The Impact of Strategy Implementation on the Performance of Ugandan State Agencies: A Quantitative Study

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Abstract: This study examines how strategy implementation affects the performance of Ugandan state agencies. It conceptualizes strategy implementation as operationalization and institutionalization and measures performance by efficiency and effectiveness. This study used a cross-sectional design with a standardized questionnaire to interview 160 state agencies. Respondents included the CEO/Managing Director, Deputy/Assistant CEO, Corporation Secretary, and Heads of Department from each agency's top management team (TMT). Each agency had at least three TMT members participate in the online survey, which was chosen because of COVID-19 restrictions. The data analysis methods were factor, descriptive, and multilinear regression analyses. This study adhered to the ethical principles of informed consent, confidentiality, and anonymity. Ugandan state agencies perform better when implementing their strategies effectively. Statistical analysis reveals that institutionalization is a key driver of performance outcomes, with a positive and highly significant coefficient (p = 0.000). Conversely, operationalization exhibits a limited correlation with performance, with a positive but negligible coefficient (p = 0.140). These results emphasize the importance of matching the strategy to the internal climate of a company. This study makes a significant contribution to the field of strategic management, especially in the public sector, with a primary focus on the operations of Ugandan state agencies. This groundbreaking research explores this relationship in a developing country. It methodically examines the profound effects of executing various strategies on these entities. This study contributes to the literature on strategic management in the public domain. The insights and recommendations derived from this study are valuable for professionals and policymakers involved in creating and implementing strategic plans in the public sector. This study offers practical and theoretical contributions to strategy implementation and performance in the public sector context. This finding suggests that state agency managers and policymakers should foster a supportive culture, enhance leadership skills, facilitate communication channels, allocate adequate resources, and adapt to environmental changes to improve strategy execution and outcomes. It also adds to the literature on strategic management in the public sector context, especially in developing countries.

Keywords: *Strategy Implementation, Organisational Performance, Ugandan State Agencies, Public Sector Organisations*

1. Introduction

Strategy implementation translates strategic plans into actions and results, affecting how well a strategy achieves organizational goals and performance. This crucial stage of strategic management is complex and challenging, especially for public sector organizations facing dynamic challenges and various obstacles and barriers (O'Regan & Ghobadian, 2004; Bryson et al., 2014; Njoroge, 2015; Genc, 2017; Mbogo, 2022). Public sector organizations often fail to execute their strategies effectively, leading to poor outcomes (Azhar et al., 2013; Seotlela & Miruka, 2014). Previous research on this topic has mainly focused on private sector organizations in developed countries using qualitative or case study methods that limit generalisability and comparability (Alshaher, 2013; Elbanna et al., 2015). There are few empirical and thorough studies on the performance of public sector organizations in developing countries with uncertain and volatile environments regarding strategy implementation (Mintzberg et al., 2000; Bryson et al., 2014; Černiauskienė, 2014; Pollanen et al., 2016; Elif, 2022).

An act of parliament or a statutory instrument establishes state agencies in Uganda as public sector organizations to perform specific functions or services for the public good (Mouzas, 2006; the Republic of Uganda, 2019). These include corporations, authorities, commissions, boards, councils, institutes, and funds. State agencies must align their strategic plans with Uganda's National Development Plan and Vision 2040 (Republic of Uganda 2019). According to Tumusiime (2015), state agencies in Uganda have not achieved the necessary level of performance because they have consistently fallen short of the performance targets. Although state agencies receive funding from consolidated funds to conduct their primary function of providing services, there are no known studies conducted in Uganda that have examined the overall performance of these agencies. According to Basheka et al. (2017), the transition from planning to strategy execution and assessment presents external obstacles to Ugandan state institutions. The objective of this study is to ascertain how the execution of strategies affects the performance of Ugandan state agencies. The main study question is how strategy implementation affects state agency performance in Uganda.

The theory, strategy execution, and performance literature are reviewed in the following section, along with recommendations for the conceptual framework and hypotheses. This methodology is discussed in the following section. The data analysis results are presented and interpreted in the fourth section. The findings, their implications for theory and practice, recommendations, limitations, and potential directions for future research are discussed in the next section.

2. Literature Review

Theoretical Review
This study applies the Dynamic Capabilities Theory (DCT) by Teece et al. (1997), which argues that management trends affect the development and execution of strategies. The DCT posits that top management teams (TMTs) need high skills and experience to define, formulate, and implement strategies that create value. Dynamic capabilities are organizational routines that enable TMTs to modify, integrate, and recombine their assets in response to changing environments (Eisenhardt & Martin, 2000). They also allow firms to coordinate, shape, and reconfigure their internal and external resources to adapt to environmental changes (Teece et al., 1997). These capabilities help firms gain and sustain a competitive advantage by being agile, responsive, and proactive in changing markets (Eisenhardt & Martin, 2000; Clulow et al., 2003). Dynamic capabilities, along with the available resources, support firms in achieving their strategic objectives through effective planning and implementation.

Opponents argue that while this theory highlights the dynamism of resources and capabilities, it ignores situations such as the idea of changeable co-arrangements, which could improve the execution of strategies (Chathoth, 2002). Successful strategy implementation depends on TMT capabilities and resource efficiency, including processes, systems, and demand impacts. Understanding market dynamics and establishing efficient processes is essential for swift strategy execution (Barreto, 2010). Consequently, this leads to improved strategy-implementation processes.

Hansen et al. (2004) argue that how a company utilizes its assets is as important as the assets themselves. They contend that simply possessing capabilities does not guarantee superior Organisational performance, but rather how TMTs utilize these capabilities to achieve set targets and objectives. The framework explores the sources and strategies of value creation by small businesses operating in rapidly evolving technological environments (Teece et al., 2008). To improve performance, companies are said to continuously create and reconfigure their dynamic capabilities in response to shifting external conditions, as per DCT (Wang & Wang, 2017). This study investigated the effect of strategy execution on the performance of Ugandan state agencies using theoretical predictions of the DCT.

Definition of Strategy Implementation
The execution of strategy has preferably become very troublesome over its definition, and thus there is a requirement for top administration to consider the firm's essential planning, strategy content, and execution process (Håkonsson et al., 2012). Slater et al. (2010) define strategy implementation as the process of effectively conducting and materializing planned courses of action and strategic initiatives to attain a specific objective. It involves aligning the organization's resources, structures, processes, culture, and people with the chosen

strategy. Strategy implementation is the process of executing strategies within resource and time constraints to achieve objectives (Shah, 2005). According to Pride and Ferrell (2003), this is the main method of implementing strategies.

Strategy implementation has various explanations from diverse researchers from different perspectives. Strategy implementation is understood by researchers who specialize in the discipline of strategic management as the execution of plans and procedures to fulfill the expectations and plans of organizations (Njoroge, 2015; Genc, 2017). Strategy implementation involves breaking down the organizational strategic plan into actionable plans, communicating the strategies within the processes, and establishing strategic oversight of the organization (Njoroge, 2015). It is also explained as the process of putting strategies and policies into action (Sorooshian et al., 2010).

Strategy implementation encompasses both the institutionalization and operationalization of the strategic plan, requiring the effective utilization of methods to integrate and assimilate the plan. McKinsey's 7 model is the most widely implemented model for strategy institutionalization because it assesses the success and efficiency of implementation activities (Kirui, 2016). However, strategy operationalization involves adopting a realistic approach to guarantee that the blueprint is accomplished (Machuki et al., 2012). Operationalization requires establishing deadlines, specifying the tasks, and methods to perform them. Strategy implementation involves the application of organizational frameworks, monitoring mechanisms, and guiding principles to effectively execute strategies, thereby enhancing overall performance (Nyamwanza & Mavhiki, 2014).

Strategy implementation is a dynamic and holistic procedure that converts schemes and tactics into execution to achieve specified organizational objectives (Jalali, 2012). The effective implementation of strategies necessitates the understanding and collaboration of each member of the organization (Obiero & Genga, 2018). According to this study, implementing a strategy is an integrated, initiative-taking process that involves systematization, operationalization, and strategic planning.

Definition of Organisational Performance
According to Oketch et al. (2020), all organizations strive for optimal organizational performance. However, defining what exactly constitutes organizational performance remains a contentious issue among key strategic circles and researchers, as Kasomi (2015) highlighted. Organizational performance is a crucial concept in strategic management research that has attracted a lot of attention from academic academics and practicing managers, claim Mkalama and Machuki (2019). Richard et al. (2009) point out that most people do not accept a clear-cut definition of organizational performance. Organizational performance, according to Ricardo and Wade (2001), is the capacity of an organization to meet its goals and objectives by taking advantage of opportunities, overcoming obstacles, and leveraging its strengths. Organizational performance was defined by Javier (2002) as the capacity of an organization to deliver results in areas chosen in connection to a goal. The ability of an organization to achieve and meet its objectives while efficiently employing its limited resources is referred to as its performance (Griffins, 2006). Researchers continue to characterize performance differently, while hierarchical specialists continue to view it as a hostile topic.

Scholars have adopted different approaches to conceptualizing and operationalizing organizational performance. Performance has been measured using a variety of criteria, particularly in organizations with diverse operations (Kennerley & Neely, 2002). Organizational performance has been conceptualized using either money-related or non-monetary concepts for objective evaluations (Richard et al., 2009). Financial, marketing, operational efficiency, and human resources are among the most frequently employed performance metrics (Lebans & Euske, 2006). The triple bottom line (Elkington, 1997), sustainable balanced scorecard (Hubbard, 2009), and balanced scorecard (Kaplan & Norton, 1992) are currently in use because of the increased focus on how organizations carry out their operations. (Muraga, 2015) proposed that OP refers to the organization's competence, significance, efficacy, and financial stability. According to Kennerley and Neely (2002), performance evaluations should take action proficiency and effectiveness into account. Mouzas (2006) used the terms effectiveness and efficiency to conceptualize the performance of state agencies in Uganda. According to Lusthaus et al. (2002), academics have looked at performance as being related to efficacy and efficiency. Effectiveness, according to Heilman and Kennedy-Phillips (2011), is useful in assessing the progress made toward achieving goals and fulfilling missions. According to (Nalwoga & Dijk, 2016), effectiveness

encompasses a number of unique desired qualities of administration related to program goals, such as appropriateness (coordinating with the administration to meet customer wants), openness (reasonableness), quality (fulfilling necessary guidelines), and results. Efficiency, in the words of Low (2000), is concerned with the relationship between inputs and yields. According to Kumar and Gulati (2010), transversal resource allocation to several goals is what efficiency is all about. Moreover, efficiency does not always translate into a company's success in the marketplace, even while it does disclose an organization's operational competence. Organizational efficiency is the number of resources required to accomplish an aim, whereas organizational effectiveness is the extent to which the corporation meets a declared goal (Bartuševičienė & Šakalytė, 2013). Performance assesses how successfully a company achieves its aims and objectives (Randeree, 2020). This highlights the areas for improvement in the organization's operations. Since these organizations place greater emphasis on providing services than on turning a profit, effectiveness and efficiency are employed as performance indicators.

The public perceives organizations as institutions that support a range of partners, both inside and outside the organization. This aligns with the theory put forward by Kasomi (2015), who states that an organization's performance is measured by how well it serves the interests of the stakeholders it was founded to serve. According to Njoroge (2015), efficiency serves as a proxy for public-sector performance According to the arguments, the agreed-upon responsibilities among TMTs include transforming governing body agreements into goals, targets, procedures, and extensions, and being accountable for their achievements. Additionally, a key outcome of the TMT craft is strategy implementation. Strategic management stands out from other disciplines due to its strong emphasis on organizational performance, which is associated with the implementation of effective strategies. Thus, it can be assumed that TMTs are accountable for organizational performance (Mkalama, 2014). To be able to take the right action to start them, managers have had to search for elements that affect an organization's performance. According to Machuki and Aosa (2011), organizational performance is correlated with the skills and efficacy of an organization.

Strategy Implementation and Performance
Several studies have examined the relationship between strategy implementation and organizational performance using different methods, contexts, and concepts. For instance, Onyegbula et al. (2023) found a positive effect of strategy implementation on the performance of financial regulators in Nigeria using structural equation modeling and data from four agencies. This study differs from Onyegbula et al. (2023) in that it focuses on Ugandan state agencies, and in concept, uses institutionalization and operationalization as indicators of strategy implementation, instead of technology adaptation, strategic leadership, strategic communication, resource availability, and Organisational structure.

Mbogo (2022) studied the performance of local NGOs in Tharaka Nithi County, Kenya, focusing on the impact of plan execution. The survey results indicated that most organizations funded new strategies, involved, and trained staff, and provided adequate resources. The study found that all employees were informed of new strategies, and the organization's goals were communicated. The effectiveness of NGOs was found to be enhanced by the implementation and integration of strategies at both operational and institutional levels. This study explored these aspects of strategy implementation in public institutions, such as Uganda's state agencies. Ndegwa (2022) evaluated the complex interactions among strategy execution, organizational resources, and the operating environment regarding government-owned state corporation performance in Kenya. Regression analysis was employed in this study, which was based on Institutional, Dynamic Capabilities, and New Public Management theories. The results show a strong and favorable relationship between strategy execution and organizational performance. Amobi (2022)concentrated on the performance and implementation of the strategy among Abia State commercial banks. According to Amobi (2022), organizational performance is positively and significantly correlated with strategy execution. Elif (2022) took a novel approach in a ground-breaking study examining the individual and combined effects of putting various tactics into practice and developing an organizational culture on the operation of local government organizations in Turkey. The findings affirmed a notable and optimistic correlation between the execution of strategies and the overall effectiveness of the organization.

Kianda and Kitur (2021) studied the strategy implementation and performance of Micro Finance Institutions (MFIs) in Nairobi Kenya. Kianda and Kitur (2021) conceptualized implementation in terms of Organisational

structure, Organisational culture, leadership styles, and resource allocation, whereas this study conceptualized strategy implementation in terms of operationalization and institutionalization. A study conducted by Kianda and Kitur (2021) discovered a notable correlation between Organisational structure and performance, displaying a positive and moderately significant association.

This study explores how the institutionalization and operationalization of strategies affect the performance of Ugandan state institutions. This differs from previous studies that have focused on other aspects of strategy implementation, such as organizational structure, culture, resources, and communication. For example, Kiragu et al. (2020) studied how innovation in strategy implementation improved the performance of a food processing company in Kenya. Hantiro and Maina (2020) examined how strategic initiatives enhanced the achievements of the administrative body of Tana River County in Kenya. Muendo and Ogutu (2020) investigated how the implementation of a strategic plan influenced the performance indicators of the Kenya Medical Training College. Ogalo (2019) focused on exploring the relationship between implementing strategies and the performance of faith-based organizations (FBOs) in Kenya. The focus of Luhangala and Anyieni (2019) study was public secondary schools located in Nyamira County, Kenya. Espirah and Murigi (2019) investigated the effects of successfully implementing strategies on the Parliamentary Service Commission of Kenya's performance.

In their 2019 study, Mohamed et al. investigated how organizational performance in the Abu-Dhabi police department in the United Arab Emirates was impacted by strategy, structure, and human resources. However, this study considers the more thorough and subtle aspects of operationalization and institutionalization when discussing the implementation of strategies. According to Mohamed et al. (2019), strategy, structure, and people resources positively impact organizational performance. The impact of strategy implementation on the efficacy of HIV and AIDS interventions overseen by non-governmental organizations in the Nyanza Region was investigated by Awiti et al. (2019). The six main facets of strategy implementation that Awiti et al. (2019) examined were translation, communication, resource allocation, coordination, execution, and adaptability. According to Awiti et al. (2019), there is a direct link between better performance outcomes for HIV interventions and the effective implementation of strategies.

According to this study's conceptual model, Ugandan state agencies' performance is impacted by the execution of their strategies. The study hypothesizes that the performance of Ugandan state agencies and the execution of strategies have a positive and substantial link. Strategy implementation is operationalized as a process of operationalization and institutionalization of a strategic plan, while performance is measured by efficiency and effectiveness indicators.

Figure 1: Conceptual Framework
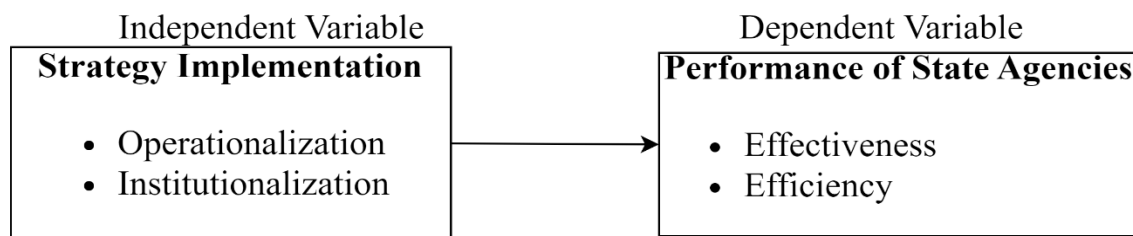
Source: Mouzas (2006); Kirui (2016)

3. Methodology

Research Design
The present research employed a positivist methodology, constructing its basis by exploring established knowledge. It achieved this through a thorough review of previous studies and scrutinizing scholarly works to create a conceptual framework. It followed logical procedures to formulate a hypothesis that was testable and could be proven or disproven. Additionally, this study adopted a positivist perspective to explore the

connections between variables using quantitative data. The researchers found the application of positivism appropriate as it facilitated an objective and empirical measurement of the variables of interest, and the testing of hypotheses derived from the existing literature.

This study used a survey research technique. Several such surveys are one-time (cross-section), while others are proceeding (longitudinal), permitting the researcher to notice changes over a long time. Data were collected from respondents on a single occasion, with no intended follow-up, indicating the adoption of a cross-sectional research design (Sekaran & Bougie, 2016). The rationale for choosing this design was to use quantitative data to test the hypotheses (Cooper & Schindler, 2013).

Sample Size and Technique
The intended sample for this research includes all Ugandan state entities established through legislative action to deliver services to citizens. The government entirely finances them. The Ministry of Public Service (2021) has reported that Uganda has 201 state agencies. These agencies operate in different sectors: health (23), education (24), work and transport (9), information and communication technology (12), justice, law, order (12), public sector management (4), and energy and mineral development (13). Other sectors include accountability (32), water and environment (4), public administration (6), tourism, trade, and industry (22), social development (11), agriculture (20), security (5), and lands, housing, and urban development (4).
Krejcie and Morgan (1970) provided a table, with a 3.5% margin of error and 95% confidence range. From the population, we selected a sample size of 160 individuals. The inquiry process required at least three TMT members from each agency to complete. The analysis phase focused on individual agencies by name. The research design used stratified sampling, based on the sector of each agency. Proportionate random sampling ensures an equal representation of each sector. Respondents were randomly selected from each sector's TMT members using a formula by Kothari (2004).

- $n_s = n * P_s$
- Where n is the sample size and P_s is the percentage of the population in each stratum.
- Consequently, the health sector sample, $n_{health} = 160 * \frac{23}{201} = 18$

Data Collection
State agency top managers, who oversaw strategy implementation and performance, filled out a questionnaire. It had four sections: (1) general information about the agency and the respondents; (2) strategy implementation, measured by operationalization and institutionalization scales; (3) performance, measured by efficiency and effectiveness scales. The scales were adapted and modified from previous studies (Machuki & Aosa, 2011; Mutuku et al., 2013; Charas, 2014; Kinuu, 2014) to fit the Ugandan state agency context. They employed a five-point Likert scale, with one denoting strongly disagree and five denoting great agreement. The questionnaire was pre-tested and pilot-tested with 10% of service-oriented private firms and some state agencies to check its validity and reliability. The feedback was used to revise and improve the questionnaire. The data collection was done from September to November 2021.

This study incorporated both primary and secondary data sources to improve the validity and reliability of the findings (Cooper & Schindler, 2013). An online questionnaire was used to collect primary data, and it was structured. An online hyperlink distributed the survey instrument to a minimum of three members of the executive team from each of the Ugandan government's designated bodies. The TMT members included the CEO/Managing Director, Deputy/ Assistant CEO, Corporation Secretary, and Heads of Department. The COVID-19 restrictions that limited physical access to the respondents led to the choice of the online method. The online method also offered the advantages of being fast, safe, and less intrusive, while it increased the response rate by ensuring anonymity and reducing social desirability bias. Performance reports, statements, and memos from 2017 to 2021 published by state agencies and oversight bodies provided the collection of secondary data, using a documentary checklist. The decision was made that this time frame would provide enough information on state agencies' performance. Secondary data was utilized to verify the results drawn from the original data and triangulate it. Of the 160 responses, 152 were received (95%) and after data cleaning, 152 were valid and usable.

Data Analysis Method
With SPSS software version 26, the data analysis was carried out. Using a variety of qualities, exploratory factor analysis (EFA) was utilized to determine the critical elements of organizational performance and plan execution. The items were extracted using principal component analysis, and then they were simplified by rotating them using Varimax and Kaiser Normalization. Only items with an eigenvalue above one and a factor loading above 0.6 were retained, following the suggestions of Kaiser (2016), Awang (2012), and Hoque and Awang (2016). Items with low factor loadings were deleted, and the filtering process was iterated to obtain a more parsimonious model.

The Master Validity plugin (Gaskin & Lim, 2016) and SPSS AMOS version 21 were utilized to perform Confirmatory Factor Analysis (CFA) and assess construct validity. How well the items measure the intended constructs is referred to as construct validity. Discriminant validity quantifies a measure's difference from another measure that is conceptually unrelated, whereas convergent validity quantifies an item's relationship with other things that it is logically anticipated to connect to. As seen in Table 1, convergent validity can be evaluated by comparing the AVE with MSV and ASV (Hair et al., 2010).

Table 1: Thresholds for CR, AVE, MSV, and ASV

Reliability	Convergent Validity	Discriminant Validity
CR greater than 0.7	AVE greater than 0.5	MSV greater than AVE
		ASV greater than AVE

Source: Hair et al. (2010)

This study examined the performance of Ugandan governmental agencies and the implementation of their strategies. The dependent variable is performance, which is determined by efficacy and efficiency. Operationalization and institutionalization are metrics used to measure independent variables in strategy implementation. The questionnaire responses were tested for internal consistency using reliability tests based on Cronbach's alpha with a cut-off of 0.7 and corrected item-total correlation coefficients (Murphy & Davidshofer, 1994). Additionally, the assumptions of the linear regression were examined. Multiple regression analysis and descriptive statistics were used to analyze the data. The sample and variable characteristics were summed up using descriptive statistics. The hypothesis was evaluated and the association between strategy implementation and performance was investigated using multiple regression analysis.
The multilinear regression model used in this study was as follows:
Performance = $\beta_0 + \beta_1$ Operationalisation + β_2 Institutionalisation + ε

Ethical Considerations
This study adhered to the ethical principles and guidelines of academic research such as respect, beneficence, justice, and integrity. Ethical approval was obtained from the Uganda Christian University, Uganda National Council for Science and Technology, and state agencies before collecting the data. Informed consent was obtained from all participants, and their anonymity was protected. It maintains the integrity and validity of the data and analysis by avoiding any falsification or distortion of the results. It cites the sources of information and ideas used in the literature review and discussion.

4. Results and Analysis

This section presents and interprets the EFA, CFA, Cronbach's alpha, inter-item correlation, descriptive statistics, and inferential statistics of the data. The variables and sample characteristics are summed up in the descriptive statistics. The hypothesis was tested, and the relationship between strategy execution and performance was examined using inferential statistics.

Exploratory Factor Analysis
Strategy Implementation: Table 2 shows the Principal Component Analysis (PCA) results for strategy implementation, including the rotated component matrix and the KMO and Bartlett's tests. These indicate the correlation of each variable with its component and the suitability of the data for PCA. Five out of thirteen items in total were iteratively removed in the final model before additional analysis.

Table 2 reveals the underlying factor structure of strategy implementation, which exhibits the underlying combination of its dimensions namely, operationalization (component 1) and institutionalization (component 2).

Table 2: Rotated Component Matrix for Strategy Implementation

	Component	
	1	2
Op01_mean	.733	
Op02_mean	.917	
Op03_mean	.898	
op04_mean	.908	
In01_mean		.844
In02_mean		.818
In03_mean		.765
In04_mean		.752

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.803
Bartlett's Test of Sphericity	Approx. Chi-Square	649.684
	Df	28
	Sig.	.000

Source: Primary Data (2021)

According to Table 2, the KMO measure of sampling adequacy is 0.803, which suggests that the data has enough shared variance and is appropriate for PCA. Furthermore, there are notable linkages between the variables, and the correlation matrix is not an identity matrix, as indicated by the statistical significance of Bartlett's test of sphericity at the 0.01 level. Therefore, the requirements for performing PCA were met, thereby guaranteeing the reliability of the results. The results presented in

Table 2 demonstrate that the factor structure of strategy implementation encompasses both of its dimensions as influential indicators.

Two components were extracted from the data, which explained 76.929% of the total variance. In their order of significance, they incorporate operationalization (component 1) and institutionalization (component 2) with 45.1% and 26.8%, respectively. The two components with eigenvalues larger than one, the first and second components with eigenvalues of 2.146 and 3.608, respectively, were identified as the main sources of variance in the application of the technique.

Ugandan State Agencies' Performance
Performance was measured using items categorized under two dimensions namely, effectiveness and efficiency. Eleven out of twenty-five items in total were iteratively taken out in the last model before additional analysis.

Table 3 shows the underlying factor structure of the performance, which exhibits the underlying combination of its dimensions namely, effectiveness (component 1) and efficiency (component 2).

Table 3: Rotated Component Matrix for Performance of Ugandan State Agencies

	Component	
	1	2
EFF01_mean	.879	
EFF02_mean	.847	
EFF03_mean	.826	
EFF04_mean	.800	

EFF05_mean	.793	
EFF06_mean	.662	
EFF07_mean	.644	
EFF08_mean	.639	
EF01_mean		.907
EF02_mean		.784
EF03_mean		.781
EF04_mean		.780
EF05_mean		.732
EF06_mean		.613

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.846
Bartlett's Test of Sphericity	Approx. Chi-Square	1563.551
	Df	91
	Sig.	.000

Source: Primary Data (2021)

Table 3 reveals the factor structure of performance, which consists of all its two dimensions as significant indicators. The maintained items were significant and had standardized factor loadings higher than the suggested value of .60. Along these lines, the implications of these factors are maintained. Two components were identified through factor analysis, accounting for 67.080% of the variance in performance. These components, effectiveness (component 1) and efficiency (component 2), contributed 43.624% and 23.456%, respectively. The scale used in the analysis demonstrates strong explanatory power, explaining 67.080% of the performance variance in Ugandan State agencies. The performance of these agencies can be best understood through two underlying dimensions, as indicated by eigenvalues greater than one. The first and second components had eigenvalues of 6.107 and 3.284, explaining 36.877% and 67.080% of the total variance, respectively, after undergoing rotation.

Confirmatory Factor Analysis
Using Gaskin and Lim (2016) master validity tools in SPSS, Amos, CR, AVE, and MSV were generated. The composite reliability (CR) values for the first component (operationalization) and the second component (institutionalization) were 0.902 and 0.818, respectively. Conversely, the two performance factors, effectiveness (component 1) and efficiency (component 2), had high CR values of 0.909 and 0.879.

The study's various sections' coefficients of CR were higher than those of Hu and Bentler (1999) who suggested a cut-off point of 0.7. Moreover, each component of the model successfully converged, which is a crucial sign of its validity and reliability. The fact that each component's AVE was more than 0.50 made this clear. The MSV was less than the AVE in terms of discriminant validity, indicating the validity of the study's items.

Reliability Test
After conducting EFA and CFA, a reliability analysis was performed on the remaining items. The questionnaire items were divided into two categories: strategy implementation (further categorized into operationalization and institutionalization) and performance (divided into efficiency and effectiveness). The validity and reliability of these items were tested, yielding α values exceeding the recommended value of 0.7. Specifically, operationalization and institutionalization had α values of .892 and .799 respectively, while efficiency and effectiveness had α values of .867 and .903 respectively.

Test for Parametric Assumptions
Statistical tests depend on specific premises regarding the factors used in the analysis. Osborne et al. (2001) revealed that a couple of scholarly materials document evaluating the conditions of the statistical techniques

they utilize for reaching their outcomes. Osborne and Waters (2002) maintained that unless these conditions are fulfilled, the outcomes may be questionable. For the data analysis, assumptions for linear regression were appraised in relation to the normality test, homogeneity, and multicollinearity.

Test of Normality

Normality tests are essential for assessing the validity of assumptions underlying many statistical methods. If these assumptions are violated, the accuracy and reliability of inferential procedures may be compromised (Ghasemi & Zahediasl, 2012). The two primary strategies for evaluating normality are graphical means or statistical tests as Bland (2015) recommended. The numerical (Shapiro-Wilk test and Kolmogorov-Smirnov, skewness, and kurtosis) tests were used to assess the normality of the data. The dataset utilized in this study underwent a rigorous assessment known as the normality test, which seeks to ascertain the adherence of the data distribution to a normal or Gaussian pattern. The results of this statistically demanding procedure are shown in the comprehensive and elaborate Table 4.

Table 4: Normality Tests

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Strategy Implementation	.034	152	.200*	.994	152	.802
Performance of Ugandan State Agencies	.102	152	.001	.958	152	.000

*. This is a lower bound of the true significance.
Source: Primary Data (2021)

The significant values of the Shapiro-Wilk and Kolmogorov-Smirnov tests were all greater than 0.05, except for the independent variable. Thus, the assumption of normality was not disregarded in the strategy implementation. The data were normally distributed. However, for the performance, skewness and kurtosis were utilized, as indicated in Table 5, to ascertain a normal distribution.

Table 5: Descriptive of the Performance of Ugandan state agencies

			Statistic	Std. Error
Performance of Ugandan State Agencies	Mean		3.1360	.03491
	95% Confidence Interval for Mean	Lower Bound	3.0670	
		Upper Bound	3.2050	
	5% Trimmed Mean		3.1161	
	Median		3.0506	
	Variance		.185	
	Std. Deviation		.43034	
	Minimum		2.21	
	Maximum		4.45	
	Range		2.24	
	Interquartile Range		.45	
	Skewness		.761	.197
	Kurtosis		.920	.391

Source: Primary Data (2021)

According to Mishra et al. (2019), the performance of state agencies in Uganda had skewness and kurtosis values of .761 and .920, respectively, falling between the advised range of -1 and +1. Consequently, the performance variable follows a normal distribution.

Homogeneity Test

The Levene test, which measures constant variance across variables, was used to check data homogeneity (Newbert, 2007). The data are homogeneous if the Levene measurement is > 0.05 (Field, 2013). Table 6 presents the test results.

Table 6: Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Strategy Implementation	Based on Mean	.103	2	149	.902
	Based on Median	.203	2	149	.817
	Based on the Median and with adjusted df	.203	2	148.605	.817
	Based on trimmed mean	.113	2	149	.893
Performance of Ugandan State Agencies	Based on Mean	.570	2	149	.567
	Based on Median	.475	2	149	.623
	Based on the Median and with adjusted df	.475	2	144.383	.623
	Based on trimmed mean	.508	2	149	.603

Source: Primary Data (2021)

Table 6 displays the results of the Levene F Ratio for the effectiveness of Ugandan governmental agencies and the execution of strategies. Since all the sig column values in Table 11 were above 0.05, indicating that there was no chance of incest among the research variables, the homogeneity assumption was maintained.

Multicollinearity Test
Multicollinearity was assessed using VIF which estimates the amount of change in the assessed coefficients spread over the situation of no connection among the factors. To determine multicollinearity among the predictor variables, tolerance levels and variance inflation factor (VIF) were examined through multiple regression results. The acceptable values are that the tolerance level should exceed 0.20, and that the VIF should not exceed 10 (Hair et al., 2010). Both institutionalization and operationalization had a tolerance value of .928 and a VIF value of 1.078. All variables had the highest VIF which did not exceed 10, indicating no multicollinearity problem. In terms of tolerance values, the results indicated that the values exceeded 0.2. This implies that if the tolerance value for any of the factors is less than or equal to 0.2, there is evidence of collinearity among the factors.

Descriptive Statistics

Table 7 shows the descriptive statistics of the sample and variables. The sample consisted of 152 state agencies in Uganda, representing 75.6% of the population. State agencies perform various functions such as education, health, agriculture, energy, environment, finance, justice, security, and social welfare.

Table 7: Demographic Characteristics for the State Agencies

	Item	Frequency	Per cent
Age (in years) of the Agency	0 to 4	6	3.9
	5 to 10	51	33.6
	Above 11	95	62.5
Scope of the Agency	National	110	72.4
	Regional	32	21.0
	Central	10	6.6
Size of the agency	Less than 100	30	19.7
	100 – 500	93	61.2
	500 – 1000	19	12.5
	More than 1000	10	6.6
	Total	152	100.0

Source: Primary Data (2021)

From Table 7, the results show that most of the state agencies had spent 10 years or more in existence (62.5%), indicating sufficient experience in the industry. Most agencies (72.4%) were national in scope, implying that their scope of operation was countrywide. The results also show that most state agencies employ between 100-500 employees (61.2%), implying that these agencies were big enough, a sign of their performance. This implies that most agencies operate on a wider scale.

Table 8: Demographic Characteristics of the Respondents

	Item	Frequency	Per cent
Age of the respondents	18 – 27	1	0.2
	28 – 37	51	9.6
	38 – 47	183	34.6
	48 – 57	190	35.9
	58 – 67	75	14.2
	68 and above	29	5.5
Employment tenure (in years)	0 to 4	36	6.8
	5 to 10	136	25.7
	Above 10	357	67.5
Number of years in this position	1-3	42	7.9
	3-5	190	35.9
	Greater than 5	297	56.1
Level of education	Bachelors' Degree	30	5.7
	Postgraduate	98	18.5
	Masters	209	39.5
	Professional qualification	147	27.8
	PhD	45	8.5
Gender	Male	319	60.3
	Female	210	39.7
Position in the Agency	Chief Executive Officer/Managing Director	102	19.3
	Deputy/ Assistant CEO	102	19.3
	Corporation Secretary	106	20.0
	Head of Department	219	41.4
Previous position	I was working for this agency or any of its affiliates in a separate capacity.	452	85.4
	A separate company employed me.	77	14.6
	Total	529	100.0

Source: Primary Data (2021)

Going by exception, the results show that 35.9% of the respondents were between 48 and 57 years old, whereas 34.6% were between 38 and 47 years old, an indication of mature respondents' dominance in state agencies. Most respondents (70.5 %) were in the 38–57 age range, which is in line with the average government agency recommendation. In addition, most of them had worked with the agencies for more than 10 years (67.5%), and 56.1% had spent more than five years in their current position. The extended periods of involvement decide the degree to which the respondent was knowledgeable about the business and the agency, and their adaptability to react to issues. The results also showed that most respondents (39.5%) had master's degrees, followed by professional qualifications (27.8%), postgraduate degrees (18.5%), and doctorates (8.5%). Furthermore, 39.7% of the respondents were women, and 60.3% were men. 41.4% of the respondents were department leaders, and 85.4% of the respondents had held several positions within the same organization before accepting their current role.

Multilinear Regression and Hypothesis Test Results
Ugandan state agencies' performance was compared to the institutionalization and operationalization constructs that were used to evaluate the implementation of the plan through multilinear regression analysis. Table 9 illustrates the relationship between strategy execution and state-agency performance in Uganda.

Table 9: Strategy Implementation and Performance of Ugandan State Agencies

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699[a]	.489	.482	.30972
a. Predictors: (Constant), Operationalisation, Institutionalisation				
ANOVA[a]				

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.672	2	6.836	71.263	.000[b]
	Residual	14.293	149	.096		
	Total	27.964	151			

a. Dependent Variable: Performance of Ugandan State Agencies
b. Predictors: (Constant), Operationalisation, Institutionalisation

	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
1 (Constant)	1.382	.233		5.938	.000
Institutionalisation	.469	.043	.669	11.010	.000
Operationalization	.086	.058	.090	1.485	.140

a. Dependent Variable: Performance of Ugandan State Agencies
Source: Primary Data (2021)

As demonstrated in Table 9, there is a high correlation between the operationalization and institutionalization of strategies and Ugandan state agencies' performance (R = 0.699). This implies that the improved performance is the result of better strategy implementation. According to the R-squared value, strategy implementation was responsible for 48.9% of the performance variance in the model summary. The adjusted R-squared value was slightly lower, implying the absence of overfitting. The ANOVA section shows a significant linear relationship (F = 71.263, p < 0.000) between Ugandan state agencies' performance and the predictors (institutionalization and operationalization). The coefficient section presents the individual effects of each predictor on the outcome. The constant term is 1.382, which is the predicted value of performance when both predictors are zero. When operationalization is constant, institutionalization boosts performance by 0.469 units/unit. At the 0.05 level, this is significant (p = 0.000). Performance is marginally and insignificantly impacted by operationalization. Increasing operationalization by one unit only increases performance by 0.086 units when institutionalization is fixed. A p-value of 0.140 indicates that this effect is not dependable. Thus, institutionalization boosts performance in Ugandan state agencies, while operationalization has no significant effect. Thus, these agencies should prioritize institutionalizing over operationalizing their strategies.

5. Discussion and Conclusion

This study examines how Ugandan state agencies' performance, that is, their efficacy and efficiency, is impacted by the institutionalization and operationalization of strategies. It offers direction, evaluation, comparison, dialogue, and creativity to enhance strategy execution procedures. The findings are consistent with the premise that the performance of Ugandan state agencies and the execution of strategies have a positive and substantial relationship. These results are in line with earlier research (Mohamed et al., 2019; Kiragu et al., 2020; Mbogo, 2022; Onyegbula et al., 2023) which discovered a noteworthy and favorable correlation between strategy execution and organizational performance. The findings demonstrate that institutionalization significantly and favorably affects state agencies' performance. A notable study reveals that institutionalization plays a vital role in organizational performance. It is evident that well-structured systems and established procedures significantly contribute to the productivity and output of state agencies. This connection goes beyond mere coincidence or insignificance; it holds a substantial influence, making institutionalization a significant catalyst for performance enhancement. Hence, the findings strongly indicate that adopting institutionalization as a strategy can prove invaluable for public sector organizations aiming to increase their performance levels. This study underscores the crucial role played by institutionalization in state agencies by highlighting the direct correlation between institutionalization and improved performance.

Conversely, operationalization has a positive but insignificant effect on the performance of state agencies in Uganda. On the flip side, when considering the context of state agencies within Uganda, it is observed that operationalization does indeed play a role in influencing their performance, but it should be noted that although positive, this impact is not particularly significant. This is to say that although operationalization is seen to present some level of positive change or betterment in the Ugandan state agencies' performance, the magnitude

of this change is not substantial enough to be considered a pivotal or major determinant of their performance. There is an undeniable link, yet it is essential to underscore that this link is relatively weak, thus suggesting that operationalization's influence is not sufficiently impactful to considerably alter or radically transform the performance of these state agencies. Ultimately, operationalization can be considered a contributing factor to some extent, but it is not a deciding factor that would significantly influence how well state agencies work in Uganda. DCT is empirically supported in a certain setting, contributing to the body of literature.

Policymakers should create and implement a national framework for Ugandan state agencies' strategy formulation, implementation, and evaluation based on this study and others. They should also support and incentivize these agencies with capacity building, funding, recognition, and accountability. Practitioners should improve their strategic management skills and knowledge by joining relevant training, mentoring, and networking programs. They should also involve stakeholders in the strategy implementation process by promoting a culture of communication, collaboration, and feedback. This study has implications and provides recommendations for theory, policy, and practice. This study has some limitations and suggests future research directions.

The theoretical implications of this study are as follows: First, by offering empirical data on the relationship between strategy implementation and state agency performance in Uganda, this study adds to the body of knowledge on strategic management in public-sector contexts, especially in developing nations. Second, by looking at operationalization and institutionalization as important aspects of strategy implementation, and efficiency and effectiveness as important performance metrics, this study contributes to the body of knowledge on strategy implementation and performance.

The practical implications of this study are as follows. First, this research offers managers and policymakers useful perspectives and suggestions to enhance strategy execution and efficiency in Ugandan state agencies. Second, because the institutionalization of a strategic plan has a favorable and considerable impact on the efficacy and efficiency of state agencies, this study recommends that managers and politicians consider this. This study used a cross-sectional survey design, which restricted causal and temporal inferences between strategy implementation and performance. Second, this study used self-reported data from the heads of state agencies, which may introduce bias and error due to social desirability, recall, or interpretation. Third, not all performance facets or dimensions in state agencies can be covered by the effectiveness and efficiency metrics used in this study to gauge performance. It also focuses on state agencies in Uganda, which can restrict the relevance and transferability of the findings to other public sector organizations or developing countries.

First, a longitudinal or experimental approach could be used in future research to examine the causal and dynamic relationship between strategy implementation and performance in state agencies. Subsequently, scholars may utilize several channels and techniques for gathering information (such as discussions, visual aids, or secondary data) to verify and confirm the facts and examination. Additionally, future studies should consider using multiple measures or indicators of performance (e.g. customer satisfaction, employee engagement, and social impact) to comprehensively assess state agency performance. Furthermore, comparing the findings with other types or contexts of public-sector organizations in developing countries (such as ministries, local governments, and non-governmental organizations) would provide valuable insights. Moreover, exploring how institutionalization and operationalization affect performance using qualitative or mixed methods is essential. Finally, studies should investigate how contextual factors (such as resource availability, leadership style, organizational culture, and external environment) affect the correlation between plan execution and performance. Additionally, comparing Ugandan state agency performance with similar agencies in different countries or regions would be informative.

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