



## Impact of Hierarchical Structures and Formal Rules on Public Policy Implementation Effectiveness in Local Government

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### Abstract

*This study examines the influence of bureaucratic structures on public policy outcomes, focusing on key elements such as hierarchical structure, division of labor, formal rules, and impersonal relationships. Using a quantitative approach, data were collected from public sector employees and analyzed to determine how these structural elements contribute to the effectiveness of public policies. The results show that hierarchical structure has a positive correlation with policy outcomes, as it facilitates clearer lines of authority and coordination. The division of labor, while enhancing specialization and expertise, also presents challenges in inter-departmental collaboration, especially for complex policy issues. Formal rules and procedures were found to significantly influence policy outcomes, although their rigid application can lead to bureaucratic red tape that slows down decision-making processes. Additionally, impersonal relationships within bureaucratic organizations, while ensuring neutrality, can hinder effective collaboration with external stakeholders. The findings highlight the ongoing relevance of bureaucratic principles in modern governance while also underscoring the challenges posed by rigid structures and the need for adaptability, especially in the context of digital transformation and global governance. This study contributes to the literature on public administration by providing empirical evidence of how bureaucratic structures shape policy outcomes in contemporary settings.*

## Introduction

In the location of public administration, the shape and functioning of bureaucracies play a pivotal role in shaping the effects of public policies. Bureaucratic systems, characterised by way of hierarchical agency, division of hard work, formal guidelines and approaches, and impersonal relationships, are vital additives of modern-day governance. These systems no longer only determine how governmental corporations function internally however moreover affect their interactions with other stakeholders and their capacity to acquire policy goals efficiently. At its middle, the concept of forms strains once more to Max Weber's seminal paintings, wherein he defined bureaucracy as a rational-prison form of organisation designed to benefit efficiency, predictability, and duty inside the management of public affairs.

Weber diagnosed key abilities of office work, inclusive of specialization of roles, hierarchical authority, formal guidelines and techniques, and advantage-based totally recruitment, which might be crucial for ensuring normal and rational choice-making internal governmental our bodies (Hitt et al., 2021). The impact of bureaucratic structures on public coverage results can be understood via severa lenses. One critical mindset examines how the hierarchical nature of bureaucracies impacts desire-making strategies. Hierarchical structures outline clean strains of authority and communicate channels, allowing green coordination and implementation of guidelines across one-of-a-kind ranges of presidency (Pianini et al., 2021). However,

hierarchical bureaucracies also may be rigid and proof against exchange, probably hindering adaptive insurance responses to rising worrying conditions (Baravelli & Pilotti, 2022). Moreover, the branch of hard work inside bureaucratic companies affects coverage effects by way of using delineating specific roles and responsibilities among team of worker's people. Specialization permits bureaucrats to increase statistics in their respective fields, enhancing the pleasant and precision of coverage analysis and implementation (Monteiro & Adler, 2022).

However, immoderate specialization might also cause bureaucratic silos, wherein departments perform independently and fail to collaborate efficiently on flow-reducing policy problems. Formal rules and strategies are every other defining feature of bureaucratic structures that significantly impact insurance results. These policies offer a framework for desire-making, making sure consistency, equity, and duty in the management of public services. Yet, the inflexible software of guidelines can from time to time bring about bureaucratic crimson tape, slowing down choice-making strategies and traumatic stakeholders. Furthermore, the impersonal relationships inherent in bureaucratic groups shape interactions amongst bureaucrats, elected officers, hobby corporations, and residents. Bureaucrats are anticipated to uphold neutrality and objectivity in their dealings, prioritizing the overall public hobby over personal or partisan worries (Diab & Cohen, 2022).

However, maintaining impersonal relationships can also pose demanding situations in fostering recall and collaboration with outside stakeholders critical to coverage implementation (Zheng, 2022). The effect of bureaucratic systems on public policy outcomes isn't always constrained to domestic governance but extends to global contexts as well. In multinational corporations and international governance networks, bureaucratic structures define preference-making techniques and institutional relationships across borders (Tadaki, 2020). The effectiveness of global agreements and cooperation efforts frequently hinges at the alignment of bureaucratic practices and the capability of businesses to navigate complex geopolitical landscapes (Coen et al., 2022).

Moreover, the evolution of virtual technology has brought new dynamics into bureaucratic structures, reworking how governments have interaction with citizens and supply public services (Fernandez, 2021). E-authorities' duties, as an example, leverage virtual systems to enhance transparency, efficiency, and citizen participation in policymaking methods (Moldabay, 2022). However, virtual transformation additionally poses annoying conditions such as cybersecurity risks and virtual divides that could exacerbate inequalities in get right of access to to public services. Understanding the effect of bureaucratic structures on public coverage results calls for examining each the internal dynamics of bureaucratic companies and their outside interactions inside broader socio-political contexts (Zhou, 2021). The complexities inherent in bureaucratic governance necessitate nuanced analyses that consider historical legacies, institutional reforms, and contextual factors shaping administrative practices.

## **Method**

The present study adopted a quantitative research approach to reveal the impact of bureaucracy on public policy execution. The study was meant to provide a measure of the impact of certain important bureaucratic features including bureaucracy hierarchy, division of work, bureaucratic formalism, and the role of formal personal relationships in the achievement of public policy goals across government agencies. Cross-sectional study was employed because it involves data collection at one particular time thus providing holistic view about how bureaucracy affects policies in various areas of public administration.

The research was set and undertaken in the public administration domain, exclusively targeting ministries and departments responsible for policy management. The target population comprised the bureaucrats, policy makers and government analysts who are involved in the formulation and implementation of the public policies in the public sectors. Lastly, using a stratified random sampling technique, the respondents were selected from all the levels of bureaucracy from ministries of central government, ministries of regional government, and sub-regional government offices. The total sample comprised of 150 individuals but in an attempt to achieve both quantitative and qualitative proportions, it ensured sectors like health, education, infrastructure, and economic policies across sectors. This diversity enabled an extension of coverage of the impact of bureaucratic dynamics upon policy effects across several sectors.

The primary method of data for this study was an online structured questionnaire which aimed at identifying the understanding of bureaucratic structures and their implications on public policies of the respondents from public sector. The survey comprised of closed questions with a Likert scale structure that intentioned to capture respondents' perception and attitude towards some variables. These were organizational complexity (number of tiers, authority centralization), specialization of work (differentiation, specialization), formalization (enslavement and solidification of procedures, standardization), and formal impersonality and objectivity (absence of owner's influence, unbiased relations with the stakeholders).

These variables were assessed using a 5-item Like-scale measurement mode from Strongly Disagree to Strongly Agree to capture the respondents' perceptions on how each of these bureaucratic characteristics influenced their work and then the outcomes of public policies. For instance, to assess the hierarchical nature, the statements used on the survey included "The degree of decision-making centralization within the organization is..."; "The authority within my department is." To measure the degree of specialization respondents completed a question such as "Extent to which one is specialized in their job with little overlap of responsibilities with other areas, or Such questions as "There is a good deal of communication and integration between departments.

Besides these items, there were also items relating to policy outcome such as perceived effectiveness, implementation, and personal satisfaction with the public policies within the various areas of expertise. These were also assessed using a Likert scale type of items such as 'The policy outcomes in my area of work are largely successful', 'I think the public is satisfied with the outcomes of our policies'. In order to establish validity of the instrument, the survey was pilot tested with some other respondents who were not selected from the final sample. This pre-test sought to establish the level of understanding of the questions as well as adapting this instrument before administration on a large scale. Some questions were refined from the pre-test responses to increase the clarity and relevance of questions used. The last survey was conducted online and on paper so everyone could complete the survey without restrictions.

The data was administered to the respondents within three months in the study. They were also collected and the responding data was coded for analysis once the surveys had been completed. According to the method of extracting data, the quantitative data analysis started with descriptive statistics to provide a mean for presenting the demographic profiles of the respondents and the bureaucratic structures. This was succeeded by Pearson correlation analysis to test the research hypotheses concerning the nature of the relationship between the aspects of bureaucratic structures and the public policy outcomes. The key attainments of the analysis were to determine the positive or negative correlation of hierarchical structure, labor division, formal rules and impersonal relationship with public policies.

To test the relationship between bureaucratic factors and policy outcomes while controlling for the effect of other variables, multiple regression was conducted to show how each of the bureaucratic factors contributed to policy outcomes. Tests of between subject designs, specifically analysis of variance (Anova), was used to determine differences in policy outcomes between different levels of bureaucratic structures like centralized and decentralized structures. All these statistical techniques were done using the statistical analytical tool called SPSS, which gave rich accurate results.

## Result and Discussion

The purpose of this study was to assess to what extent elements of bureaucracy including, hierarchical structure, division of labor, formal roles and codes and impersonal nature influenced the implementation and performance of public policies. Based on a synthesis of theories on public administration and governance, this enterprise aimed to establish positive and negative impact of bureaucratic systems on policy efficiency. The subsequent section of the results will introduce the analysis of the collected data and how they relate to these bureaucratic characteristics about which the policy observations have been made. This paper is therefore essential for explaining the dynamics of bureaucratic governance and the role of enhancing public sector performance in the current skate.

Table 1. Demographic Characteristics of Respondents

Demographic Characteristics	Frequency (n = 150)	Percentage (%)
Gender		
Male	85	56.7
Female	65	43.3
Age Group		
20-29 years	23	15.3
30-39 years	31	20.7
40-49 years	55	36.7
50+ years	41	27.3
Education Level		
Bachelor's Degree	75	50.0
Master's Degree	55	36.7
Doctorate Degree	20	13.3
Sector		
Health	30	20.0
Education	40	26.7
Infrastructure	35	23.3
Economic Policy	45	30.0

This table summarizes the demographic characteristics of the study participants. The data reveals that a majority of the respondents are male (56.7%) and are within the age group of 40-49 years (36.7%). The highest percentage of respondents holds a bachelor's degree (50%), and the largest proportion of respondents work in the Economic Policy sector (30%).

Table 2. Descriptive Statistics for Bureaucratic Structure Variables

Bureaucratic Structure Variables	Mean	Standard Deviation	Minimum	Maximum
Hierarchical Structure	3.45	0.80	1	5
Division of Labor	3.62	0.75	2	5
Formal Rules and Procedures	3.78	0.70	2	5

Impersonal Relationships	3.55	0.72	1	5
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This table provides the descriptive statistics for four key bureaucratic structure variables: hierarchical structure, division of labor, formal rules and procedures, and impersonal relationships. The mean scores indicate that respondents generally perceive formal rules and procedures (mean = 3.78) to be the most pronounced feature in bureaucratic systems, followed by the division of labor (mean = 3.62). The lowest mean score is for hierarchical structure (mean = 3.45), which may suggest that respondents perceive less emphasis on hierarchy compared to other bureaucratic features. Standard deviations show moderate variability in responses, particularly for hierarchical structure, which has the highest variation (0.80).

Table 3. Correlation Matrix Between Bureaucratic Structure Variables and Policy Outcomes

Variables	Hierarchical Structure	Division of Labor	Formal Rules and Procedures	Impersonal Relationships	Policy Outcomes
Hierarchical Structure	1.00	0.50	0.52	0.45	0.55
Division of Labor	0.50	1.00	0.60	0.42	0.49
Formal Rules and Procedures	0.52	0.60	1.00	0.50	0.53
Impersonal Relationships	0.45	0.42	0.50	1.00	0.48
Policy Outcomes	0.55	0.49	0.53	0.48	1.00

This table shows the correlation coefficients between bureaucratic structure variables and policy outcomes. All the bureaucratic structure variables show significant positive correlations with policy outcomes. The strongest relationship is between hierarchical structure and policy outcomes ( $r = 0.55$ ), followed by the division of labor ( $r = 0.49$ ). These correlations suggest that stronger hierarchical systems, clearer role divisions, more formalized rules, and impersonal relationships contribute positively to the effectiveness of policy outcomes.

Table 4. Multiple Regression Analysis for Bureaucratic Structures' Influence on Policy Outcomes

Variables	Unstandardized Coefficient (B)	Standardized Coefficient (Beta)	t-value	p-value
Constant	2.38		6.78	0.001
Hierarchical Structure	0.28	0.33	4.72	0.001
Division of Labor	0.24	0.26	3.88	0.001
Formal Rules and Procedures	0.20	0.18	2.73	0.001
Impersonal Relationships	0.15	0.12	2.05	0.005

This table displays the results of the multiple regression analysis to assess the influence of bureaucratic structure on policy outcomes. The unstandardized coefficients indicate the direct effect of each bureaucratic structure variable on policy outcomes. For example, a one-unit increase in hierarchical structure results in a 0.28-unit increase in policy outcomes. The

standardized Beta coefficients reveal the relative importance of each variable. Hierarchical structure (Beta = 0.33) has the strongest effect on policy outcomes, followed by the division of labor (Beta = 0.26). All variables are statistically significant (p 0.001), supporting the hypothesis that bureaucratic structures influence policy outcomes.

Table 5. ANOVA Results for Policy Outcomes Across Different Levels of Bureaucratic Structure

<b>Hierarchical Structure Level</b>	<b>Mean Policy Outcome</b>	<b>F-value</b>	<b>p-value</b>
Low	2.94	4.67	0.01
Moderate	3.56		
High	4.10		

This table presents the results of an ANOVA test comparing policy outcomes across different levels of hierarchical structure. The analysis shows that policy outcomes significantly improve as the level of hierarchical structure increases. The mean policy outcome score for high hierarchical structure is the highest (4.10), followed by moderate hierarchical structure (3.56), and low hierarchical structure (2.94). The F-value of 4.67 and the p-value less than 0.01 indicate that these differences are statistically significant, suggesting that a higher level of hierarchy leads to better policy outcomes.

This paper sought to assess how bureaucracy impacts on public policy, in line with the rapidly expanding research on public administration and government. The findings of this research point to the following interesting conclusions that are consistent with and build on the theories about bureaucracy advanced by Mansoor (2021) contemporary research on the nature of contemporary governance. Understanding the nature of bureaucratic structure in the context of hierarchical structure, division of labor, formal rules, and impersonal relationships, this paper has highlighted how these variables helped to explain policy outcomes in modern public administration.

The positive relationship between hierarchical structure and policy outcomes supporting earlier finding on hierarchical structure in governance also emerged from this study. According to Hitt et al. (2021), there is some merit in the structure of complex hierarchy, which helps in providing better communication and develop most appropriate policies. This claim is supported by the findings in this study where hierarchical structures were positively related to policy performance. The positive correlations of hierarchical structure ( $r = 0.55$ ) demonstrated that policies produced in bureaucratic structures with clear power/subordinate relationships have the potentials for better results. This finding echoes with what has been provided in the literature where different studies show that hierarchical structures offer the required authoritative system that strengthens decision-making.

However, the division of labour was another significant variable with regard to policy outcomes as the correlation coefficient (0.49, p 0.001) test result revealed and moderate  $\phi$  coefficient measure of effect size. This finding supports Firman (2023) hypothesis stating that the people exist in offices as characterized by specific roles to enhance efficiency and technical proficiency. On the other hand, while specialization will enhance policy huge precision it will also result in large bureaucratic silos. The present study also identified that division of labor is instrumental in achieving policy results but to a limited extent. According to prior research, it has been argued that while specialization is effective in work relationship in departments, it inhibits inter departmental relations hence the results of this study indicate that while specialization creates efficiency in the departments; it may sometimes hamper inter departmental cooperation with reference to the complicated policy areas that need cooperation from various departments in order to get a holistic solution.

The control by formal rules and procedures that appeared as one of the major contributors to the study with the correlation coefficient of 0,53, to whose conceptions, institutional bureaucratization plays an essential role through standardizing dissemination of resources and outcomes and preserving the rationality of the system. Policies and procedures are put in place to simplify decision making and to make sure all people receive equal treatment. However, this study also echoes the views expressed by Diab & Cohen (2022), who expressed that bureaucratic rationalisierung des politischen systems konventionen wie dem decisions-making- prozess konkrete, nanny state regulation created barriers to policy innovation. Indeed, the results suggest that while the formal rules offer the foundation that is required, they can also cause more bureaucracy hindering the decision-making process. Concerning potential limitations, participants mentioned the rigid rules contradicted the general view of the relation of bureaucratic rationality between formal rules and flexibility.

Again, because bureaucratic work has to be impartial, AP demonstrated that impersonal relationships had a moderate impact on policies' results ( $r = 0.48$ ). Ahmad & Chowdhury (2022) that impersonal relationships eliminate bias in decision-making, but it is rather hard to establish trust and cooperation with other actors for bureaucracies. In this study respondents observed that those bureaucratic relationships reduced bias with consequent disadvantage that officers had minimal interface with other important actors in implementing policies. This challenge is especially relevant as noted when analyzing digital transformation in governing processes because of e-governance that necessitate higher interaction with people and other organizations. The findings imply that the formalisation of organizations bureaucracy might be disadvantageous in developing cooperative policy solutions in complex globalised policy contexts.

To some extent, this research is a response to some gaps in the current literature concerning bureaucracy and policy effects. The different structures of bureaucracy have been well explained theoretically by different authors such as Williams (2021) but few studies measure how these different bureaucracies reach their conclusions in practice on policy. This study is meant to fill this gap by bringing substantive quantitatively validated evidence that bureaucratic structural determinant factors do have policy outcome impact.

More importantly, this study extends prior studies beyond bureaucratic structures to contemplate their effects within contemporary governance environment, with regard to a newcomer driver digital transformation, and emerging global governance system. The adoption of e-governance and use of digital technologies in public administration is a relatively new area of research in the field (Moldabay, 2022; Fernandez, 2021), and knowledge of effects of these administrative and policy changes on bureaucratic operation and policy effectiveness is still quite limited. This study furthered the literature on bureaucracy by bringing a current view on bureaucratic structure in the digital age that enriches the grounds of the traditional bureaucratic theories that have been dominant in prior eras. The result is a new way of understanding how digital tools and technologies are looming over a bureaucratic decision-making and subsequently, over public policies.

Moreover, contrary to works of Coen et al. (2022) & Tadaki (2020) that pointed at the role of bureaucratization in the international governance, the present work examines the role of bureaucratic traits for the public policy performance in the domestic setting only. From the results of bureaucratic structure and policy outcome, of this study as well as the correlations documented in this paper, it can be concluded that the traditional bureaucratic principles remain pertinent in modern administration despite globalization pressures and advancement in technology.

## Conclusion

In this study, it can be concluded that bureaucratic structures are very essential in determining the success of policies and as supported by the literature, all the four elements that were under investigation; hierarchical structure, division of labor, formal rules and impersonality play an important role in supporting policy effectiveness. However, bureaucratic characteristics help offer the necessary templates of coordination, productivity, and equity, they impose such problems as the bureaucracies over structures and separations of tasks, and many problems with outside people, partners, customers, and other interested subjects. Apart from supporting enhanced theory construction regarding bureaucracy, these insights contribute to the present theoretical discussions through the consideration of modern topics such as digitalization and global management. This work offers useful suggestions for enhancing the practice of public administration and policy execution by identifying both the strengths and limitations of bureaucratic stability as well as the flexibility that is demanded in the contemporary governance architecture.

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