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Problems Associated with the Public Procurement Process with Special Focus on public Building Construction Projects of Dhulikhel municipality, Kavreplanchowk District, Nepal

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Abstract

This study investigates challenges in public procurement processes, focusing on public building construction projects in Dhulikhel Municipality, Kavrepalanchowk District, Bagmati Province, Nepal. The research aimed to identify operational and administrative issues affecting procurement implementation at the municipal level. A mixed-method approach was adopted, combining qualitative and quantitative data collected through structured questionnaires, field observations, in-depth interviews, and focus group discussions. Findings indicate that procurement in Dhulikhel Municipality faces multiple challenges, including staff absenteeism, inadequate compliance with procurement laws, and limited use of the electronic government procurement (e-GP) system due to low ICT capacity. These issues have led to inefficiencies and delays, negatively impacting project performance and the quality of public construction works. To address these challenges, the study recommends enhancing institutional accountability, expanding digital procurement adoption, promoting ethical practices, and strengthening monitoring and evaluation mechanisms. Additionally, capacity building and clear procedural guidelines are emphasized to ensure fair, efficient, and transparent procurement operations. The insights from this research are intended to support local authorities, policymakers, and practitioners in improving procurement management and governance, ultimately contributing to more effective public infrastructure development

Keywords: Public Procurement, Absenteeism, Users' Committee, e-Procurement, Local Government, ICT Infrastructure, Transparency, Accountability, Administrative interference, Policy Reform

1. INTRODUCTION

Public procurement is a critical mechanism through which governments utilize public funds to acquire goods, services, and works necessary for implementing development programs and delivering essential public services [1]. It involves obtaining quality goods and services from suitable sources at fair costs to meet institutional or community needs, ensuring efficiency, transparency, and accountability in public spending. In Nepal, "procurement" is defined as the acquisition of goods, consultancy services, other services, or execution of construction works by a public entity[2]. The close link between procurement and development emphasizes the importance of transparent and accountable practices [3].

Government procurement typically includes identifying required inputs, categorizing them into goods, works, and services, estimating costs, selecting suppliers, awarding contracts, managing contracts, and ensuring proper delivery, utilization, and maintenance [1]. In Nepal, the first regulatory framework, Rules (Procedure) Regarding Public Fund Spending, 2016 B.S. (~1958/59 A.D.), delegated procurement responsibilities to ministry secretaries (Adhikari, 2015). Over time, reforms led to the enactment of the Public Procurement Act 2063 (2007 A.D.), aiming to enhance transparency, competitiveness, and efficiency.

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Despite progress, challenges remain, including limited technical expertise, weak planning, inadequate monitoring, and low compliance with procedures, particularly in public infrastructure projects [4,5]. Corruption, duplication of projects, and delayed completion due to weak internal controls have also been reported by the Commission for the Investigation of Abuse of Authority (CIAA, Kathmandu). At the local level, project committees are sometimes formed without genuine community representation, contributing to inefficiencies and misuse of funds.

This study focuses on identifying problems associated with public procurement practices, with a particular emphasis on public building construction projects in Dhulikhel Municipality, Kavrepalanchowk District, Nepal, to inform improvements in transparency, efficiency, and accountability.

2. Materials and Methods

This chapter introduces the research methodology used in investigating the problems of the public procurement process in public building construction projects Dhulikhel municipality, Kavreplanchowk District. It outlines the whole research methodology, for example, the design, sources of data, data collection tools, sampling strategy, and analysis technique of the data. Research methodology is the systematic procedure to answer research questions scientifically and systematically. It is the blueprint for conducting the study by adopting appropriate strategies, techniques, and tools that ensure the validity, reliability, and relevance of the study. This study employs a mixed-methods approach, incorporating both quantitative and qualitative methods. Quantitative data were collected employing structured questionnaires and analyzed employing such as the Relative Importance Index (RII) formula. Qualitative data were collected through key informant interviews for enriching and contextualizing the results. The design of the study is developed to meet the needs of the study effectively, setting a proper groundwork for comprehending the prevalent issues and proposing evidence-based improvements in the public procurement process.

3. Research Design

The study adopts a **descriptive and analytical design**, incorporating both primary and secondary sources of data to assess the effectiveness of procurement practices. **Primary data taken from field observation, interview and field survey.** This involved collecting responses from key personnel involved in procurement across local and federal government offices. **Secondary data** were obtained from published and unpublished sources, such as journal articles, dissertations, government documents, and municipal profiles related to Dhulikhel Municipality of Kavreplanchok District.

This research design enabled the study to explore both statistical patterns and contextual insights into the procurement challenges in public building construction projects.

4. Study Area

The Study area is located in the Kavrepalanchowk District of Bagmati Province, which is one of the most significant urban centers of central Nepal. Geographically, Dhulikhel Municipality is situated at approximately 27°37’ north latitude and 85°33’ east longitude, at an elevation of around 1,550 meters above sea level. Situated about 30 kilometers east of Kathmandu along the Arniko Highway, it also serves as the district headquarters. The municipality covers an area of approximately 55 square kilometers and is divided into 12 wards, with a total population of around 33,981 as per the 2021 Census. It shares its boundaries with Panauti Municipality in the east, Banepa Municipality in the west, Panchkhal Municipality in the north, and the Mahabharat range in the south. In recent decades, the municipality has emerged as a hub for education and health services, being home to Kathmandu University and the well-known Dhulikhel Hospital, both of which serve not only Kavrepalanchowk but also people from across the country. Its economy is supported by agriculture, small businesses, education, health services, and tourism, with panoramic Himalayan views, hiking trails, and nearby sites like Namo buddha attracting domestic and international visitors.

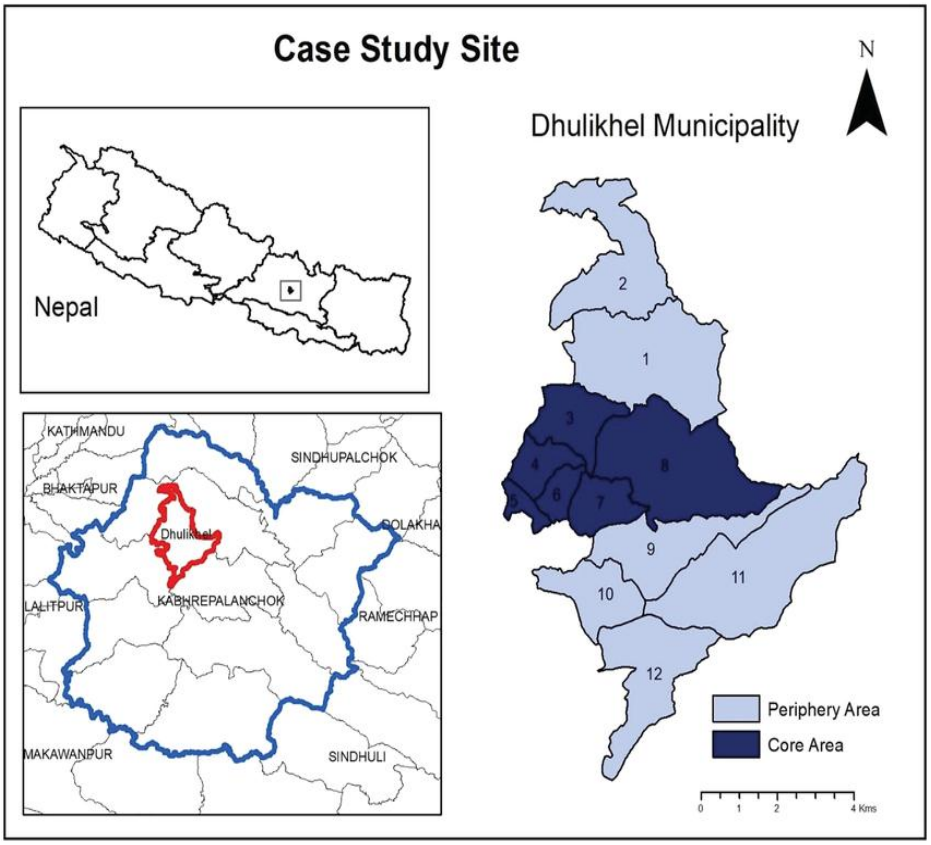

Figure 3.2. Map of the Study area of Dhulikhel Municipality

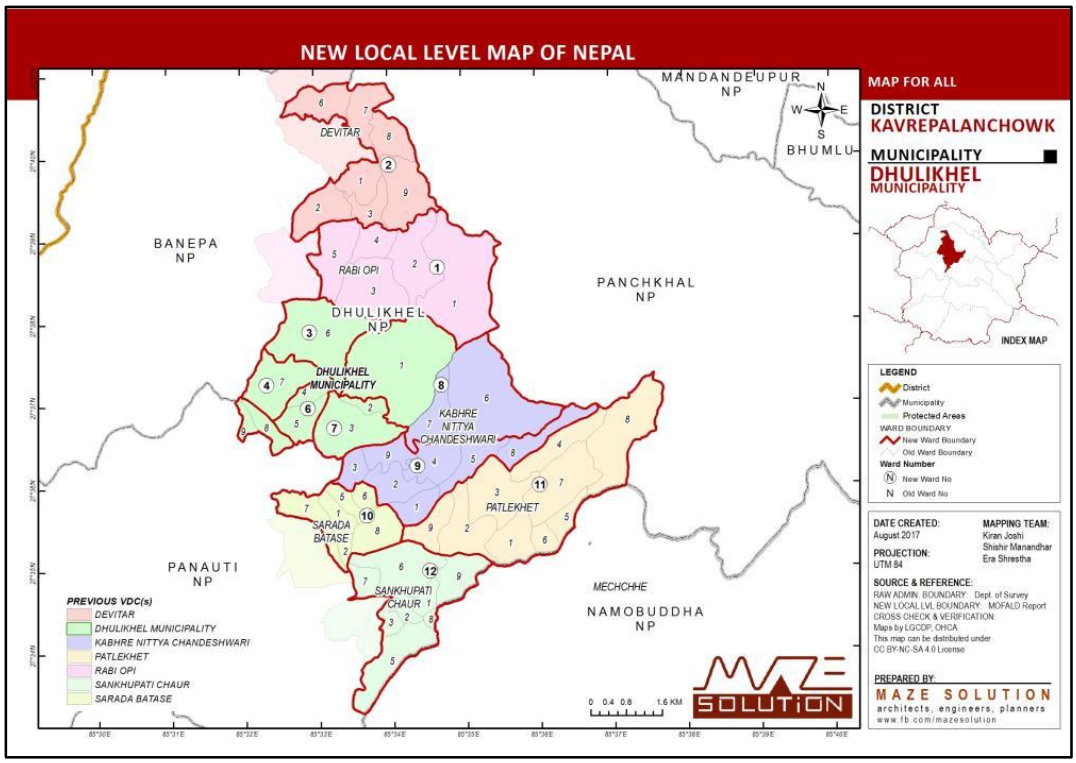

Figure 3.3. Map of the Study area of Dhulikhel Municipality

5. Data Collection

5.1 Population and Sample Size

The research population included officials involved in public procurement from eight local levels and other Offices and four Federal, Provincial and NGO/INGOs Offices in Dhulikhel Municipality, Kavreplanchowk District. These included office chiefs, planning section heads, engineers, and elected representatives who were either directly or indirectly engaged in the procurement process.

Since the total population of potential respondents for this study was unknown and indefinite, the sample size was determined using the single-proportion formula:

$$n = \frac{Z^2 \cdot p \cdot (1-p)}{e^2}$$

Equation (1)

Where: n= required minimum sample size
z = standard normal value corresponding to the desired confidence level (1.96 for 95% confidence)
p = assumed proportion of the population possessing the attribute of interest (0.50, representing maximum variability)
e = acceptable margin of error (0.09, i.e., ±9%)
Substituting the values:

$$n = \frac{1.96^2.0.5.(1-0.5)}{0.09^2} = \frac{0.9604}{0.0081} = 118.568 \approx 119$$

Therefore, a sample size of 120 respondents is statistically valid.

A total of **120 respondents** were selected using purposive sampling, ensuring representation from relevant technical and administrative roles. Based on the accessible target population (from 12 offices), this sample meets the threshold for a 95% confidence level with acceptable margin of error. A total of **120 respondents** were selected using purposive sampling. Out of these:

- **80** respondents were from **8 local level** and other **offices**, with an average of 10 respondents per office.
- **40** respondents were from **4 provincial and** NGO/INGOs **offices**. with an average of 10 respondents per office.
- This variation is acceptable in purposive sampling where access and participation rates vary by institution.

Relative Importance Index (RII)

All questions used for data collection were designed using a Likert scale. The Relative Importance Index (RII) was applied to determine the significance of various factors, as **Adnan et al. (2007)** suggest that RII is appropriate for analyzing data measured on an ordinal scale. Accordingly, RII was employed to rank the variables. The RII is calculated using the formula provided by **Adnan et al. (2007)**:

RII= ΣW/ (AN) Equation (2)

= (5*n5+4*n4+3*n3+2*n2+1*n1)/5(n1+n2+n3+n4+n5)
Where, W = weight to each factor by the respondent ranging from 1 to 5

n1= number of respondents who strongly disagree
n2= number of respondents who disagree
n3= number of respondents moderately agree or remain neutral
n4= number of respondents who agree
n5= number of respondents who strongly agree
A= highest weight i.e. 5 in this study
N= total number of respondents
The relative importance index (RII) value ranges from 0 to 1.
The analyzed data were further presented bar graphs, pie charts and later interpreted to achieve the desired objectives of the research.

3.3 Questionnaire Design

Based on the literature review, a general framework for conducting the research was developed. Primary data were collected using a structured questionnaire. This study employed a survey research design, utilizing a questionnaire containing a preformatted set of items focused on procurement activities, practices, and related challenges. The questionnaire was divided into three sections:

- Section 1: General and demographic information of the respondents, including their basic knowledge of procurement.
- Section 2: Six sets of questions addressing various sub-factors:

Accountability
ICT Adaptation

- Internal Control System and Processes
- Ethics
- Procurement Planning
- Transparency
- Section 3: Fifteen questions related to problems in procurement and associated policies.

3. Results and discussion

3.1 Major Problems in Procurement and Policy-Related Challenges Affecting the Implementation of Public Procurement Practices in Dhulikhel Municipality, Kavreplanchowk District.

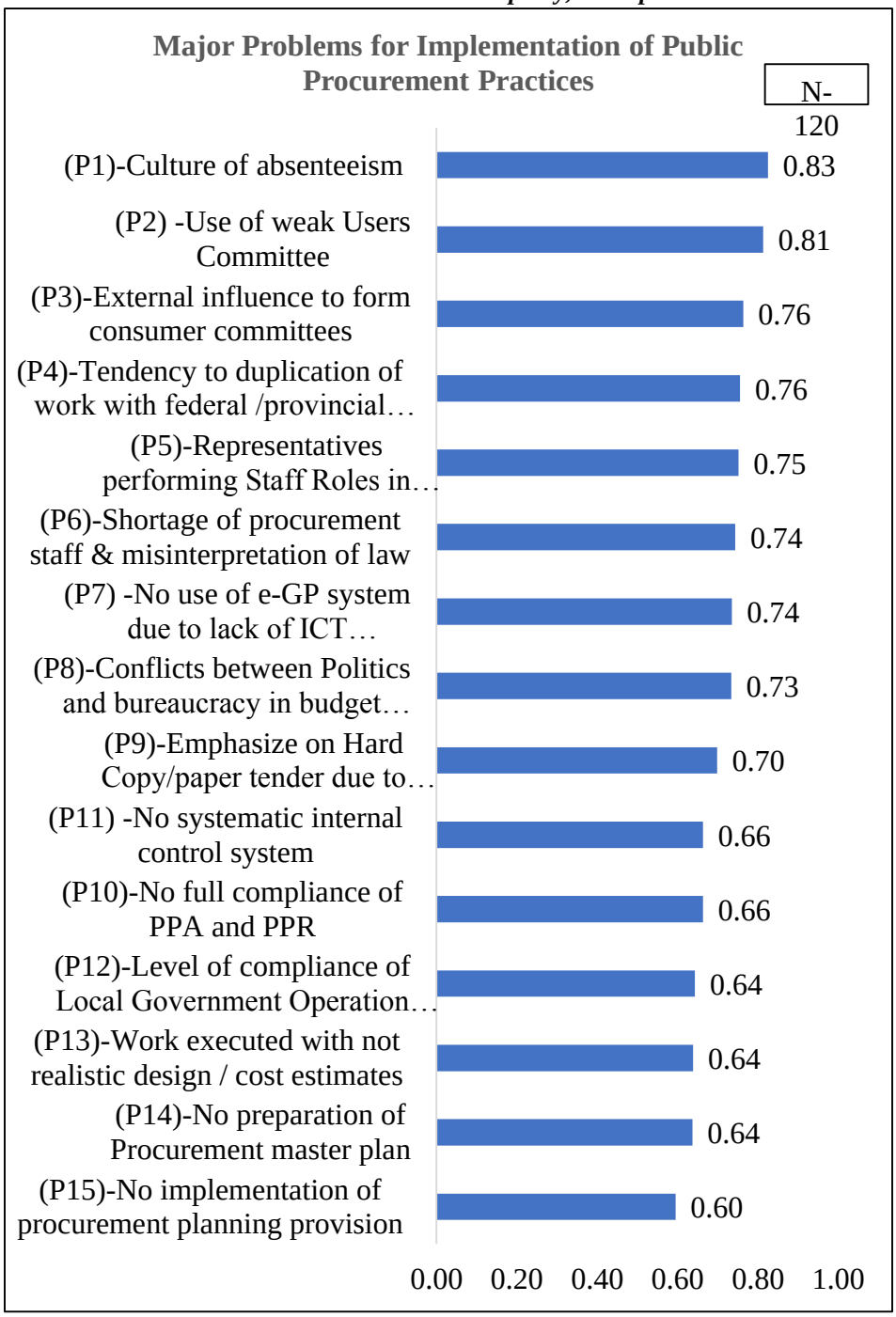

Figure 3.1. Major Problems in Dhulikhel Municipality of Kavreplanchok (P1-P15)

3.2 Analysis of the Causes and Effects of Implementing Public Procurement Practices on Infrastructure Development under Public Building Construction Projects in Dhulikhel Municipality, Kavreplanchok

3.2.1 Causes of Accountability for Implementation of Public Procurement Practices in Dhulikhel Municipality

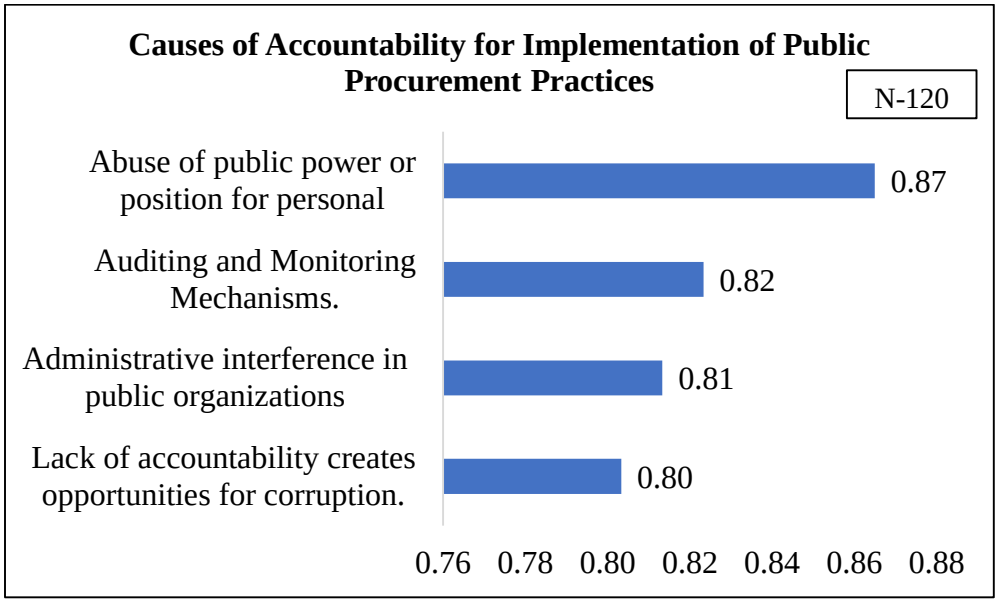

Figure 3.2. Causes of Accountability for the Implementation of Procurement Practices

3.2.2 Effects of Accountability for Implementation of Public Procurement Practices in Dhulikhel Municipality

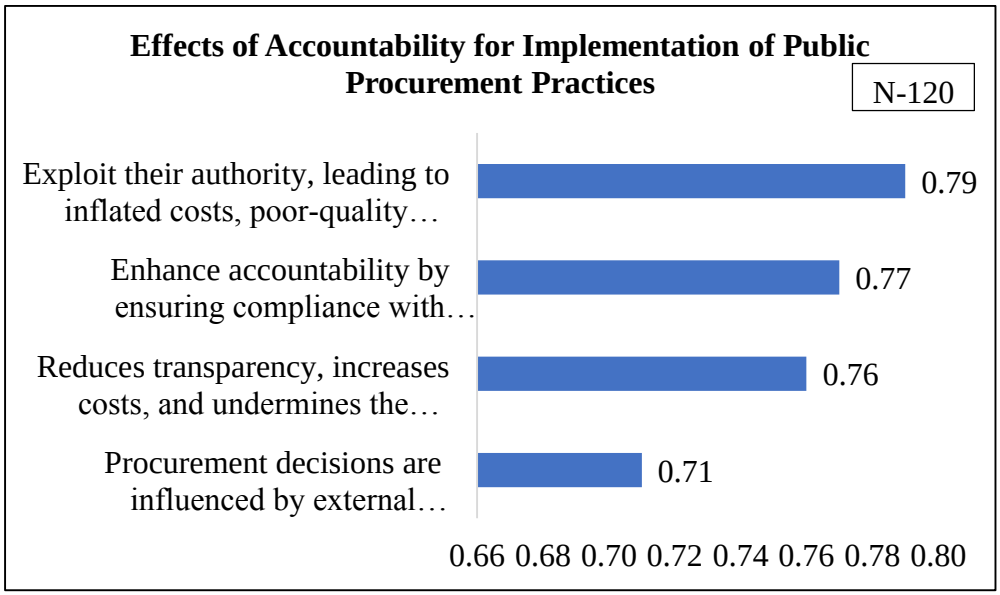

Figure 3.3. Effects of Accountability for the Implementation of Procurement Practices

3.2.3 Effects of Procurement Planning for Implementation of Public Procurement Practices in Dhulikhel Municipality

The analysis of Relative Importance Index (RII) values highlights that procurement planning generates a wide range of positive effects on the implementation of public procurement practices in Dhulikhel Municipality.

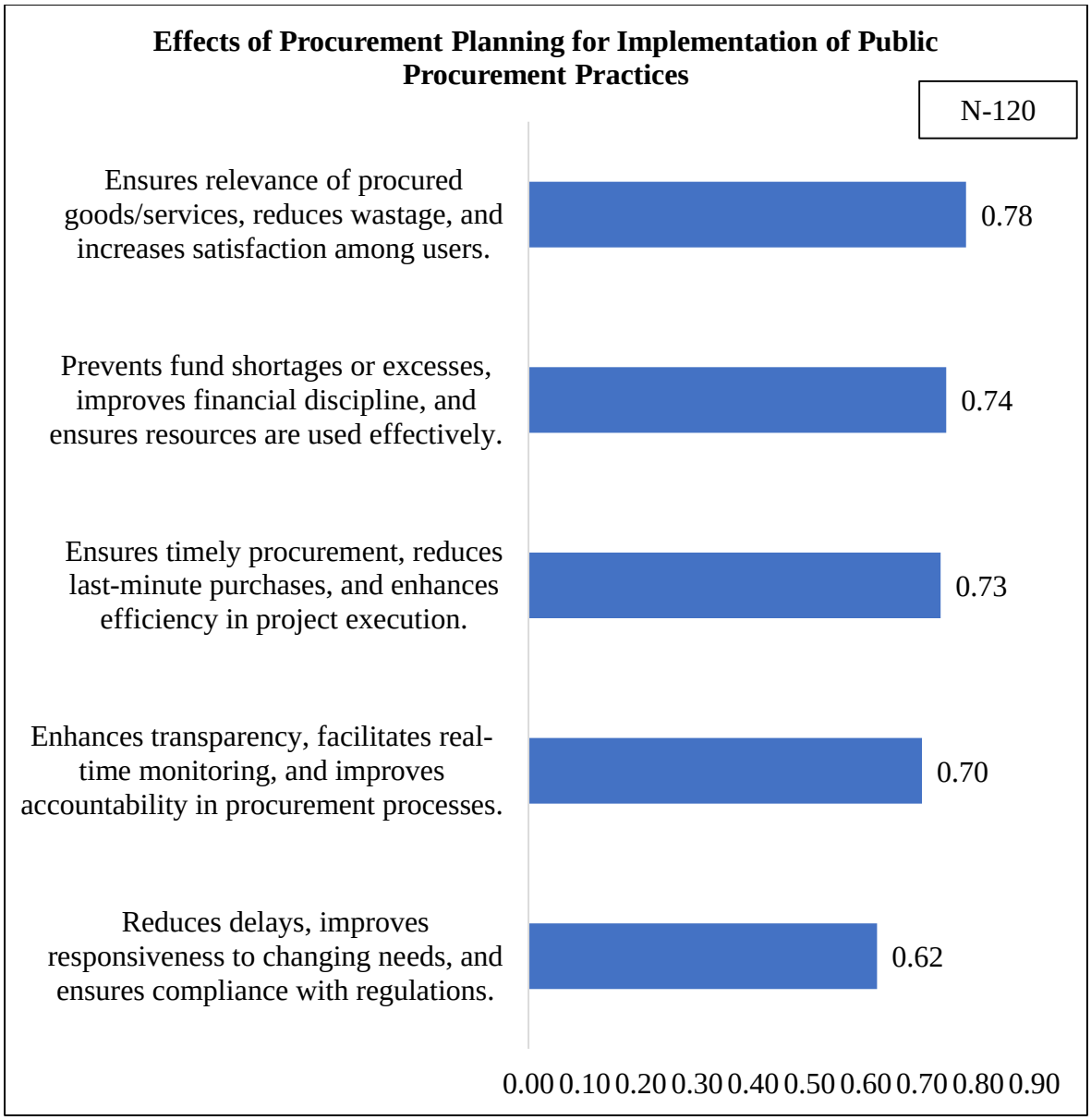

Figure 3.4. Effects of Procurement Planning for Implementation of Public Procurement Practices

3.2.4 Causes of Transparency for Implementation of Public Procurement Practices in Dhulikhel Municipality

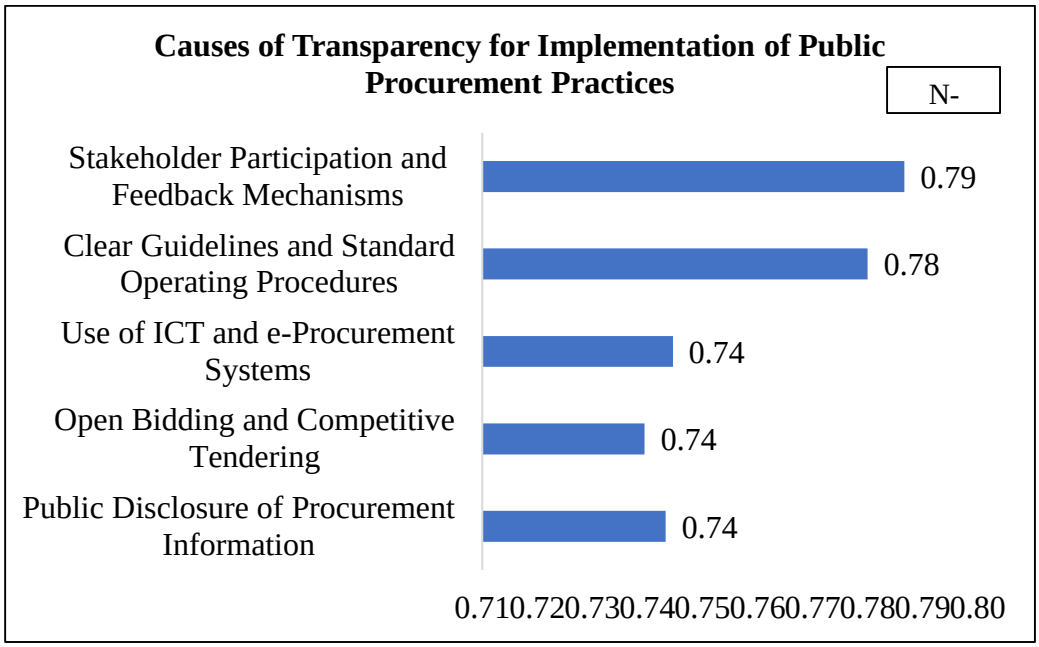

Figure 3.5. Causes of Transparency for Implementation of Public Procurement Practices

3.2.5 Effects of Transparency for Implementation of Public Procurement Practices in Dhulikhel Municipality

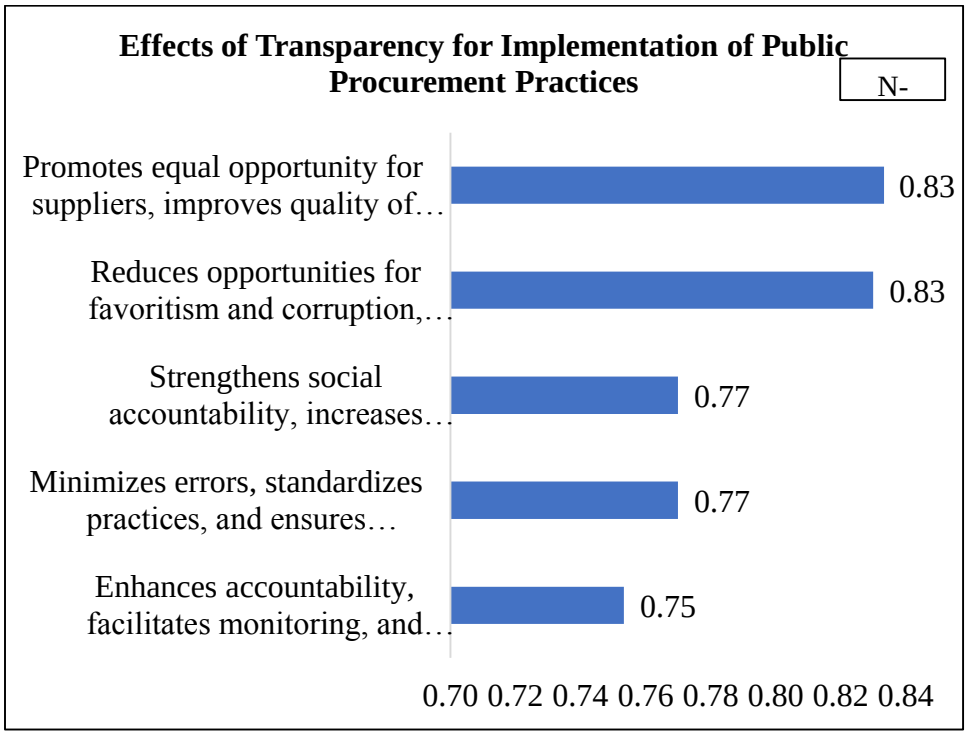

Figure 3.6. Causes of Transparency for the Implementation of Public Building Procurement Practices

3.2.6 Mitigation Measure for Major Problems of procurement and related policies in the implementation of public building procurement practices in Dhulikhel Municipality, Kavreplanchowk District.

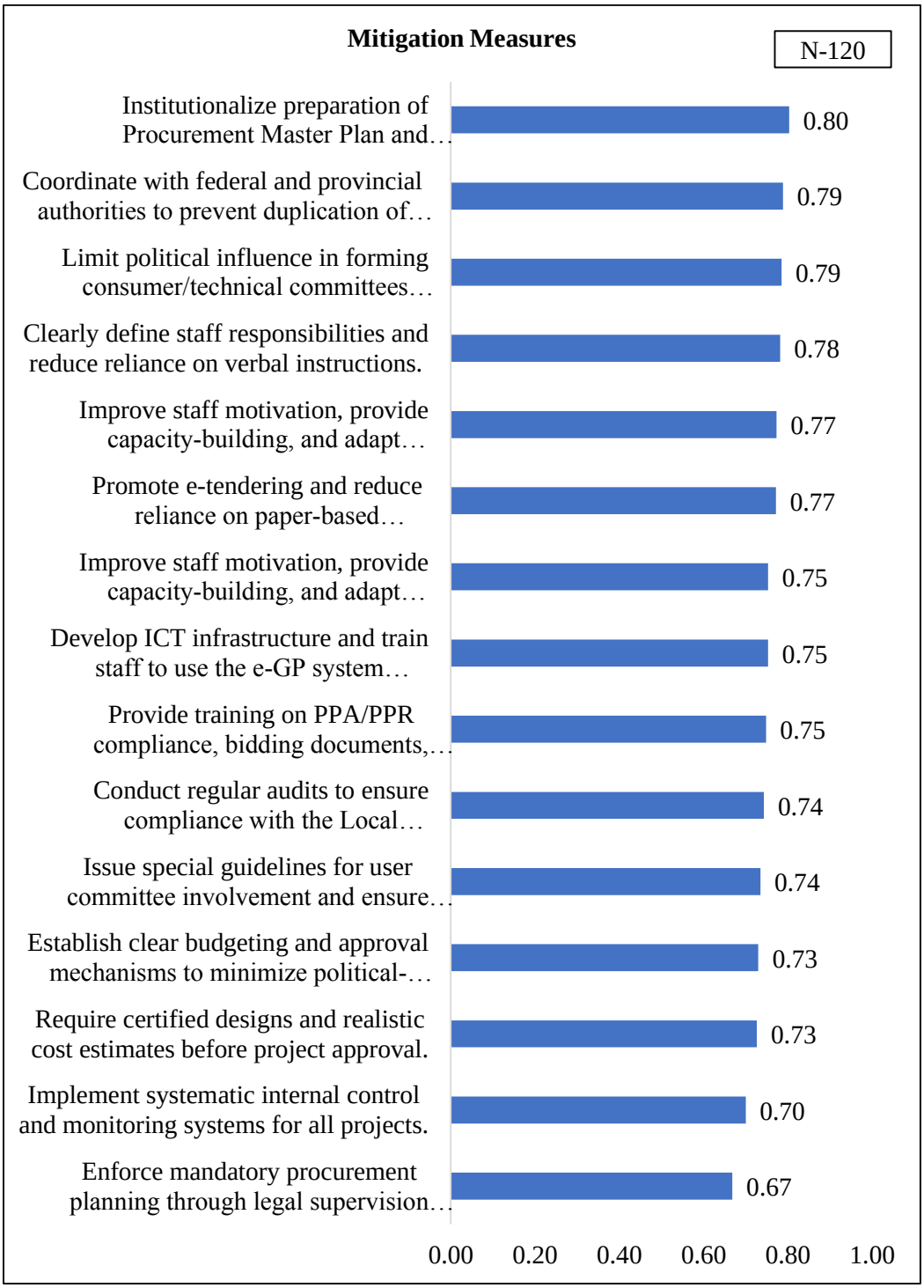

Figure 3.7. Mitigation Measure for Problems of Procurement and Related Policies

4. Discussion

I) Field Observation (F.O.)

Field observations in Dhulikhel Municipality revealed that procurement performance is significantly affected by poor planning, delayed budget allocation, and weak monitoring systems. These issues result in delays, use of substandard materials, and compromised project quality. Political and external influences further reduce transparency and fairness in procurement processes. In addition, limited technical capacity among municipal staff leads to inefficiencies in tender evaluation and contract management. Overall, weak planning, supervision, and institutional capacity negatively impact timely project completion and quality outcomes.

II) Field In-depth Interviews (F.IDI)

In-depth interviews indicate that weak accountability, bureaucratic delays, and political interference are major barriers to effective procurement. Payment delays and complex administrative procedures discourage contractors and slow project progress. Limited training and low ICT adoption further reduce efficiency in procurement management. Respondents emphasized that favoritism in contractor selection undermines transparency and credibility. These findings suggest that strengthening institutional capacity, improving accountability mechanisms, and enforcing procurement laws are essential to enhance performance.

III) Focus Group Discussion (FGD)

FGD findings highlight governance-related issues such as lack of transparency, weak public participation, and poor monitoring systems. Community needs are often not properly integrated into procurement planning, and auditing mechanisms are ineffective, leading to resource mismanagement and low-quality outputs. However, stakeholders showed positive attitudes toward adopting ICT-based systems and improving social accountability. This indicates that strengthening participatory approaches and digital procurement can improve transparency and efficiency.

IV) Comparison with Past Studies

The study findings strongly align with previous research at national and international levels. Issues such as political interference, weak procurement planning, poor accountability, and limited ICT capacity are consistent with studies by Baral & Uphoff (2023), Shrestha (2023), and OECD (2016). Similar to Mrope & Namusonge (2014), poor procurement planning leads to delays, cost overruns, and reduced quality. Challenges related to institutional weakness and skill gaps also reflect findings from Ameyaw et al. (2012) and Mwangi & Kariuki (2020).

Overall, the comparison confirms that procurement challenges in Dhulikhel are systemic and similar to those in other developing contexts. Addressing these issues requires integrated reforms, including improved planning, capacity development, digitalization (e-GP), strict enforcement, and enhanced stakeholder participation to ensure transparency, efficiency, and better project outcomes.

4. CONCLUSIONS

This study on the Problems Associated with the Public Procurement Process with Special Focus on Public Building Construction Projects of Dhulikhel Municipality, Kavreplanchowk District revealed that weaknesses in institutional accountability, lack of transparency, poor procurement planning, and limited internal control mechanisms are the major barriers affecting procurement efficiency. The analysis, supported by the Relative Importance Index (RII), demonstrated that “lack of mandatory procurement planning” (RII = 0.67) and “administrative interference” (RII = 0.65) were the most critical issues undermining sound procurement practices. The results also indicated that these shortcomings are deeply rooted in weak governance structures and limited institutional oversight, leading to delays, cost escalation, and low-quality project outcomes.

Moreover, the study identified additional operational and procedural challenges such as staff absenteeism, inadequate compliance with procurement laws and regulations, and minimal utilization of the electronic government procurement (e-GP) system due to poor ICT capacity. These issues collectively weaken the

effectiveness and transparency of the procurement process. The limited use of digital systems has restricted opportunities for open competition and real-time monitoring, while frequent absenteeism among key staff has disrupted continuity and accountability in procurement execution. Similarly, weak enforcement of the Public Procurement Act (PPA) and Public Procurement Regulation (PPR) has led to inconsistent practices across departments, further undermining procurement efficiency.

In conclusion, the study highlights that strengthening institutional accountability, enforcing strict adherence to procurement laws, enhancing ICT infrastructure for effective e-GP implementation, and improving staff commitment and capacity are vital for reforming the procurement system. Addressing these challenges through better planning, professional training, and the adoption of transparent and technology-driven mechanisms will significantly improve procurement performance in Dhulikhel Municipality. By doing so, the municipality can ensure timely project completion, cost efficiency, and higher-quality outcomes in public construction projects, fostering greater public trust in local governance.

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