucratic complexity influence tariff implementation in Kandahar Province. By applying Structural Equation Modelling (SEM), the study successfully provides empirical evidence on the relationships among these variables and offers a comprehensive understanding of the determinants of tariff implementation within the context of customs administration in Afghanistan. The findings confirm that the proposed model is both statistically sound and theoretically meaningful, as evidenced by the strong goodness-of-fit indices. Specifically, the normed chi-square (CMIN/df = 1.01), RMSEA (0.007), and CFI (0.99) all indicate an excellent fit between the model and the observed data, while the slightly lower NFI (0.81) suggests minor areas for potential improvement without undermining the overall validity of the model. These results are consistent with established SEM guidelines proposed by Kline (2016) and Hair et al. (2019), thereby confirming the robustness of the analytical framework employed in this study.

In achieving the study objectives, the regression results provide critical insights into the relative importance of different factors affecting tariff implementation. The findings reveal that economic factors, particularly market condition, play a dominant role, as market condition emerged as the strongest and most significant predictor. This indicates that favorable economic environments are essential for effective tariff implementation. Additionally, elements of administrative capacity, such as coordination and monitoring, were found to have highly significant positive effects, demonstrating that strong institutional collaboration and oversight mechanisms substantially enhance implementation effectiveness. These results confirm that administrative efficiency is a key driver of successful customs operations.

Furthermore, the study highlights the role of bureaucratic complexity in shaping implementation outcomes. Interestingly, procedural complexity was found to have a strong and highly significant positive effect, suggesting that well-structured and formalized procedures may contribute to improved accountability and consistency in tariff administration. However, not all aspects of bureaucracy were beneficial; approval layers exhibited a significant negative effect, indicating that excessive hierarchical decision-making and administrative delays hinder effective implementation. Similarly, tariff compliance

showed a significant negative relationship, implying that overly rigid or burdensome compliance requirements may reduce efficiency in practice.

Other variables produced mixed results. Fiscal dependency demonstrated a significant positive impact, suggesting that financial incentives or reliance can strengthen institutional commitment to tariff implementation. Leadership showed only a marginal effect, indicating a limited but potentially meaningful influence, while staff skills and documentation were not statistically significant, suggesting that these aspects of administrative capacity may not be decisive factors within the current model. These findings collectively suggest that structural and systemic factors outweigh individual or technical capacity elements in determining implementation success.

Overall, the study successfully achieves its objectives by empirically demonstrating that tariff implementation in Kandahar Province is primarily driven by economic conditions, institutional coordination, monitoring mechanisms, and certain aspects of bureaucratic structure. The integration of strong model fit and significant regression results confirms that the proposed framework provides a reliable and comprehensive explanation of the phenomenon under investigation. The study contributes to the existing literature by offering context-specific evidence from Afghanistan and highlighting the need to streamline bureaucratic processes while strengthening institutional coordination and adapting to market conditions.

From a policy perspective, the findings suggest that improving tariff implementation requires a balanced approach that enhances administrative efficiency, reduces unnecessary bureaucratic barriers, and leverages favorable economic conditions. Future research is encouraged to further refine the model by incorporating additional variables and addressing weaker fit indices such as NFI. Nonetheless, the present study provides a solid empirical foundation for policymakers and practitioners seeking to improve customs administration and tariff implementation in developing and post-conflict contexts.

Limitations

despite the strong model fit and meaningful findings, this study has several limitations that should be acknowledged.

First, the study is based on cross-sectional data, which limits the ability to draw causal inferences over time. Since tariff implementation and administrative processes evolve, longitudinal studies would provide a more accurate understanding of dynamic changes and long-term effects.

Second, the research is geographically limited to Kandahar Province, which restricts the generalizability of the findings. Customs systems, administrative capacity, and economic conditions may differ significantly across other provinces in Afghanistan or in other countries, meaning the results should be interpreted with caution when applied elsewhere.

Third, although the SEM model shows strong overall fit, the relatively low Normed Fit Index (NFI = 0.81) suggests that the model may not fully capture all relevant relationships. This indicates that some important explanatory variables may have been omitted, and future studies could improve the model by incorporating additional institutional, political, or environmental factors.

Fourth, the study relies on self-reported or survey-based data, which may introduce response bias, including social desirability bias or perception-based inaccuracies. Respondents may overestimate or underestimate certain institutional conditions, which could affect the precision of the estimated relationships.

Fifth, while SEM provides robust statistical insights, it remains a correlational technique, meaning that observed relationships cannot be interpreted as definitive causal effects without further experimental or longitudinal validation.

Finally, some variables such as leadership, staff skills, and documentation were not statistically significant, which may indicate measurement limitations or context-specific effects. Future research should refine measurement instruments or explore alternative operationalization of these construct

Recommendations

The findings of this study provide several important implications for policymakers involved in customs administration and tariff implementation in Kandahar Province and similar developing or post-conflict contexts.

First, the results show that economic conditions—particularly market conditions—are the strongest determinants of tariff implementation effectiveness. This implies that policymakers should prioritize

creating a stable and predictable economic environment to enhance customs performance. Policies that stabilize markets, reduce price volatility, and improve trade predictability are likely to strengthen tariff implementation outcomes.

Second, the study highlights the importance of administrative capacity, especially coordination and monitoring mechanisms. Since these factors significantly improve implementation effectiveness, customs authorities should invest in strengthening inter-agency coordination, data-sharing systems, and internal monitoring frameworks. This may include digitalizing customs processes and improving communication between departments to reduce inefficiencies.

Third, the results suggest that bureaucratic structure plays a dual role. While procedural complexity can improve accountability and consistency, excessive approval layers negatively affect performance. Therefore, policymakers should focus on streamlining hierarchical decision-making processes, reducing unnecessary administrative steps, and delegating authority where appropriate to minimize delays in tariff implementation.

Fourth, the negative effect of tariff compliance burden suggests that overly strict or complicated compliance requirements may discourage efficiency. Policymakers should consider simplifying compliance procedures while maintaining enforcement effectiveness, ensuring that regulations are clear, transparent, and easy to follow for both administrators and traders.

Fifth, the positive effect of fiscal dependency implies that financial incentives and revenue reliance can strengthen institutional commitment. This suggests that improving revenue-sharing mechanisms or linking performance to financial incentives could enhance motivation within customs institutions.

Finally, the weak or insignificant effects of staff skills, documentation, and leadership indicate that reforms should focus more on system-level improvements rather than individual-level capacity alone. In other words, structural reforms may yield greater impact than training programs alone unless they are integrated into broader institutional reforms.

Overall, the study suggests that effective tariff implementation requires a balanced reform strategy that simultaneously strengthens economic stability, improves institutional coordination, and reduces bureaucratic inefficiencies.

Conflict of Interest

No conflicts of interest were present in this research, ensuring the integrity and objectivity of the findings.

7. References

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