TOP MANAGEMENT TEAM CHARACTERISTICS AND PERFORMANCE OF UGANDAN STATE AGENCIES

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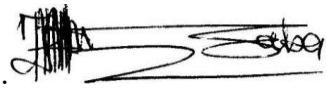
May 2023

DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been submitted to any other college, institution or university other than the University of Nairobi.

Signed…  Date: 07th May 2023.

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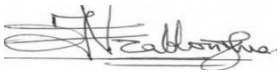
Signed  Date: 08/05/.2023

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DEDICATION

To my friends and family, especially my wife, son, and daughters.

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ABBREVIATIONS AND ACRONYMS

AMOS	Analysis of Moment of Structure
ASV	Average Shared Variance
AVE	Average Variance Extracted
BSC	Balanced Scorecard
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
DCT	Dynamic Capabilities Theory
EDT	Environment Dependency Theory
EE	External Environment
EFA	Exploratory Factor Analysis
KMO	Kaiser–Meyer–Olkin
KSCs	Kenyan State Agencies
MDA	Ministries, Departments and Agencies
MIs	Modification Indices
PerofUSA	Performance of Ugandan State Agencies
TMTCHA	Top Management Team Characteristics
MSV	Maximum Shared Variance
OP	Organisational Performance
PESTEL	Political, Environmental, Social, Technological, Economic and Legal
R&D	Research and Development
SEM	Structural Equation Modelling
SI	Strategy Implementation
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
SWOT	Strengths, Weaknesses, Opportunities and Threats
TMT(s)	Top Management Team(s)
UET	Upper Echelons Theory
USA	Ugandan State Agencies
VIF	Variance Inflation Factor

ABSTRACT

Conceptually, there is no consensus on the definition and measurement of TMT characteristics and performance of Ugandan state agencies (USA) and how they are related to each other, strategy implementation, and the external environment. Contextually, there is a lack of empirical studies on TMT characteristics, strategy implementation, and performance of Ugandan state agencies in the specific context of Uganda, which has its own political, economic, social, technological, ecological, and legal factors that may affect these variables. Thus, the main objective of this study was to examine the effect of strategy implementation and the external environment on the connection between TMT characteristics and the performance of state agencies in Uganda. Four specific objectives were formulated, and corresponding hypotheses were tested. The upper echelons, environmental dependence, and dynamic capabilities theories guided this study. The study was carried out through a cross-sectional, descriptive research design, and data was gathered using a structured questionnaire from 152 Uganda state agencies. The findings revealed a statistically significant influence of TMT characteristics on the performance of Ugandan state agencies. $p<0.05$). Strategy implementation partially mediates the relationship between TMT characteristics and performance (Indirect effect of strategy implementation, $b=.385$, $p<0.05$ and the direct effect, $b = .267$, $p<0.05$). The external environment moderates the relationship between TMT characteristics and performance (Interaction term $b=.857$, $t=3.773$, $p<0.05$, $\Delta R^2=.041$, $F=14.233$). The results further indicate that the total independent effect ($R^2 = .632$, $F = 84.621$, $p<0.05$) of TMT characteristics, external environment and strategy implementation on the performance is significantly different from their individual effects. The study concludes that strategy implementation and the external environment affect the relationship between TMT characteristics and the performance of Ugandan state agencies. The findings showed that TMT characteristics can influence the performance of the USA and this influence is subject to strategy implementation and external environment. The study also concludes that when the total effects of the study variables are greater than their individual effect. Based on the study findings, the study recommends that TMT characteristics (behavioural, demographic and psychological) should be a major consideration in the recruitment process of TMTs. Future studies should use longitudinal designs, qualitative methods, and international comparisons to address gaps the limitations of this study. Theoretically, this study contributes to the upper echelons theory by showing that TMT characteristics have a direct and positive impact on organisational performance and that this effect is mediated by strategy implementation and moderated by the external environment. Methodologically, this study demonstrates the applicability and suitability of a cross-sectional design and a positivistic framework for examining the relationship among the variables. This study implies that the managers of state agencies should pay attention to the characteristics of their TMTs and ensure that they have a balanced mix of demographic, psychological, and behavioural traits that can enhance their decision-making and performance.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Organisations are struggling to meet the expectations of stakeholders, leading to varying performance levels, with some performing better than others. Ogollah, Bolo and Ogutu (2011) coined that research has sought to understand why some organisations perform better than others. Thus, understanding why firms in a similar environment contrast in their performance is still an inquiry in strategic management. Empirical investigations such as Bashaer et al. (2016), Wasike and Owino (2020), and Arokodare and Asikhia (2020) observed that the success of an organisation relies not only on a single factor but it originates on the capacity to keep up a reasonable equalisation among a combination of various elements such as the Top Management Team (TMT) characteristics, external environment, and strategy implementation. Scholars such as Abdullah and Mansor (2018), Bashaer et al. (2016), and Ogollah et al. (2011) have argued that organisations' performance levels vary depending on their operating environment, so TMTs and how they implement strategies are key to predicting their performance. Sidik (2012), Njoroge (2015) and Omondi et al. (2022) support this argument that accurate information from the environment helps TMTs implement effective strategies to achieve their objectives. It is key to observe that TMTs are important in influencing the way an organisation performs (Muchemi, 2013). Some studies (Oketch, Kilika, & Kinyua, 2021b; Wasike et al., 2015; Muchemi, 2013) have suggested that the characteristics of top management teams (TMTs) influence how well organisations perform (OP), as opposed to others (Wasike, Ambula, & Kariuki, 2016) who argued that TMT characteristics are not enough to determine organisational outcomes, but they depend on other factors such as the external environment (Omondi et al., 2022; Arokodare & Asikhia, 2020; Mkalama, 2014) and strategy implementation (Omondi et al., 2022; Oketch, Kilika, & Kinyua, 2021a; Njoroge, 2015), which act as moderators and

mediators of the relationship, respectively. This study commenced on the theory of upper echelons advanced by Hambrick and Mason (1984). This theory views strategic processes and results of the organisation as the product of the characteristics of TMTs (J. Hayes, 2016; Herman & Smith, 2015; Nielsen & Nielsen, 2013). The focal principle of the Upper Echelon Theory (UET) is that organisations reflect the abilities of the TMTs as they work at a strategic level. According to the theory, the decision-making process of the TMT is influenced by various individual factors, such as their prior experiences, personality traits, and value orientations. These factors shape how the TMT perceives and responds to the organisational and strategic issues that they face. Other theories that inform this study include dynamic capabilities (Teece et al., 1997), and environment dependency (Ansoff & Sullivan, 1993). According to the dynamic capabilities' theory, the formulation of strategies and the adoption of management practices are activities that enable the execution of those strategies and practices, for example, culture change, business process building, strengthening quality, sensational environmental turbulence and organisational decline. Ansoff and Sullivan (1993) argued the theory of environment dependency from the perspective that organisations function as an open system due to their reliance on services regarding ecological events. This study used these theories to clarify the connection among the study variables, link the research findings, and help in making relevant study conclusions.

Public sector services, especially in governments, need to balance resources carefully because of the multiplicity of stakeholders. Public organisations differ from private ones in that they refrain from pursuing profit in a rivalrous industry (Milana & Maldaon, 2015). The public sector has a large population of 'customers' and service providers. Hence, leaders of public entities as both supervisors and brokers have to guarantee effective resource utilisation. Due to the multiplicity of groups and beneficiaries interacting in

collaboration with the county authorities, they need to deliver services for the electorate. Hence, public service has to utilise its most valuable resource (human resources) effectively through offering a career progression with a quality employer via skills enhancement and capabilities to cope with diverse obstacles, providing incentives and challenges, and guaranteeing equal prospect for every personnel of the organisation (United Nations, 2005). State agencies play a vital role in leading economies and particularly in Uganda. They provide essential services that improve the lives of the citizens in domains such as health, energy, transport and infrastructure, and education. However, state agencies in Uganda have encountered considerable performance difficulties in recent years due to inadequate leadership and management (Basheka et al., 2017; Kagaari, Munene, & Ntayi, 2013). According to Basheka et al. (2017), the agencies are dealing with several legal, authoritative, administrative, and monetary-related difficulties that influence their performance. The greater part of these difficulties had been intricately recognized in 2009 during a performance study (Ministry of Finance, Planning and Economic Development, 2009). Due to the implementation failure of several management activities, the difficulties have not been addressed. The performance advantages that had been foreseen to address the gaps have stayed on the loose. The area needs consistency in TMT enrolment and rules for their determination and expected individual characteristics. However, there seems to be no consensus on the effectiveness of TMTs on performance. It is for this reason that an investigation on the status of TMT characteristics (in terms of demographic, psychological, and behavioural characteristics), external environment, and strategy implementation and their impact on the performance of Ugandan state agencies ought to be undertaken, thus the impetus for this research.

1.1.1 Top Management Team Characteristics

The definition of TMT characteristics takes centre stage in the theory of the upper echelon. Some studies (Aboramadan, 2021; Okello & Ngala, 2019; Evert, Payne, Moore, & McLeod, 2018; Cho, Hambrick, & Chen, 1994; Irungu, 2007) have identified the importance of the attributes of TMTs; Irungu (2007) conceptualised and validated them. Okello and Ngala (2019) described TMT characteristics as qualities exhibited by organisational leaders. Conceptually, this description is used to summarise a theoretical notion that is derived from the prevailing alliance (Stewart & Amason, 2017). Top management teams have been considered to mean significant leaders who purposely select among different blueprints and consequently decide the fate of their organisations. Earlier studies (Prosvirkina & Wolfs, 2021; John & Severine, 2016; Díaz-Fernández et al., 2014; Herrmann & Datta, 2005) focused on all groups of highly ranked members of the organisation to constitute the TMTs. As time progressed, there has been a shift that more widely looked at TMTs to include those topmost executives that include the Chief Executive Officer (CEO), vice president, and department heads (Ramsey & Duhe, 2010). Ondari (2015) characterizes TMTs as individuals with qualities or credits attributed to singular managers, perceptible or subjective and are the indicators that they bring to administrative conditions. For conceptual purposes, this study considers TMTs to connote those members that are within the organisation and are responsible for implementing decisions.

TMT characteristics have been operationalized and measured by different researchers into three main categories: demographic (Wasike et al., 2015; Kinuu, 2014; Irungu, 2007), behavioural (Wasike et al., 2015), cognitive (Oketch, Kilika, & Kinyua, 2020a; Kasomi, 2015) and psychological (Oketch, Kilika, & Kinyua, 2020c; Wasike et al., 2015; Kinuu, 2014; Peterson & Zhang, 2011). Kinuu (2014) notes that demographic characteristics

include age, sexual orientation, education level, work understanding, and TMT size. Cognitive characteristics are mind-grounded aptitudes that individual TMT associates need to finish their regular assignments. Cognitive characteristics are the mental abilities or skills of the TMT members, such as problem-solving, and creativity. Psychological characteristics allude to abstract characteristics, for example, character attributes and individual dispositions and beliefs. Psychological characteristics are the subjective and internal features of the TMT members, such as personality traits, attitudes, and beliefs. Behavioural characteristics are the observable and objective actions or patterns of the TMT members, such as communication style, and conflict resolution. Boal and Hooijberg (2000) propose that researchers should concentrate their efforts on the behaviour and personality features of TMTs other than relying on demographic characteristics. This study operationalized TMT characteristics in terms of demographic, behavioural, and psychological characteristics.

The study of TMT characteristics has been limited to examining either demographic, cognitive, psychological, or behavioural characteristics but not all at once. Introductory investigations saw how TMT characteristics, particularly characteristics of the CEO affected the performance of the organisation. The largely measured characteristics include functional conditions, age, experience, education level and tenure. Subsequent investigations appear to comprehend the individual uniqueness of the TMT characteristics on internationalization (Ongeti, 2014), diversification, and strategic development (Mutuku, K'Obonyo & Awino, 2013). Also, it has not delved into other aspects that could explain the variations in OP despite these organisations operating in the same environment. TMT characteristics alone could not clarify OP (Wasike et al., 2016). Other studies have found that OP has to be linked to other many factors like environment and strategy implementation that could influence how TMT actions influence OP (Mkalama, 2014).

1.1.2 Strategy Implementation

Strategy implementation is understood by researchers who specialize in the discipline of strategic management as the execution of plans and procedures to fulfil the expectations and plans of the organisations (Genc, 2017; Njoroge, 2015). It is a crucial stage of the procedure of devising plans as it involves how to perform strategic activities excellently to move the entity to achieve superior performance. Strategy implementation entails decomposing the organisational strategic plan into feasible action plans and conveying the strategies within the processes and ultimately establishing strategic oversight of the organisation (Njoroge, 2015).

Strategy implementation has various explanations by diverse researchers from different standpoints. According to Nyamwanza and Mavhiki (2014), strategy implementation is the deployment of organisational patterns, oversight systems and principles to follow strategies that augment performance. It is also explained as the process of putting strategies and policies into action (Sorooshian et al., 2010). Strategy implementation is identified as the course of executing formulated strategies within the limits of assets and duration (Shah, 2005). In reference to Pride and Ferrell (2003), it is the process of converting strategies and schemes into actions to attain objectives. Furthermore, According to Pride and Ferrell, strategy implementation is the predominant mode of executing strategies. The present study adopted the conceptualisation of strategy implementation proposed by Shah (2005), which highlights the strategic management of resources to attain organisational objectives.

Execution of strategy has preferably become very troublesome over its definition, and thusly there is a requirement for top administration to consider the firm's essential planning, the strategy content, and finally the execution process (Håkonsson et al., 2012). Strategy implementation addresses both the institutionalisation and operationalisation of strategy. It is about utilizing systems to assimilate a strategic plan. McKinsey’s 7’s model is the most

widely implemented model for strategy institutionalisation because it assesses the success and efficiency of the implementation activities (Kirui, 2016). Strategy operationalisation, however, involves adopting a realistic approach to guarantee that the blueprint is accomplished (Machuki et al., 2012). Operationalisation requires establishing deadlines, specifying the tasks and the methods to perform them. Slater et al. (2010) operationalise and conceptualise strategy implementation as the act of executing plans and strategies to achieve a particular target. Strategy implementation is a dynamic and holistic procedure that converts schemes and tactics into execution to reach specified organisational objectives (Jalali, 2012). Successful execution of tactics requires the comprehension and cooperation of every contributor of the institution (Obiero & Genga, 2018). This study operationalizes strategy implementation as an incorporated and self-motivated procedure of operationalisation and systematization and a strategic plan (Obiero & Genga, 2018).

Černiauskienė (2014) showed distinctions among procedures in strategy execution among private and state organisations. For instance, both private organisations and individual managers prefer creating gain as the significant estimation instrument for achieving the set objectives. But, for public organisations, the cash flow produced and expenditure are not the main assessment measures. In view of decision-making, the desires communicated by society are viewed as by the state organisations whereas, for the private organisations, choices are frequently immediately incorporated without the contribution from society. For straightforwardness plus exposure, the director's work in state organisations is typically controlled and examined which leads to ceaseless pressure and thusly the organisation's delegate needs to comprehend their duties and obligations.

Håkonsson et al. (2012) stated that successful strategy implementation depends on how the company is governed and the procedures and methods for obtaining and evaluating information. This similarly relates in a roundabout way to the kind of strategy that is

executed. In this circumstance, the manager's role is emphasised, which involves extensive cooperation, evaluation of emerging opportunities that are employed for producing an edge over the rivals and making the right decisions informed by analyses.

Hambrick and Mason (1984) sparked the discussion revealing TMTs having a vital role in implementing strategies that enable institutions to adapt and respond to the environmental conditions in which they function and consequently affect their outcomes. This is attributable to the fact that TMTs oversee the ability to implement strategies that consequently affect performance. These teams are essential in understanding these unique circumstances between the organisation and the environment. Prior empirical studies (Azhar et al. (2013)) indicate that many organisations fail to execute the devised strategy successfully. Based on this perspective, strategy execution has emerged as a crucial organisational activity in the present. Seotlela and Miruka (2014) argue that a strategy that is inadequately devised and executed will have a considerable adverse effect on the structure, leadership, staff and other parties involved. Kandie and Koech (2015) see the successful execution of vital strategic choices as the fundamental attainment of objectives. Top management teams must continually monitor the external environment to devise and execute strategies that enhance the organisation's viability. Therefore, to ensure effective strategy implementation, it is important to maintain strategic administration of environmental variables that affect the feasibility of the strategy and review crucial steps to ensure the achievement of its aim.

1.1.3 External Environment

Scholars in management consider the external environment (EE) to mean a sum of external factors that have influenced the functioning of an organisation (Machuki & Aosa, 2011). It gives constraints, possibilities, issues, and openings that affect the requisites for which firms execute business. It is key to note that there is no firm that does not face external

environment constraints. The external environment provides a foundation of advantages plus threats to an organisation. However, Hitt et al. (2011) indicate that the external environment includes those outside issues that an organisation interacts with when conducting its day-to-day operations and which can be the source of requirements, possibilities, difficulties, and prospects that influence the relationships on which organisations execute. Therefore, the external environment is the aggregation of all the external situations that influence an organisation's existence, growth, and development.

The external environment manifests in three dimensions; environment munificence, environment dynamism and environment complexity (Machuki & Aosa, 2011; Duncan, 1972) and all need understanding if the firm is to survive within the environment in which it operates. Environment munificence connotes the availability of resources (Luciano et al., 2020). It concerns the abundance or scarcity of resources and the degree to which the organisation has to put to use the resources to run its operations (Castrogiovanni, 2002, 1991). Environment munificence is operationalised on either favourability or unfavorability of the operating environment to the organisation (Kowo et al, 2018; Njoroge et al., 2016). Environment munificence is measured by the availability and scarcity of resources and how they affect the organisation’s operations. The changeability and predictability of each environmental perspective that emphasises uncertainty assess the environment dynamism dimension (Tan & Litschert, 1994). Environment dynamism is essential for any firm as it enables the organisation to develop strategies to comprehend alterations in the environment as these changes affect organisational performance. (Njuguna - Kinyua, Munyoki, & Kibera, 2014). Environment dynamism is measured by the changeability and predictability of external factors and how they create uncertainty for the organisation. Murgor (2014) considers environment complexity as a key variable in the firm, as it concerns the provision of many diverse units of information to the organisation.

Complexity assesses the homogeneity or heterogeneity of the outer variables that influence a firm. Environment complexity is measured by the diversity and heterogeneity of the external information and how it requires integration and analysis by the organisation. The environment becomes complex when it offers many-dimensional components of information that require significant integration of thought. Ramsey and Duhe (2010) and Porter (1980) have identified several environmental dimensions such as political, financial, social, mechanical, ecological, and legal factors and the five forces model respectively to be basic possibilities for powerful strategic management.

The conceptualisation and evaluation of the connection between the external environment and performance have been experienced throughout the history of organisations. The conceptualization of these variables helps the organization to understand its external environment and to develop strategies to cope with or exploit it. The organisation that has a TMT (with the best characteristics) that effectively implements strategies may find even the most seen environmental disturbance to be the wellspring of chances instead of dangers (Hubbard, 2009). Organisational performance is strongly affected and connected to the changes and the dynamic nature of the external environment. (Machuki & Aosa, 2011). Previous scholars such as Ombaka (2014) have postulated and underscored the significance of an organisation in adjusting to the environment to stay reasonable. As the environment changes, the organisation's endurance completely relies upon formulating proper responses to unanticipated discontinuities. Much as there is supporting evidence showing a linear pattern between the environment and OP (Andrews, 2009), it stays possible that the impacts of various elements of the environment are most certainly not negative or positive. This is due to the environmental dynamism that makes it hard for organisations to absorb and envision environmental conditions and has an antagonistic impact on performance. Top

management teams thus need to distinguish and build up the capacities to adapt to these environmental conditions.

1.1.4 Organisational Performance

All organisations aspire to achieve optimal performance as their ultimate goal (Oketch, Kilika, & Kinyua, 2020). According to Kasomi (2015), the definition of organisational performance (OP) remains a contentious issue and a nebulous notion with varying definitions by assorted academics and professionals. Strategic management research is increasingly focusing on OP, which is a crucial concept for any firm (Yongvanich & Guthrie, 2006) and continues to attract the attention of both intellectual researchers and professional leaders (Mkalama & Machuki, 2019). In reference to Pierre et al. (2009), organisational performance lacks a clear definition. Ricardo and Wade (2001) described organisational performance as organisations' capacity to leverage their strengths to overcome their weakness while maximising the opportunities to achieve goals and objectives. Javier (2002) defined OP as the capability of an organisation to yield outcomes in aspects decided in connection to an objective. The performance of an organisation is explained as its capability to get and achieve its objectives while engaging its rare resources efficiently (Griffins, 2006). Performance keeps on being an antagonistic subject among hierarchical specialists, with different researchers characterizing it differently.

Public management scholars and practitioners have long debated how to define and measure organisational performance (George, Walker, & Monster, 2019). Various researchers have conceptualized and operationalised performance in organisations differently. Some scholars suggested that organisational performance is a multidimensional concept that reflects different aspects of performance (such as democratic outcomes), different perspectives of stakeholders (such as citizens), and various kinds and data sources (Andersen, Boesen, & Pedersen, 2016; Walker & Andrews, 2015). Some argue that

focusing too much on efficiency and effectiveness can undermine democratic values and outcomes (Radin, 2006). Different parameters have been used to measure performance, especially in organisations with different operations (Kennerley & Neely, 2002). From past examinations (Pierre et al., 2009), OP has been conceptualized utilising either money-related or non-monetary constructs for objective evaluations. The commonly used measures of performance include financial, marketing, operational efficiency and human resources (Lebans & Euske, 2006). With the growing attention on the way organisations execute their activities based on the environment, the triple bottom line (Elkington, 1997), the sustainable balanced scorecard (Hubbard, 2009; Yongvanich & Guthrie, 2006) and the balanced scorecard (Kaplan & Norton, 1992) are currently in use. Muraga (2015) hypothesised OP as proficiency, importance, effectiveness, and financial viability of the organisation. Kennerley and Neely (2002) posit that performance ought to consider measuring the adeptness and efficacy of actions. The performance of Ugandan state agencies was conceptualized in terms of effectiveness and efficiency as used by Mouzas (2006). Lusthaus et al., 2002) noted that scholars have looked at performance to be identified or equated to efficiency and effectiveness. (Heilman & Kennedy-Phillips, 2011) noted that effectiveness assists with evaluating the advancement towards mission satisfaction and objective accomplishment. Effectiveness includes various distinctive desired aspects of administration connected to programme goals that include: suitability (coordinating with the administration to customer needs), openness (reasonableness), quality (fulfilling required guidelines) and results (Nalwoga & Dijk, 2016). According to Low (2000), efficiency deals with the connection between inputs and yields. Kumar and Gulati (2010) posit that efficiency is concerned with allocating resources transversely to different purposes. In addition, efficiency does not imply that the firm is accomplishing great performance on the market, even though it uncovers its operational greatness.

Organisational efficiency alludes to the number of assets used to accomplish an objective and organisational effectiveness is how much the firm accomplishes an expressed target (Bartuševičienė & Šakalytė, 2013). Performance evaluates how well a business is meeting its objectives and goals (Randeree, 2020). It demonstrates what the organisation needs to improve on its operations. Effectiveness and efficiency are used as measures of performance since these agencies focus on service delivery than making profits.

The public sees organisations as institutions that exist to assist various partners that are either inside or outer of the organisation. This concurs with Kasomi (2015) who posits that organisational performance is seen as how much it fulfils its stakeholders for which it was set up to serve. According to Njoroge (2015), the performance of the public sector is assessed by proficiency that is conceptualized through components like expense per administration, various yields per representative, the normal estimation of awards per individual, and partner fulfilment, which is conceptualized through partner fulfilment list. The above contentions have set up that the concurred capacities of TMTs include translating arrangements made by the governing body into objectives, targets, methodologies, and extends, and being answerable for their performance. Additionally, strategy implementation is a significant result of the craft of TMTs. The distinct emphasis on organisational performance distinguishes strategic management from other fields since organisational performance is associated with having in place good strategies. In this manner, it can be presumed that TMTs are responsible for the performance of organisations (Mkalama, 2014). It has been imperative for managers to look for factors that determine an organisation's performance to enable managers to take appropriate steps to initiate them. Organisational performance identifies with the adeptness and effectiveness of the organisation (Machuki & Aosa, 2011).

1.1.5 Ugandan State Agencies

State agencies are permanent or semi-permanent organisations in the structure of the state that is responsible for the oversight and organisation of explicit functions, like administration. Although usage differs, the government generally differentiates a state agency from other types of public bodies. In Uganda, state agencies are defined as government institutions that have a detailed legal background or a cabinet verdict founding them. Since 1980, the government of Uganda has made autonomous organisations in types of agencies, authorities, and commissions as a way of providing improved service delivery since such agencies are required to be efficient and effective (Basheka et al., 2017). At present, there are 201 Ugandan state agencies even though there exists a plan to combine some to make them progressively gainful and powerful (Public Service, 2021).

TMTs together with their directorates oversee agencies. TMT members with correct characteristics have been recognized among the elements that impact the performance of certain state agencies (Olum, 2003). As per Tumusiime (2015), state agencies in Uganda have not procured the required degree of performance as they have continually failed to meet the set performance targets. Much as state agencies get funds from the consolidated fund to perform their functions which are majorly service delivery, there are no known studies in Uganda that have been done to evaluate the efficiency and effectiveness of these agencies. This study aimed at assessing the performance of the Ugandan state agencies because of the funding they get from the consolidated fund.

According to Basheka, Byamugisha, and Lubega (2017), many state agencies in Uganda struggle with their external environment at different stages of their strategic process, from planning to implementation to evaluation. Their critics point out the huge budgets and the powerful buyers they have compared to regular government workers, yet some of them fail to deliver good results (Rupiny, 2018). The government keeps on being confronted with

inquiries from the residents regarding the lack of public service delivery yet these are areas where agencies of the state have been created with clear guidelines to improve performance. State agencies recruit quality personnel TMTs who are competent and they always implement the best strategies all aimed at posting good performance (Basheka et al., 2017). Scholars such as Basheka et al. (2017) proposed that more studies identified as critical for improving the effectiveness and efficiency of state agencies be carried out. However, the performance is questionable. The researcher is justified to complete a study around this area to document the causes of this variation in terms of TMT characteristics, strategy implementation, and external environment.

1.2 Research Problem

Organisations are concerned more about posting high-performance levels. For this expectation, organisations have identified several strategies to ensure that the performance is as expected by the stakeholders. Among these strategies are the TMTs and the characteristics they espouse. The research on TMT characteristics and organisational performance has pulled in significant studies throughout the years (Yohannes, Ayako, & Musyoki, 2016; Milana & Maldaon, 2015). There appears to be no consensus on the presence of the connection if at all it exists between TMT characteristics and OP. Moreover, various scholars have utilised various constructs such as educational level (Díaz-Fernández, González-Rodríguez, & Simonetti, 2014), and training level, in estimating TMT characteristics just as the measure for OP. Strategic management scholars have contended that the behaviour, values, and cognitions of TMTs matter as far as organisational performance is concerned (Hambrick, 2007). Whereas many studies have explored TMTs and their relationship to performance (Nielsen & Nielsen, 2013), some have concentrated on only the CEO (Buyl et al., 2011) hence not considering the other TMT members that are key in making strategic decisions thus resulting in the varying

results. Findings from studies on strategy implementation and OP indicate a linkage between the two (Sorooshian et al., 2010) but are coupled with TMTs who are liable for methodologies and decision-making empowering the organisation to accomplish planned goals. Additionally, the environment is another variable that influences organisational performance (Murgor, 2014; Machuki & Aosa, 2011). Yohannes et al. (2016) found that TMT demographic characteristics influenced performance in any case; the control factors uncovered a huge factually constructive outcome on performance and overall firm performance cannot be completely clarified by TMT characteristics.

Even though Ugandan state agencies have TMTs to supervise them, they do not perform equally well. Some show moderate performance (Tumusiime, 2015) while others are consistently poor. These differences suggest that some important factors influence their performance that needs to be examined and appropriate solutions proposed for sustained performance improvement. TMTs have been connected to the disappointment of their organisations in adjusting to the changing environmental conditions (Mkalama, 2014). The Radix Management Consulting (2017) report claims that the productivity and quality of Ugandan state agencies depend on the competence of TMTs (Radix Management Consulting, 2017). The document also states that state agencies with strong and versatile members of the TMT perform better than those where there are political considerations appear to influence their selection of top management. However, no known study has explored how TMT characteristics (psychological, behavioural, and demographic) alone affect performance among Ugandan state agencies, despite the emphasis on how TMT characteristics affect performance. Extant literature (Njoroge et al., 2016) reveals that other factors such as strategy implementation coupled with the environment (Carpenter et al., 2004) influence organisational performance. It is consequently basic to research the

moderating effect of the external environment on how the performance of agencies is related to TMT characteristics.

The research on the connection between TMT characteristics and the OP have generated conflicting and uncertain outcomes with certain examinations demonstrating positive outcomes (Nielsen & Nielsen, 2013) while others indicating negative outcomes (Díaz-Fernández et., 2014) and others (Waweru, 2008; West & Schwenk, 1996) demonstrating no relationship. Moreover, various scholars have utilised various concepts in estimating the connection between TMT characteristics and OP. A few researchers (Hambrick, 2007; Cannella & Holocomb, 2005) have called attention to the way that there is yet deficient experimental work on TMT characteristics and OP. Wasike et al. (2016) posit that other scholars have additionally brought up methodological imperfections, misperceptions and irregularities in the conceptualization of TMT characteristics. Other studies (Omondiet al., 2022; Oketch et al., 2021; Wu et al., 2017) in strategic management have found OP to be linked to many other factors like environment and strategy implementation that could act as moderators and mediators correspondingly to demonstrate that they influence how TMT actions affect OP (Mkalama, 2014). There is consensus among scholars (Ansoff & Sullivan, 1993) who argue that not only TMTs alone influence organisational performance. Strategy implementation and the external environment equally play an important role in predicting organisational performance (Tam & Zeng, 2007). Studies have linked strategy implementation to performance (Shah, 2005), but these studies concentrated on implementation alone without being mindful of other factors such as environment and TMT characteristics. The findings by Tam and Zeng (2007) indicated a negative connection between environment and working performance.

Despite the significant number of empirical studies that link each study variable to OP, there are mixed and inconclusive results due to different theoretical perspectives applied

and measurements of variables. For instance, while the UET has been tested in a variety of settings, existing reviews have considered the multilevel nature of upper echelon phenomena (for a notable exception see Cannella and Holocomb 2005) furthermore, the outside setting wherein TMTs are inserted. In addition, only recently, Crossland and Hambrick (2007) extended the theoretical echelons of analysis and show how discretion may also vary systematically at the national level. They contend that executives in various nations face deliberately various imperatives on their scopes of activity, and subsequently, the impact they have on organisational performance is probably going to vary among nations (Hambrick, 2007; Crossland & Hambrick, 2007). Thus, requiring a comprehensive approach that emphasises the interplay among TMTs, and the external environment, strategy implementation is eventually hypothesized to lead to enhanced OP. Contextually, most of these studies have not been carried out among Uganda state agencies and in different contextual setups ranging from private sectors like commercial banks, and microfinance to manufacturing. Whereas attempts have been made to analyse previous studies, research gaps can be addressed through the synthesis of related studies and explanation of the deficiencies in the approach, definition, theory testing and results. Much as studies have shown differing results on the study variables, there are conceptual (Kraus & Ferrell, 2016; Yohannes et al., 2016; Mkalama, 2014; Díaz-Fernández, et al. 2014), contextual (Shadrack & Owino 2016; Wasike et al., 2016; Milana & Maldaon, 2015; Kasomi (2015); Kinuu (2014)), and methodological (John & Severine, 2016; Wasike et al., 2015; Nyamwanza, & Mavhiki; 2014) gaps that this study sought to address.

For instance, conceptually, there is no consensus on the definition and measurement of TMT characteristics and performance of Ugandan state agencies, and how they are related to each other and to strategy implementation and external environment. Contextually, there exists a lack of empirical studies on TMT characteristics, strategy implementation, external

environment, and performance of Ugandan state agencies in the specific context of Uganda, which has its own political, economic, social, technological, ecological, and legal factors that has the potential to alter these variables. In addition, the Ugandan context differs from other settings where the UET, DCT and EDT have been applied, and this may compromise the validity and applicability of the current findings. Methodologically, A major challenge for researchers is the absence of comprehensive and integrated research design and methods that can encompass the complex and dynamic relationships among TMT characteristics, strategy implementation, the performance of Ugandan state agencies, and the external environment, and account for the mediating and moderating effects of these variables. Theoretically, there are inconsistencies and contradictions among the UET, DCT and EDT in explaining the role of TMTs in strategy implementation and OP. Therefore, this study pursued to answer the research question; what is the influence of strategy implementation and the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies?

1.3 Research Objectives

The main objective of this study was to determine the influence of strategy implementation and the external environment on the relationship between the TMT characteristics and the performance of state agencies in Uganda. The specific objectives were to:

i. Determine the relationship between top management team characteristics and the performance of Ugandan state agencies.
ii. Establish the mediating effect of strategy implementation on the relationship between top management team characteristics and the performance of Ugandan state agencies.

iii. Determine the moderating effect of the external environment on the relationship between top management team characteristics and the performance of Ugandan state agencies.

iv. Establish if the total independent effect of top management team characteristics, strategy implementation and external environment on the performance of Ugandan state agencies is different from the individual effects.

1.4 Value of the Study

This study intended to incorporate the idea that the incorporation of key TMT characteristics relates to the performance of Ugandan state agencies. This study provides insight into the combined effect of TMT characteristics, strategy implementation and external environment on the performance of state agencies in Uganda. Additionally, it is envisaged to improve the structure of existing speculations by either affirming or invalidating theoretical suggestions. Also, this study augments the meagre local scholarly literature on TMT characteristics and the external environment, especially in state agencies of Uganda.

This study also informs policy on the modalities to improve the performance frameworks for government agencies towards hastening the reform agenda of achieving sustainability and service excellence. Moreover, the results guide top administration on the suggested modalities towards viable strategy implementation in line with the organisational environment to foster performance.

The established mediating effect of strategic implementation adds more insights to strategic management research. The results likewise confirm the UET presumptions that the top supervisors' decision-making techniques and methodologies influence organisational performance. Further, techniques are supposed to be impacted by the qualities of people in top administration. The results additionally offer proof that essential reasoning is basic for

the public sector on the grounds that their workplaces are turning out to be similarly powerful concerning competitive business conditions.

Thirdly, this research offers management practitioners invaluable insights into planning reward structures for TMTs in organisations. The findings allow specialists to examine the viability of the strategy implementation received by Ugandan state agencies. In this manner, TMTs can devise and coordinate systems in the more extensive institutional change initiatives, for example, service delivery charters and institutional capacity building. This may lead to more effective strategies, structures and innovativeness in top management that give agencies a better position to perform better.

1.5 Organisation of the Study

The thesis is structured around six core chapters. The opening chapter introduces the main topics under study. It explains the conceptual and contextual background that forms the basis of this study. The concepts of the thesis are the key elements that reflect the study variables, which are: TMT characteristics, strategy implementation, external environment, and organisational performance. This study was conducted in Ugandan state agencies.

The second chapter analyses the literature pertaining to the empirical and theoretical aspects of the study variables. It starts with a general description of the theories that justify this study, proceeded by a discussion and connection between key variables. It covers TMT characteristics and organisational performance and how they relate to other key variables for instance TMT characteristics, strategy implementation, and external environment. The chapter also shows some studies that reveal the gaps in the literature and presents the conceptual framework and hypotheses.

The succeeding chapter explains the method employed to meet the objectives of this study. It describes the philosophical perspective of the social research approach, research design, population of this study, sampling, ethical considerations, and the data collection method.

It also shows how the study variables were operationalised and measured along with the diagnostic tests and data analysis.

In the fourth chapter, this study reports the results of the data analysis that was carried out utilizing both descriptive and inferential statistics while testing hypotheses. Statistical assumptions are stated and checked by diagnostic tests. The descriptive data analysis uses frequency, percentages, and standard deviations, and shows the demographics of the respondents and the relevant agencies. Inferential statistics are used to test the hypotheses. Chapter five discusses the outcomes and the discoveries of this study, emphasizing how strategy implementation and the external environment influence the relationship between TMT characteristics and the performance of Uganda state agencies, according to the specific objectives of the study. The results are compared with the existing literature and the findings and conclusions are clarified by using the key study variables, which are: TMT characteristics (independent variable), strategy implementation (mediating variable), external environment (moderating variable) and performance of Ugandan state agencies (dependent variable).

The sixth chapter summarizes the findings, conclusions, and recommendations. The structure of this chapter follows the specific objectives. This chapter also shows the wider implications of the findings for theory development, managerial practice and policy making. It also shows the contributions and the limitations of the study. It suggests some future research directions.

1.6 Chapter Summary

This chapter sets the basis of this thesis by giving a concise conceptual and theoretical description of study variables. The conceptual background shows the relationship among the variables such as TMT characteristics, strategy implementation, external environment, and performance of Ugandan state agencies. Every variable is characterized and depicted

in a different section. The context of this study is about the state agencies in Uganda which are further explained and illustrated. This chapter also explains the research problem in terms of conceptual, theoretical, contextual and methodological aspects. The primary goal and specific objectives of this study are additionally expressed. In conclusion, this chapter articulated the expected value of the study alongside three-wide regions in particular; hypothesis, administrative practice and strategy. The following chapter introduced an extensive assessment of existing studies on TMT characteristics, strategy implementation, external environment, and organisational performance.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter analyses scholarly works that exist in concurrence with the objectives guiding this study. Also, the theories supporting these study variables are discussed. These theories are delineated and examined, dependent on their suppositions and critique per the study variables. The research gaps are identified and presented in a tabular format showing methodological, contextual and theoretical gaps and the focal point of this study. An illustration of a conceptual framework showing key variables and their key constructs is shown.

2.2 Theoretical Foundation

This study uses three theories to explain how they connect to shape the conceptualisation and associations between the variables. They include: Upper Echelon (Hambrick & Mason, 1984), Dynamic Capabilities (Teece et al., 1997), and Environment Dependency (Ansoff & Sullivan, 1993). The Upper Echelon Theory provides a structure that reveals in what way TMT characteristics influence the options and strategies formulated by top management teams in strategy making. This theory suggests that firms with excellent top management teams can survey the surroundings and have the potential to develop and execute evidence-based interventions and achieve high performance. Machuki and Aosa (2011) noted that the EDT acknowledges that organisations try not to work in a space but in a changing environmental setting, hence the need by the TMTs to understand the changing character and adapt to the environment and create better strategies to suit within the environment to help the organisation perform better. Also, Dynamic Capabilities Theory (DCT) emphasizes the ability and skill of firms to mix, merge, refresh and reorganize assets according to the environment. The DCT views organisations with good TMTs, able to scan

the environment can configure and apply their capabilities and resources can post better effectiveness of the activities they perform.

These theories can be linked with the variables of TMT characteristics, strategy implementation, external environment, and performance in various ways. For instance,

TMT characteristics affect how firms' sense and seize opportunities in the environment (dynamic capabilities theory), as well as how they cope with environmental dependencies (environmental dependency theory). Strategy implementation reflects how firms transform their resources and processes to match or shape the environment (dynamic capabilities theory), as well as how they align their actions with environmental demands and expectations (environmental dependency theory). The external environment influences the need for dynamic capabilities (dynamic capabilities theory), as well as the level of environmental dependency (environmental dependency theory). Performance is determined by how well firms leverage their dynamic capabilities (dynamic capabilities theory), as well as how well they manage their environmental dependencies (environmental dependency theory).

2.2.1 Upper Echelon Theory

Hambrick and Mason introduced the upper echelon theory in 1984 (Hambrick & Mason, 1984). This theory is among the top important theories in the past era on the determinants of performance (not only strategic but also organisational). This theory suggests that the characteristics of TMTs affect the tactical choices and performance of firms. TMT characteristics include demographic factors (such as age, education, tenure, etc.), cognitive factors (such as values, beliefs, attitudes, etc.), and behavioural factors (such as communication, conflict, cohesion, etc.). These characteristics affect how TMTs perceive, interpret, and respond to the external environment, which can be dynamic, uncertain, complex, or munificent.

Preliminary upper-echelon studies mainly looked at the CEO, but the assessment by Carpenter et al. (2004) also highlighted the importance of consequences of the TMTs and therefore balanced the curiosity of upper-echelon investigations on the chief executive officer as well as the top management team. The theory suggests that TMTs in organisations settle on choices that are predictable given their characteristics (Hambrick, 2007). The UET perspective suggests that the contribution of TMTs to OP might be studied through the following characteristics: age, education, work experience, cultures, values and personalities. The main premise of this theory is that the characteristics of top leaders in the organisation partly explain strategies and performance. The UET as reviewed by Carpenter et al. (2004) adds other determinants as mediators and moderators to encompass impact, team dynamics, integration, incentives, and autonomy to the theory. Subsequently, the qualities of the top executives can be persuasive to an organisation's strategy and performance.

As indicated by UET, leaders are generally met with an overabundance of information in an environment that is continuously changing. They are supposed to exceptionally believe their inclinations concerning the dynamic environment all through essential dynamic interaction (Okello & Ngala, 2019). These investigations are ordinarily moulded by administrators' characters, encounters and qualities reflected by characteristics like education, age, tenure, experience and practical diversity.

Upper echelon theory (UET) believes that TMT characteristics can influence some external and internal alternatives and influence organisational achievement (Carpenter et al., 2004). This theory says that the traits of ethics, experience, age and training can vigorously shape how managers understand the contextual factors and the cognitive processes involved in strategic decision making (Hambrick & Mason, 1984). So, UET is used to show the TMT characteristics and performance linkage, and how strategy implementation mediates and

the external environment moderates this link. For example, UET suggests that TMT characteristics influence the type and quality of strategies that are formulated and implemented by firms. TMT characteristics can affect the level of innovation, risk-taking, proactiveness, and aggressiveness of strategies, as well as the degree of alignment, consistency, and adaptation of strategies to the environment (Aboramadan, 2021). Thus, strategy implementation can mediate the TMT characteristics and performance relationship by translating strategic choices into actions and outcomes.

UET can also account for the total independent effect of TMT characteristics, strategy implementation, and external environment on performance by considering the fit or congruence among these variables. UET suggests that performance is maximized when there is a high degree of fit or alignment among TMT characteristics, strategy implementation, and external environment. For example, a diverse and heterogeneous TMT may perform better when implementing an innovative and proactive strategy in a dynamic and complex environment than when implementing a conservative and reactive strategy in a stable and simple environment (Wasike & Owino, 2020).

The UET maintains that TMTs possess certain basic qualities and convictions (Cannella & Holocomb, 2005; Carpenter et al., 2004). In this manner, TMTs can assist in accomplishing more significant levels of effectiveness in accomplishing the objectives of the organisation if the team can guarantee that individual targets are predictable with organisational ones (Hambrick, 2007). But the theory has faced some criticism from certain groups. For example, the population ecology of organisations and institutional theory contend that TMTs posit a short-term impact because organisations are resultant of the environment (Yamak et., 2014), cleared away by forces from out, and inhabited by a multitude of conventions and standards. Cannella and Holocomb (2005) Cannella and

Holocomb (2005) also criticize the lack of attention to how different perspectives interact to create goals based on groups.

However, the UET's propositions have led to mixed results on TMTs in critical studies, which can be partly attributed to such a limitation (Kinuu, 2014; Muchemi, 2013). Therefore, the UET's propositions are used to support the examination of the top management team characteristics and how they influence the performance of the public organizations such as Ugandan state agencies Studies have shown that organisations with correct TMTs are more likely to perform better (Kinuu, 2014) since these teams put into account the expectations of the stakeholders hence it is critical to conclude that TMTs based on the UET can impact organisational performance.

The applicability of this theory to this study is that it provides a theoretical framework to explain how the composition and processes of the TMTs influence the strategy and performance of the state agencies. This study also used this theory to explore how the TMT interacts and makes decisions in the context of Ugandan state agencies.

2.2.2 Environment Dependency Theory

The Environment Dependence Theory (EDT) developed by Ansoff & Sullivan (1993) is used to underpin this study. According to environmental dependency theory, firms rely on their external environment to obtain essential resources and recognition. The environment can be characterized by its munificence (the availability of resources), complexity (the diversity and interdependence of factors), and dynamism (the rate and unpredictability of change). The theory presents the contention on the thought that organisations ought to persistently investigate, check and assess the environmental setting wherein they work intending to detect any patterns at the beginning phase before influencing the performance (Kirui, 2016). Firms need to manage their dependencies by aligning their strategies with

environmental demands and expectations. Firms can also try to influence or manipulate their environment through political actions or social responsibility.

Thus, as TMTs create strategies, they are exposed to environmental impacts and thus should consistently guarantee that vital decisions take awareness of dangers in the environment inside which the organisation works (Ansoff Igor & McDonnell, 1990). However, the way the managers at the top level perceive the environment and initiate different strategies to counter any occurrences from the environmental factors may influence the performance of organisations differently (Carpenter et al., 2004). This theory predicts that organisations are strongly affected by their current environment. As per the theory, the environment comprises different factors that apply different dimensions of a financial, political, or social nature. It further sets that if an organisation doesn't focus on its current environment, it tends to be expensive and if the organisation focuses on its current environment, it tends to be advantageous.

The theory of environmental dependency views organisations as open systems that interact with and respond to environmental events (Castrogiovanni, 2002). It is therefore in the interest of the environment that the organisations survive (Makini et al., 2020). In the broad sense, the EDT is anchored on an established kind of arrangement made by the TMTs between an organisation and its environment (Mkalama, 2014). The type of association is based on the procedure of swapping resources. To comprehend an organisation's behaviour, it is fundamental to comprehend the environment in which the organisation is set. An organisation relies upon its environment and the TMTs who have a place in that environment own required assets (Murgor, 2014). Thus, the environment is imperative to the achievement of such an organisation.

Environmental dependency theory also implies that TMT characteristics interact with the external environment to influence performance. TMT characteristics can affect how

managers perceive, interpret, and respond to environmental factors such as complexity, dynamism, uncertainty, and munificence. TMT characteristics can also affect how managers cope with environmental threats and opportunities, as well as how they influence or manipulate their environment through political actions or social responsibility (Aboramadan, 2021). Thus, the external environment can moderate the TMT characteristics and performance relationship by providing different contexts and challenges for strategic decision-making and environmental dependency management.

The EDT is criticised on the grounds of the assumption it makes. The theory assumes that organisations continuously evaluate, understand and monitor the context (environment) in which they function (Makini et al., 2020). This assumption is not tenable since the environment is beyond the control of the organisation. Also, TMTs react to the environment differently hence an indicator of variation in the performance of different organisations.

The environment dependency theory is applicable to this study because it was used it to examine how the top management team can enhance the bargaining power and autonomy of the state agencies regarding other actors and organisations in their environment. This study also used the theory to explore how TMTs can cope with uncertainty and scarcity of resources and develop strategies to reduce or avoid dependencies.

2.2.3 Dynamic Capabilities Theory

Teece, Pisano and Shuen (1997) proposed this theoretical framework. According to this theory, activities such as strategy design and execution might be influenced by managerial tendencies such as ideological shift, expert process design, approval, quality, environmental shifts, and organisational decline. Dynamic capabilities theory argues that firms need to develop and deploy specific capabilities to adapt to changing environments and sustain competitive advantage. Dynamic capabilities are the ability to perceive, seize, and convert possibilities and challenges in the environment. Dynamic capabilities mean the

competence to coordinate, shape, and implement strategic adjustments to align the intra-organizational and inter-organizational factors to deal with quickly dynamic environments (Teece et al., 1997). They enable firms to create, modify, or reconfigure their resources and processes to match or shape the environment. Dynamic capabilities are influenced by the TMT's vision, leadership, learning, and innovation (Teece et al., 1997). In short, TMTs need sharp and experienced minds to define, formulate and implement a strategy. Dynamic capabilities are organisational routines that enable managers to change, combine and recombine their assets to create value-generating tactics (Eisenhardt & Martin, 2000).

Dynamic capability, which is the ability of a company to change (Fiol 2001), determines competitive advantage. Some organisations are quicker, more aware and more anticipatory toward alterations (Eisenhardt & Martin, 2000). They frequently are the initial actor in the market to follow trends and execute alterations in tactics, thereby granting them a prolonged competitive edge. This theory argues that the upper management's function in strategy is to integrate, adapt, and reconfigure the firm's skills, especially internal ones such as the ability to apply knowledge and expertise in various contexts and situations. Clulow et al. (2003) discovered that the skills and competencies of managers help organizations to endure and excel over competing entities by making optimal choices based on strategy and utilizing existing assets, particularly in environments with great intricacy and easy access. In this context, acquiring and applying knowledge quicker than rivals is essential for an organization's endurance and edge over competitors, which are facilitated by adaptive competencies (dynamic capabilities). The theory suggests that the capabilities and assets assist entities to accomplish the goals established by a strategic design and execution procedure.

Hansen, Perry, and Reese (2004) revealed that how a company uses its assets is pretty much as similarly significant as the assets it has. The authors contended that simple ownership of

abilities does not make predominant OP but what is important most is how the TMTs use the firms' capacities toward the fulfilment of set targets and objectives. The framework investigates the sources and strategies for abundance creation by private venture firms working in environments of fast innovative change (Teece, Pisano, & Shuen, 2008). This theory suggests that organisations generally generate adaptive capabilities and constantly rearrange them according to the evolving environmental factors to improve performance (Wang & Wang, 2017). These suggestions from the dynamic capabilities' theory were used to determine the mediating effect of strategy implementation on top management team characteristics and the performance of state agencies in Uganda.

Strategy implementation mediates the relationship between TMT characteristics and performance, according to dynamic capabilities theory. For example, dynamic capabilities theory suggests that TMT characteristics influence the development and deployment of dynamic capabilities by firms. TMT characteristics can affect the level of sensing, seizing, and transforming abilities of firms, as well as the degree of alignment, coordination, and integration of these abilities across different levels and units of the organisation (Helfat, 2007). Thus, dynamic capabilities can mediate top management team characteristics and performance relationship by enabling firms to adapt to and shape their environment.

This theory is criticized for only focusing on variability in diverse assets and competencies and ignores different situations such as the concept of variable co-alignment, which might aid in strategy execution (Chathoth, 2002). Therefore, it is important to understand the changing market and develop procedures that result in fast strategy implementation to stay competing in volatile and unpredictable marketplaces (Barreto, 2010). This in turn leads to improved strategy implementation procedures. This study applied this theory as it claims that effective execution of strategy depends on TMTs' capabilities and solid capability as

well as the ability to deliver resources, typically through the use of the procedures of the organization, systems, demand, and other resources all have an impact.

The relevance of DCT to this study is that it provides a theoretical framework to explain how the top management team can enhance the strategic agility and innovation of the state agencies. The study used dynamic capabilities theory to examine how the TMTs can sense, seize and transform the resources and capabilities of the state agencies to cope with environmental turbulence and uncertainty.

2.3 Top Management Team Characteristics and Organisational Performance

TMT characteristics and organisational performance has pulled in extensive studies throughout the years (Hambrick, Cho, & Chen, 1996; Oketch et al., 2021b). The presence of people with different convictions and perspectives inside TMT is a potentially critical ingredient necessary for influencing OP. A few past investigations in organisational performance have shown that TMT characteristics can prompt more viable vital decisions, better imagination, and value-adding advancements and help organisations to draw in different partners that as a result emphatically sway organisational performance (Oketch et al., 2021). A study by Oketch et al. (2021) determined the influence of TMT characteristics (demographic, psychological, and cognitive) on the performance of independent regulatory agencies in Kenya. The study revealed that TMT demographic characteristics did not have a substantial impact on the agencies' performance. Also, TMT's psychological characteristics significantly influenced the performance of the agencies. In conclusion, the outcomes laid out that TMT cognitive characteristics fundamentally influence the performance of the agencies.

Doan (2020) studied the CEO-TMT interaction and the firm’s innovation effect. The TMT characteristics included TMT age, tenure, education and functional diversity. Doan (2020) found that TMT with higher education reduced the inclination of chief executive officers

with limited tenure to cut down on research and development spending. Likewise, chief executive officers with limited tenure were similarly influenced by top management team with short career horizons. However, the study of the interaction how the length of tenure and the heterogeneity of skills and experience of the top management team influence the firm's performance and strategy produced diverse and unclear outcomes. Doan (2020) discovered that the effects of TMT education were consistent irrespective of the kind of innovation. The age of TMT also affected the innovation outcome of a firm. In conclusion, Doan (2020) discovered that the chief executive officer and the top management team interaction affected a company's creativity differently among various business segments.

Okello and Ngala (2019) specifically studied the effect of TMT characteristics (behavioural, demographic, cognitive, and size) on strategic change results among stores in Nairobi. The study employed a census of all the 21 branch supermarkets since the population was small. Using regression and correlational analysis, Okello and Ngala (2019) found a positive significant connection between the behavioural, demographic and cognitive characteristics and strategic change results. It was also shown that group size and strategic change outcomes are inextricably linked. The researcher criticizes a study by Okello and Ngala (2019) for using simple random sampling on 105 TMTs yet their population was not indicated. Further criticism arises from the kind of analysis carried out where inferential statics was conducted yet the study adopted a population.

Wu, Wu, Tsai, and Li (2017) adopted structural equation modelling to analyse questionnaires concerning the characteristics of TMTs and strategic decision-making. They explored 289 questionnaires among TMTs in Chinese enterprises. The results revealed that the top management teams' characteristics and choices affect risk views and cognitive frameworks that serve as intervening factors. They additionally observed that

psychological possession moderated the TMT characteristics and decision-making relationship.

Previous studies found that TMT with varying managers' noticeable contextual characteristics could provide a significant competitive advantage that affects OP. TMTs, according to Kraus and Ferrell (2016), are critical to an organization's performance. Top management teams, according to Kraus and Ferrell (2016), are critical to an organization's performance. In order to exert influence the organisational results, TMT members Create a collective purpose, establish values, impact culture, and develop an organization's strategic strategy. Top management varies every organization, but in general, it is a limited group that comprises the president, vice president, chief executive officer, and directors of the organization. Kraus and Ferrell (2016) found that TMTs are basic to organisations' performance and that top heads figure out a collective purpose, instil values, impact culture, and decide the significant preparation for an organisation, so they have a huge effect on organisational results. John and Severine (2016) established a correlation between demographics and innovative orientations of administrators and organisational performance. The researcher disagrees with a study by John and Severine (2016) since the authors included several employees while measuring the performance of the firms. Having a lot of employees or few employees does not guarantee organisational performance. In addition, the topic did not align well with the main objective since the former mentioned top management characteristics and the latter talked of TMTs. Furthermore, the authors developed two different models using SEM measuring demographic characteristics and entrepreneurial characteristics instead of using one model since they were both concepts of top management characteristics. The models were also not well labelled and this presents a misinterpretation of the results. Waldman and Bowen (2016) contend that leaders are being chosen because of characteristics, such for example, solid self-appreciation, high

levels of certainty and boldness. Cautioning that such attributes may not give a premise to compelling handling of conundrum and strain.

Milana and Maldaon (2015) explored the impact of managerial human capital on the performance of a Syrian public agency. A sample of 12 and 138 who were managers and workers respectively were chosen. The results uncovered that age, level of education and the functional track has no influence on the performance of the directorate of finance in Damascus while the tenure of the supervisor significantly influenced performance. The findings revealed managerial qualities are practically unessential in the performance of the Directorate of Finance in Damascus and the public overall. Such outcomes are a requirement for strategists to put resources into the detailing and execution of procedures and strategies which can achieve compelling change in practices and jobs of workers.

Wasike et al. (2015) bolstered the theory that TMT characteristics influenced firm performance. The researcher disagrees with Wasike et al. (2015) in the results section where the authors use means to conclude that TMT characteristics established themselves generally across tea factory companies instead of describing the data. In addition, the researcher criticises Wasike et al. (2015) for not indicating the number of TMTs that were considered in their study.

Díaz-Fernández et al. (2014) studied the influence of TMT demographic characteristics constructs (company size, TMT size, education-level diversity) on firm performance using hierarchal regression. The investigation confirmed that company size was both exceptionally connected with their demographic constructs in terms of diversity. Furthermore, TMTs essentially affected corporate performance and no impacts on usefulness and education foundation diversity were found. The researcher criticizes Díaz-Fernández et al. (2014) for conceptualizing company size as a construct of TMT demographic characteristics. In addition, the researcher criticises the authors for using a

hierarchical linear model instead of using time series regression analysis since the data that was collected spanned from 2004 to 2007.

Mkalama (2014) indicated that demographic characteristics allude to the fundamental characteristics, for example, educational level, gender, length of administration and race of TMT members. For companies to profit from their TMT diversity, they should have a mix of the correct demographic characteristics to empower them appropriately decipher the circumstances in their external environments and make suitable systems to support competitive advantage. Thus, Mkalama (2014) presumed that age essentially and positively impacted performance while gender fundamentally and unfavourably impacted performance. Mkalama (2014) found that TMT demographics significantly influenced the performance of KSCs. The researcher criticizes a study by Mkalama (2014) for not indicating the moderating and intervening variables in the study objectives. In addition, Mkalama (2014) used criterion sampling where she eliminated 70 state corporations yet they were still functional at the time of the research study. In contrast, Kinuu (2014) laid out a genuinely huge connection between the psychographics of top management team and non-monetary performance. The top management team characteristics such as education, technical foundation and work understanding, gender, mental attributes, and other different attributes have been identified as key to the connection between TMTs and OP (Kinuu, 2014).

Nielsen and Nielsen (2013) re-examined the relationship between top management team diversity and performance. Joining the experiences from the theory of upper echelons and the institutional, the scholars laid out a new ideal element of TMT diversity (nationality) and fostered an incorporated staggered system clarifying how its achievement shifts across logical situations. Nielsen and Nielsen (2013) found that nationality diversity is decidedly associated with performance and the connection is more grounded in tenured groups,

exceptionally internationalized firms, and altruistic environments. Furthermore, their examination shows that the results of TMT diversity rely upon the explicit properties of diversity being thought of and firm and industry conditions under which vital decisions occur.

Mutuku et al. (2013) while concentrating on the impact of top management team diversity, quality decisions and performance in Kenya, observed that TMT tenure affected the nature of choices made by the TMTs which eventually resulted in prevalent performance. Mutuku et al. (2013) discovered that the nature of the choices made by the TMTs significantly affected the connection between top management team diversity and the performance of commercial banks in Kenya.

Muchemi (2013) who examined the effect of top management team diversity on the performance of banks in Kenya observed that as diversity (gender, ethnic and tenure) expanded, the performance of the organisations diminished consequently the three types of diversities essentially contrarily impacted the performance of the commercial banks. TMT diversity is positively linked to performance(Muchemi, 2013). The researcher criticizes a study by Muchemi (2013) for not indicating the indicators of the variables in the conceptual framework. In addition, Muchemi (2013) reviewed literature that was of more than 20 years which is not always recommended since things over a long period tend to have changed.

Although there is abundant research relating to TMTs and organisational performance, the contribution of TMT characteristics in OP is unclear (Homberg & Bui, 2013). On the other hand, Homberg and Bui (2013) found no TMT diversity and OP connection but offer evidence for biasness. A few studies such as Muchemi (2013) demonstrated that top management team characteristics affect organisational performance whereas others have asserted that for TMT characteristics to influence performance, different components must mediate the influence. Also, different scholars posit that the disparities in some of the TMT

characteristics such as the degree of training, age and sexual orientation bring about disintegration inside TMT and this may influence performance negatively.

Mutuku (2012) led an investigation to evaluate the association between top management team diversity and the performance of commercial banks. Mutuku (2012) conceptualised TMT diversity in terms of sexual orientation, education level, age, tenure, proficiency and functional foundation. Mutuku (2012) observed that TMT demographic diversity contrarily impacted the performance of banks in Kenya. Dezsö and Ross (2012) contend that female portrayal in top administration brings instructive and social advantages to the TMT, enhances the practices shown by leaders all through the company and motivates ladies in top administration. The outcome should be further enhanced by administrative assignment execution and accordingly better company performance. They tried their theory utilising 15 years of board information on the TMTs of the S&P 1,500 companies. Having women in top administration further develops the performance of the companies only to the degree that a company's procedure is centred around advancement. Contextually, the enlightening and social advantages of gender diversity and the practices related to ladies in administration are probably going to be particularly significant for administrative performance.

The TMTs are in this manner commanded to settle on decisions that influence significant cycles and day-by-day tasks in their organisations, divisions, units or offices to extend their organisations to sustain performance (Pearce & Robinson, 2011). Bolo (2011) found that TMT characteristics which incorporate schooling, tenure, experience, age, capacity to bear vagueness, hazard inclination and competitive aggressiveness anticipate organisational results. Bolo (2011) focused on the impact of chosen strategy factors on the performance of enormous private manufacturing firms in Kenya. Findings revealed that the autonomous

impact of important competencies, capacities, and strategy execution on the performance of firms is weaker contrasted with the joint impact of the same variables.

Marimuthu and Kolandaisamy (2009) established that TMT diversity isn't pertinent in clarifying performance. In addition, a non-significant connection between TMT characteristics and performance was established. As per Cannella et al. (2008), the conviction that TMT characteristics essentially impact the performance of organisations is boundless by strategic management researchers and professionals as past studies regarding the matter have yielded conflicting outcomes. Waweru (2008) found that TMT demographic characteristics insignificantly influenced organisational performance. The researcher criticises Waweru (2008) for not examining other constructs of top management team characteristics.

The impact of top management team characteristics on performance shifts starting with one area and then onto the next (Irungu, 2007). Irungu (2007) utilising a cross-sectional design reviewed contemplated organisations and posited that individual TMT individuals' demographic characteristics on performance are genuinely huge. Hambrick (2007) noted that TMTs participate in management procedures as they work on the foundation of their understanding of the circumstances they confront, cognisant of their expertise, tenets and dispositions. Researchers investigating the connection between TMT psychological characteristics and OP have contended that there exists a connection between the two (Luthans et al., 2007; Cameron et al., 2003). These researchers have contended that investigation into the impact of top management team psychological characteristics on OP should begin by looking at the interaction as well as qualities which influence practices and results, and their effect on situational (Barrick et al., 2001). These past specialists have additionally stated that psychological asset hypotheses can be used to explain workers' inspiration to gain, keep up with, and construct abilities fundamental for accomplishing

predominant organisational performance. Specifically, they have contended that inspiration and selections of members can be clarified by psychological characteristics like adequacy, expectation, positive thinking and flexibility that make higher-request capacities that thus drive singular performance(Wright & Hobfoll, 2004; Hobfoll, 2002).

As per Bouquet et al. (2003), consideration at TMT individual level includes delivering data, taking care of talent, time and determination to embrace the work exercises. Bouquet et al. (2003) indicated that data is not a restricted resource yet the time and consideration that TMT can divide out to look and decipher proof in the organisations' environment. Bouquet et al. (2003) revealed that to stay away from data over-burden, TMTs regularly choose to disregard a few parts of the circumstances they experience that they feel may not be perfect for the outcome of their organisations. Consequently, Bouquet et al. (2003) presumed that TMTs are regularly specific in critical thinking and thus can get restricted things done at a time from the data recorded in their memory and introduced by the business environment which thusly influences the performance of their organisations.

Firms of today work in a continuously eccentric worldwide environment (Muratovski, 2015). The market has essentially changed because of globalization, savage rivalry, mechanical headway and a client-centred market. The TMT characteristics are connected with performance (Mkalama & Machuki, 2019; Aboramadan, 2021; Mutuku, 2012; Díaz-Fernández, González-Rodríguez, & Pawlak, 2014). In any case, past examinations of the connection between top management team characteristics and performance have delivered conflicting (Yohannes et al., 2016; Kinuu, 2014) and uncertain outcomes (Díaz-Fernández et a., 2014). It is for this exact gap that this study aimed at filling. The reviewed literature uncovered gaps that this study purposed to address. To start with, the vast majority of the studies zeroing in on the impact of TMT characteristics have in general zeroed in just on TMT demographic attributes (Mkalama & Machuki, 2019; Yohannes et al., 2016; Díaz-

Fernández et al., 2015, 2014; Marimuthu & Kolandaisamy, 2009). In addition, most studies zeroed in on TMT demographics, psychological (Kasomi, 2015; Kinuu, 2014; Peterson & Zhang, 2011) and cognitive characteristics (Oketch et al., 2020a) exclusively rather than concentrating on their consolidated impact. In conclusion, the vast majority of the examinations (Oketch et al., 2021; Doan, 2020; Okello & Ngala, 2019; John & Severine, 2016) zeroing in on the impact of TMT characteristics on performance in the public area setting have summed up the enterprises that are not state-managed. This study investigation thusly centred on the joined impact of TMT demographic, psychological, and behavioural characteristics just as being explicit to free administrative organisations as a novel class of state agencies.

TMT characteristics alone likewise neglect to clarify organisational performance completely (Haleblian & Finkelstein, 1993). Hambrick et al. (1996) contend that TMT characteristics positively relate to OP. Albeit the connection between TMT characteristics and the OP has drawn extensive research consideration, a few researchers (Mutuku, 2012; Marimuthu & Kolandaisamy, 2009; Irungu, 2007; Knight et al., 1999) have detailed blended outcomes. Regardless of the broad conviction that TMT characteristics significantly link with performance, the well-established proof has delivered flawed and opposing outcomes and such scholarly contention keeps the relationship being investigated by researchers. The contradicting results have opened a way for scholars to further investigate TMT characteristics until it arrives at a strong conclusion and close the gap that exists which can assist the world with identifying the correct mixture of TMT characteristics, and how it changes over to vital decisions and at last effect on OP.

2.4 Top Management Team Characteristics, Strategy Implementation and Performance

As evidenced by Speculand's (2009) and Kaplan and Norton's (2005) research, it has been revealed that upwards of 90% of meticulously crafted strategic plans ultimately fail to be executed in their entirety. This phenomenon not only results in the squandering of precious resources, but also contributes to a decline in overall performance. The scholarly work of Oketch et al. (2021) delves into the intricacies of independent regulatory organizations in Kenya, exploring the mediating effects of strategy execution on the relationship between top management team (TMT) characteristics and organizational performance (OP). Their research findings reveal that the implementation of strategic initiatives largely mediates the link between TMT characteristics and organizational performance.

In a series of distinct inquiries, Triana, Richard and Su (2019) have uncovered a directed intercession model that highlights the influence of gender diversity in top management teams (TMTs) on strategic change, ultimately boosting firm performance under conditions of high partnership development force, and with a TMT that exhibits heterogeneity in their educational backgrounds. The researcher questions the validity of using firm size as a covariate for the relationship between gender diversity and performance. Moreover, the authors selected a context (the computer industry) that is historically characterized by low female representation. The data distribution was negatively skewed due to the scarcity of women in the computer industry during the period of the study.

Strategy implementation is a crucial stage of the strategy process that leads to improved OP (Genc, 2017).). Strategy implementation (SI) requires a collaborative effort led by the organisation’s TMT in any context. Genc (2017) investigated the individual and combined effects of strategy implementation and organisational culture on performance using the competing values framework, a comprehensive typology that encompasses four types of

culture and corresponding criteria for organisational effectiveness. Thusly, this study contributes to the scholarly material on strategy implementation, external environment and performance. The relationships among Turkish local government agencies were examined in their specific context.

Okungu (2017) examined the influence of TMT characteristics on strategy implementation using a case study of Nairobi County, Kenya based on data gathered through a questionnaire and semi-structured interview. The study results indicated that TMT tenure, profession diversity, TMT size, TMT age, and gender diversity affected strategy implementation in Nairobi County. The researcher challenges Okungu (2017) for using the mean as a measure of effect since the mean is used to describe the data not to infer causality. Moreover, the results showed that TMT size and age had a negative correlation with strategy implementation while the correlation between tenure and strategy implementation was negative and significant. These findings were inconsistent with the mean analyses.

Shadrack and Owino (2016) performed a study based on the UET and argued that OP is the outcome of effective utilization of top management's human resources in terms of expertise and know-how in the implementation of strategies rather than the collection of characteristics exhibited by TMTs. Wasike and Owino (2016) investigated the indirect effect of TMT characteristics on the performance of tea factory corporations in Kenya. The study also examined the effect of strategy execution on the relationship between TMT characteristics and performance. The results supported the idea of the indirect effect of TMT characteristics on performance. Wasike and Owino (2016) also showed that strategy implementation fully mediated the TMT characteristics and performance relationship.

As managers, they can affect the environmental factors that influence the organisation. They ought to guarantee that data concerning these fundamental environmental factors are accessible to the applicable supervisors. High-level managers ought to have the option to

give exact criticism with respect to how the organisation fares and the particular performance of the business unit within the organisation. Kasomi, (2015) discovered that strategic choice emphatically influenced the relationship between TMTs and the performance of state corporations in Kenya. Jalali (2012) examined the link between strategy implementation and the performance of export companies in Iran. Jalali (2012) found that strategy execution affects export performance, both directly and as a mediating variable between company characteristics and export performance. Jalali (2012) determined that strategy implementation influenced organisational characteristics and export performance as a mediating construct.

Buyl et al. (2011) focus on the integrative job of the CEO, proposing that the CEO's skill and foundation attributes influence the TMT functional diversity and performance connection as a result of their effect on the trade and coordination of conveyed information inside the TMT. The scholars explored the moderating effect of three arrangements of CEO characteristics (functional foundation, status as the founder, and imparted insight to the next TMT individuals) on the connection between TMT functional diversity and the performance of the companies. Buyl et al. (2011) uncovered that CEO and TMT characteristics truly do moderate in understanding the expected benefits of conveyed TMT functional mastery.

Mezger and Violani (2011) argue that an effective strategy implementation requires a proper alignment with the organisation’s capabilities. This particularly relates to core aspects such as the managers’ knowledge, collective experience, and well-functioning decision-making mechanisms. Strategy implementation depends largely on TMT and the team characteristics may affect its success.

Sorooshian et al. (2010) analysed Small and Medium Enterprises (SMEs) in Iran. The examination by Sorooshian et al. (2010) shows a strong connection between strategy

implementation and OP. They contend that implementing a strategy is a self-persuaded capacity in the vital administration process. Top supervisory groups denote trendsetters, strategists, inspirations and coordinators during the strategy implementation procedure. The researcher criticizes a study by Sorooshian et al. (2010) for investigating the underlying connections between SI and performance yet the authors analysed the drivers of strategy implementation and performance. Moreover, the authors had a response rate of 24.7% which is not recommended to continue with the analysis. Waweru (2008) concentrated on enormous private companies in Kenya utilising triangulation and discovered a significant connection between strategy implementation and performance.

Awino (2007) studied private assembling firms in Kenya and laid out that strategy implementation affects organisational performance. Irungu (2007) neglected the effect of various components of TMT characteristics as well as the effect of strategy execution on TMT characteristics and performance.

Shah (2005) notes that while organisations comprehend the requirement for strategy and its compelling execution, the vast majority of the organisations' implementation regularly misses the mark regarding the objectives that the enterprise has set itself. This is because their execution cycle frequently succumbs to a few considerable impediments. Keeping this in view, Shah (2005) endeavoured to distinguish snags to strategy execution and spotlighted explaining the elements which help in advancing effective strategy execution. The study recognized 11 deterrents most often experienced by organisations during the execution of their strategies. To eliminate these snags and advance fruitful strategy execution, organisations should zero in on fostering a sound strategy, designate adequate assets and resources to it, guarantee the board's responsibility and initiative, oversee employee management and responsibility, and interface monetary compensations with execution and

layout successful data frameworks. Organisations that can address these regions will keep different execution issues from happening and advance success.

Strategy implementation differs slightly in private and public institutions as they have to meet conflicting and competing objectives. These objectives are monitored by a range of different constituencies such as the citizens, the media, service users, regulators and politicians (Boyne, 2003). According to David (2003), the organisation structure of strategic implementation is crucial for effective implementation along with both TMTs and employees of the organisation. The human element of strategy implementation influences organisational performance. Therefore, this study examined the mediating effect of strategy implementation on TMT characteristics and the performance of Ugandan state agencies.

2.5 Top Management Team Characteristics, External Environment and Performance

The understanding of the external environment helps TMTs design strategies like enhancing capacity and essential competencies that would enable them to shield organisations from some form of unwanted environmental results while chasing opportunities. Shahab et al. (2019) uncovered that CEOs with research foundations connect further in exercises that enhance performance contrasted to CEOs that are not. Shahab et al. (2019) indicated that an expanded environmental exhibition that is driven by acceptable strategies in general deliberately diminishes the degree of firm monetary misery. Additionally, this nexus is directed by TMT gender diversity, unfamiliar openness, and political association. The researcher criticizes Shahab et al. (2019) for not presenting the results in tables. In addition, the outcomes for the tools' validity and reliability were not reported.

Sumiati, Rofiq and Pramono (2019) additionally attested that external environment significantly impacted the performance of the SME business. Nevertheless Sumiati et al. (2019) did not investigate how the external environment moderates TMT characteristics

and performance in state agencies. David and Okeyo (2018) uncovered that the external environment significantly affected performance. Moreover, external environment moderated strategic planning and performance relationship.

Using structural equation modelling, Kinuu (2014) indicated significant findings on the moderating role of the institutional environment in the relationship between TMT psychological characteristics and performance. The researcher criticizes Kinuu (2014) for collecting data from TMTs of companies using a questionnaire that had a self-report bias. This implies that the TMTs of the companies reported about themselves. This self-report can mislead descriptive statistics and inferences(Bauhoff, 2014). Conversely, statistically insignificant results were obtained on the moderating effect of the macro environment on the TMT demographics and performance connection (Mkalama, 2014). On the other hand, the researcher criticizes a study by Mkalama (2014) for not analysing and presenting the secondary data that she collected.

Murgor (2014) determined the impact of firm abilities and key reactions on the connection between the external environment and the performance of large-scale manufacturing firms in Kenya. Using data obtained through a structured questionnaire, the findings show that the external environment significantly influenced some indicators of performance. The opinions of Adeoye and Elegunde (2012) concur with this argument as they contended that the unsteady environment in which standard organisations work is of significant importance that organisations uphold their performance assessments along with embrace suitable plans of action that would offer relevant information matters considered to be of paramount importance.

Oluremi and Gbenga (2011) argue that organisations that want to flourish need to advance knowledge of the trends with an emphasis on the environment and dynamics that influence competition. The environment outside organisational confines affects the businesses in a

particular industry to get above-average proceeds and look for strategic competitiveness amongst the others in the industry in which they operate (Hitt et al., 2011). Machuki and Aosa (2011) determined that the external environment has no impact on corporate performance.

It seems that the connection between the characteristics of TMTs and OP is not clearly defined as either positive or negative, however, all things considered, the environment in which a group works or the firm functions moderates the relationship. Accordingly, a developing understanding among scholastics that contingency impacts like environmental steadiness, colleagues' relations (Cannella & Holocomob, 2005) and essentially, industry features need to be considered when probing the TMT characteristics and OP association.

2.6 Top Management Team Characteristics, Strategy Implementation, External Environment, and Performance

Mudany, Ngala and Gituro (2021) determined the moderating impact of the macro-environment on the intervening impact of capital structure on the association between strategy implementation and performance in Kenya. The results showed a significant moderating effect of the macro-environment on the mediating effect of capital structure. Likewise, the outcomes uncovered that at the point when the interaction term was introduced, it showed a significant relationship. Therefore, the macro environment moderated the link between capital structure and performance thus affirming the peculiarity of moderated mediation.

Top management teams are mandated with the obligation of exploring the organisation to better levels utilising the organisation's resources and ability profiles through strategy implementation to misuse open doors in the business environment (Wasike & Owino, 2020). Strategy implementation is a duty performed by the TMTs to attain business goals. Top managers plan the methodologies to adjust organisational objectives and activities with

the dynamism in the operating environment. Hence, strategy implementation changes the plan into activities that in the end sway performance results.

Oketch et al. (2020) laid out that the legal environment significantly affects the connection between TMT characteristics and performance. Abdullah and Mansor (2018) study findings indicated that the environment of the business moderates the connection between entrepreneurial abilities and the performance of small businesses. Mbithi, Muturi and Rambo (2017) examined the moderating effects of the macro-environment on the relationship between strategy and performance. The study uncovered that every one of the four constructs of an organisation's macro environment manifests influences the strategy-performance connection in changing degrees. The study was restricted to just four constructs of the macro environment. This study considered all the indicators of the external environment instead of the macro environment.

A study by Ogada, Njuguna, and Achoki (2016) studied the moderating effect of economic growth on the financial performance of merged institutions. Ogada et al. (2016) observed only one variable, economic factor. The results uncovered that there was a significant connection between the moderating effect of economic growth and the financial performance of consolidated foundations. Additionally, a study by Ogada et al. (2016) considered an economic factor as an indicator of the macro environment and not as a variable.

Wasike et al. (2016) considered the moderating effect of the competitive environment on the connection between TMT and OP. Furthermore, strategy implementation significantly intervened in TMT characteristics and performance linkage. Furthermore, Wasike et al. (2016) noted that the competitive environment influenced the relationship positively and significantly with no significant relationship being exhibited by the role of strategy implementation. Yohannes et al. (2016) found that TMT demographic characteristics

influence OP but also the control factors uncovered a significant outcome on the performance of firms and as such, TMT characteristics only clarify performance.

Dill (1958) observed the business environment as the entirety of physical and social elements thought about by a business for settling on decisions towards superior performance. Dess and Beard (1984) found help for the moderating impacts of the environment on the connection between strategy and performance.

The outcome of any organisation relies on how the strategy utilized is carried out (Lefort, McMurray, & Tesvic, 2015). Nyamwanza and Mavhiki (2014) posit that executing the strategy is influenced by numerous aspects that thusly influence organisation performance (OP). Thus, for effective implementation, the prevailing alliance at the head of the organisation assumes the job of a tactician, investigator, chief, hazard administrator, coordinator and evaluator (Azhar et al., 2013). These roles are guided by TMT duty, dedication, control, inspiration, mindfulness, clearness, and unwavering quality (Sorooshian *et al.,* 2010). The debate about the impact of TMT characteristics on OP goes on given that some studies have generated conflicting outcomes ranging from negative to positive. In addition, other factors jointly accelerate or decelerate the connection between TMT characteristics and the performance of the organisation. The conflicting empirical findings have portrayed diversity as a double-edged sword in upper management.

Studies portraying environmental dynamism in organisations to have a moderating impact have recommended that the environment moderates the strategy and performance of organisations (Ting et al., 2012). Odundo (2012) revealed that political generosity and backing significantly affected the connection between the degree of execution of strategies and their monetary performance. The review showed a conceptual gap since it considered just political generosity and backing. This study considered every one of the variables under the external environment. A study by Ahangama and Poo (2012) laid out that

macroeconomic stability moderated the eHealth advancement and health results relationship.

Koontz (2010) broadly stated that management is the cycle where an environment is planned and kept up with, and where people cooperate in bunches proficiently to achieve provided objectives. Likewise, there is developing mindfulness that logical factors, for example, environmental variables, and strategy implementation (Sorooshian et al., 2010) sway organisational performance. It has been contended that strategy implementation ought to include nonstop scanning of the environment to distinguish arising vital issues like qualities, deficiencies, potential open doors, and threats to constantly adjust the organisation's techniques to the targets and objectives (Wit & Meyer, 2004). Strategy implementation is along these lines a basic interaction that interprets the plans and systems right into it to understand the set targets and drive the organisations towards accomplishing their objectives. The organisation's strategic arrangement is a plan of how the business means to arrive at its objectives however it will sit forgotten without strategy implementation. In this manner, strategy implementation gets the organisation's arrangements to happen (Ibrahim et al., 2012). The act of checking without help from anyone else is deficient to guarantee incredible performances, for what filtering may be lined up with the strategy, and examining data should be viably used during the strategic management measure (Morrison, 2000)

Much as studies have explored the association between TMT characteristics and performance, there is still a missing link on the total independent effect of TMT characteristics, external environment and strategy implementation. This study consequently looks to fill these research gaps by assessing how TMT characteristics, external environment, and strategy implementation could influence organisational performance. To sort out issues that have remained controversial and advance the conceptualization to

inform further research, this study is structured along with the relevant thematic areas in line with TMT characteristics, external environment, strategy implementation, and OP.

2.7 Summary of Literature and Research Gaps

This section summarizes the empirical studies reviewed and brings out the research gaps identified. The literature reviewed shows that the concepts in this study have been used in many other studies. Nevertheless, unanswered questions concerning conceptual, contextual and methodological research gaps remain. Interestingly, the variables have been operationalized differently, assumed different empirical roles and yielded different findings. The conceptual gaps pertain to how variables in this study differ from the previous studies. The contextual gaps pertain to different contexts in which the variables in this study have been examined as well as other variables that have been investigated in a similar context as that of this study. Methodological gaps were revealed relating to the research design adopted, philosophical stand, study population, sample size, and data analysis methods. Previous studies show diverse outcomes, methodologies and contextual differences. Table 2.1 presents the methodological gaps in pertinent scholarly material on TMT characteristics, external environment, strategy implementation and performance.

Table 2.1: Methodological Gaps

Author(s)	Focus of the study	Methodology	Findings	Research gaps	Focus of the current study
Triana, Richard and Su (2019)	Gender diversity in senior management, strategic change, and firm performance: examining the mediating nature of strategic change in high tech firms	Sampled computer industries in the United States. Used Hayes PROCESS to test for mediation and moderation.	The findings revealed a moderated mediation model whereby gender diversity positively impacts strategic change, which at last improves performance	The authors did not test for the assumptions of linearity, normality, homoscedasticity, and independence. In addition, the study considered computer industries in the US.	This study tested the assumptions of linearity, normality, homoscedasticity, and homogeneity. Furthermore, this study considered state agencies in Uganda.
Wu, Wu, Tsai, and Li (2017)	TMT characteristics and strategic decision-making: a mediation of risk perceptions and mental models	Employed structural equation modelling to analyse the data. Adopted a model by Brown (1997) to test for mediation.	The findings revealed risk perceptions and mental models are mediating factors and are impacted by the TMT characteristics and decision-making.	Did not measure the assumptions of SEM such as outliers, multicollinearity, normality, linearity, no missing data, and unidimensional constructs. Considered enterprises in China.	Tested for outliers, normality, and missing data. In addition, this study considered Ugandan state agencies. Adopted Hayes' PROCESS Model (2022) to test for mediation and moderation.
John & Severine (2016)	TMT characteristics and firms' performance in Tanzania: a case of selected firms.	Survey research was chosen to guide the study. Descriptive statistics and inferential statistics were employed during the analysis	Demographic characteristics and innovative orientations bear a significant impact on OP.	The study did not test for the validity and reliability of the tool. Data were only collected from managers of the sampled firms.	Assessed the validity and reliability of the research tool. Collected data from TMT members such as CEOs, secretaries, and heads of departments.

Methodological Gaps Continued

Author(s)	Focus of the study	Methodology	Findings	Research gaps	Focus of the current study
Wasike et al. (2015)	TMT characteristics and performance of Kenyan tea companies	Deployed a cross-sectional survey research design	Supported the hypothesis that TMT Characteristics influenced firm performance	The study was unable to test causality among variables.	This study examined the causal relationships among the variables.
Nyamwanza, & Mavhiki (2014)	Strategy implementation framework used by SMEs in Zimbabwe	In-depth interviews were used to gather data from multiple studies.	The study sought to enhance strategy implementation knowledge among SMEs	The framework used by SMEs in Zimbabwe emphasized both self and family survival	Strategy implementation is a key test for the present organisations
Murgor, 2014	External environment, firm capabilities, strategic responses and performance of large-scale manufacturing firms in Kenya	The study adopted a cross-sectional descriptive survey.	Findings revealed external environment significantly influences performance. Firm capabilities did not significantly moderate the connection between the external environment and strategic responses.	Assumptions of linear regression were not conducted. Was conducted by targeting only large manufacturing firms in Kenya.	Assumptions of linear regression were conducted. Contextually, the study was conducted among state agencies in Uganda.
Homberg and Bui (2013)	Top management team diversity: A systematic review	A meta-regression analysis (MRA) was carried out. More than 200 appraisals from 53 scholarly materials were surveyed.	Found no relationship between TMT diversity and OP however, gives proof of publication bias.	Reviewed only published articles.	Collected both primary and secondary data.

Methodological Gaps Continued

Author(s)	Focus of the study	Methodology	Findings	Research gaps	Focus of the current study
Nielsen & Nielsen, (2013)	Top management team nationality diversity and firm performance	Secondary data from the organisation's yearly reports and websites yearly for the period 2001–2008 was gathered. Data was gathered from the World Scope and DataStream databases of Thomson One Banker.	Nationality diversity is essentially connected with performance. The association between TMT nationality diversity and team tenure and firm internationalization was significant.	Utilised only secondary data. Also, data on TMT composition was collected. In addition, only private firms from industries in Switzerland were selected.	This study gathered both primary and secondary data from TMTs of state agencies in Uganda

Table 2.2: Conceptual Gaps

Author(s)	Focus of the study	Methodology	Findings	Research gaps	Focus of current study
Oketch, Kilika, & Kinyua, 2021	TMT characteristics and organisational performance in a regulatory setting in Kenya.	Adopted a descriptive cross-sectional research design.	TMT demographic and psychological characteristics insignificantly and significantly affected OP respectively. TMT cognitive characteristics significantly affect OP.	The study did not conceptualize TMT characteristics in terms of behavioural characteristics.	This study conceptualised TMT characteristics in terms of behavioural, psychological, and demographic characteristics.
Doan (2020)	Impact of CEO career horizon on firm's R&D investment: Examining the CEO-TMT Interface	Considered a sample of 75 German high-tech firms from 2011 to 2019 and ordinary least squared for analysis.	TMT characterized by higher education will reduce the tendencies of the short career horizon CEO to reduce R&D investment.	The investigation of the interfacing effect of CEO career horizon and TMT age/functional diversity yields mixed and inconclusive results	Conceptualised TMT characteristics in terms of psychological, demographics, and behavioural.
Okungu, 2017	TMT characteristics and strategy implementation in Nairobi County, Kenya	Utilised a case study research design.	TMT size and age were not significant factors while tenure was significant.	Did not conceptualise TMT characteristics in terms of behavioural, demographic, and psychological	Conceptualised TMT characteristics in terms of psychological, demographics, and behavioural.
Kraus & Ferrell (2016)	The effect of TMT performance and cohesion on organisational outcomes.	Examined literature on TMT attributes at both the individual and team levels.	Results found that TMTs have a much greater impact on organisational outcomes than the CEO alone.	Conceptualised TMT characteristics in terms of behavioural flexibility and leadership style and did not include demographic and psychological attributes.	This study included demographic and psychological characteristics in the conceptualisation of TMT characteristics

Conceptual Gaps Continued

Yohannes et al. (2016)	TMT demographic characteristics on firm performance: a case of marketing and social research association firms	A mixed methods research design was utilised.	The findings revealed demographic diversities among TMT members significantly influenced OP.	The study did not consider TMT's psychological and behavioural characteristics.	This study put into consideration TMT's behavioural and psychological characteristics
Mkalama, (2014)	TMT demographics, strategic decision-making, macro-environment and performance of KSCs.	Utilised a cross-sectional descriptive survey. Gathered data from 96 KSCs utilising a questionnaire.	Results indicated that TMT demographics significantly influenced the performance of KSCs.	Focussed only on the demographic characteristics of the TMTs.	Expands TMT characteristics to include psychological and behavioural characteristics in state agencies
Díaz-Fernández, et al. (2014)	Top management demographic characteristics and company performance	Hierarchical linear models were applied.	TMT's education level negatively influenced corporate performance (CP). Functionality and education insignificantly influenced CP	The study did not consider other TMT characteristics such as psychological and behavioural.	TMT behavioural and psychological characteristics were included in this study.
Bolo, 2011	An empirical investigation of selected strategy variables on firm's performance: A study of supply chain management in large private manufacturing firms in Kenya	A survey of 52 large private manufacturing entities was carried out using a stratified sampling technique. Simple regression analysis	There was proof that the impact of core competencies, core capabilities, strategy, and strategy implementation on firms' performance are more fragile contrasted with the combined impact of the same factors.	Did not conceptualise the performance of firms in terms of efficiency and effectiveness but instead conceptualised in terms of qualitative (accounting measures, balanced scorecard) and quantitative (strategic performance, customer service and satisfaction) measures.	Conceptualised performance of agencies in terms of efficiency and effectiveness.

Table 2.3: Contextual Gaps

Mudany, Ngala, & Gituro, (2021)	Moderating effect of macro environment on the intervening effect of capital structure on the relationship between strategy implementation and performance of energy sector institutions in Kenya	Adopted a positivist philosophy. The quantitative data was analysed using SPSS	The findings indicated a significant moderating effect on the intervening effect of capital structure.	Contextually, the study was considered among energy sector institutions in Kenya.	Was carried out among state agencies in Uganda.
Okello and Ngala (2019)	TMT characteristics and strategic change outcomes of branch supermarkets in Nairobi County	The study utilized a census since the number of supermarkets in the review supermarkets was small (21 branches).	TMT behavioural, demographic and cognitive characteristics are significantly related to strategic change outcomes.	The study considered branch supermarkets county which operates differently from state agencies. The supermarkets aim at maximising profits whereas state agencies aim at providing services to the citizens.	The study considered Ugandan state agencies.
Genc (2017)	Strategy implementation, organisational culture and performance in Turkish local government	Utilised a mixed-method research design.	Results confirmed a significant positive connection between rational strategy execution and performance	Contextually, the relationships were examined in Turkish local government organisations, specifically in metropolitan municipalities – large multi-purpose public organisations serving many citizens	The relationships were examined in the context of Ugandan state agencies

Contextual Gaps Continued

Shadrack & Owino (2016)	TMT characteristics, SI and performance of tea factory companies in Kenya	Utilised a descriptive cross-sectional survey design.	Findings show that SI fully mediates the connection between TMT characteristics and performance.	The study was carried out among tea companies in Kenya only.	Ugandan state agencies were studied to test the mediating effect between the variables
Wasike, Ambula & Kariuki, (2016)	TMT characteristics, SI, competitive environment and OP	Critically reviewed only scholarly material.	Inconsistent and inconclusive results on the relationship between TMTs and performance.	The reviewed literature was from private institutions	This study assessed performance in terms of effectiveness and efficiency.
Milana & Maldaon, (2015)	Managerial Characteristics and its Impact on organisational performance: evidence from Syria	Adopted a descriptive-analytical method. The study applied a sample of 12 managers and 138 employees.	No significant effect of age, education- level and functional track in the performance of the directorate of finance while there existed a significant effect between tenure and OP	Aimed at exploring the impact of managerial human capital in the performance of a Syrian public organisation, directorate of finance in Damascus but not Uganda.	This study focused on agencies rather than their members.
Kasomi (2015)	Diversity in TMTs, strategic choice, top manager's compensation schemes and performance of KSCs	A descriptive cross-sectional census survey was used.	Established strategic choice positively affected the relationship between TMTs and Firm performance	Other variables like organisational environment were not investigated.	Introduces external environment as a moderating variable

Contextual Gaps Continued

Kinuu (2014)	TMT psychological characteristics, institutional environment, team processes and performance of companies listed in the Nairobi securities exchange.	Data were analysed based on descriptive statistics, multivariate regression analysis & SEM	The psychological characteristics of TMTs significantly impacted non-financial performance. Significant findings for the moderating effect of the institutional environment.	The population was restricted to companies listed in the NSE.	This study focused on Ugandan state agencies rather than the stock exchange
Mutuku, K'Obonyo & Awino (2013)	TMT diversity, quality decisions and performance of commercial banks in Kenya.	Deployed a cross-sectional survey research design	The quality of the decisions had a significant effect on the relationship between TMT diversity and performance.	The context of the study was limited to commercial banks.	It included the psychological and behavioural characteristics of TMTs in Uganda.
Muchemi (2013)	Diversity in the TMTs and Effects on corporate performance	Explored empirical literature	Gave a conceptual overview that had a one-of-a-kind commitment to investigating the extent of diversity in the TMT, as well as broadening the utilization of the upper echelon theory and the ramifications on firm performance.	Reviewed only scholarly material.	Reviewed scholarly materials and collected both secondary and primary data.

Contextual Gaps Continued

Mutuku (2012).	Factors influencing the relationship between TMT diversity and performance of commercial banks in Kenya	Target participants were the heads of Human Resources in every one of the banks. Data were analysed using descriptive statistics and regression analyses.	TMT demographic diversity adversely impacted the performance of banks in Kenya	Contextually, the study considered commercial banks in Kenya.	This research study investigated state agencies in Uganda from different sectors.
Jalali (2012)	Appraising the role of strategy implementation in export performance: A case from the Middle East	Data were gathered from food exporter firms in Iran and the partial least squares method was utilised for analysis.	Strategy implementation influenced export performance directly as a mediating variable	The context of the study involved firms in Iran.	This study was carried out among state agencies in Uganda
Dezsö & Ross, (2012)	Does female representation in top management improve firm performance? A panel data investigation	Tested their hypothesis utilising 15 years of board information on the TMT of the S&P 1,500 organisations	Female portrayal in top administration positively influences the organisational performance	Contextually, the study considered firms in the US.	This study was carried out among state agencies in Uganda

2.8 Conceptual Framework

A conceptual framework refers to concepts and philosophies acquired from related research and utilised to construct a subsequent diagram. It is used to classify and portray ideas pertinent to the study and map connections among them. In light of the conceptual gaps and assertions made in the review of the literature, it can be ascertained that top management team characteristics are probable predictors of organisational performance. Strategy implementation and the external environment are expected to influence TMT characteristics on how TMT characteristics impact organisational performance. Strategy implementation comes in between TMT characteristics and either strengthens or weakens the connection between TMT and organisational performance (Oketch et al., 2021a; Wasike et al., 2016). The introduction of the external environment is supposed to have a conditional effect on TMT characteristics and organisational performance (Yamak et al., 2014).

The resultant effect of organisational performance is predicted by the roles played by strategy implementation and the external environment on the influence of TMT characteristics (Njoroge, 2015). This has been shown in the reviewed literature that shows the role played by each of the aforementioned variables and brings out the roles played by each variable in predicting the likely resultant effect. This is ably presented in Figure 2.1.

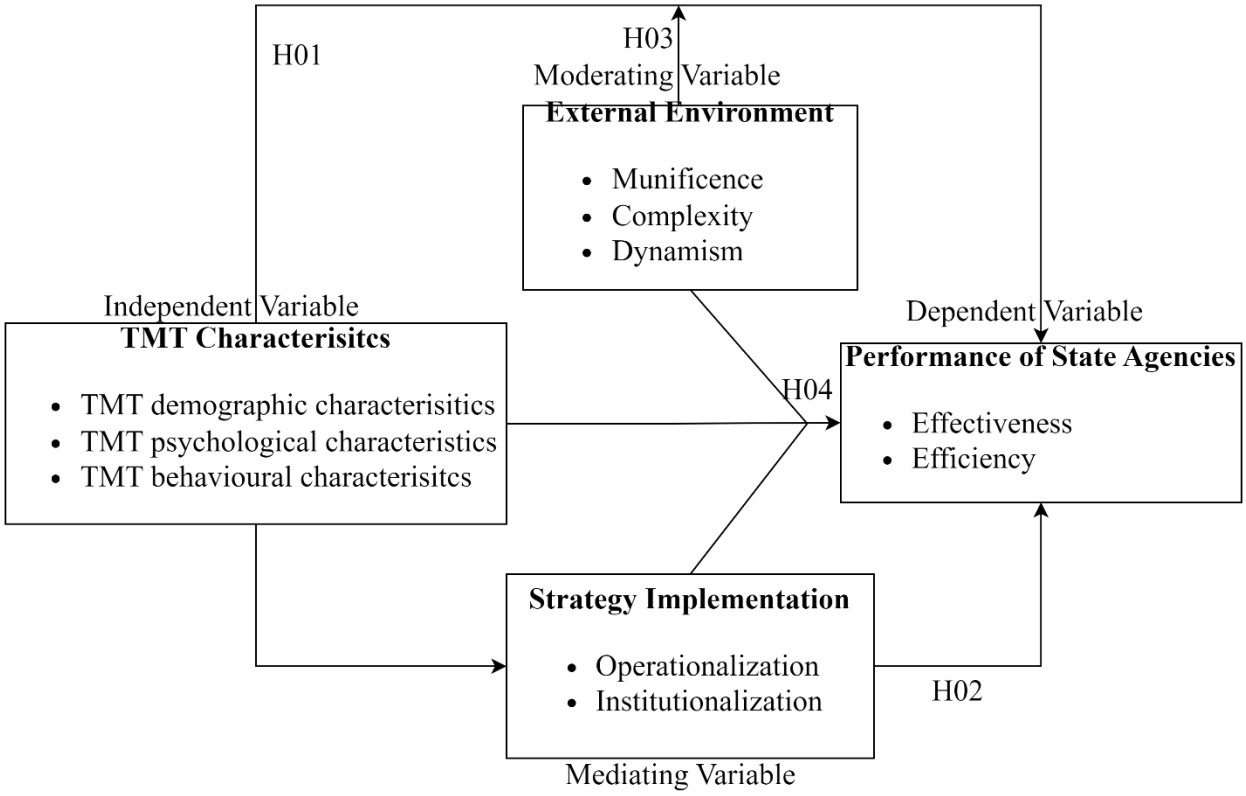


Figure 2.1: Conceptual Model

Source: Omondi et al. (2022); Oketch et al. (2021b); Arokodare & Asikhia (2020); Wasike & Owino (2016)

Figure 2.1 shows the hypothetical relationships among the variables. H01 indicates the hypothetical connection between TMT characteristics and the performance of Ugandan state agencies. The upper echelons theory suggests that the characteristics of the top management team (TMT) influence the strategic choices and outcomes of an organisation. This theory is anchored to the relationship between TMT characteristics and performance (H01), as well as the mediating role of strategy implementation (H02). H02 shows the hypothetical mediating effect of strategy implementation between TMT characteristics and the performance of state agencies. The dynamic capabilities theory proposes that an organisation's ability to adapt to changing environments depends on its capacity to sense,

seize, and transform its resources and processes. This theory is anchored to the relationship between strategy implementation and performance (H02), as well as the moderating role of the external environment (H03). H03 presents the moderating effect of the external environment on the connection between TMT characteristics and the performance of Ugandan state agencies. The environmental dependency theory argues that an organisation's performance is contingent on its fit with the external environment, which can be characterized by uncertainty, complexity, and dynamism. This theory is anchored to the moderating role of the external environment on the TMT characteristics-performance link (H03). Finally, H04 demonstrates the total independent effect of the external environment and strategy implementation on TMT characteristics and the performance linkage. All three theories are anchored to the total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies (H04).

2.9 Research Hypotheses

This study attempts to respond to a single key research question that is; what are the total independent effect of strategy implementation and the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies? Four objectives guided this question as shown in Section 1.3 of this thesis. In addition, four hypotheses support the objectives as shown below.

H01: There is no significant relationship between TMT characteristics and the performance of Ugandan state agencies. H11: There is a significant relationship between TMT characteristics and the performance of Ugandan state agencies.

H02: Strategy implementation has no significant mediating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies. H12:

Strategy implementation has a significant mediating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.

H03: External environment has no significant moderating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies. H13: External environment has a significant moderating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.

H04: The total independent effect of TMT characteristics, strategy implementation, external environment, and the performance of Ugandan state agencies are not different from their individual effects. H14: The total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies are different from their individual effects.

The identified hypotheses directed the researcher in the process of executing the study to understand the effect of the correlations between the notions of TMT characteristics, strategy implementation, external environment and organisational performance. For every hypothesis stated, it was tested individually and the resultant individual effect was got and interpreted which resulted in the discussion of the results and culminated in making recommendations from the study results.

2.10 Chapter Summary

This chapter reviewed the different theories (upper echelons, environment dependency, and dynamic capabilities) supporting this study. The theories have been pondered on inside and out including criticizing. The conceptual and empirical literature was additionally looked into. Likewise, the chapter reviewed and orchestrated conceptual and empirical indications of TMT characteristics, strategy implementation, external environment and performance of organisations through pairwise reviews. The review of the scholarly materials created gaps in terms of theoretical, conceptual, contextual, and methodological circles. An abstract of

chosen empirical reviews is presented in a tabular form and features the focal point of the study, results and conclusions, the gaps and how this study tended to them. The significant parts of this chapter are recommendations arising out of the hypothetical and exact gaps. The part additionally shows a conceptual framework in a visual relationship with variables of this study together with the resulting hypotheses. The proceeding chapter presents the strategy or methodology utilised in this study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology guiding this study. This includes the research philosophy, research design, study population, sampling, ethical considerations and data collection methods and tools. Also, it highlights the validity and reliability, the operationalisation of study variables, data management and processing, diagnostic tests, data analysis and lastly the summary of the chapter.

3.2 Research Philosophy

The key issue in any research undertaking constitutes acceptable knowledge in that area. An epistemology that is concerned with how knowledge develops and the essence of that information illuminates this issue (Saunders et al., 2019). Both the positivist and phenomenology research paradigms have informed social science research (Saunders et al., 2007).

The positivist philosophy believes that universal scientific recommendations are genuine since empirical tests are conducted. Positivists maintain an aim and independent position and contend that someone exactly decided the truth through reductionist and deterministic measures without thought of contrasts, for example, social, cultural, ethnic, and economic connotations (Hargrove, 2004). Positivism philosophy is where existing theory is used to develop hypotheses that are then tested and confirmed or invalidated, prompting further advancement of the theory (Saunders et al., 2007).

The other research philosophy is phenomenology, which attempts to comprehend social phenomena according to the point of view of the object being examined. This paradigm is concerned with theory formation and draws on prompt experiences where the investigator draws suggestions by unravelling encounters that are got during the researcher's incorporation into the phenomena (Saunders et al., 2007). The paradigm argues that reality

is not a rigid thing and does not exist in a vacuum, its characteristics are influenced by its context and many constructs are therefore possible. The phenomenological paradigm's basic assumption is that the world is communally built and subjective hence the scholar cannot be separated from what is being studied. It aims at obtaining large amounts of data and developing theories.

This study adopted a positivist way of thinking since it depends on the existing knowledge, examining literature from past and related studies, the conceptual framework developed by the researcher through an assessment of scholarly works, and logical procedures that are followed in developing a hypothesis that can later be tested and a deduction made to decide the truth or falsify the expressed hypothesis. Furthermore, this study adopted a positivist way of thinking since it aimed to test the relationships between TMT characteristics and the performance of Ugandan state agencies using quantitative data. Positivism was suitable for this study because it allowed the researcher to measure the variables of interest objectively and empirically, and to test the hypotheses derived from the existing literature. The researcher used a survey method to collect data from a sample of TMTs in different state agencies in Uganda and applied statistical techniques to analyse the data and test the hypotheses. The researcher expected to find a positive and significant relationship between TMT characteristics and the performance of Ugandan state agencies, as well as the mediating and moderating effects of other variables such as strategy implementation and external environment respectively. This paragraph concludes the discussion of the research philosophy and leads to the next section, which describes the research design and methods in more detail.

3.3 Research Design

Sekaran and Bougie (2016) define a research design as a plan for the assortment, quantification, and investigation of data brought up to respond to the research questions.

The current study embraced a survey research technique. A survey is a framework for gathering data from or about individuals to portray, analyse, or clarify their insights, attitudes, and behaviour (Fink, 2003). The survey strategy is exceptionally well known because it permits the researcher to gather quantitative and qualitative data on many kinds of research questions. This study collected quantitative data since it aimed at establishing a relationship and testing hypotheses. Several such surveys are one-time (cross-section) while others are proceeding (longitudinal) permitting the researcher to notice changes over a long time.

A cross-sectional research design was adopted since it includes gathering data at a particular specific moment with no intentions of follow-up (Sekaran & Bougie, 2016). The degree of obstruction by the researcher has an immediate bearing on whether the study attempted is correlational or causal (Creswell, 2014). A correlational study was led in a regular environment with insignificant obstruction by the researcher with the typical progression of occasions. The descriptive cross-sectional survey design was utilized on the grounds that it helps the researcher to set up whether relationships among variables exist sooner or later on schedule (Cooper & Schindler, 2013). Scholars such as Njoroge et al. 2016 and Mkalama (2014) used a similar research design in establishing the relationship between the study variables.

3.4 Study Population

This study population included all Ugandan state agencies as the target population. These agencies are the entities that are created by the Act of Parliament to provide services for the nationals. They are entirely financed by the Government. These agencies operate in different sectors namely health, education, work and transport, information and communication technology, justice, law, and order, public sector management, energy and mineral development. Other sectors include accountability, water and environment, public

administration, tourism, trade and industry, social development, agriculture, security and lands, housing and urban development. According to Public Service (2021), there were 201 state agencies as of January 2022 (see Appendix VIII). The unit of inquiry consisted of at least three members of the TMT in each of the selected agencies depending on the number of TMTs every agency has. The unit of analysis comprised a state agency and the breaking variable was the name of the agency. The breaking variable which is a function of data aggregation is used to break data from the unit of inquiry to the unit of analysis level.

3.5 Sampling

Sampling is the most common way of getting fewer respondents for the study from the aimed population. Sampling is a significant interaction in research since it tends to be very unreasonable to explore the whole TMT individuals from the state agencies under study because of monetary and time limitations. According to Mahmutovic (2023), most statisticians agree that the minimum sample size to get any kind of meaningful result is 100. Mahmutovic (2023) further notes that if the population is less than 100, then surveying all of them is needed, as sampling may not produce meaningful results. In addition, the researcher aimed at running inferential statistics and with inferential statistics, they cannot be conducted on a population.

3.5.1 Sampling Frame

A sampling frame is a rundown or gadget utilised to characterize an analyst's population of interest. It is a rundown of things from which a sample has been drawn. Since the researcher seldom has direct admittance to the whole population of interest in sociology research, he/she should rely on a sampling frame to address every one of the components of the population. The motivation behind sampling frames is to give a procedure to pick the specific individuals from the population that are to be included in the study. The sampling

frame consisted of the 201 state agencies targeted by this study as indicated in Appendix VIII.

3.5.2 Sample Size

The size of a sample should not be too enormous nor excessively little to satisfy the necessity of reliability, effectiveness, adaptability and representativeness (Francis et al., 2010). According to Field (2013), when the population of the study is greater than 30, it is prudent that one takes a sample. Using a table developed by Krejcie and Morgan (1970) (see Appendix IX), with a margin error of 3.5% and a confidence interval of 95%, a sample of 160 was used from a population of 201 state agencies.

3.5.3 Sampling Techniques

This study employed stratified sampling in deciding the participants that were relevant to this study. The group of interest was state agencies stratified into different sectors. The basis of stratification was based on the sector in which each agency falls. Proportionate random sampling was used in selecting the agencies to include in the study so that each sector is proportionately represented. Thereafter, respondents from each sector were randomly selected among the TMT members. To determine the number of samples from each sector, a formula suggested by Kothari (2004) was utilised as indicated below

$$n_s = n * P_s$$

where P_s is the proportion of the population of the strata whereas n is the sample size

For example, for Health, $P_s = \frac{23}{201}$ and $n = 160$

Thus, the sample for the health sector, $n_{health} = 160 * \frac{23}{201} = 18$

Table 3.1: Sample Size of State Agencies

Sector of Operation	Number of Agencies	Sample
Health	23	18
Education	24	19
Works and Transport	9	7
Information and Communication Technology	12	10
Justice, Law, and Order	12	10
Public Sector Management	4	3
Energy and Mineral Development	13	10
Accountability	32	25
Water and Environment	4	3
Public Administration	6	5
Tourism, Trade and Industry	22	18
Social Development	11	9
Agriculture	20	16
Security	5	4
Lands, Housing and Urban Development	4	3
Total	201	160

The state agencies were picked from the strata in which they fall as indicated in Table 3.1. Subsequently, a sample of TMT individuals was chosen from the whole population. A simple random sampling strategy was utilised in choosing respondents from every stratum. Each case was assigned a particular number and a table of random numbers was generated from which the participants were chosen. This strategy was viewed as the best in accomplishing an elevated degree of representativeness and lessening bias. Ghauri and Gronhaug (2002) introduced the moves utilized toward achieving the sampling frame, the most common way of sampling, sample size determination and gathering data.

3.6 Data Collection

This study used both primary and secondary data sources to enhance the validity and reliability of the findings (Cooper & Schindler, 2013). Primary data were obtained from a structured, online-administered questionnaire (see Appendix VI) that measured TMT characteristics, external environment, strategy implementation, and performance of Ugandan state agencies. The questionnaire was adapted from previous studies that examined similar variables (Kinuu, 2014; Charas, 2014; Mutuku et al., 2013; Machuki & Aosa, 2011). The questionnaire was distributed through an online link

(https://ee.kobotoolbox.org/single/db3705d197e10a3108a5199cb6e3d22f) to at least three members of the TMT from each of the selected state agencies in Uganda. The TMT members included the CEO/Managing Director, Deputy/ Assistant CEO, Corporation Secretary, and Heads of Department. The online method was chosen due to the Covid-19 restrictions that limited physical access to the respondents. The online method also had the advantages of being fast, safe, and less intrusive, as well as increasing the response rate by ensuring anonymity and reducing social desirability bias. Secondary data were collected from performance reports, statements, and memos from 2017 to 2021 published by state agencies and oversight bodies using a documentary checklist. This period was deemed sufficient to provide adequate information on the performance of state agencies. Secondary data were used to triangulate the primary data and corroborate the findings.

3.7 Validity Test

Mahoney (2010) noted that validity follows how items can represent the concepts of interest. The forms of validity incorporate content, concurrent, construct and convergent validity. The survey tool underwent two levels of validation. The first level involved pre-testing and pilot-testing with 10% of the service-oriented private firms. The second level involved pre-testing it with some USA members who were not part of the final study. Adopting measurement scales reported in the literature guaranteed content validity. The pilot-test stage of the instrument involved construct validity which ensured that the scale in the instrument measured what it intended to measure.

After getting these questionnaires, Field (2013) recommends using SPSS to run exploratory factor analysis (EFA). For EFA, the researcher explored the factor structure (how the factors relate and group in terms of correlations). According to Awang (2012) and Hoque and Awang (2016), all items should have factor loading exceeding the minimum limit of 0.6. The researcher assessed the Kaiser–Meyer–Olkin (KMO) and all items with values of

0.6 and above were retained. At this stage, some items in the instrument that did not meet the required criteria were dropped. Also, Bartlett's test was assessed to determine the significance of the factors at $p<0.05$. Both Significant Bartlet Test and KMO values of more than 0.6 were used to reflect observed data for subsequent procedures in EFA.

Confirmatory factor analysis was done to examine which factors are more valid and hence to be included in the final study (Hair et al., 2012). For CFA, the factor structure extracted from the EFA was confirmed. It is significant to assess whether the participants' understanding of the study variables is in agreement with the theoretical categorization, and this is often achieved through performing a CFA (Anderson & Gerbing, 1988). At this stage, the researcher specified separate measurement models for TMT characteristics, strategy implementation, external environment and performance of Ugandan state agencies, and the CFA results were calculated using AMOS based on Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Variance (MSV), and Average Shared Variance (ASV) as recommended by Hair et al., (2010).

3.8 Reliability Test

Reliability is the capacity of an instrument estimated to produce a similar response in similar circumstances, many times. The test-retest, split-half, and internal consistency tests of reliability were utilised. The test-retest strategy included the administration of the research tool two times to a similar gathering of subjects. The split-half strategy included dividing the questionnaire items into equal parts and correlating the item results of every half with one another. The guideline is that when the researcher is estimating a similar construct, then, at that point, relationships are high on the two scales. The instrument was pilot-tested on the TMT members from the private sector.

The reasoning for the utilization of the internal consistency procedure is that the individual items used to survey a similar variable ought to positively correspond with each other. The

reliability is measured by the utilization of Cronbach alpha (α) which is used to assess the internal consistency measure. The α is a proportion of the dependability of a scale by checking out the variance within the item and the covariance between an item and some other item on the scale. The scale should be something like 0.70 or above to be acknowledged (Kothari, 2004). The guideline is, that scores 0.5-0.6, 0.6-0.7, 0.7-0.8, and 0.8-0.9, ought to have an internal consistency that is poor, problematic, satisfactory or great respectively (Field, 2013; Cooper & Schindler, 2013; Nunnally, 1978). The α was determined by the utilization of IBM SPSS software. However, Cronbach's alpha worth might change in view of various examinations for instance a Cronbach's worth of 0.60 is satisfactory in exploratory research (Nunnally, 1978). The researcher carried out a pilot study in 16 private sector organisations to assist in detecting any shortcomings of the instrument to be applied. The selected private institutions were not considered in the final study.

Cooper and Schindler (2013) posit that an instrument is considered dependable on the off chance that it yields reliable outcomes after rehashed preliminaries. Using data gathered from 10% of the participants from the private sector in a pilot study, Cronbach α was computed and used to assess the instrument's reliability. Cronbach α ranges from 0 which indicates no consistency to 1 which indicates complete consistency. The study adopted a Cronbach's α of 0.7 and above as has been adopted by previous studies such as Kasomi (2015).

Table 3.2: Reliability Statistics

Variable	Cronbach Alpha	Number of items
Top management team characteristics	0.75	20
Strategy implementation	0.82	13
External environment	0.79	26
Performance of State agencies	0.84	25

3.9 Operationalisation of Variables

This section discusses the operationalisation of the study variables as shown in Table 3.3. The variables include; TMT characteristics, strategy implementation, external environment and performance of Ugandan state agencies.

Table 3.3: Operationalisation and Measurement of Study Variables

Variable	Constructs		Supporting Literature	Rating measure	Questions
TMT Characteristics (Independent variable)	TMT Demographic characteristics	Age: Number of years old Education background: Level of education Functional background: Area of specialization and expertise Tenure: Number of years spent in an organisation. Gender: Male or Female	Aboramadan, (2021) Oketch (2020) Jukka (2020) Hambrick and Mason (1984), Mutuku et al. (2013), Nielsen & Nielsen (2013)	5-point Likert Scale	Part III
	TMT Psychological characteristics	Locus of control, emotional stability, self-esteem, general efficacy, optimism and resilience	(Oketch et al., 2021a), Oketch, Kilika, & Kinyua (2020c), Kasomi (2015), Kinuu (2014),	5-point Likert scale	Part III
	TMT Behavioural characteristics	Team Intelligence, Personality, Leadership Styles, Attitude	(Luciano et al., 2020), Charas (2014), (Cao, Simsek, & Zhang, 2010)	5-point Likert scale	Part III
Strategy implementation (Mediating variable)	-Institutionalising strategy -Operationalising strategy	Strategy, structures, skills, systems, staff, style, shared values Defining output, setting timelines, taking steps, responsibility	(Omondi et al., 2022; Mudany et al., 2021; Wasike & Owino, 2020; Kariithi, 2018; Jalali, 2012)	5-point Likert scale	Part IV
External environment (Moderating variable)	Complexity Dynamism Munificence	Political, Economic, Social, Technological, Ecological and Legal Environment	(Omondi et al., 2022; Arokodare & Asikhia, 2020; Kowo et al., 2018; Machuki & Aosa, 2011)	5-point Likert scale	Part V
Performance of Ugandan state agencies in Uganda (Dependent variable)	Effectiveness	Goal attainment, the achievement of set targets, achieving assignments on time with the correct assets and in the correct quality	(George et al., 2019; Andersen et al., 2016; Muraga, 2015; Mouzas, 2006)	5-point Likert scale	Part VI
	Efficiency	Resource management	Muraga, 2015 Mouzas (2006)	Nominal, Likert scale	

3.10 Data Management and Processing

The gathered data was edited for exactness to identify any mistakes or exclusions that could disrupt the analysis. After the data collection stage, the data were coded to change them into the quantitative structure and make it simple for analysis. The data were then exported into the Statistical Package for Social Sciences (SPSS) version 26 for cleaning and further analysis. There was thorough checking for missing values and outliers (using minimum and maximum frequency counts) to establish whether data was correctly entered, that there was no missing information and that it was useable, reliable, and valid for further analysis. Missing values identified were replaced using linear interpolation. The data were entered into computer statistical software for analysis.

Before testing the hypotheses utilising regression analysis, the researcher guaranteed that the essential circumstances for the application and understanding of the outcomes were adhered to through diagnostic tests. When cross-checking for outliers utilising frequencies, it was observed that the outrageous values were either five or one relying upon the 5-point Likert scale.

Since this study's objective aimed to get respondents' insights into the connection between TMT characteristics and performance of Ugandan state agencies as mediated and moderated by strategy implementation and external environment respectively, it was typical for such outrageous sentiments towards specific factors and be modest on others. Ngacho (2013) sets that removing them would subsequently influence the generalisability of the whole population, and thus, they were all retained.

3.11 Diagnostic Tests

Diagnostic tests such as normality, linearity, homogeneity, and multicollinearity were assessed to ascertain the appropriateness of the data for doing the different statistical analyses to make inferences and reach conclusions. This is on the grounds that infringement

of the presumptions of linear regression can bring misleading results (Chatterjee & Hadi, 2012).

3.11.1 Normality Test

Normality refers to the spreading of information for a specific variable. The statistical procedures of regression and correlation assume a normal distribution of data. The test of normality is typically conducted to determine the degree to which the factors of interest assume the normal probability distributions (Mkalama, 2014). It is therefore necessary that the populations from which data is obtained for the study should be normally distributed. If the assumption does not hold, non-parametric tests should instead be carried out. The researcher conducted a normality test to guarantee that normality suppositions are not disregarded at the analysis stage.

Mahoney (2010) posits that a normally distributed factor ought to have skewness and kurtosis close to zero with a mean nearer to the median. Furthermore, the values of skewness and kurtosis should be in the range of -1 and 1 (Dancey, 2007). Shapiro-Wilk test can also be used because it can detect departure from normality. If the determined p-value is less than 0.05, the data significantly goes astray from the normal distribution (Razali & Wah, 2011). In this study, the test for normality was determined using both graphical (normal probability plots, histograms and scatter plots) and statistical measures of skewness and kurtosis values of each variable. The Shapiro-Wilk test as recommended by Field (2013) was followed at arriving at the recommended values. The normality of the variables is shown in chapter four.

3.11.2 Linearity Test

The researcher utilised Pearson correlation (Illowsky & Dean, 2018) to test for linearity among TMT characteristics, strategy implementation, external environment, and performance of Ugandan state agencies. Nonetheless, it is basic to take note that a

connection does not guarantee to intend that there is a causal relationship (Gupta & Gupta, 2009). Causal relationships between the study variables are examined and presented in chapter four.

3.11.3 Multicollinearity Test

Multicollinearity is a peculiarity by which a high relationship occurs among the independent variables. Another assumption of regression analysis is that errors are independent and as such, it is necessary to control multicollinearity. In regression models, the huge connection between the indicator factors prompts unreliable assessments of the regression coefficients with the consequence of strange results when determining the degree to which the independent variables affect the dependent (Creswell, 2009). Multiple regressions call for multicollinearity in at least two indicator variables in a regression model. Multicollinearity issues involve a rise in the standard errors of the B coefficients implying that the Betas across tests have generally higher variability. Multi-collinearity leads to the expanded standard error of evaluations of the beta coefficients, hence diminished dependability and regularly confounding and misdirecting results.

Multicollinearity and heteroscedasticity were investigated by assessing the Variance Inflation Factor (VIF) and Tolerance statistics. The VIF shows whether there exists a linear relationship with other predictors. Based on the tolerance figures, various scholars (Field, 2013; Curto & Pinto, 2011; Newbert, 2007) indicate various cut-off points for accepting/rejecting standards. According to Field (2013), assuming the tolerance values are less than 0.2, it reveals the presence of multicollinearity, while VIF values over 10 reveal a serious concern. Homoscedasticity happens when the indicator factors and the variance of the residual terms are consistent at each level. Assuming variances are inconsistent, it is heteroscedasticity (Field, 2013).

3.11.4 Homogeneity Test

The supposition of homoscedasticity is vital to linear regression models. Homoscedasticity portrays how the error term is compared across all values of the dependent variable (Ghasemi & Zahediasl, 2012). Heteroscedasticity is an infringement of homoscedasticity that is accessible at the point when the size of the error term changes across variable of the dependent variable. Heteroscedasticity leads to one-sided increments in error terms. Biased error terms can prompt erroneous decisions on the meaning of the regression coefficients (Gastwirth et al., 2009).

3.12 Data Analysis

Data analysis used descriptive and inferential statistics for independent samples (Gupta & Gupta, 2009). Descriptive statistics such as mean, frequency, minimum, maximum, and standard deviation were used to analyse the demographic characteristics of state agencies and respondents (Cooper & Schindler, 2006). The researcher utilised mean and standard deviation in assessing the general view of the participants and the consistency of their reactions respectively. A big mean value portrayed a greater appreciation for the specific variable while a small standard deviation portrayed a smaller irregularity among the reactions (Mishra et al., 2019). The frequencies were utilised in a couple of occurrences to explain the percentages as far as demographic characteristics of both state agencies and the respondents.

Data was gathered utilising a 5-point Likert scale and the responses were aggregated to get a composite index for every variable where applicable (Field, 2013). Inferential statistics were employed to test the hypothesis described in this thesis. Inferential statistics such as simple, multilinear, hierarchical, and stepwise regression were utilised while testing the hypotheses and providing an equation to anticipate the effect of independent variables on the dependent variable (Gupta & Gupta, 2009).

For the first objective, simple linear regression (Hayes, 2022; Gupta & Gupta, 2009) was utilised to decide the relationship of the TMT characteristics to the performance of Ugandan state agencies. For the first objective, the influence of TMT characteristics on the performance of Ugandan state agencies, $OP = \beta_0 + \beta_1$ TMT. To determine how the individual indicators contributed to the performance of Ugandan state agencies, multiple linear regression was conducted.

For the second objective, Hayes' (2022) PROCESS model 4 was utilised in the testing of the mediating effect of strategy implementation on the relationship between TMT characteristics and the performance of Ugandan state agencies. For the second objective, the mediating effect of SI on TMT characteristics and OP, $OP = \beta_0 + \beta_4$ TMT $+ \beta_5$SI. The direct and indirect effects in testing for the mediating effect were indicated in Figure 3.1.

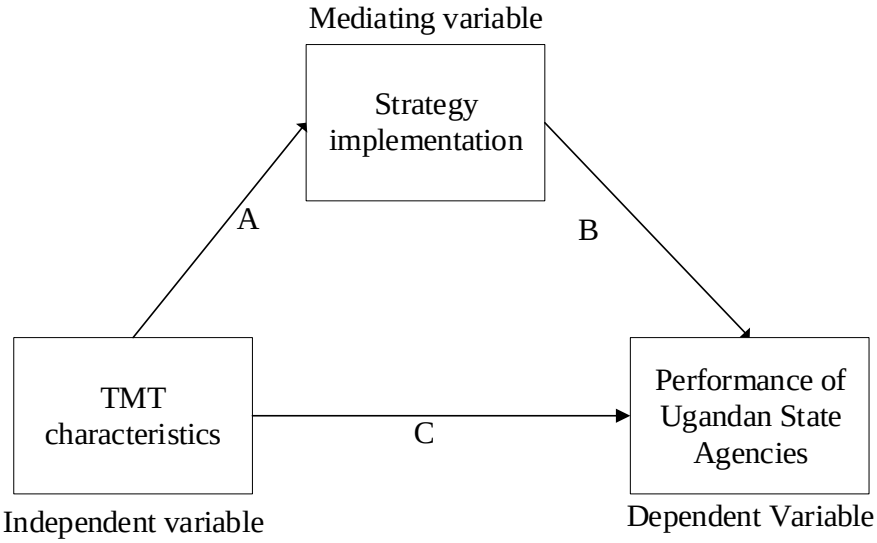


Figure 3.1: Path Diagram for Mediation Effect

Source: Hayes (2022).

Figure 3.1 illustrates TMT characteristics, strategy implementation, and performance. Path C represents the direct effect of TMT characteristics on the performance of Uganda State Agencies. Path A represents the interaction of TMT characteristics and strategy implementation while path B represents the connection between strategy implementation

and the performance of Ugandan State Agencies. Paths A and B represent the indirect effect. To determine whether strategy implementation significantly mediated the relationship, the direct and indirect effects were investigated using a significant value of 0.05.

For the third objective, Hayes' (2022) Process Macro model 1 was utilised to determine the moderating effect of the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies. For the third objective, the moderating effect of EE on TMT characteristics and OP, $OP = \beta_0 + \beta_1 TMT + \beta_2 EE + \beta_3 TMT*EE$. To affirm moderation, the impact of the interaction term ought to be significant. The relationship was depicted in Figure 3.2.

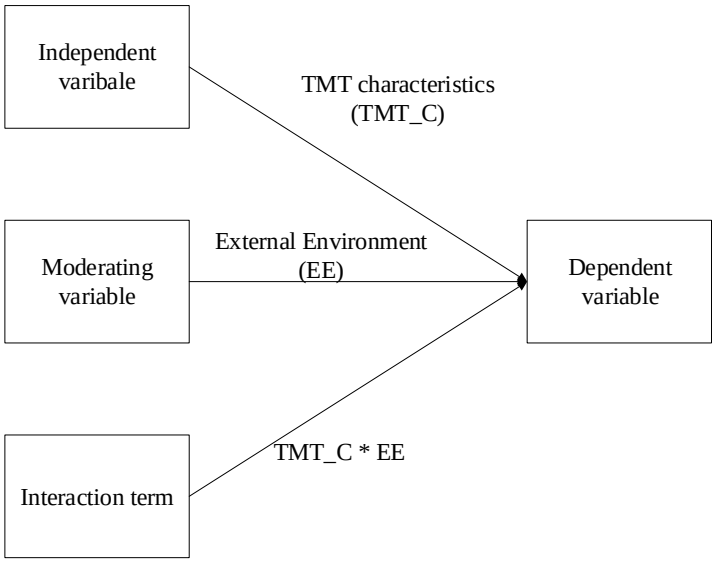


Figure 3.2: Test of Moderation

Source: Hayes (2022)

Figure 3.2 delineates that every arrow in the path addresses a causal connection between two factors to which are allocated the change measurements (R and F-Ratio). Hayes (2022) notes that when the interaction term is significant, then there exists a moderating effect of the moderating variable on the relationship between the independent and dependent variables.

For the fourth objective, hierarchical regression analysis was employed to obtain the model demonstrating the connection between the dependent variable (performance of Ugandan state agencies) and predictor variables (TMT characteristics, strategy implementation, and external environment). It generated the coefficient of determination (R^2) that gave the measure of fluctuation in the predictor addressed by the blend of indicators (Mugenda & Mugenda, 2003). The regression equation was written as $OP = \beta_0+\beta_1TMT +\beta_2SI + \beta_3EE$. Where; OP = Performance of Ugandan state agencies, β_0 = is a constant, β_1, β_2 and β_3 = coefficients, TMT = TMT characteristics, SI= strategy implementation, EE = external environment. The summary of this analysis and interpretation of the hypothesises are elaborated in Table 3.4.

Table 3.4: Summary of Analytical Models

Objective	Alternative Hypothesis	Analytical Model
Objective 1: Determine the relationship between TMT characteristics on the performance of Ugandan state agencies.	H11: There is a significant relationship between TMT characteristics and the performance of Ugandan state agencies	$OP=\beta_{01}+ \beta_{11}TMT$ OP = Performance of Ugandan state agencies β_{01} = OP intercept/constant β_{11}= regression coefficient TMT = TMT characteristics
Objective 2: Establish the mediating effect of strategy implementation on the relationship between TMT characteristics and the performance of Ugandan state agencies.	H12: Strategy implementation has a significant mediating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.	$OP = \beta_{02}+ \beta_{12}TMT+ \beta_{22}SI$ OP= Performance of Ugandan state agencies β_{02} = OP intercept/constant β_{12} and β_{22}= regression coefficients TMT = TMT characteristics SI= Strategy Implementation
Objective 3: Determine the moderating effect of the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies.	H13: External environment has a significant moderating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.	$OP = \beta_{03}+ \beta_{13}TMT+ \beta_{33}EE+ \beta_{34}TMT*EE$ OP= Performance of Ugandan state agencies β_{03}= OP intercept/constant β_{13}, β_{33}= regression coefficients TMT= TMT characteristics EE= External Environment TMT* EE= TMT characteristics and External environment interaction term
Objective 4: Establish if the total independent effect of top management team characteristics, strategy implementation and external environment on the performance of Ugandan state agencies is different from the individual effects.	H14: The total independent effect of TMT characteristics, external environment and strategy implementation on the performance of Ugandan state agencies are different from their individual effects.	$OP = \beta_{04}+ \beta_{14}TMT+ \beta_{24}SI+ \beta_{34}EE+ \varepsilon_4$ OP = Performance of Ugandan state agencies β_{04} = OP intercept/constant β_{14}, β_{24}, β_{34}, = regression coefficient TMT=TMT characteristics SI= Strategy Implementation EE= External Environment

3.13 Ethical Considerations

The researcher ensured that ethical issues were not violated. The researcher obtained ethical approval from Uganda Christian University's Research Ethics Committee (REC). Also, the researcher sought endorsement from Uganda National Council for Science and Technology

(UNCST) since it is a requirement for anyone wishing to conduct research in Uganda. Following the recommendations by Miles and Huberman (1994) on the main ethical issues of informed consent, the respondents' consent was freely given by consenting to the HR of the respective state agency. In addition, prior consent was got from the CEOs of the entities that the participants would give data on the condition that their identity is not revealed). Privacy (the researcher and team avoided intruding into the participants' privacy by using a link that was shared with the Head of HR who later sent it to the members of the TMT hence the researcher did not intrude on the respondents' privacy. Confidentiality and anonymity considering that this was one of the main requirements to obtain a clearance from the regulator, UNCST, considering that the population of interest has sensitive information, the information was to be safeguarded and to only be used for research purposes and not be revealed to other individuals and the identity of members was to be protected.

Anonymity was safeguarded by not including the respondents' details in the questionnaire. That is, every questionnaire was given an identifier, nonetheless, the names and contacts of the members didn't show up on the research tool. To emphasize the beneficence of the respondents, responsibility for data and conclusions (after gathering and analysis); results are accounted for and presented to people through a viva voce defence and the researcher will guarantee that the results will continually be presented in numerous conferences, to impact policy in the area of TMT characteristics and performance of Ugandan state agencies.

3.14 Chapter Summary

This chapter was dedicated to the exploration methodology that was utilised. The chapter introduced the research philosophy and featured why positivism was utilised. It additionally delves into expounding on the research design that was utilised indicating that it was cross-

sectional. The population and sampling procedure were equally described. The validity and reliability tests were also explained in this chapter. Operationalization of the variables was directed by a review of scholarly material as well as theories mooring conceptualization of variables. The diagnostic tests and the data analysis plan were also described. The next chapter presented preliminary data analysis and findings of the study.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

This study set off to check the impact of TMT characteristics, strategy implementation, external environment and performance of Ugandan state agencies. To accomplish the study objectives, primary data were gathered utilising a questionnaire. Conversely, a documentary checklist with guiding statements on the performance of state agencies was used to obtain secondary data from published records. Data analysis was carried out by involving both descriptive and inferential measures as instructed by the analysis objectives. This chapter indicates the outcomes of different tests namely; response rate, validity, reliability, the profile of the examined state agencies and that of participants. In addition, the tests for parametric assumptions (normality, linearity, multicollinearity and homogeneity) and the descriptive statistics of TMT characteristics, strategy implementation, external environment, and performance of Uganda state agencies are also introduced.

4.2 Response Rate

Numerous academics investigating what response rate is adequate in organisational research have produced diverse outcomes (Rogelberg & Stanton, 2007). In determining the satisfactory response, researchers suggest the minimum rates ranging from 30% to 80% (Baruch & Holtom, 2008). Baruch (1999) investigated what could be an acceptable response rate in scholastic research and he revealed that the acceptable response rate was 55.6% in academic studies. The outcomes are demonstrated in Table 4.1.

Table 4.1: Response Rate

Sector of Operation	Number of Agencies	Sample	Number of agencies that Responded	Per cent
Health	23	18	18	100
Education	24	19	18	95
Works and Transport	9	7	7	100
Information and Communication Technology	12	10	10	100
Justice, Law, and Order	12	10	10	100
Public Sector Management	4	3	3	100
Energy and Mineral Development	13	10	10	100
Accountability	32	25	23	92
Water and Environment	4	3	3	100
Public Administration	6	5	5	100
Tourism, Trade and Industry	22	18	17	94
Social Development	11	9	8	89
Agriculture	20	16	16	100
Security	5	4	1	25
Lands, Housing and Urban Development	4	3	3	100
Total	201	160	152	95

Primary Data (2021)

In this study, 160 state agencies were targeted and the researcher managed to collect data from 152 state agencies making a response rate of 95%. It contrasts generally well with different examinations led in a similar setting (Kinuu, 2014; Machuki, 2011). This indicates that data was collected from a sufficient number of state agencies implying that the gathered data and the results from it tend to be dependent since it was over 70 % as proposed by (Dillman et al., 2009). As revealed by Awino (2011), a 65% response rate is adequate for such studies.

4.3 Validity Test

Validity is the correctness of an indicator or the degree to which a score veraciously conveys an idea (Zikmund, Carr, & Griffin, 2013). There are ordinarily four different ways of laying out validity in particular; face, content, criterion, and construct validity. This study took on research tools from different studies completed in line with the study variables. The research instrument was additionally upgraded from well-qualified assessments got

during the thesis-proposal presentations. This study tested the questionnaire for construct validity which involved both convergent and discriminatory validity (Ghadi et al., 2012).

To discover the structure of the variables as formed by their underlying components and to decide whether a fundamental combination of the components could summarize the original set of variables, EFA was conducted for top management team characteristics, strategy implementation, external environment, and performance of Ugandan state agencies. Principal component analysis was used to derive the items. These items were later rotated utilizing Varimax with the Kaiser Normalization procedure to help the clarification of the derived items. Kaiser (1960) proposes the conservation of all variables with an eigenvalue of above one. This measure hinges on the mode that eigenvalues represent how much variety makes sense of an element and an eigenvalue of one address a sensible number of factors.

For construct validity, CFA was utilised using SPSS AMOS and Master Validity Tool for SPSS AMOS (Gaskin & Lim, 2016). Convergent validity alludes to how much an item is associated with different items that it is hypothetically anticipated to connect with. Conversely, discriminant validity alludes to gauge the degree of influence that a measure deviates from another measure whose basic construct is conceptually irrelevant. The AVE is usually used to assess convergent validity. According to Hair et al. (2010), one can employ several methods to ascertain the validity of the results: AVE, MSV, and ASV as revealed in Table 4.2.

Table 4.2: 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)

4.3.1 Factor Analysis for the Key Study Variables

According to Williams, Onsman and Brown (2010), factor analysis endeavours to distinguish hidden factors that make sense of the correlational patterns with a bunch of the factors under study. To ascertain the validity of the study variables, factor analysis using EFA and CFA was conducted as indicated in the following subsections.

4.3.1.1 Top Management Team Characteristics

The EFA was computed using SPSS on the items used to assess TMT characteristics. The items under each component with scores above 0.60 were retained (Field, 2009) and those beneath were removed because their significance in clarifying the variables was low. Assessment of the Modification Indices (MIs) uncovered misspecifications associated with 'Dc05', 'Dc06', 'Dc07', 'Dc08', Ps2', Ps5', Ps6', 'Bc04', and 'Bc05'. Nine out of twenty items altogether were iteratively eliminated in the last model before additional analysis. The remaining items were significant and had standardized factor loadings higher than the suggested degree of .60. The results in Table 4.3 show the underlying factor structure of Top Management Team Characteristics, which exhibits the underlying combination of its dimensions namely; psychological (component 1), demographic (component 2), and behavioural (component 3) characteristics.

Table 4.3: Rotated Component Matrix for Top Management Team Characteristics

	Component		
	1	2	3
Dc01_mean		.890	
Dc02_mean		.884	
Dc03_mean		.730	
Dc04_mean		.646	
Ps5_mean	.914		
Ps4_mean	.888		
Ps6_mean	.860		
Ps3_mean	.791		
Bc01_mean			.880
Bc02_mean			.790
Bc03_mean			.722

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	892.933
	Df	55
	Sig.	.000

Source: Primary Data (2021)

Table 4.3 reveals the factor structure of TMT characteristics to consist of all its three components as significant constructs. The KMO of .747 is greater than 0.6 as recommended by Hoque and Awang (2016). Also, further investigation of Bartlett's Test of Sphericity ($X^2 = 892.933, p < .05$) reveals that it is significant at 0.05.

By applying factor analysis, this study identified 11 components that accounted for 71.718% of the variation in the characteristics of the top management team as indicated in Table 4.4. In their order of significance, they incorporate; psychological characteristics, demographic characteristics, and behavioural characteristics with 33.735%, 22.010% and 15.972 separately.

Table 4.4: Total Variance Explained for Top Management Characteristics

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.711	33.735	33.735	3.711	33.735	33.735	3.148	28.619	28.619
2	2.421	22.010	55.746	2.421	22.010	55.746	2.587	23.522	52.141
3	1.757	15.972	71.718	1.757	15.972	71.718	2.153	19.576	71.718
4	.820	7.457	79.175						
5	.640	5.816	84.991						
6	.426	3.873	88.864						
7	.409	3.714	92.578						
8	.262	2.383	94.961						
9	.232	2.106	97.066						
10	.178	1.620	98.686						
11	.144	1.314	100.000						

Source: Primary Data (2021)

Table 4.4 findings reveal that the scale employed in this study captures 71.718% of the diversity in the characteristics of the top management team. Three factors that had eigenvalues exceeding one emerged as the most significant contributors to the variation in the characteristics of the top management team. The first, second, and third components have an eigenvalue of 3.711, 2.421, and 1.757 respectively which explains 28.619%, 52.141%, and 71.718% of total variation following the rotation procedure respectively. The graphical representation of the eigenvalues in relation to the number of components for TMT characteristics is revealed in Figure 4.1.

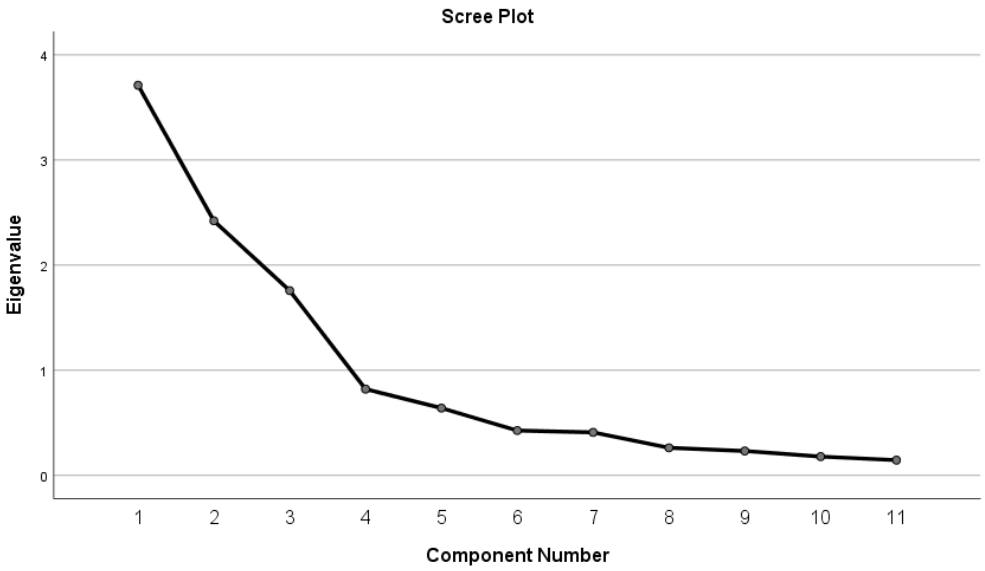


Figure 4.1: Scree Plot for Top Management Team Characteristics Components

Source: Primary Data (2021)

The scree plot for TMT characteristics in Figure 4.1 has a flex at the third component, which indicated that the three factors on one side of the flex were the ones to be retained and constituted the fundamental components of the TMT characteristics variable.

For construct validity, CFA was conducted on the components of TMT characteristics extracted from the rotation matrix in Table 4.3. The covariance structure analysis was conducted as indicated in Figure 4.2.

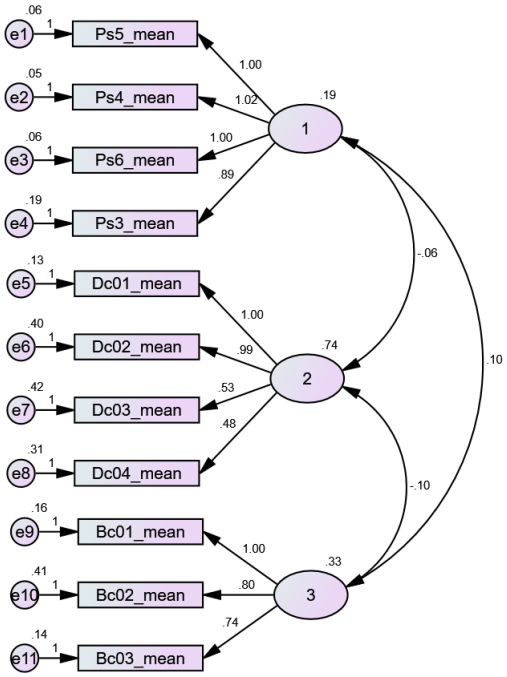


Figure 4.2: Covariance Structure Analysis for Top Management Team Characteristics Components

Source: Primary Data (2021)

Using Gaskin and Lim's (2016) master validity tool in SPSS Amos, the CR, AVE, and MSV were generated as indicated in Figure 4.3 The discoveries affirmed the legitimacy of the last model with great model fit insights for this build measure as revealed in Figure 4.3.

	CR	AVE	MSV	MaxR(H)	1	2	3
1	0.900	0.696	0.149	0.920	**0.834**		
2	0.821	0.544	0.042	0.894	-0.158†	**0.737**	
3	0.766	0.526	0.149	0.794	0.386***	-0.206*	**0.726**

Validity Concerns

No validity concerns here.

References

Significance of Correlations:
† p < 0.100
* p < 0.050
** p < 0.010
*** p < 0.001

Figure 4.3: Model Validity Measures of Top Management Team Characteristics

The composite reliability (CR) values for the first component (psychological attributes), the second component (demographic features), and the third component (behavioural traits) were .900, .821, and .0766 in that order as indicated in Figure 4.3. In addition, the CR values of the various components surpassed the suggested threshold of 0.7(Hu & Bentler, 1999). Moreover, the model attained the necessary convergence for each component as a trustworthy indicator of validity since the AVE, across the components surpassed (0.50). For discriminant validity, the MSV was lower than AVE hence the items were valid.

4.3.1.2 Strategy Implementation

The strategy implementation was measured using items categorised under two dimensions namely; operationalisation and institutionalization. The factors under each indicator with values above 0.60 were retained (Hair et al, 2010) and those less were removed because their significance in clarifying the factors was low. This required a re-detail by iteratively eliminating items that didn't meet the satisfactory criteria. The reason for iterating the filtering process was to eliminate a couple of items considering the need to infer a more parsimonious model. Assessment of the MIs uncovered misspecifications associated with ‘Op05’, ‘Op06’, ‘Op07’, ‘In05’ and ‘In06’. Five out of thirteen items in total were

iteratively removed in the final model before additional analysis. Table 4.5 reveals the underlying factor structure of strategy implementation, which exhibits the underlying combination of its dimensions namely; operationalisation (component 1) and institutionalisation (component 2).

Table 4.5: 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)

The remaining items were significant and had factor loadings higher than the suggested degree of .60. Results in Table 4.5 revealed the factor structure of strategy implementation to consist of all its two dimensions as significant indicators. The results affirmed the legitimacy of the last model with superb model fit insights for this build measure as revealed in Table 4.6. In addition, the chi-square value was statistically significant. The estimation model can be decided as giving an appropriate fit albeit the chi-square worth is significant (Anderson & Gerbing, 1988).

By applying factor analysis, this study identified 2 components that accounted for 71.929% of the variation in the strategy implementation as indicated in Table 4.6. In their order of

significance, they incorporate; operationalisation (component 1) and institutionalisation (component 2) with 45.100% and 26.828% respectively.

Table 4.6: Total Variance Explained for Strategy Implementation Components

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.608	45.100	45.100	3.608	45.100	45.100	3.089	38.618	38.618
2	2.146	26.828	71.929	2.146	26.828	71.929	2.665	33.311	71.929
3	.603	7.533	79.462						
4	.457	5.710	85.172						
5	.428	5.348	90.520						
6	.385	4.808	95.328						
7	.196	2.456	97.784						
8	.177	2.216	100.000						

Source: Primary Data (2021)

Table 4.6 indicates that the scale employed in this study captures 71.929% of the diversity in the strategy implementation. Two components that had eigenvalues exceeding one emerged as the most significant contributors to the variation in the strategy implementation. The first and second components have eigenvalues of 3.608 and 2.146 which explain 38.618% and 71.929% of total variance after rotation respectively. The graphical representation of the eigenvalues in relation to the number of components for the strategy implementation process is displayed in Figure 4.4.

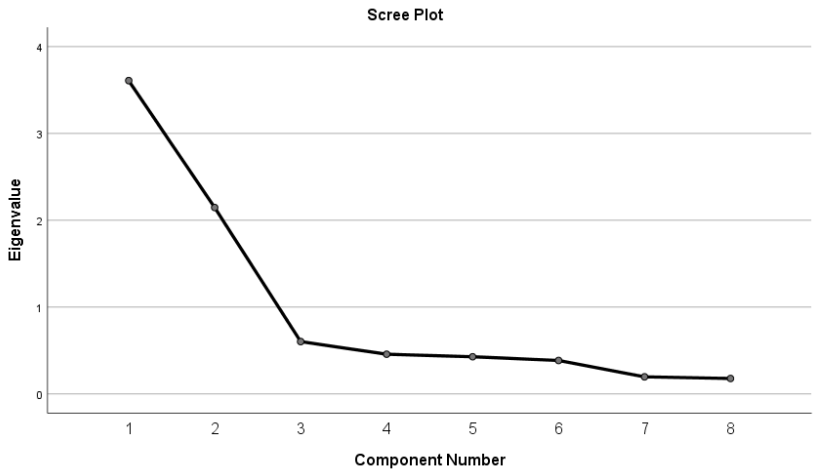


Figure 4.4: Scree Plot for Strategy Implementation Components

The scree plot for the strategy implementation in Figure 4.4 has a flex above the second component, which indicates that the two factors on one side of the bend were the ones to be retained and are the basic components of the strategy implementation.

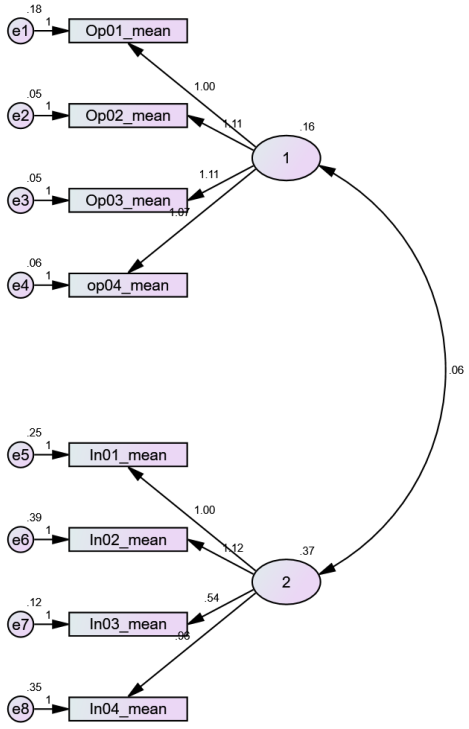


Figure 4.5: Covariance Structure Analysis for Strategy Implementation Components

Source: Primary Data (2021)

Using Gaskin and Lim's (2016) master validity tool in SPSS Amos, the CR, AVE, and MSV were generated as indicated in Figure 4.6. The discoveries affirmed the legitimacy of the last model with great model fit insights for this build measure as revealed in Figure 4.6

	CR	AVE	MaxR(H)	1	2	
1	0.902	0.698	0.919		0.728	
2	0.818	0.530	0.821	0.243		

Figure 4.6: Model Validity Measures for Strategy Implementation Components

The composite reliability (CR) values for the first component (operationalisation) and the second component (institutionalisation) were 0.902 and 0.818 in that order as shown in Figure 4.6. The CR values of the various components surpassed the suggested threshold of 0.7 (Hu & Bentler, 1999). Moreover, the model attained the necessary convergence for each component as a trustworthy indicator of validity since the AVE, across the components surpassed (0.50). For discriminant validity, the MSV was lower than AVE hence the items were valid.

4.3.1.3 External Environment

The external environment was measured using items categorised under three dimensions namely; munificence, complexity and dynamism. The factors under each indicator with evaluations above 0.60 were retained (Hair et al, 2010) and those less were erased because their significance in clarifying the factors was low. This required a re-detail by iteratively eliminating items that didn't meet the satisfactory criteria. The reason for iterating the filtering process was to eliminate a couple of items considering the need to infer a more parsimonious model. Assessment of the MIs uncovered misspecifications associated with ‘Dy06’, ‘Dy07’ ‘Dy08’, ‘Dy09’, ‘Co3’, ‘Co4’, ‘Co5’, ‘Co6’ ‘Co7’, ‘Co8’, ‘Co9’, ‘Co10’ and ‘Co11’. Thirteen out of twenty-six items altogether were iteratively eliminated in the

last model before additional analysis. Table 4.7 shows the latent factor structure of the external environment, which exhibits the underlying combination of its dimensions namely; munificence (component 1), dynamism (component 2), and complexity (component 3).

Table 4.7: Rotated Component Matrix for External Environment

	Component		
	1	2	3
Mu01_mean	.882		
Mu02_mean	.848		
Mu03_mean	.732		
Mu04_mean	.712		
Mu05_mean	.706		
Mu06_mean	.645		
Dy01_mean		.833	
Dy02_mean		.770	
Dy03_mean		.764	
Dy04_mean		.756	
Dy05_mean		.689	
Co01_mean			.860
Co02_mean			.794

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.666
Bartlett's Test of Sphericity	Approx. Chi-Square	1332.068
	Df	78
	Sig.	.000

Source: Primary Data (2021)

The remaining items are significant and have factor loadings higher than the suggested degree of .60. Table 4.7 uncovered the factor structure of the external environment to consist of all its three indicators as significant variables.

Using factor analysis, this study identified 13 underlying dimensions that accounted for 70.091% of the total variation in the external environment as indicated in Table 4.8. In their

order of significance, they incorporate; munificence, dynamism, and complexity with 34.778%, 22.878%, and 12.435 respectively.

Table 4.8: Total Variance Explained for External Environment

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.521	34.778	34.778	4.521	34.778	34.778	4.127	31.747	31.747
2	2.974	22.878	57.656	2.974	22.878	57.656	3.134	24.110	55.856
3	1.617	12.435	70.091	1.617	12.435	70.091	1.850	14.234	70.091
4	.932	7.169	77.260						
5	.587	4.518	81.778						
6	.519	3.993	85.771						
7	.477	3.667	89.438						
8	.357	2.748	92.186						
9	.317	2.437	94.623						
10	.296	2.276	96.898						
11	.223	1.712	98.610						
12	.147	1.133	99.743						
13	.033	.257	100.000						

Source: Primary Data (2021)

Table 4.4 indicates that the scale has a high degree of reliability and validity, as it captures 70.091% of the variance in the external environment with three components. The first, second, and third components have eigenvalues of 4.521, 2.974, and 1.617 and which explain 31.747%, 55.856%, and 70.091% of total variance following the rotation procedure respectively. Figure 4.7 displays the scree plot of the eigenvalues versus the number of components for the external environment.

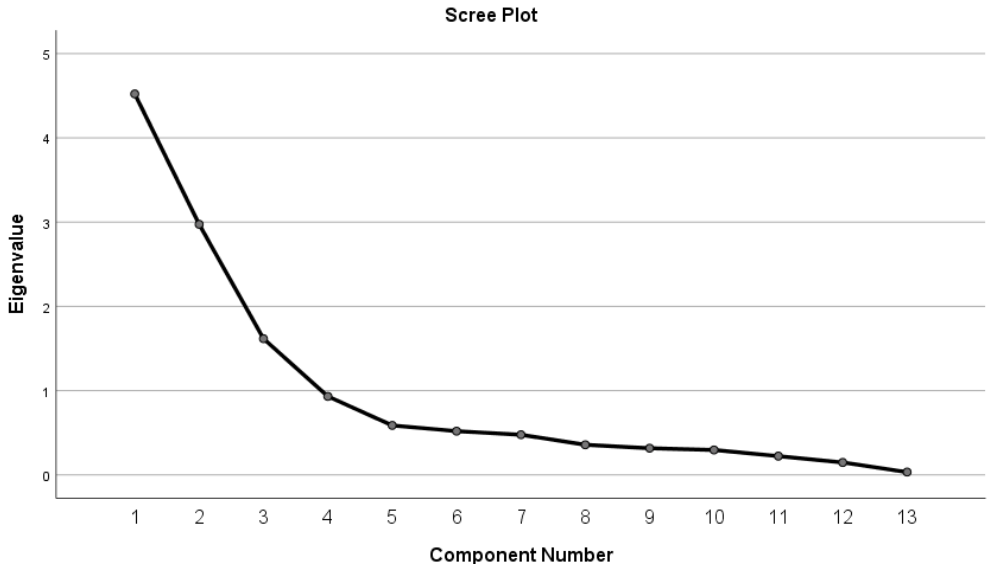


Figure 4.7: Scree Plot for External Environment Extracted Components

The scree plot for the external environment in Figure 4.7 has a flex at the third component, this suggested that the three items on the left of the elbow point represented the core dimensions of the external environment construct.

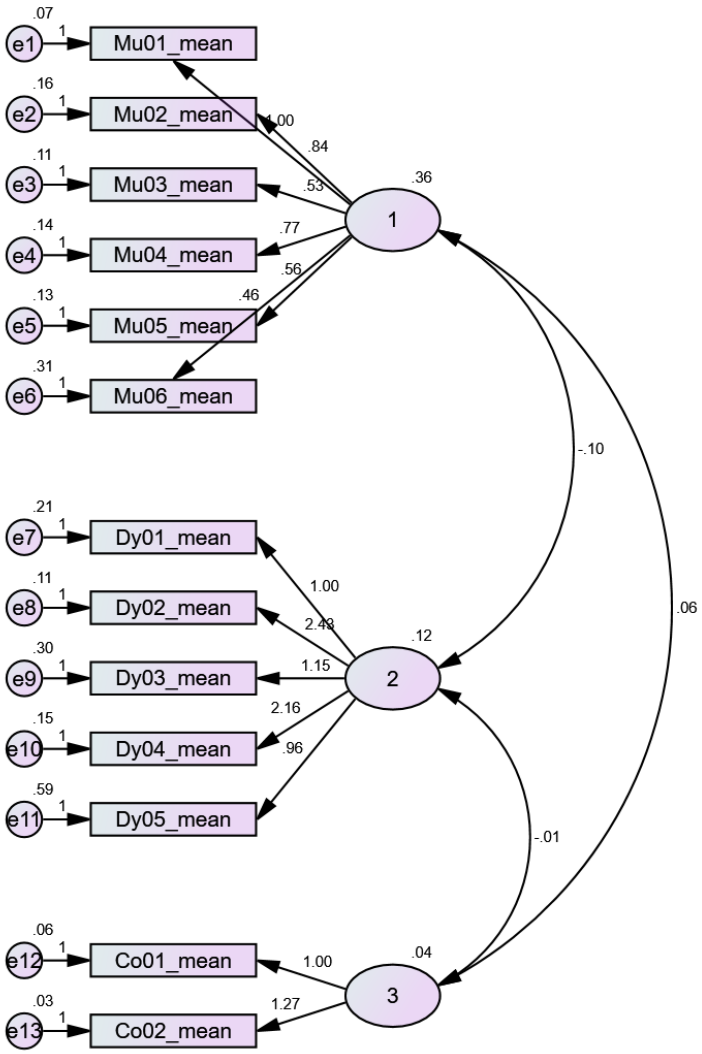


Figure 4.8: Covariance Structure Analysis for External Environment Components

The remaining items were significant and had standardized factor loadings higher than the suggested degree of .50.

Using Gaskin and Lim's (2016) master validity tool in SPSS Amos, the CR, AVE, and MSV were generated as indicated in Figure 4.9. The discoveries affirmed the legitimacy of the last model with great model fit insights for this build measure as revealed in Figure 4.9.

	CR	AVE	MSV	MaxR(H)	1	2	3
1	0.865	0.527	0.241	0.908	**0.726**		
2	0.823	0.503	0.241	0.920	-0.491***	**0.709**	
3	0.732	0.580	0.219	0.772	0.468***	-0.076	**0.762**

Validity Concerns

No validity concerns here.

References

Significance of Correlations:
† p < 0.100
* p < 0.050
** p < 0.010
*** p < 0.001

Figure 4.9: Model Validity Measures for External Environment Components

The composite reliability (CR) values for the three factors of external environment, namely munificence (component 1), dynamism (component 2), and complexity (component 3), were .865, .823, and .732respectively as indicated in Figure 4.9. All the factors demonstrated high composite reliability (CR), as they surpassed the threshold of 0.7 (Hu & Bentler, 1999). The model also met the criteria for convergent validity, as the average variance extracted (AVE) for each factor was above 0.50. Furthermore, the factors showed discriminant validity, as the maximum shared variance (MSV) for each pair of factors was lower than their respective AVE values.

4.3.1.4 Performance of Ugandan State Agencies

The performance of Ugandan state agencies was measured using items categorised under two dimensions namely; effectiveness and efficiency. The factors under each indicator with evaluations above 0.60 were retained (Hair et al, 2010) and those less were erased because their significance in clarifying the factors was low. This required a re-detail by iteratively eliminating items that didn't meet the satisfactory criteria. The reason for iterating the filtering process was to eliminate a couple of items considering the need to infer a more

parsimonious model. Assessment of the modification indices (MIs) uncovered misspecifications subsidiary with 'Ef07', 'Ef08', 'Ef09', 'Ef10' 'Ef11', 'Ef12', 'Ef13', 'Ef14', 'Ef15', 'Ef16', and Eff09'. Eleven out of twenty-five items in total were iteratively taken out in the last model before additional analysis. Table 4.9 shows the underlying factor structure of the Performance of Ugandan state agencies, which exhibits the underlying combination of its dimensions namely; effectiveness (component 1) and efficiency (component 2).

Table 4.9: 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

Table 4.9 reveals the factor structure of the performance of Ugandan state agencies to consist of all its two dimensions as significant indicators. The maintained items are

significant and have standardized factor loadings higher than the suggested degree of .60. Along these lines, the implications of the factors are maintained.

Factor analysis extracted 2 components which explain 67.080% variance in the performance of Ugandan state agencies as indicated in Table 4.10. In their order of significance, they incorporate; effectiveness (component 1) and efficiency (component 2) with 43.624% and 23.456% respectively.

Table 4.10: Total Variance Explained for Performance Components

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.107	43.624	43.624	6.107	43.624	43.624	5.163	36.877	36.877
2	3.284	23.456	67.080	3.284	23.456	67.080	4.228	30.203	67.080
3	.852	6.089	73.169						
4	.680	4.860	78.029						
5	.663	4.736	82.765						
6	.466	3.330	86.095						
7	.415	2.961	89.056						
8	.335	2.390	91.445						
9	.311	2.221	93.667						
10	.262	1.870	95.536						
11	.223	1.590	97.127						
12	.145	1.037	98.164						
13	.139	.994	99.158						
14	.118	.842	100.000						

Source: Primary Data (2021)

As shown in Table 4.10 the scale has a high explanatory power, as it accounts for 67.080% of the variance in the performance of Ugandan state agencies. The performance of Ugandan state agencies is best explained by two latent dimensions, as they have eigenvalues greater than one. The first and second components have an eigenvalue of 6.107 and 3.284 which explains 36.877% and 67.080% of total variance following the rotation procedure respectively. Figure 4.10 displays the scree plot of the eigenvalues versus the number of factors for the performance of Ugandan state agencies.

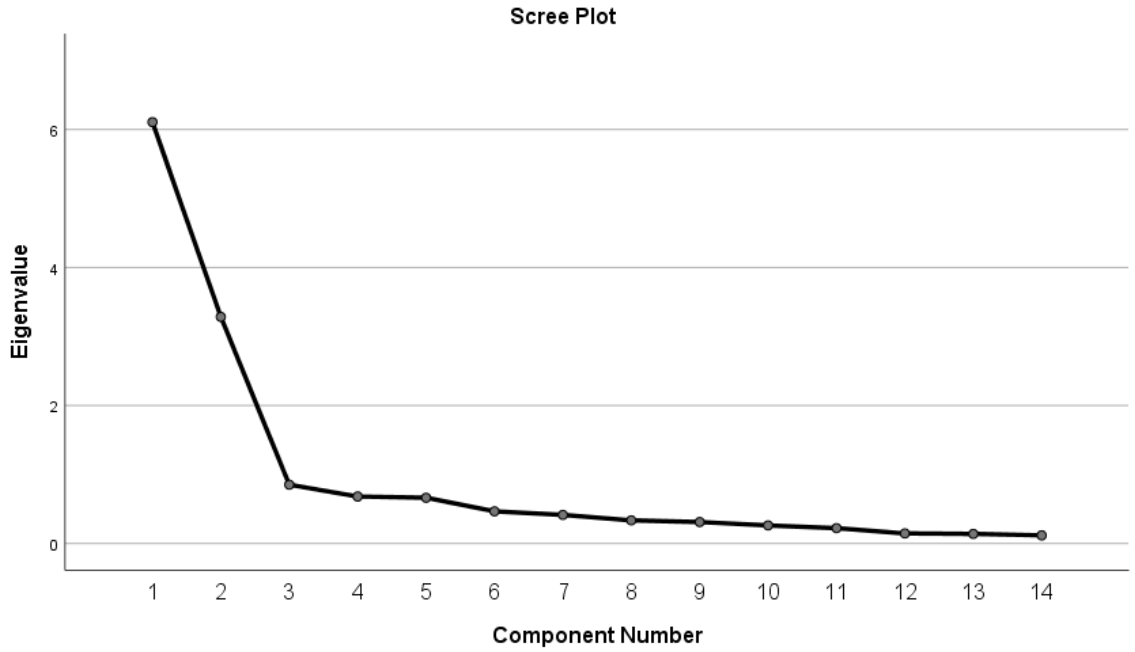


Figure 4.10: Scree Plot for the Performance of Ugandan State Agencies Components

The scree plot for the performance of Ugandan state agencies in Figure 4.10 has a flex at the second component which implies that the two elements to one side of the flex were to be extracted and were the basic components of the performance of Ugandan state agencies' study variable.

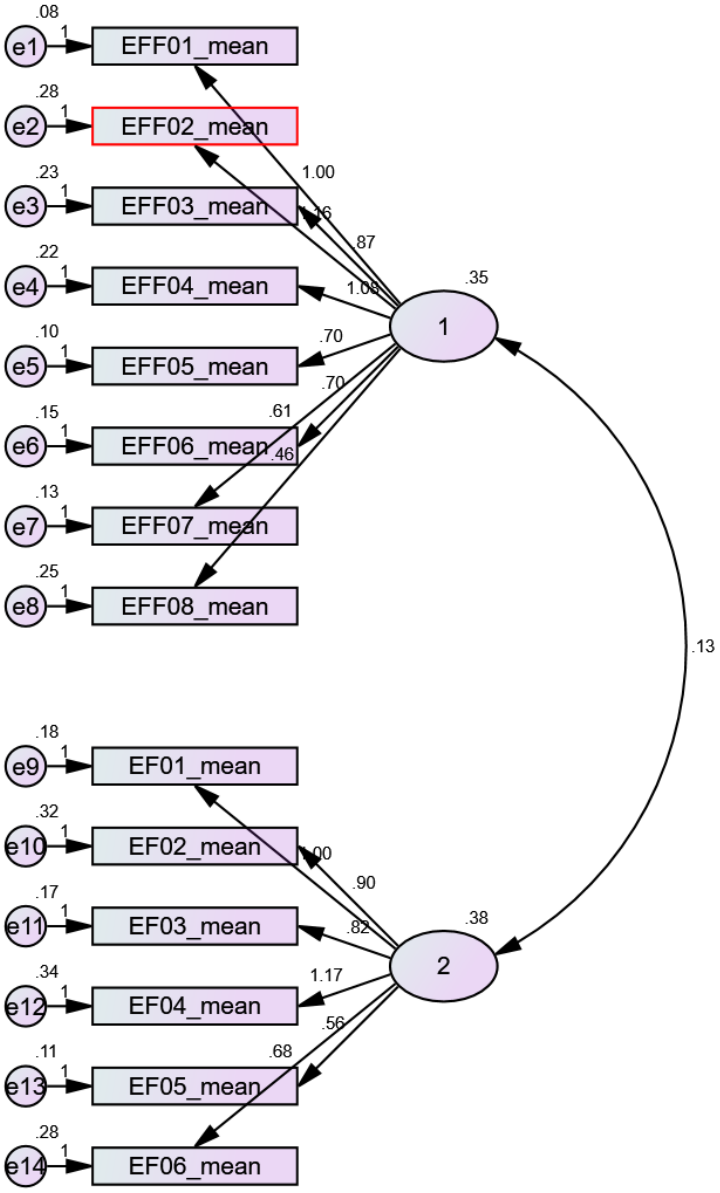


Figure 4.11: Covariance Structure Analysis for Performance-Extracted Components

The results in Figure 4.11 demonstrate that the standardized parameter estimates for every one of the maintained indicators were significant (p<.05) and stacked on this factor. Using Gaskin and Lim's (2016) master validity tool in SPSS Amos, the CR, AVE, and MSV were generated as indicated in Figure 4.12. The discoveries affirmed the legitimacy of the last model with great model fit insights for this build measure as revealed in Figure 4.12.

	CR	AVE	MaxR(H)	1	2	
1	0.909	0.562	0.928		0.741	
2	0.879	0.549	0.887	0.349		

Validity Concerns

No validity concerns here.

References

Significance of Correlations:
† p < 0.100
* p < 0.050
** p < 0.010
*** p < 0.001

Figure 4.12: Model Validity of Performance of Ugandan State Agencies

The two factors of performance, namely effectiveness (component 1) and efficiency (component 2), had high composite reliability (CR) values of 0.909 and 0.879 respectively as indicated in Figure 4.12. All the factors demonstrated high composite reliability (CR), as they surpassed the threshold of 0.7 (Hu & Bentler, 1999). The model also met the criteria for convergent validity, as the average variance extracted (AVE) for each factor was above 0.50. Furthermore, the factors showed discriminant validity, as the maximum shared variance (MSV) for each pair of factors was lower than their respective AVE values. In addition, the results confirm the validity of the model with adequate model fit statistics for this construct measure.

4.4 Reliability Test

Reliability reflects the extent to which the instrument produces consistent results across repeated measurements. This study performed reliability analysis using IBM SPSS version 26 to examine the consistency of the items that remained after carrying out EFA and CFA. Cronbach alpha (α) was utilised to assess the reliability of the tool. This study took on a cut-off α of 0.7 as recommended by Murphy and Davidshofer (2001). Furthermore, an

inter-item correlation matrix analysis of the items was conducted to investigate which items were not internally correlated together.

4.4.1 Top Management Team Characteristics

A reliability analysis of TMT characteristics items was conducted to determine their reliability on the questionnaire that was used. The items were categorised in terms of top management team demographic characteristics, top management team psychological characteristics, and top management team demographic characteristics. Initial reliability analysis was conducted using SPSS version 26 and Cronbach Alpha values, standardised Cronbach values, and the inter-item correlation matrix was utilized to decide the consistency of the items across repeated measurements. The results of the reliability analysis are presented in the following section.

4.4.1.1 TMT Demographic Characteristics

The reliability analysis was conducted on the four remaining items used to assess TMT demographic characteristics after carrying out validity. The outcomes are introduced in Table 4.11.

Table 4.11: Reliability Statistics of TMT Demographic Characteristics Items

Cronbach's Alpha (α)	α Based on Standardized Items	Number of Items
.809	.804	4

Source: Primary Data (2021)

Table 4.11 provides evidence that the remaining four items utilised to assess TMT demographic characteristics have an α value of .809 which is more than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.12 was generated to investigate whether the items are internally correlated.

Table 4.12: Inter-Item Correlation Matrix of TMT Demographic Characteristics

	Dc01_mean	Dc02_mean	Dc03_mean	Dc04_mean
Dc01_mean	1.000			
Dc02_mean	.734	1.000		
Dc03_mean	.505	.581	1.000	
Dc04_mean	.579	.415	.225	1.000

The items in Table 4.12 correlated well within the range of .225 and .734. In addition, all the items are positive. This implies that the items were measuring the same idea very well.

4.4.1.2 TMT Psychological Characteristics

After ensuring validity, a reliability analysis was performed on the four remaining items that were utilized to measure the psychological characteristics of the TMT. The outcomes are introduced in Table 4.13.

Table 4.13: Reliability Statistics of TMT Psychological Characteristics Items

Cronbach's Alpha (α)	α Based on Standardized Items	No. of Items
.892	.897	4

Source: Primary Data (2021)

Table 4.13 indicates that the four items used to assess TMT psychological characteristics have an α value of .892 which is more than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.14 was generated to investigate whether the items are internally correlated.

Table 4.14: Inter-Item Correlation Matrix of TMT Psychological Characteristics

	Ps5_mean	Ps4_mean	Ps6_mean	Ps3_mean
Ps5_mean	1.000			
Ps4_mean	.782	1.000		
Ps6_mean	.781	.773	1.000	
Ps3_mean	.589	.640	.552	1.000

The items in Table 4.14 correlated well within the range of .552 and .782. In addition, all the items are positive. This implies that the items were measuring the same idea very well.

4.4.1.3 TMT Behavioural Characteristics

After ensuring validity, a reliability analysis was performed on the three remaining items that were utilized to measure the behavioural characteristics of the TMT. Table 4.15 presents the outcomes of the analysis.

Table 4.15: Reliability Statistics of TMT Behavioural Characteristics Items

Cronbach's Alpha (α)	α Based on Standardized Items	No. of Items
.745	.755	3

Source: Primary Data (2021)

As shown in Table 4.15, the three items used to assess TMT behavioural characteristics have an α value of .745 which surpassed the value of 0.7 that most scholars suggest as a criterion. The inter-item correlation matrix Table 4.16 was generated to investigate whether the items are internally correlated.

Table 4.16: Inter-Item Correlation Matrix of TMT Behavioural Characteristics

	Bc01_mean	Bc02_mean	Bc03_mean
Bc01_mean	1.000		
Bc02_mean	.552	1.000	
Bc03_mean	.606	.363	1.000

The items in Table 4.16 correlated well within the range of .363 and .606. In addition, all the items are positive. This implies that the items were measuring the same idea very well.

4.4.2 Strategy Implementation

A reliability analysis of strategy implementation items was conducted to determine their reliability on the questionnaire that was used. The items were categorised in terms of operationalisation and institutionalisation. Initial reliability analysis was conducted using SPSS version 26 and Cronbach Alpha values, standardised Cronbach values, and the inter-item correlation matrix was utilized to decide the reliability of the items. The findings are presented in the succeeding subsection.

4.4.2.1 Operationalisation

A validity test was followed by a reliability analysis of the four remaining items that were applied to examine operationalisation. The outcomes are introduced in Table 4.17.

Table 4.17: Reliability Statistics of Operationalisation Items

Cronbach's Alpha (α)	α Based on Standardized Items	No. of Items
.892	.897	4

Table 4.17 indicates that the four items used to measure operationalization had an α value of .892 which is more than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.18 was generated to investigate whether the items are internally correlated.

Table 4.18: Inter-Item Correlation Matrix of Operationalisation

	Op01_mean	Op02_mean	Op03_mean	op04_mean
Op01_mean	1.000			
Op02_mean	.640	1.000		
Op03_mean	.589	.782	1.000	
op04_mean	.552	.773	.781	1.000

Source: Primary Data (2021)

A good correlation of .552 to .782 was observed for the items in Table. In addition, all the items are positive. This implies that the items were measuring the same idea very well.

4.4.2.2 Institutionalisation

A validity test was followed by a reliability analysis of the four remaining items that were applied to examine institutionalisation. Table 4.19 presents the outcomes of the analysis.

Table 4.19: Reliability Statistics of Institutionalisation Items

Cronbach's Alpha (α)	α Based on Standardized Items	No. of Items
.799	.817	4

Table 4.19 indicates that the four items used to measure institutionalisation have an α value of .799 which is more than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.20 was generated to investigate whether the items are internally correlated.

Table 4.20: Inter-Item Correlation Matrix for Institutionalisation

	In01_mean	In02_mean	In03_mean	In04_mean
In01_mean	1.000			
In02_mean	.582	1.000		
In03_mean	.574	.477	1.000	
In04_mean	.510	.549	.475	1.000

The items in Table 4.20 correlated well within the range of .475 and .582. In addition, all the items are positive. This implies that the items were measuring the same construct very well.

4.4.3 External Environment

A reliability analysis of external environment items was conducted to determine their reliability on the questionnaire that was used. The items were categorised in terms of munificence, complexity, and dynamism. Initial reliability analysis was conducted using SPSS version 26 and Cronbach Alpha values, standardised Cronbach values, and the inter-item correlation matrix was utilized to decide the reliability of the items. The subsequent section displays the findings of the reliability analysis on the items pertaining to the external environment.

4.4.3.1 Munificence

After ensuring validity, a reliability analysis was performed on the six remaining items that were utilized to measure munificence. Table 4.21 presents the outcomes of the analysis.

Table 4.21: Reliability Statistics of Munificence Items

Cronbach's Alpha (α)	α Based on Standardized Items	Number of Items
.859	.863	6

As shown in Table 4.21, the six items demonstrate that used to measure munificence have an α value of .859 which is more than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.22 was generated to investigate whether the items are internally correlated.

Table 4.22: Inter-Item Correlation Matrix for Munificence

	Mu01_mean	Mu02_mean	Mu03_mean	Mu04_mean	Mu05_mean	Mu06_mean
Mu01_mean	1.000					
Mu02_mean	.711	1.000				
Mu03_mean	.575	.567	1.000			
Mu04_mean	.762	.493	.538	1.000		
Mu05_mean	.571	.619	.604	.423	1.000	
Mu06_mean	.440	.444	.362	.228	.349	1.000

The items in Table 4.22 correlated well within the range of .228 and .762. In addition, all the items are positive. This implies that the items were measuring the same construct very well.

4.4.3.2 Complexity

Following the validity assessment, the six remaining items measuring complexity were subjected to reliability analysis. Table 4.23 presents the results of the analysis.

Table 4.23: Reliability Statistics of Complexity Items

Cronbach's Alpha (α)	α Based on Standardized Items	Number of Items
.720	.720	2

Table 4.23 shows that the two items measuring complexity have a Cronbach's alpha of .720, which exceeds the commonly accepted threshold of 0.7. The inter-item correlation matrix Table 4.24 was generated to investigate whether the items are internally correlated.

Table 4.24: Inter-Item Correlation Matrix for Complexity

	Co01_mean	Co02_mean
Co01_mean	1.000	
Co02_mean	.563	1.000

The two items in Table 4.24 correlated among themselves with a value of .563. This implied that the items were measuring the same construct very well.

4.4.3.3 Dynamism

After assessing the validity of the items, the five remaining items measuring dynamism were evaluated for reliability. Table 4.25 presents the outcomes.

Table 4.25: Reliability Statistics of Dynamism Items

Cronbach's Alpha (α)	α Based on Standardized Items	No. of Items
.826	.836	5

The results in Table 4.25 indicates that the five items used to measure dynamism had an α value of .826 which is greater than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.26 was generated to investigate whether the items are internally correlated.

Table 4.26: Inter-Item Correlation Matrix for Dynamism

	Dy01_mean	Dy02_mean	Dy03_mean	Dy04_mean	Dy05_mean
Dy01_mean	1.000				
Dy02_mean	.479	1.000			
Dy03_mean	.647	.622	1.000		
Dy04_mean	.630	.823	.358	1.000	
Dy05_mean	.449	.333	.312	.398	1.000

The items in Table 4.26 correlated well within the range of .312 and .823. In addition, all the items are positive. This implies that the items were measuring the same construct very well.

4.4.4 Performance of Ugandan State Agencies

A reliability analysis of performance items was conducted to determine their reliability on the questionnaire that was used. The items were categorised in terms of efficiency and effectiveness. Initial reliability analysis was conducted using SPSS version 26 and Cronbach Alpha values, standardised Cronbach values, and the inter-item correlation matrix was utilized to decide the reliability of the items. The findings of the reliability analysis on the performance of Ugandan state agencies are presented in the following section.

4.4.4.1 Efficiency

Following the validity assessment, the reliability of the six remaining items measuring efficiency was examined. Table 4.27 demonstrates the results.

Table 4.27: Reliability Statistics of Efficiency Items

Cronbach's Alpha (α)	α Based on Standardized Items	Number of Items
.867	.876	6

Table 4.27 indicates that the six items used to measure the efficiency of state agencies had an α value of .867 which is more than the recommended value of 0.7 by most scholars. The inter-item correlation matrix Table 4.28 was generated to investigate whether the items are internally correlated.

Table 4.28: Inter-Item Correlation Matrix for Efficiency

	EF01_mean	EF02_mean	EF03_mean	EF04_mean	EF05_mean	EF06_mean
EF01_mean	1.000					
EF02_mean	.648	1.000				
EF03_mean	.641	.482	1.000			
EF04_mean	.665	.582	.594	1.000		
EF05_mean	.601	.574	.554	.477	1.000	
EF06_mean	.448	.294	.543	.509	.503	1.000

The items in Table 4.28 correlated well within the range of .294 and .648. In addition, all the items are positive. This implies that the items were measuring the same construct very well.

4.4.4.2 Effectiveness

The reliability analysis was carried out on eight remaining items used to assess the effectiveness of Ugandan state agencies after carrying out validity. Table 4.29 introduces the outcomes.

Table 4.29: Reliability Statistics of Effectiveness Items

Cronbach's Alpha (α)	α Based on Standardized Items	No. of Items
.903	.906	8

Table 4.29 shows the reliability analysis of the eight-item scale measuring state agency effectiveness. The Cronbach's alpha coefficient of the scale was .903, which exceeded the

commonly accepted threshold of 0.7 in the literature. The inter-item correlation matrix Table 4.30 was generated to investigate whether the items are internally correlated.

Table 4.30: Inter-Item Correlation Matrix for Effectiveness Items

	1	2	3	4	5	6	7	8
EFF01_mean (1)	1.000							
EFF02_mean (2)	.684	1.000						
EFF03_mean (3)	.638	.639	1.000					
EFF04_mean (4)	.750	.705	.552	1.000				
EFF05_mean (5)	.659	.656	.690	.596	1.000			
EFF06_mean (6)	.676	.585	.449	.528	.636	1.000		
EFF07_mean (7)	.684	.447	.387	.547	.586	.536	1.000	
EFF08_mean (8)	.479	.396	.606	.363	.317	.151	.316	1.000

The items in Table 4.28 correlated well within the range of .151 and .750. In addition, all the items are positive. This implies that the items were measuring the same construct very well.

Table 4.31: Summary of Cronbach Alphas Values of the Study's Variables

Variable	Dimension	Cronbach's Alpha (α)	α Based on Standardized Items	Number of items	Interpretation
TMT Characteristics	Demographic characteristics	.809	.804	4	Reliable
	Psychological characteristics	.892	.897	4	Reliable
	Behavioural characteristics	.745	.755	3	Reliable
Strategy Implementation	Operationalisation	.892	.897	4	Reliable
	Institutionalisation	.799	.817	4	Reliable
External Environment	Munificence	.859	.863	6	Reliable
	Complexity	.720	.720	2	Reliable
	Dynamism	.826	.836	5	Reliable
Performance of Ugandan state agencies	Efficiency	.867	.876	6	Reliable
	Effectiveness	.903	.906	8	Reliable
Total	All items	.904	.911	46	Reliable

Source: Primary Data (2021)

The consequences of the α among the variables of this study are displayed in Table 4.31 above. All the dimensions of TMT characteristics (demographic characteristics with an alpha value of .809, psychological characteristics with an alpha value of .892, and

behavioural characteristics with an alpha value of .745) were reliable. In addition, all the dimensions of the external environment (munificence with an alpha of .859, complexity with an alpha value of .720, and dynamism with an alpha value of .826) were all reliable. Furthermore, all the dimensions of strategy implementation were also reliable (operationalisation with an alpha value of .892 and institutionalisation with an alpha value of .799). Finally, the dimensions of the performance of Ugandan state agencies were also reliable (efficiency with an alpha value of .867, and effectiveness with an alpha value of .903). In general, all the items had an alpha value of .904. The α of the variables in this study were considered to demonstrate an adequate degree of reliability.

4.5 Demographic Characteristics

4.5.1 Demographic Characteristics for the State Agencies

A description of the demographic profile of the Ugandan state agencies, which constituted the unit of analysis, was essential for this study. The demographic characteristics of the Ugandan State Agencies included the age of the agency in terms of the years of operation, the scope where the agencies operated, and the size of the agency in terms of the number of employees. The demographic characteristics of the state agencies were presented as demonstrated in Table 4.32.

Table 4.32: Demographic characteristics of 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

From Table 4.32, the results show that the majority of the state agencies had spent 10 years and above in existence (62.5%), an indication of enough experience in the industry. Accordingly, the agencies introduced a solid research plan for an empirical review.

The organisational tenure or the duration of the agency's existence, depicting the age thereof, has been utilised in many scholarly materials as a proportion of organisational development and is, for the most part, viewed as a crucial factor in influencing managerial practices within the organisations (Hambrick & Mason, 1984; Kinuu, 2014; Ogendo, 2014). For instance, the year of inception would help determine how long the agency has been in existence since the study focused on the operational agencies.

Most of them were national in scope implying that their scope of the operation was countrywide. The results also show that the majority of the state agencies employ between 100-500 employees (61.2%) implying that these agencies were big enough, a sign of their performance. This implied that most of the agencies operated on a wider scale.

4.5.2 Demographic Characteristics for the Respondents

A demographic analysis of the respondents who contributed valid data was essential for this study. The different demographic characteristics included the age of the respondents, employment tenure, years spent in the current position, education level, gender, held position in the agency and the previous position held by the respondent. The age of the respondents was determined using an age group. The age was grouped into different categories in the range of 18 to 27, 28 to 37, 38 to 47, 48 to 57, 58 to 67 and 68 and above and the findings are presented in Table 4.33. In addition, the employment tenure of the respondents was examined utilising The length of their tenure in the existing agency. The employment tenure was estimated in the scope of under 5, 5 to 10; and 10 or more years. The number of the respondents' employment tenure within every office was gathered by

the scope of the years working in the agencies of this study. Table 4.33 indicated the findings.

Table 4.33: 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 doing a different role in this agency or any of its affiliate	452	85.4
	I was working for a different agency	77	14.6
	Total	529	100.0

Going by exception, the results show that 35.9% of the respondents were between 48 and 57 years whereas 34.6% were aged between 38 and 47 years, an indication of mature respondents' dominance in state agencies. The majority (70.5%) of the participants fell within the age range of 38 to 57 years, which corresponds to the typical age criteria of most public sector organizations. In addition, most of them had worked with the agencies for more than 10 years (67.5%) and 56.1% of them had spent more than 5 years in their current

position. The long periods of involvement decide the degree that which the respondent was knowledgeable concerning the business and the agency and their adaptability to react to issues. The outcomes also reveal that the majority 39.5% of the respondents were master's degree holders, 27.8% had a professional qualification, 18.5% had a postgraduate degree, whereas 8.5% had attained a PhD. This is an indication of well-knowledgeable respondents and this leads to the high performance of the state agencies. Moreover, the majority 60.3% of the respondents were males and 39.7% were female. Finally, most of the respondents were Heads of departments (41.4%) and the majority of respondents had held different jobs in the same agency before joining their current position 85.4%.

4.6 Test for Parametric Assumptions

Statistical tests depend on specific premises about the factors utilised in the analysis. Osborne, Christianson and Gunter (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) maintain that unless these conditions are fulfilled, the outcomes may be questionable. Antecedent to data analysis, assumptions for linear regression were appraised in relation to the normality test, linearity, homogeneity, and multicollinearity.

4.6.1 Test of Normality

Normality tests are essential for assessing the validity of the assumptions underlying many statistical methods. If these assumptions are violated, the accuracy and reliability of the inferential procedures may be compromised (Ghasemi & Zahediasl, 2012). According to the central limit theorem, the infringement of normality is not a significant issue (Ghasemi & Zahediasl, 2012) when the sample size is at least 100. Even for significant conclusions, the assumption of normality ought to be followed regardless of the sample size. The two primary strategies for evaluating normality are through graphical means or statistical tests

as Bland (2015) recommended. Both the graphical (Q-Q plots, histogram, and P-P plots) and the numerical (Shapiro-Wilk test, Kolmogorov-Smirnova, Skewness, and Kurtosis) were utilised interchangeably to assess for normality of the data. The data set of this study was exposed to a normality test and the outcomes are displayed in Table 4.34.

Table 4.34: Normality Tests

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
TMT Characteristics	.053	152	.200*	.990	152	.335
Strategy Implementation	.034	152	.200*	.994	152	.802
External Environment	.067	152	.091	.987	152	.149
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 value of the Shapiro-Wilk and Kolmogorov-Smirnova were all more than 0.05 except for the dependent variable. Thus, the supposition of normality was not disregarded for the TMT characteristics, strategy implementation, and external environment. The data were normally distributed. However, for the performance of Ugandan State agencies, skewness and Kurtosis were utilised to ascertain normal distribution.

Table 4.35: 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)

The skewness and kurtosis of the performance of Ugandan state agencies were equivalent to .761 and .920 respectively which are between the recommended -1 and +1 values (Mishra et al., 2019). Hence, the performance of Ugandan state agencies was considered to be normally distributed.

For purposes of this study, the normality was observed by making Quantile-Quantile (QQ) plots. A diagrammatic portrayal of the observed values against expected normal values of the factors was plotted as displayed. All the study variables had a good fit in the graph of normal distribution. The observed values aligned closely with the line of best fit, which suggests that the data followed a normal distribution.

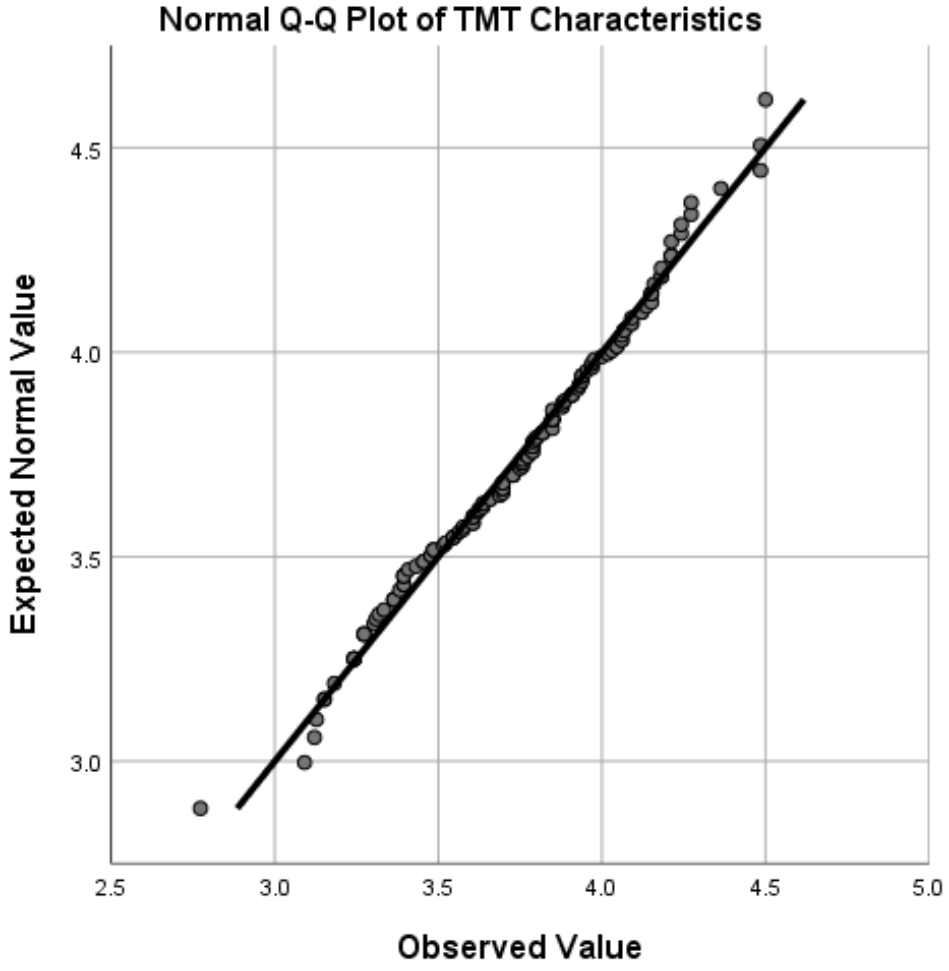


Figure 4.13: Normal Q-Q Plot of TMT Characteristics

Source: Primary Data (2021)

Figure 4.13 shows a normal Q-Q plot of the observed and expected values of TMT characteristics. The values fit the line well, indicating normality of the data.

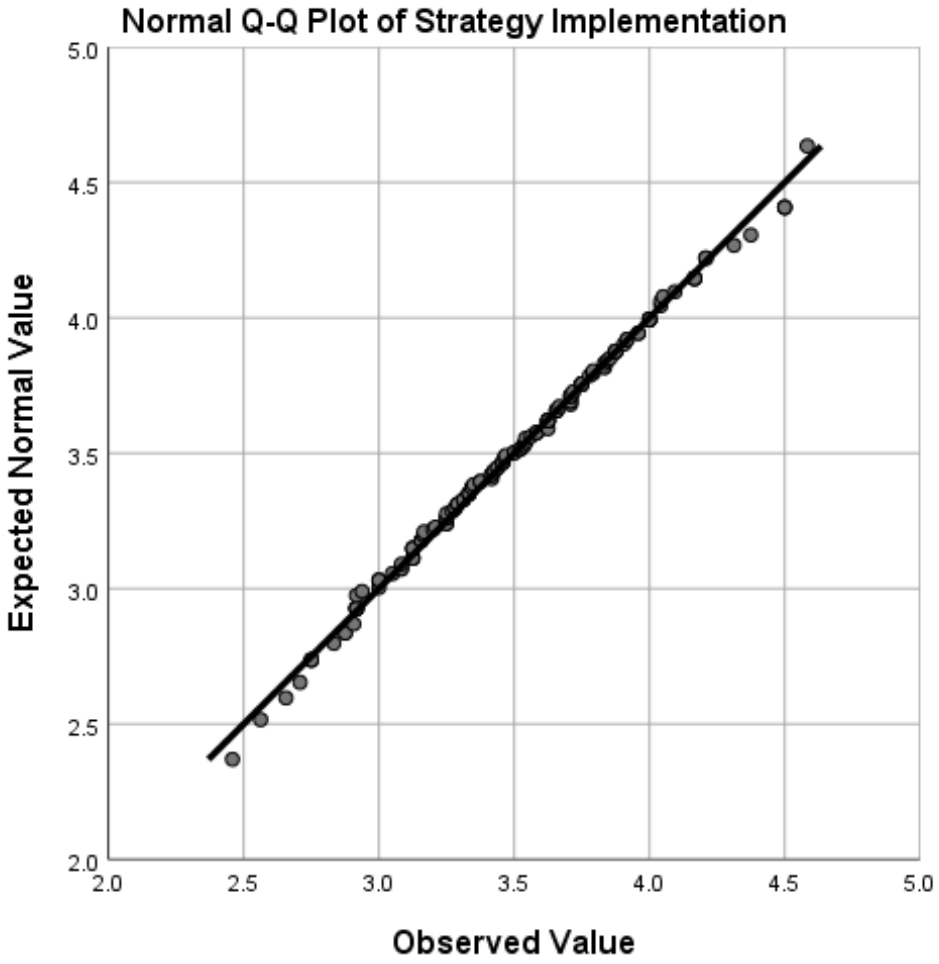


Figure 4.14: Normal Q-Q Plot of Strategy Implementation

Source: Primary Data (2021)

As shown in Figure 4.14, the normal Q-Q plot compares the empirical quantiles of strategy implementation with the theoretical quantiles of a normal distribution. The data points lie close to the diagonal line, indicating that the normality assumption is reasonable for this variable.

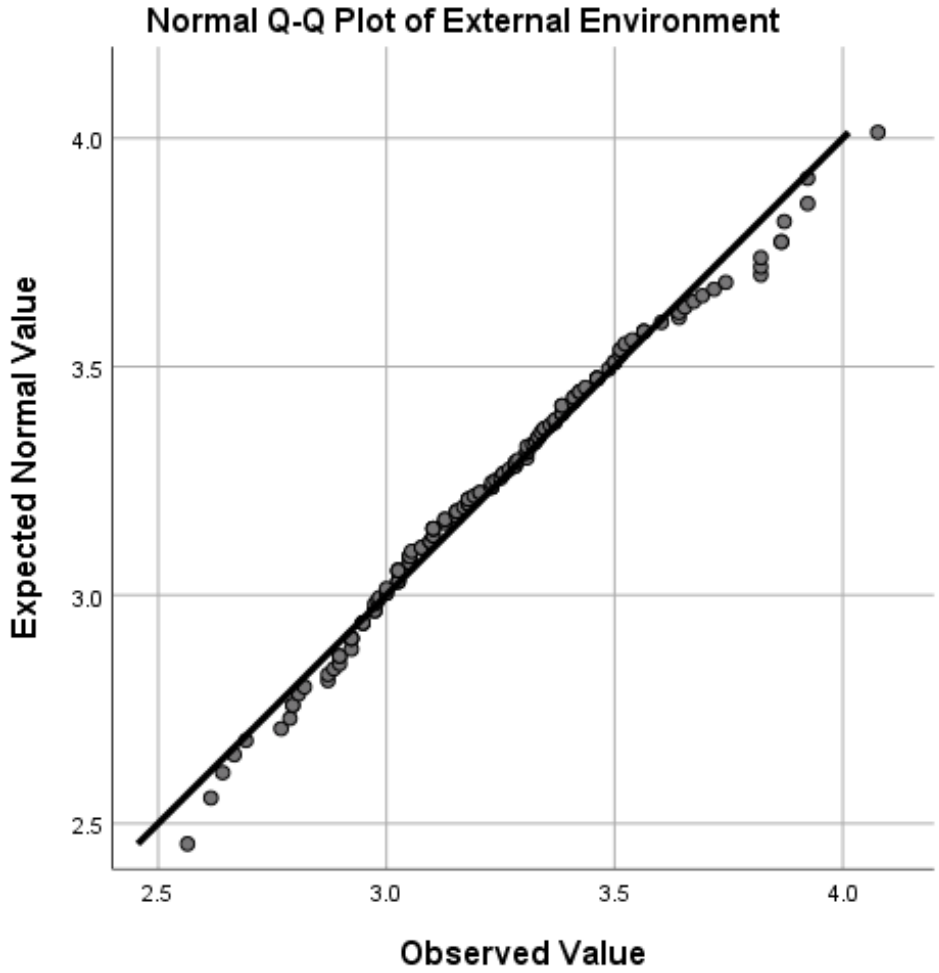


Figure 4.15: Normal Q-Q Plot of External Environment

Source: Primary Data (2021)

Figure 4.15 shows the normal Q-Q plot of the external environment variable, which compares the empirical quantiles with the theoretical quantiles of a normal distribution. The data points follow the diagonal line closely, suggesting that the normality assumption is valid for this variable.

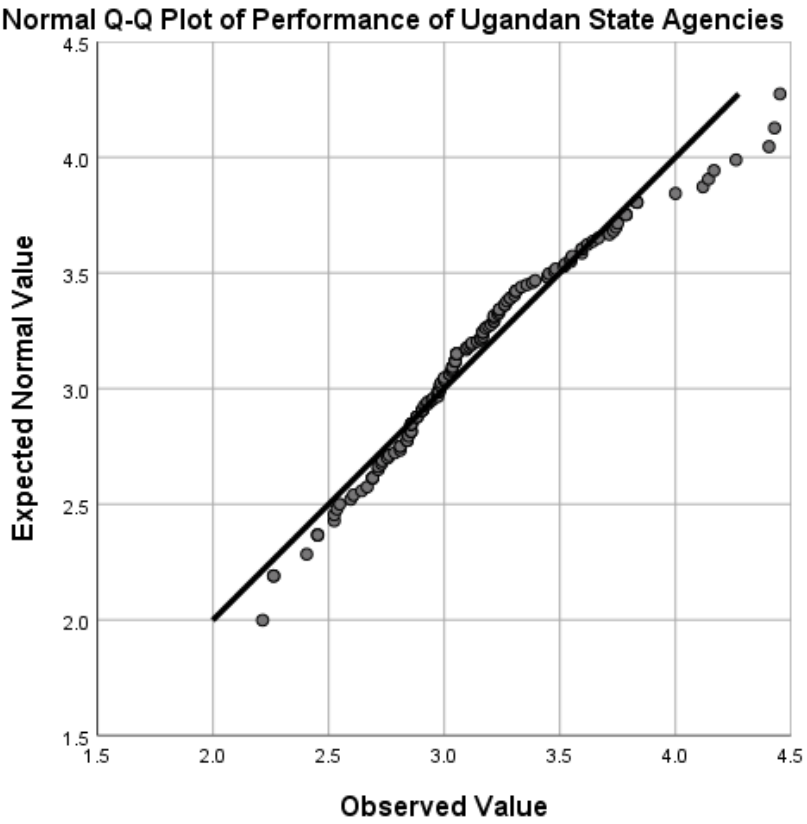


Figure 4.16: Normal Q-Q Plot of Performance of Ugandan State Agencies

Source: Primary Data (2021)

The normal Q-Q plot of the performance of Ugandan state agencies variable is presented in Figure 4.16, which displays the empirical quantiles against the theoretical quantiles of a normal distribution. The data points conform to the diagonal line, indicating that the normality assumption is met for this variable. This is an essential prerequisite for conducting further parametric statistical tests.

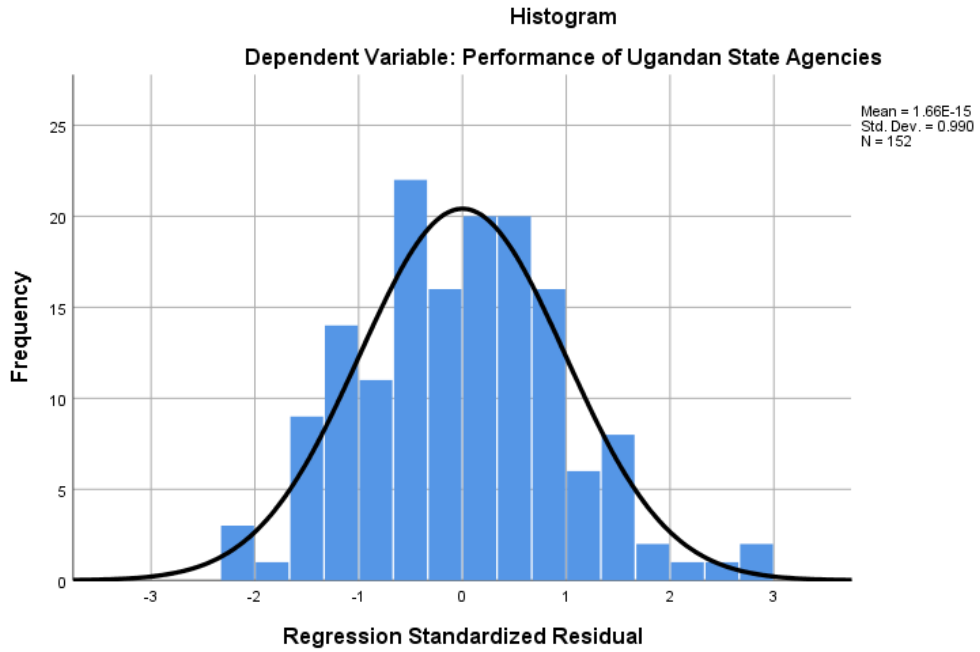


Figure 4.17: Histogram of Regression Standardized Residual

Figure 4.17 presents a normally distributed curve for the regression standardized residual of the dependent variable. Graphically, normality was confirmed using histograms as indicated in Figure 4.17. A bell-shaped histogram indicates that data is normally distributed. The results in this study reveal a fairly bell-shaped histogram, thus upholding the normality assumption.

4.6.2 Linearity Test

Linearity signifies a straight-line association between two variables. This postulation is significant on the grounds that regression analysis just tests for a direct association between the factors. Linearity is assumed when the scores are expected to form a roughly straight line. In this study, a normal probability plot (normal P-Plot) was employed to display the residuals versus the predicted scores, as illustrated Figure 4.18.

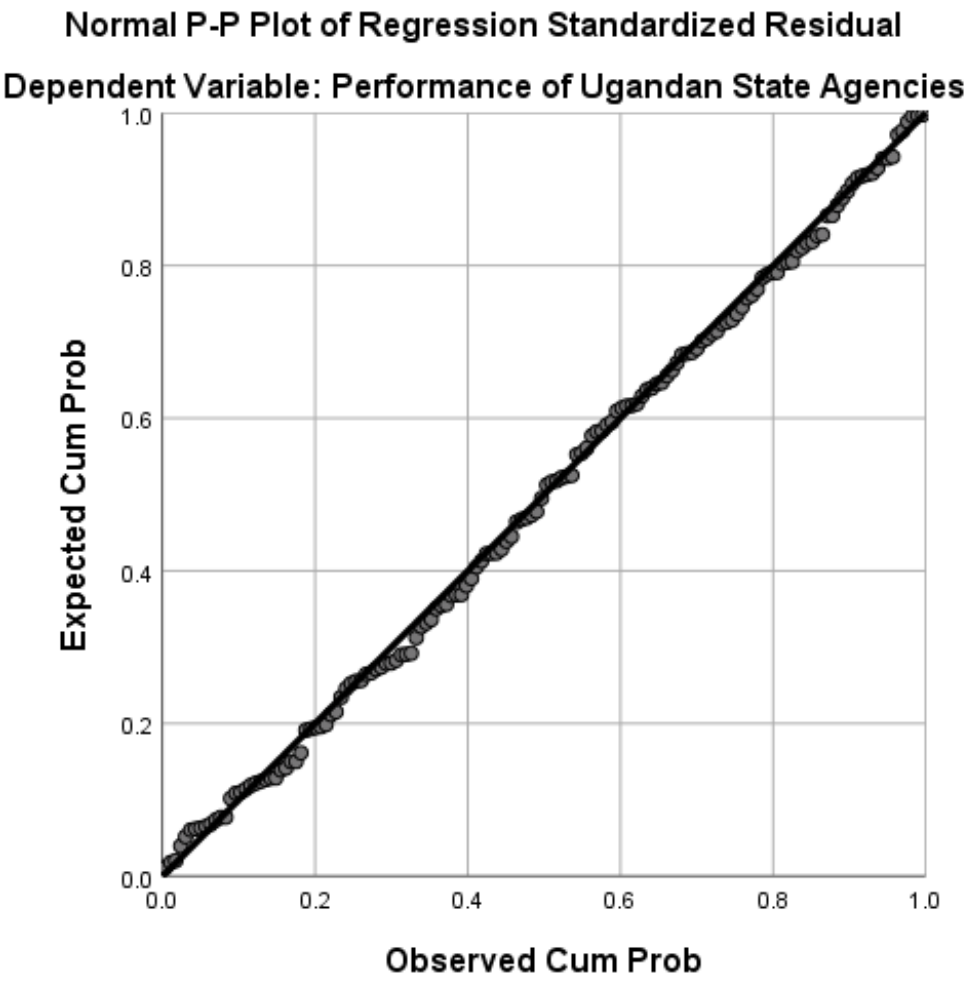


Figure 4.18: A normal probability plot (normal Q-Q plot)

Source: Primary Data, 2021

The data were subjected to a linearity test as indicated in Figure 4.18. Figure 4.18 shows a fairly straight line thus the linear assumption test was achieved. In addition to the graphical presentation. The linearity assumption among the variables was assessed by Pearson Correlation, as shown in Table 4.36.

Table 4.36: Correlations

		PerofUSA	TMTCHA	SI	EE
Performance of Ugandan State Agencies (PerofUSA)	Pearson Correlation	1			
	Sig. (2-tailed)				
TMT Characteristics (TMTCHA)	Pearson Correlation	.496**	1		
	Sig. (2-tailed)	.000			
Strategy Implementation (SI)	Pearson Correlation	.641**	.556**	1	
	Sig. (2-tailed)	.000	.000		
External Environment (EE)	Pearson Correlation	.659**	.287**	.389**	1
	Sig. (2-tailed)	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed). N = 152

As shown in Table 4.36, the characteristics of top management teams are significantly and positively correlated with the performance of state agencies in Uganda (r=.496, p<0.05). In addition, the empirical analysis demonstrates a significant and positive association between the implementation of strategies and the performance of state agencies in Uganda (r=.641, p<0.05). Furthermore, there is a linear relationship between the external environment and the performance of Ugandan State Agencies (r=.659, p<0.05). Thus, there existed a positive linear relationship among the variables.

4.6.3 Homogeneity Test

To further ensure the suitability of the data for parametric tests, a test of homogeneity was conducted following Newbert (2007) using the Levene test. As per Field (2013), homogeneity assumes that the variance of one variable should be constant across all levels of other variables. Levene's test is a common and robust statistical method for assessing the homogeneity of variances across groups. Field states that the data is homogeneous if and only if the Levene measurement is greater than 0.05. The variables of this study were exposed to a Levene test and the outcomes from the test are displayed in Table 4.37.

Table 4.37: Test of Homogeneity of variances

		Levene Statistic	df1	df2	Sig.
TMT Characteristics	Based on Mean	.295	2	149	.745
	Based on Median	.421	2	149	.657
	Based on Median and with adjusted df	.421	2	148.289	.657
	Based on trimmed mean	.324	2	149	.724
Strategy Implementation	Based on Mean	.103	2	149	.902
	Based on Median	.203	2	149	.817
	Based on Median and with adjusted df	.203	2	148.605	.817
	Based on trimmed mean	.113	2	149	.893
External Environment	Based on Mean	1.888	2	149	.155
	Based on Median	1.949	2	149	.146
	Based on Median and with adjusted df	1.949	2	138.678	.146
	Based on trimmed mean	1.909	2	149	.152
Performance of Ugandan State Agencies	Based on Mean	.570	2	149	.567
	Based on Median	.475	2	149	.623
	Based on Median and with adjusted df	.475	2	144.383	.623
	Based on trimmed mean	.508	2	149	.603

The findings of the Levene F Ratio for the performance of Ugandan state agencies, TMT characteristics, external environment, and strategy implementation are indicated in Table 4.37. The assumption of homogeneity was upheld since all the sig column values in Table 4.37 were above 0.05 which means there was no risk of incest among the study variables.

4.6.4 Multicollinearity Test

Multicollinearity was assessed utilising VIF which estimates the amount of the change of the assessed coefficients spread out over the situation of no connection among the factors. To determine multicollinearity among the predictor variables, the tolerance levels and the VIF were examined through multiple regression results. The acceptable values are the tolerance level should exceed 0.20 and that the VIF should not exceed 10 (Hair et al., 2010). The findings of the tests of multicollinearity between TMT characteristics, external

environment, strategy implementation, and performance of Ugandan State Agencies are displayed in Table 4.38.

Table 4.38: Multicollinearity results (VIF/Tolerance values)

Variables	Collinearity Statistics	
	Tolerance	VIF
TMT characteristics	.681	1.469
Strategy Implementation	.650	1.538
External Environment	.859	1.165

Source: Primary Data (2021)

The multicollinearity test of this study is displayed in Table 4.38. All variables had the highest VIF which didn't exceed 10 an indicator that there is no multicollinearity problem. On the side of the tolerance values, the results indicate that the values did exceed 0.2. This implies that if the tolerance value for any of the factors is less than or equal to 0.2, then there is evidence of collinearity among the factors.

4.7 Manifestations of Study Variables

4.7.1 Top Management Team Characteristics

This study zeroed in on TMT characteristics that were categorised into three components of demographic characteristics, psychological characteristics and behavioural characteristics. The findings of the descriptive statistics on the constructs of TMT characteristics are presented in Table 4.39.

Table 4.39: Descriptive Statistics of Top Management Team Characteristics

Variable	N	Minimum	Maximum	Aggregate Mean	Std. Deviation
Demographic Characteristics	152	2.10	5.00	3.93	.705
Psychological Characteristics	152	2.50	5.00	3.99	.454
Behavioural Characteristics	152	2.00	4.67	3.19	.566
TMT Characteristics	152	2.77	4.50	3.75	.328
Valid N (listwise)	152				

Source: Primary Data (2021)

Findings in Table 4.39 reveal that some Ugandan state agencies considered demographic characteristics, psychological characteristics, and behavioural characteristics to a small

extent and are evidenced by the Minimum value of 2.10, 2.50, and 2.00 respectively. Furthermore, the combined constructs of TMT characteristics (demographic characteristics, psychological characteristics, and behavioural characteristics) generated a minimum value of 2.77 which indicates that TMT characteristics manifest in some agencies to a small extent whereas a Maximum value of 4.50 revealed that TMT characteristics manifest in some agencies to a great extent. In general, TMT characteristics manifest in Ugandan state agencies to a moderate extent as evidenced by a Mean value of 3.75 and a standard deviation of .328.

Table 4.40: Pearson Correlation Analysis of TMT Characteristics

	DC	PC	BC	TC
Demographic Characteristics (DC)	1			
Psychological Characteristics (PC)	-.107	1		
Behavioural Characteristics (BC)	-.163*	.246**	1	
TMT Characteristics (TC)	.652**	.536**	.468**	1

*. and **. Correlation is significant at the 0.05 level and 0.01 level respectively (2-tailed). N=152

Source: Primary Data (2021)

Correlational analysis showed the constructs of TMT characteristics and the findings are presented in Table 4.40. There existed a substantial positive and significant correlation between demographic characteristics (r=.652), psychological (r=.536), behavioural characteristics (r=.468) and TMT characteristics at a 0.01 level.

4. 7.2 Strategy Implementation

This study focused on two selected factors namely operationalisation and institutionalisation that manifest in Ugandan state agencies. The findings are presented in Table 4.41.

Table 4.41: Descriptive Statistics of Strategy Implementation

Variables	N	Minimum	Maximum	Aggregate Mean	Std. Deviation
Operationalisation	152	2.50	5.00	3.99	.454
Institutionalisation	152	1.83	4.67	3.01	.615
Strategy Implementation	152	2.46	4.58	3.50	.428
Valid N (listwise)	152				

The findings in Table 4.41 indicate that operationalisation manifests in Ugandan state agencies to a small extent (Minimum = 2.50) while others to a very great extent (Maximum = 5.00). In general, the Mean value of 3.99 and standard deviation of .45 implies that operationalisation manifests in Ugandan state agencies to a great extent. On the other hand, institutionalisation manifests in some agencies to less extent as evidenced by the minimum value of 1.83 while in others to a great extent (Maximum = 4.67). In general, institutionalisation moderately manifests in Ugandan state agencies. Generally, a minimum value of 2.46 and a maximum value of 4.58 indicate that some agencies implemented strategies to a small extent and a great extent respectively. In total, a mean of 3.50 and a standard deviation of 0.428 indicate that strategy implementation moderately manifests in Ugandan state agencies. There is a uniform fluctuation of all the strategy implementation measurements as indicated by the standard deviation which does not exceed one.

Strategy institutionalisation refers to the establishment of frameworks that support the strategic plan. A widely used framework for strategy institutionalisation is McKinsey's 7's framework, which evaluates the achievement and effectiveness of the implementation processes (Kirui, 2016). Strategy operationalisation, on the other hand, involves applying a practical method to ensure that the plan is realised (Machuki et al., 2012). Operationalising strategy entails setting timelines, specifying what needs to be done and how to do it. Slater et al. (2010) define and conceptualize strategy implementation as the process of transforming plans and strategies into action with the aim of achieving a certain goal.

Table 4.42: Pearson Correlation of Strategy Implementation

	O	I	SI
Operationalisation(O)	1		
Institutionalisation(I)	.269**	1	
Strategy Implementation (SI)	.723**	.860**	1

**. Correlation is significant at the 0.01 level (2-tailed). N=152
Source: Primary Data 2021

The strategy implementation dimensions were exposed to correlation analysis to decide the magnitude and direction of the connections between the factors. The outcomes are displayed in Table 4.42. Every one of the connections between the factors was positive. Operationalisation significantly correlated with strategy implementation (r= 0.723). There is a positive significant strong relationship between institutionalisation and strategy implementation (r = .860).

4.7.3 External Environment

This study zeroed in on three factors, specifically munificence, complexity and dynamism as proper indicators of the external environment.

Table 4.43: External Environment Descriptive Statistics

Variables	N	Minimum	Maximum	Aggregate Mean	Std. Deviation
Munificence	152	1.53	3.93	3.23	.471
Dynamism	152	1.60	4.47	3.10	.593
Complexity	152	2.75	4.13	3.51	.279
External Environment	152	2.58	4.03	3.22	.290
Valid N (listwise)	152				

The findings in Table 4.43 indicate that some Ugandan state agencies were not affected by munificence (Minimum = 1.53) while others were affected to a great extent (Maximum = 3.93). In general, the Mean value of 3.23 and standard deviation of .471 implied that Ugandan state agencies were affected by munificence to a moderate extent. In addition, some Ugandan state agencies were not affected by dynamism (Minimum = 1.60) while others were affected to a great extent (Maximum = 4.47). In general, the Mean value of 3.10 and standard deviation of .593 implied that Ugandan state agencies were affected by dynamism to a moderate extent. Furthermore, some agencies were affected by complexity (Minimum = 2.75) to a small extent while others were affected to a great extent (Maximum = 4.13). In general, the Mean value of 3.51 and standard deviation of .279 implied that Ugandan state agencies were affected by munificence to a moderate extent. Generally, a minimum value of 2.58 and a maximum value of 4.03 indicate that some agencies were

affected by the external environment to a small and a great extent respectively. In total, a mean of 3.22 and a standard deviation of .290 indicated that Ugandan state agencies were moderately affected by the external environment.

Table 4.44: Pearson Correlation of External Environment

	M	D	C	EE
Munificence (M)	1			
Dynamism (D)	-.248**	1		
Complexity (C)	.420**	-.058	1	
External Environment (EE)	.533**	.675**	.395**	1

**. Correlation is significant at the 0.01 level (2-tailed). N = 152
Source: Primary Data 2021

The correlation analysis for the external environment is revealed in Table 4.44. For example, munificence has a positive relationship (r= 0.533) with the external environment and the relationship is significant at a 0.01 level. Additionally, the findings indicated that dynamism significantly and positively correlated with the external environment (r=.675, p=.000). Furthermore, there exists a positive but weak significant correlation between complexity and the external environment (r=.395, p <.01).

4.7.4 Performance of State Agencies

This study zeroed in on the performance of Ugandan state agencies that were categorised into two components of efficiency and effectiveness. The findings of the descriptive statistics on the constructs of performance of Ugandan state agencies are presented in Table 4.45.

Table 4.45: Descriptive Statistics of Performance of Ugandan State Agencies

	N	Minimum	Maximum	Mean	Std. Deviation
Efficiency	152	1.94	4.50	3.08	.564
Effectiveness	152	2.08	4.46	3.17	.511
Performance of Ugandan State Agencies	152	2.21	4.45	3.14	.430
Valid N (listwise)	152				

Source: Primary Data (2021)

The findings in Table 4.45 reveal that some Ugandan state agencies rarely posted adequate efficiency measures as indicated by a minimum value of 1.94 whereas some agencies

efficiently performed to a great extent as indicated by a maximum value of 4.50. In addition, some agencies posted performance measures to a small extent (minimum = 2.08) while others effectively registered higher performance (maximum =4.46). In general, a minimum value of 2.21 on the performance of Ugandan state agencies revealed that some agencies were not performing well whereas a maximum value of 4.45 indicated that some agencies performed well. A mean of 3.14 with a standard deviation of .43 implied that generally, there exists a moderate performance among state agencies in Uganda. This was additionally supported by the secondary data presented in Table 4.46.

To check and confirm the results on the performance of state agencies as per the TMTs, the researcher used data (secondary data) from other sources as well. The researcher employed data triangulation to verify and validate the findings derived from the TMTs of various state agencies in Uganda. Secondary data were used to triangulate data collected from TMTs regarding the performance of state agencies. Using a documentary checklist, different existing documents (performance and auditors' reports) published on different websites of the Ugandan state agencies were reviewed. These included documents published from 2017 to 2021. Guiding statements indicated in Appendix VII were used to assess the performance of state agencies in Uganda for the last five years. The statements weighted either a 1 or 0 for each year. The sum of the 5 years was obtained per statement. The obtained values were interpreted using a 5-point Likert scale (1- Never, 2 – Rarely, 3 – Sometimes, 4 – Very Often, 5 – Always). The data was then entered into SPSS for further analysis. The results of the analysis are presented in Table 4.46.

Table 4.46: Descriptive Statistics of Performance of Ugandan State Agencies

	N	Minimum	Maximum	Mean	Std. Deviation
Efficiency	152	2.00	4.75	3.03	.600
Effectiveness	152	2.00	4.75	3.12	.606
Performance of Ugandan State Agencies	152	2.25	4.75	3.06	.481
Valid N (listwise)	152				

Source: Secondary Data (2021)

Findings in Table 4.46 reveal that some Ugandan state agencies rarely (Minimum = 2.25) performed above the expected key performance indicators while other agencies outperformed others (Maximum = 4.75). On average, there was a moderate performance among Ugandan State agencies as indicated in Table 4.46 evidenced by a Mean of 3.06 and a standard deviation of .481.

Table 4.47: Correlational Analysis of Performance of Ugandan State Agencies

	Efficiency	Effectiveness
Efficiency	1	
Effectiveness	.295**	1

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Primary Data (2021)

The correlation between the efficiency and effectiveness of the Ugandan state agencies is positive and significant at a 0.01 level.

4.8 Tests of Hypotheses

Testing for the hypotheses was carried out while utilising regression analysis for direct connections and stepwise regression investigation for indirect relationships. Hypotheses were confirmed at a 95 per cent confidence level ($\alpha = 0.05$). A p-value of 0.05 or less implied that the model was statistically significant at a 0.05 level and thus, rejecting the null hypothesis and accepting the alternative hypothesis. Also, the interpretations of the outcomes included the model summary, Analysis of Variance (ANOVA) and regression coefficients. The R-value showed the strength of the connection between the variables. The R^2 value demonstrated the change of the dependent variable accounted for by a change of the independent variable. Evaluation of the general strength and significance of the models was carried out utilising the F-test and p-values. The t-test and p-values were utilized to decide the individual contribution of indicators in a multilinear model.

4.8.1 Top Management Team Characteristics and Performance of Ugandan State Agencies

This section summarizes the relationship between each operational indicator of TMT characteristics and the performance of Ugandan state agencies. The first objective of the study sought to determine the relationship between TMT characteristics and the performance of Ugandan state agencies. The null hypothesis, H01: "There is no significant relationship between TMT characteristics and the performance of Ugandan state agencies" and the alternative hypothesis: "There is a significant relationship between TMT characteristics and the performance of Ugandan state agencies" were stated.

An aggregate of the items used to assess TMT characteristics was computed and a simple linear regression was carried out using SPSS to determine the TMT characteristics and the performance of Ugandan state agencies' linkage. The results of the analysis are presented in Table 4.48.

Table 4.48: TMT Characteristics and Performance of Ugandan State Agencies

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.247	.241	.37480

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.893	1	6.893	49.071	.000[b]
	Residual	21.071	150	.140		
	Total	27.964	151			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.691	.350		1.971	.051
	TMT Characteristics	.652	.093	.496	7.005	.000

a. Dependent Variable: Performance of Ugandan State Agencies

Source: Primary Data (2021)

The findings in Table 4.48 indicated an R-value of .496 implying a moderate correlation between TMT characteristics and the performance of Ugandan state agencies. This implies an improvement in the TMT characteristics positively improves the performance of the Ugandan state agencies. R Square is interpreted as the percentage of variation in the dependent measure that is anticipated from the independent factors. In addition, the Adjusted R square value of .241 indicates that TMT characteristics explain about 24.1% of the variation in performance of Ugandan state agencies. In addition, Table 4.48 reveal that the p-value was less than 0.05 and hence the null hypothesis was rejected. Thus, there is a significant positive relationship between TMT characteristics and the performance of Ugandan state agencies. The F statistic of 49.071 in Table 4.48 with a p-value of 0.000 indicates that the model is significant. The results, therefore, indicate that TMT characteristics at $\beta 1 = 0.652$; $t = 7.005$; $p = 0.000$ is significant at 0.05. Table 4.48 also shows that the beta coefficient for the constant in model 1 ($\beta 0$) = .691 at $t = 1.971$. The $\beta 0$ of .691 infers that with every one of the variables held constant, performance is .691 units while $\beta 1$ of .652 shows that assuming all variables are held constant, a unit change in the TMT characteristics will yield a .652 change in performance of the Ugandan state agencies. The estimated model is thus summarized as follows;

$$PerofUSA = .691 + .652\,TMTCHA$$

Where:

PerofUSA = Performance of Ugandan State Agencies

TMTCHA = Top Management Team Characteristics

The relationship between TMT characteristics and the performance of Ugandan state agencies was further assessed using the confirmed dimensions of TMT characteristics (demographic characteristics, behavioural characteristics, and psychological characteristics) and their relationship to the performance of Ugandan state agencies.

Furthermore, a multilinear regression analysis was conducted to determine which constructs of the TMT characteristics contributed significantly to the performance of Ugandan state agencies. The ANOVA Table 4.49 was utilised to decide if a statistically significant relationship between the variables (independent and dependent) existed.

Table 4.49: Behavioural, Demographic, and Psychological Characteristics on Performance

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.286	3	4.762	51.527	.000[b]
	Residual	13.678	148	.092		
	Total	27.964	151			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.609	.295		2.067	.041
	Demographic Characteristics	.105	.036	.172	2.938	.004
	Psychological Characteristics	.114	.056	.120	2.019	.045
	Behavioural Characteristics	.521	.046	.685	11.432	.000

a. Dependent Variable: Performance of Ugandan State Agencies

Source: Primary Data (2021)

Table 4.49 indicates the value of p is less than 0.05, thus rejecting the null hypothesis and concluding that the model has explanatory power suggesting that the combination of psychological characteristics, behavioural characteristics, and demographic characteristics explains the performance of the Ugandan state agencies. The F-value of 51.527 ($p<0.05$) further indicates that the specified model in this study fits well the data. In addition, the regression results, therefore, indicate that at 0.05 significance, the coefficients of the constructs are statistically significant that is Demographic characteristics ($= .105, t = 2.938, p = .004$), psychological characteristics ($\beta = .114,\ t = 2.019, p = .045$), and

behavioural characteristics ($\beta = .521, t = 11.432, p = .000$). Findings reveal that the behavioural characteristics contributed more significantly to the performance of Ugandan state agencies followed by the psychological characteristics and finally demographic characteristics. Thus, the subsequent equation is estimated;

Performance = .609 + .105 Demographic characteristics + .114 psychological characteristics + .521 Behavioural Characteristics

As per the above model, it tends to be noticed that when all explanatory variables are held constant, the performance of Ugandan state agencies yields .609. Also, it should be noticed that holding any remaining variables constant, a unit change in demographic characteristics yields a 0.105 increase in the performance of Ugandan state agencies. Similarly, holding any remaining variables constant, a unit change in TMT psychological characteristics yields a 0.114 increase in the performance of Ugandan state agencies. Also, holding any remaining variable constant, a unit change in TMT behavioural characteristics yields .521 in the performance of Ugandan state agencies. Finally, the outcomes of this analysis reveal that behavioural characteristics contribute more to the changes in the performance of Ugandan state agencies based on the coefficients.

4.8.2 Top Management Team Characteristics, Strategy Implementation, and Performance of Ugandan State Agencies

The second objective of this study was to examine how strategy implementation mediates the relationship between TMT characteristics and the performance of Ugandan state agencies. This study aimed to assess whether indeed the connection between TMT characteristics and performance was mediated by strategy implementation. To examine the mediating role of the strategy implementation, this study employed the Hayes (2022) PROCESS version 4 for SPSS. This method offers a framework for testing the mediating effect on the association between the independent variables. As Hayes suggests, this study developed a conceptual model and a statistical model prior to testing the hypothesis. As per Hayes (2022), the most straightforward mediation model is characterised in conceptual form as indicated in Figure 4.19.

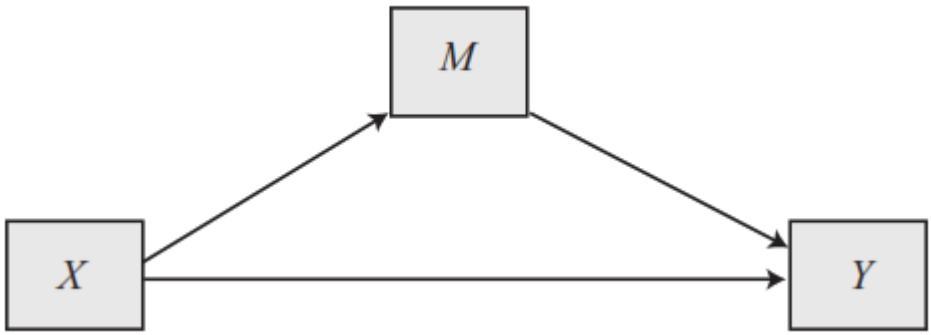


Figure 4.19: A conceptual diagram of a simple mediation model

Source: Hayes (2022)

As illustrated in Figure 4.19, the model has two subsequent factors (M) and (Y) and two factors (X) and (M), with X causally affecting Y and M, and M affecting Y. A mediation model is any causal framework wherein at least one causal precursor X variable is proposed as influencing a result Y through an intervening variable M (Hayes, 2022). In such a model, there exist two pathways where X can influence Y. The pathways are established by

following the manners in which one can get from X to Y while never following the reverse path of the arrowhead. The first pathway guides from X to Y without going through M and is known as the direct effect of X on Y. The second pathway from X to Y is the indirect effect of X on Y through M. The indirect effect addresses how X affects Y via a causal succession in which X affects M, which thus affects Y.

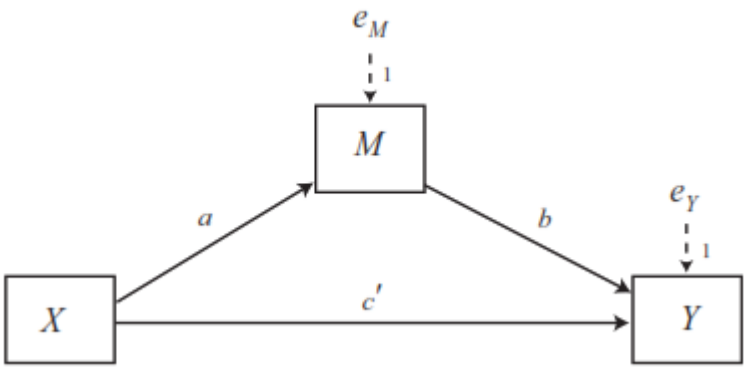


Figure 4.20: A statistical illustration of the mediation model.

```
***************** PROCESS Procedure for SPSS Version 4.0 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : perofUSA
    X  : TMTCHA
    M  : SI

Sample
Size:  152

**************************************************************************
```

Figure 4.21: TMT Characteristics, Strategy Implementation, and Performance of Ugandan State Agencies

Figure 4.21 reveals that Haye's (2022) model 4 for testing the mediation was used. The model included three variables: Y, the outcome variable (PerofUSA – Performance of Ugandan state agencies), X, the predictor variable (TMTCHA – TMT characteristics), and

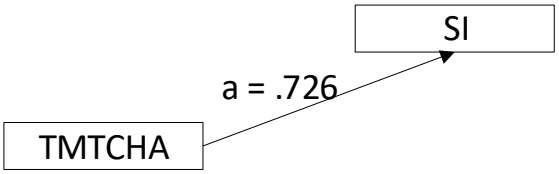
M, the mediator variable (SI – Strategy Implementation). The model was tested on a sample of 152 state agencies.

```
**************************************************************************
OUTCOME VARIABLE:
 SI

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       .556       .309       .128     66.960      1.000    150.000       .000

Model
              coeff         se          t          p       LLCI       ULCI
constant       .778       .334      2.330       .021       .118      1.439
TMTCHA         .726       .089      8.183       .000       .551       .901

Standardized coefficients
            coeff
TMTCHA       .556

**************************************************************************
```

Figure 4.22: TMT Characteristics and Strategy Implementation

The first model examined the effect of TMT characteristics on strategy implementation using regression analysis. Figure 4.22 shows the summary statistics of the model. The R-value in Figure 4.22 represents the correlation coefficient between TMT characteristics and strategy implementation. The R-value of .556 in Figure 4.22 indicates a positive and significant correlation between the two variables, suggesting that strategy implementation increases with higher TMT characteristics. The model was statistically significant, F (1,150) = 66.960, p<.001. Moreover, the R square value of .309 indicated that TMT characteristics accounted for 30.9% of the variance in strategy implementation. In the first model in Figure 4.22, TMT characteristics emerged as a positive and significant predictor of strategy implementation (a=.726, se=.089, p<.001). TMT characteristics had a significant effect on strategy implementation since the p-value was below 0.05

Thus, Model 1



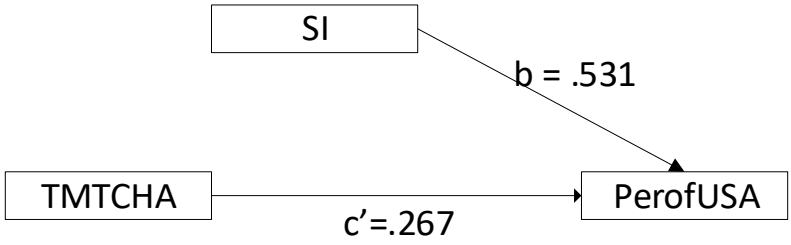
For the second model, Figure 4.23 displays the output of the analysis of the effects of TMT characteristics and strategy implementation on the performance of Ugandan state agencies. Figure 4.23 shows the results of the regression model with TMT characteristics and strategy implementation as predictors and performance as the outcome variable. Figure 4.23 Figure 4.23

```
**************************************************************************
OUTCOME VARIABLE:
 perofUSA

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       .663       .439       .105     58.408      2.000    149.000       .000

Model
              coeff         se          t          p       LLCI       ULCI
constant       .278       .309       .899       .370       -.332       .887
TMTCHA         .267       .097      2.752       .007        .075       .458
SI             .531       .074      7.162       .000        .384       .677

Standardized coefficients
            coeff
TMTCHA       .203
SI           .528

Test(s) of X by M interaction:
          F        df1        df2          p
     12.393      1.000    148.000       .001
```

Figure 4.23: TMT Characteristics, Strategy Implementation, and Performance of Ugandan State Agencies

As shown in Figure 4.23, the second model indicates a positive and significant relationship between the composite TMT characteristics and the strategy implementation and performance of Ugandan state agencies, with $R = .663$ and $p < .001$. The R square value of .439 suggests that the composite TMT characteristics and the strategy implementation accounted for 43.9% of the variance in the performance of Ugandan state agencies. The model was statistically significant, with $F(2,149) = 58.408$ and $p < .05$. The results also included the analysis of the effect of strategy implementation on the performance of

Ugandan state agencies. The summary statistics of the regression of strategy implementation on performance are displayed in Figure 4.23. Figure 4.23 further demonstrate that strategy implementation was a significant predictor of the performance of Ugandan state agencies (b=.531, se= .074, p < .001).



As shown in the results, the coefficient for the intercept (β0) was .278 and not significant (p = .370), while the coefficients of TMT characteristics (β1) and strategy implementation (β2) were .267 and .531, respectively, and both significant (p < .05). This indicates that TMT characteristics and strategy implementation are important determinants of the performance of Ugandan state agencies. The β1 of .267 implies that holding all other variables constant, a unit increase in TMT characteristics leads to a .267 increase in performance. Similarly, the β2 of .531 implies that holding all other variables constant, a unit increase in strategy implementation leads to a .531 increase in performance. The estimated model can be summarized as follows:

Performance = .267 TMT Characteristics + .531 Strategy Implementation

Figure 4.24 shows the output of the total effect analysis.

```
************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 perofUSA

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       .496       .247       .140     49.071      1.000    150.000       .000

Model
              coeff         se          t          p       LLCI       ULCI
constant       .691       .350      1.971       .051      -.002      1.383
TMTCHA         .652       .093      7.005       .000       .468       .836

Standardized coefficients
            coeff
TMTCHA       .496
```

Figure 4.24: Total Effect of TMT Characteristics and Performance

The third output in Figure 4.24 shows the results of the total effect of the relationship between TMT characteristics and the performance of Ugandan state agencies. The results in Figure 4.24 indicate that the R Square value of 0.247 means that 24.7% of the variance in performance is explained by the TMT characteristics. The F (1,150) = 49.071 and $p < .001$ show that the model is statistically significant. Figure 4.24 also shows that the coefficient for the intercept (β0) is .691 with a t-statistic of 1.971 and $p = .051$, while the coefficient for the TMT characteristics (β1) is .652 with a t-statistic of 7.005 and $p < .001$. Since the p-value is less than the significance level of 0.05, TMT characteristics were found to be a significant predictor of the performance of Ugandan state agencies. The β0 of .691 implies that when the TMT characteristics are zero, the performance of Ugandan state agencies will be .691. The β1 of .652 implies that holding all other factors constant, a unit increase in the TMT characteristics will result in a .652 increase in performance of Ugandan state agencies. The estimated model can be summarized as follows:

PerofUSA =.691 + .652 **TMTCHA**

```
************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI       c_cs
       .652       .093      7.005       .000       .468       .836       .496

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI      c'_cs
       .267       .097      2.752       .007       .075       .458       .203

Indirect effect(s) of X on Y:
       Effect     BootSE   BootLLCI   BootULCI
SI       .385       .077       .240       .548

Completely standardized indirect effect(s) of X on Y:
       Effect     BootSE   BootLLCI   BootULCI
SI       .293       .051       .196       .399
```

Figure 4.25: Effects of TMT Characteristics on the Performance of Ugandan State Agencies

Figure 4.25 shows the different effects of X (independent) on Y (dependent). The indirect effect of strategy implementation is significant, which means that strategy implementation mediates the relationship between TMT characteristics and the performance of Ugandan state agencies. Moreover, since both the indirect effect and the direct effect are significant, there is a partial mediation. Therefore, the results of this study suggest that strategy implementation has a partial mediation effect on the relationship between TMT characteristics and the performance of Ugandan State Agencies. This means that the effect of TMT characteristics on performance is not direct, but depends on how well the strategy is implemented. The study also implies that there is a direct effect of TMT characteristics on performance that is not mediated by strategy implementation. Therefore, the study shows that both TMT characteristics and strategy implementation are important factors for the performance of Ugandan State Agencies and that they have a complex relationship with each other.

```
*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS ************

OUTCOME VARIABLE:
 SI

              Coeff    BootMean      BootSE    BootLLCI    BootULCI
constant       .778        .789        .324        .170       1.438
TMTCHA         .726        .723        .087        .547        .888

----------

OUTCOME VARIABLE:
 perofUSA

              Coeff    BootMean      BootSE    BootLLCI    BootULCI
constant       .278        .281        .321        -.359        .902
TMTCHA         .267        .266        .088        .094        .437
SI             .531        .530        .077        .382        .683

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

4.8.3 Top Management Team Characteristics, External Environment, and Performance of Ugandan State Agencies

The third objective of this study aimed to establish the moderating effect of the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies. To assess the moderating effect, the study applied Hayes' (2022) PROCESS Macro Model 1. Several scholars (Hayes, 2022; Kinuu; 2015; Mkalama, 2014; Baron & Kenny 1986) posit that moderation must be upheld if and only if the interaction term is significant.

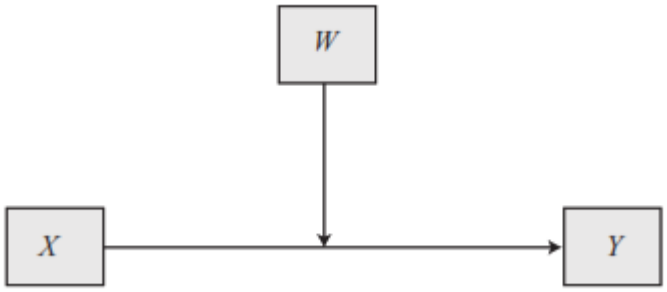


Figure 4.26: Simple Moderation Model

Source: Hayes (2022)

Where Y is the dependent variable - performance of Uganda State Agencies

W is the moderating variable - the external environment

X is the independent variable - TMT characteristics

The hypothesis is stated thus;

The null hypothesis, **H03**: External environment has no moderating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.

Alternative hypothesis: External environment has a significant moderating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.

```
***************** PROCESS Procedure for SPSS Version 4.0 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 1
    Y  : perofUSA
    X  : TMTCHA
    W  : ENV

Sample
Size:  152
```

Figure 4.27: Description of the Moderating Model

Figure 4.27 presents Haye's (2022) model 1 which was used to determine the moderating effect of the external environment on the relationship between TMT characteristics on the performance of Ugandan state agencies. In Figure 4.27, Y, X, and W represent the dependent (PerofUSA – performance of Ugandan state agencies), independent (TMTCHA – Top Management Team Characteristics), and moderating (ENV – External Environment) variables respectively. A sample size of 152 agencies was considered. The PROCESS Macro output is presented in Figure 4.28. The output reveals the value of R, R square, p, and the F-statistic model.

```
**************************************************************************
OUTCOME VARIABLE:
 perofUSA

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       .756       .571       .081     65.676      3.000    148.000       .000

Model
              coeff         se          t          p       LLCI       ULCI
constant      9.591      2.870      3.342       .001      3.919     15.262
TMTCHA       -2.385       .751     -3.174       .002     -3.870      -.900
ENV          -2.450       .873     -2.807       .006     -4.175      -.726
Int_1          .857       .227      3.773       .000       .408      1.306

Product terms key:
 Int_1    :        TMTCHA    x        ENV

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .041     14.233      1.000    148.000       .000
----------
```

Figure 4.28: Moderating Effect of External Environment

The output in Figure 4.28 reveals a value of R worth .756 indicating a strong correlation between the TMT characteristics, external environment, and the interaction term and the performance of Ugandan state agencies. The model was statistically significant since the p-value of .000 was less than .05, F (3,148) = 65.676. The presented results in Figure 4.28 show that the R Square of 0.571 in the model indicates that 51.7% of the variation in performance of the Ugandan state agencies is attributed to TMT characteristics, external environment and the interaction term.

The regression results, therefore, indicate that at 0.05 significance, all the coefficients are significant with TMT characteristics at β1 = -2.385; t = -3.174; p =0.002, the external environment at β2 = -2.450; t = -2.807; p =0.006, and the interaction term at β3 = .857; t =3.773; p = 0.000. Figure 4.28 also reveals that the coefficient for the constant in the model (β0) = 9.591 at t = 3.342. The β0 of 9.591 infers that with every one of the variables constant, the performance of Ugandan state agencies will be 9.591 when the intercept (β0) is -2.385. The β1 of -2.385 indicates that holding all variables constant, a unit increase in the TMT characteristics leads to a -2.385 decrease in performance. The β2 of -2.450

indicates that holding all variables constant, a unit increase in external environment leads to a -2.450 decrease in performance. Finally, the β3 of 0.857 indicates that holding all variables constant, a unit increase in the interaction term between TMT characteristics and external environment leads to a 0.857 increase in performance of Ugandan state agencies. The interaction term (Int_1) was statistically significant ($\beta = .857, t = 3.773, p = .000$) thus external environment moderated the relationship between TMT characteristics and the performance of Ugandan state agencies. This means that the effect of top management team characteristics on performance varies depending on the environmental conditions. The R square change of .041 implies that moderating variable external environment explains 4.1% of the model.

H03: External environment moderate the relationship between TMT characteristics and the performance of Ugandan state agencies

PerofUSA= b_0 + b_1 TMTCHA + b_2EXE + b_3Int_1

Where

PerofUSA = Performance of Ugandan state agencies

b_0, b_1, and b_2 are coefficients

TMTCHA = TMT characteristics

ENV = External Environment

Int_1 = TMTCHA*ENV= interaction term

The estimated model is thus summarized as follows;

PerofUSA = 9.591 -2.385 **TMTCHA** -2.450 **ENV** + .857 **Int_1**

By implication, the above positive effect of the interaction means that at a high level of TMT characteristics, a lower level of the external environment could negatively affect the performance of Ugandan state agencies.

```
----------
    Focal predict: TMTCHA    (X)
          Mod var: ENV       (W)

Conditional effects of the focal predictor at values of the moderator(s):

        ENV     Effect         se          t          p       LLCI       ULCI
      2.961       .153       .105      1.454       .148       -.055       .361
      3.199       .358       .077      4.652       .000        .206       .509
      3.487       .604       .086      6.994       .000        .433       .775
```

The PROCESS output above is for a model estimating and probing the moderation of the effect of TMT characteristics on the performance of Ugandan state agencies by the external environment. At the 16th percentile, the value of the external environment worth 2.961 has an insignificant effect of 0.153 on the TMT characteristics and performance of Ugandan state agencies. At the 50th percentile, the value of the external environment worth 3.199 has a significant effect of .358 on TMT characteristics and performance of Ugandan state agencies. In addition, at the 84th percentile, the value of the external environment worth 3.487 has a significant effect of .604 on TMT characteristics and the performance of Ugandan state agencies. Further probing was assessed using the Johnson-Neyman as indicated in Figure 4.29 below.

Moderator value(s) defining Johnson-Neyman significance region(s):

Value	% below	% above
3.008	24.342	75.658

Conditional effect of focal predictor at values of the moderator:

ENV	Effect	se	t	p	LLCI	ULCI
2.583	-.170	.177	-.963	.337	-.520	.179
2.656	-.108	.162	-.669	.505	-.429	.212
2.728	-.047	.148	-.315	.753	-.338	.245
2.800	.015	.134	.115	.908	-.249	.280
2.872	.077	.120	.642	.522	-.161	.315
2.944	.139	.108	1.289	.199	-.074	.353
3.008	.194	.098	1.976	.050	.000	.387
3.017	.201	.097	2.081	.039	.010	.392
3.089	.263	.087	3.023	.003	.091	.435
3.161	.325	.080	4.082	.000	.168	.482
3.233	.387	.075	5.151	.000	.238	.535
3.306	.449	.074	6.060	.000	.302	.595
3.378	.511	.077	6.668	.000	.359	.662
3.450	.573	.082	6.951	.000	.410	.735
3.522	.635	.091	6.988	.000	.455	.814
3.594	.696	.101	6.882	.000	.496	.896
3.667	.758	.113	6.709	.000	.535	.982
3.739	.820	.126	6.515	.000	.571	1.069
3.811	.882	.140	6.323	.000	.606	1.158
3.883	.944	.154	6.143	.000	.640	1.248
3.956	1.006	.168	5.979	.000	.674	1.339
4.028	1.068	.183	5.832	.000	.706	1.430

Figure 4.29: Conditional Effects of the focal Predictor at values of the moderator

The value of 3.008 is the significance region based on the Johnson-Neyman technique. The results in Figure 4.29 reveal that the effect of the external environment is insignificant for values less than 2.944 and significant for the values for values greater than 3.008. This indicates that the region of significance for the experimental condition is all values of the external environment lower than 3.008 insignificantly affecting the relationship between TMT characteristics and the performance of Ugandan state agencies. Further, a look at the respective effect size highlighted in yellow, indicates that the effect of the intervention is 0.194 and is positive.

```
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/
   TMTCHA     ENV        perofUSA    .
BEGIN DATA.
      3.388      2.961      2.855
      3.780      2.961      2.915
      4.091      2.961      2.962
      3.388      3.199      2.963
      3.780      3.199      3.103
      4.091      3.199      3.214
      3.388      3.487      3.093
      3.780      3.487      3.330
      4.091      3.487      3.518
END DATA.
GRAPH/SCATTERPLOT=
```

Figure 4.30: Data for Visualising Moderation Effect

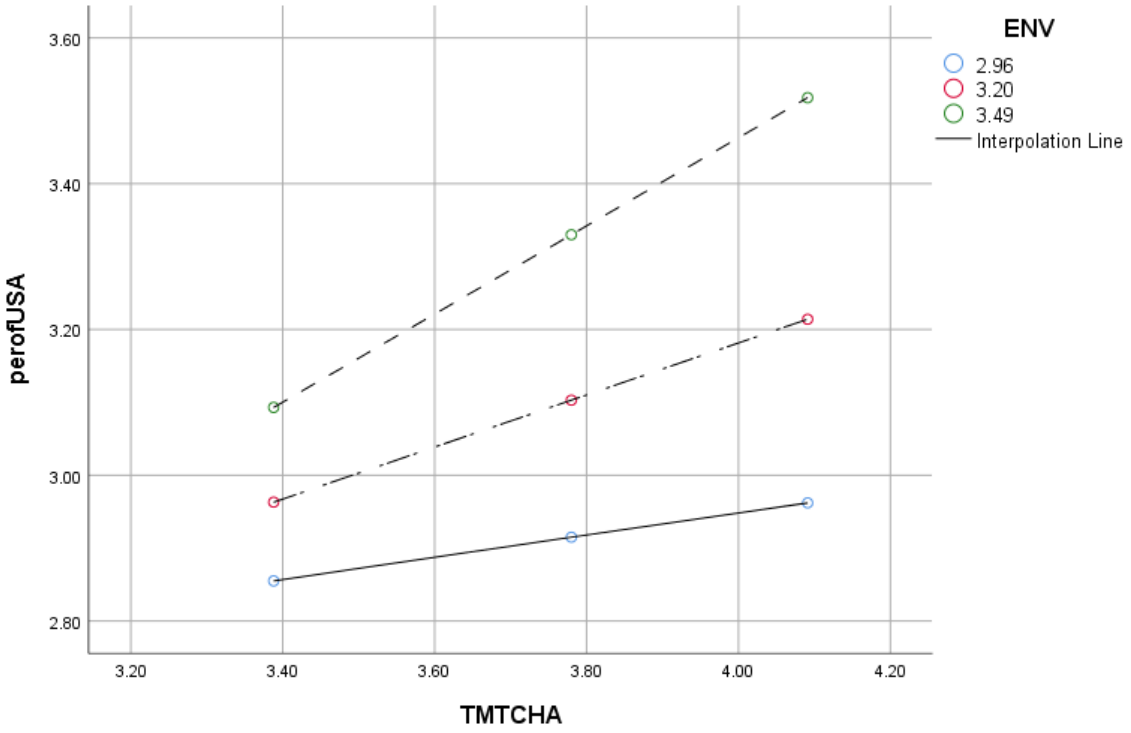


Figure 4.31: Visualisation of the Moderating Effect

Figure 4.31 reveals that as TMT characteristics improve, the performance of Ugandan state agencies also increases in the presence of the moderating variable (external environment). Furthermore, an examination of the interaction plot as proposed by Jose (2013) and Aiken and West (1991) revealed that; i) the effect of TMT characteristics on the performance of

Ugandan state agencies depends on the level of demographic, behavioural, and psychological characteristics (low, medium and high), regression lines are not parallel, and the effect size varies depending on the value of a variable hence confirming occurrence of a significant interaction. Therefore, all the above results are indicative that TMT characteristics and the external environment fuse to predict the performance of Ugandan state agencies; the external environment significantly moderates the relationship between TMT characteristics and the performance of Ugandan state agencies hence supporting hypothesis H03.

```
*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS ************

OUTCOME VARIABLE:
 perofUSA

              Coeff    BootMean      BootSE    BootLLCI    BootULCI
constant      9.591       9.505       2.709       4.143      14.751
TMTCHA       -2.385      -2.366        .696      -3.717       -.977
ENV          -2.450      -2.418        .826      -3.993       -.755
Int_1          .857        .850        .212        .420       1.259

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: Standardized coefficients not available for models with moderators.
```

4.8.4 Top Management Team Characteristics, Strategy Implementation, External Environment on the Performance

The fourth objective of the study was to establish if the total independent effect of top management team characteristics, strategy implementation and external environment on the performance of Ugandan state agencies are different from the individual effects. Strategic management research has previously revealed that no sole variable can completely explain variations in the performance of organisations. It is against the background of this that suggests that the fourth hypothesis was formulated. Thus, the null hypothesis, **H04**: The total independent effect of TMT characteristics, external environment and strategy implementation on the performance of Ugandan state agencies is not different from their individual effects. Alternative hypothesis: The total independent effect of TMT characteristics, external environment and strategy implementation on the performance of Ugandan state agencies is different from their individual effects. Hierarchical regression analysis was conducted to determine if the total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies are different from the individual effects. The results of the regression analysis are presented in Table 4.50.

Table 4.50: Model Summary of TMT Characteristics, Strategy Implementation, and External Environment on Performance

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.247	.241	.37480	.247	49.071	1	150	.000
2	.663[b]	.439	.432	.32435	.193	51.292	1	149	.000
3	.795[c]	.632	.624	.26379	.192	77.260	1	148	.000

a. Predictors: (Constant), TMT Characteristics

b. Predictors: (Constant), TMT Characteristics, Strategy Implementation

c. Predictors: (Constant), TMT Characteristics, Strategy Implementation, External Environment

Source: Primary Data (2021)

For model 1, the R-value of .496 in Table 4.50 reveals a substantial correlation between TMT characteristics and the performance of Ugandan state agencies. This implies that an improvement in the TMT characteristics leads to an increase in the performance of Ugandan state agencies and vice versa. The R Square worth .247 in Table 4.50 signifies that TMT characteristics explain 24.7% of the variation in the performance of Uganda state agencies. Model 1 was significant at a 0.05 level as evidenced by F (1,150) = 49.071, $p<0.05$ in Table 4.51.

For model 2, strategy implementation was added to TMT characteristics to predict the performance of Ugandan state agencies. The R worth .663 reveals a substantial correlation between the total sum of TMT characteristics and strategy implementation and performance of Ugandan state agencies. The R Square worth .439 signifies that combined TMT characteristics and strategy implementation explain 43.9% of the variation of performance of Ugandan state agencies. In the same model, the individual effect of strategy implementation accounts for .193 and is indicated by the R square change value. Thus, strategy implementation accounts for 19.3% of the variation in the performance of Ugandan state agencies. The model is also significant at a 0.05 level as evidenced by F (2,149) = 58.408, $P<0.05$ in Table 4.51. In a comparison of the R Square and R Square change, it can be observed that the total independent effect of .439 (TMT characteristics and strategy implementation) is greater than the individual effect of .247 (TMT characteristics) and .193 strategy implementation.

For model 3 in Table 4.50, the external environment was added to the second model to determine the total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Uganda state agencies. The R-value of 0.795 in Table 4.50 explains the correlation between the combined TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies.

Thus, there is a positive and strong significant correlation between the combination of TMT characteristics, strategy implementation and external environment and the performance of Ugandan state agencies. The R Square of .632 in Table 4.50 indicates that the combined TMT characteristics, strategy implementation, and external environment can explain around 63.2% of the variation in the performance of Ugandan state agencies. The individual effect of the external environment in the model is represented by the R Square change of .192. It can be observed that the total independent effect of .632 (TMT characteristics, strategy implementation, and external environment) is different from the individual effect of .247 (TMT characteristics), .193(strategy implementation), and .192(external environment). The model is also significant at 0.05 as indicated in Table 4.51 with $F(3,148) = 84.621$, $p<0.05$). This implies that the performance of Ugandan state agencies cannot be explained by any single factor alone, but rather by a combination of factors that have a stronger impact when considered together. The study also suggests that there are interactions among the factors that influence the performance of Ugandan state agencies and that these interactions are not captured by the individual effects. Therefore, the study highlights the importance of examining the joint effect of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies.

Table 4.51: ANOVA of TMT Characteristics, Strategy Implementation, External Environment, and Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.893	1	6.893	49.071	.000[b]
	Residual	21.071	150	.140		
	Total	27.964	151			
2	Regression	12.289	2	6.145	58.408	.000[c]
	Residual	15.675	149	.105		
	Total	27.964	151			
3	Regression	17.666	3	5.889	84.621	.000[d]
	Residual	10.299	148	.070		
	Total	27.964	151			

a. Dependent Variable: Performance of Ugandan State Agencies
b. Predictors: (Constant), TMT Characteristics
c. Predictors: (Constant), TMT Characteristics, Strategy Implementation
d. Predictors: (Constant), TMT Characteristics, Strategy Implementation, External Environment

Source: Primary Data (2021)

The outcomes in Table 4.51 reveal that all three models were statistically significant. Therefore, the null hypothesis is rejected and the alternative is accepted. Thus, the total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies is different from the individual effects. The combined effect of the study variables is greater than the individual effects of each variable as evidenced by the values of F indicated for models 1, 2, and 3 with F (1,150) = 49.071, F (2, 149) = 58.408, and F (3, 148) = 84.621 respectively.

Table 4.52: Coefficients of TMT Characteristics, Strategy Implementation, and External Environment

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.691	.350		1.971	.051
	TMT Characteristics	.652	.093	.496	7.005	.000
2	(Constant)	.278	.309		.899	.370
	TMT Characteristics	.267	.097	.203	2.752	.007
	Strategy Implementation	.531	.074	.528	7.162	.000
3	(Constant)	-1.197	.302		-3.964	.000
	TMT Characteristics	.180	.079	.137	2.264	.025
	Strategy Implementation	.398	.062	.396	6.400	.000
	External Environment	.703	.080	.473	8.790	.000

a. Dependent Variable: Performance of Ugandan State Agencies

Source: Primary Data (2021)

Furthermore, Model 3 in Table 4.52 shows that unstandardized coefficients for the variables; the constant (β0) is -1.197, TMT characteristics (β1) is 0.180 with t statistics of 2.264 and p-value of 0.025, strategy implementation (β2) is .398 and t statistics is 6.4 with a p-value of 0.000, and the external environment (β3) is .703 and t statistics of 8.790 with a p-value of 0.000. The combined TMT characteristics, strategy implementation, and external environment are found to be significant predictors of the performance of Ugandan state agencies. The constant β0 of -1.197 implies that with all other factors held constant, the performance of state agencies will reduce by 1.197 units, β1 of 0.180 demonstrates that assuming any remaining variables are held constant, a unit change in the TMT characteristics would bring about 0.180 change in performance, β2 of .398 shows that assuming any remaining variables are held constant, a unit change in the strategy implementation would result to .398 change in performance and β3 of .703 demonstrates that assuming any remaining variables are held constant, a unit change in external

environment would result to .703 change in performance of Ugandan state agencies. The estimated model can be thus summarized as follows

Performance = 0.180 **TMT characteristics** +.398 **Strategy Implementation** + .703 **External Environment** -1.197**.**

The findings further reveal that the external environment was the most significant predictor ($\beta = .703, t = 8.790, p < 0.05$), followed by strategy implementation ($\beta = .398, t = 6.400, p < 0.05$), and lastly TMT characteristics ($\beta = .180, t = 2.264, p < 0.05$). This implied that positive forces from the external environment do improve the performance of Ugandan state agencies and vice versa. When the forces are negative, they will lead to a reduction in the performance of the agencies. Conversely, when there is positive strategy implementation, there will be a positive increment in the performance of the agencies and vice versa.

The general objective of this study aimed at examining the influence of strategy implementation and the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies. The study used Hayes' Process Macro (2022) to determine the mediated moderated effect of strategy implementation and the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies.

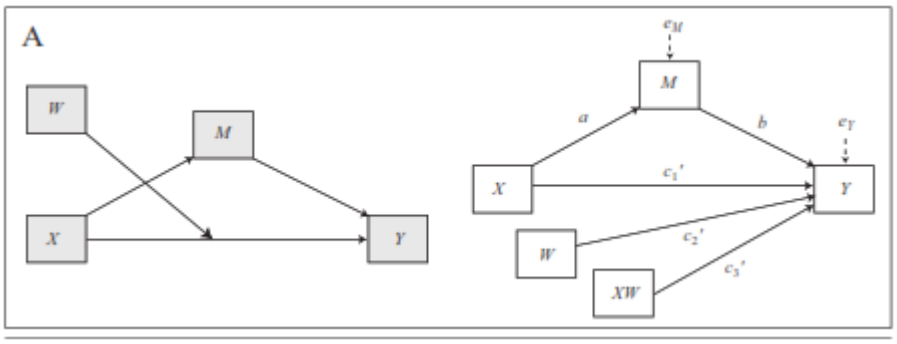


Figure 4.32: Conceptual Model and Statistical Diagram of Model 5

Source: Hayes (2022)

Where

X- independent (TMT Characteristics)

Y-dependent (Performance of Ugandan state agencies)

M-mediator (Strategy Implementation)

W-moderator (External Environment)

Hayes' Process Macro was used and model 5 was selected to determine the influence of strategy implementation and the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies as indicated in Figure 4.33 below.

```
***************** PROCESS Procedure for SPSS Version 4.0 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 5
    Y  : perofUSA
    X  : TMTCHA
    M  : SI
    W  : ENV

Sample
Size:  152
```

Figure 4.33: Mediated Moderated Effect of Strategy Implementation and External Environment on TMT Characteristics and Performance

As indicated in Figure 4.33, the dependent variable Y in terms of PerofUSA (performance of Ugandan state agencies) the independent variable X in terms of TMTCHA (TMT characteristics), the mediating variable M in terms of strategy implementation, and the moderating variable W in terms of ENV (External Environment).

```
**************************************************************************
OUTCOME VARIABLE:
 SI

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       .556       .309       .128     66.960      1.000    150.000       .000

Model
              coeff         se          t          p       LLCI       ULCI
constant       .778       .334      2.330       .021       .118      1.439
TMTCHA         .726       .089      8.183       .000       .551       .901

..........................................................................
```

Figure 4.34: TMT Characteristics and Strategy Implementation

For the first model in Figure 4.34, TMT characteristics emerged as a positive and significant predictor of strategy implementation (b=.726, se =.089, p<.05).

```
**************************************************************************
OUTCOME VARIABLE:
 perofUSA

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       .809       .654       .066     69.485      4.000    147.000       .000

Model
              coeff         se          t          p       LLCI       ULCI
constant      1.841       .215      8.564       .000      1.416      2.266
TMTCHA         .159       .078      2.048       .042       .006       .312
SI             .365       .061      5.940       .000       .243       .486
ENV            .667       .079      8.482       .000       .511       .822
Int_1          .641       .208      3.082       .002       .230      1.052

Product terms key:
 Int_1    :        TMTCHA    x        ENV

Test(s) of X by M interaction:
          F        df1        df2          p
       .840      1.000    146.000       .361

Test(s) of highest order unconditional interaction(s):
       R2-chng           F        df1        df2          p
X*W       .022       9.499      1.000    147.000       .002
----------
    Focal predict: TMTCHA    (X)
          Mod var: ENV       (W)
```

Figure 4.35: TMT Characteristics, Strategy Implementation, External Environment and Performance

In Figure 4.35, the direct effect of strategy implementation on the performance of Ugandan state agencies was statistically significant, ($\beta_2 = .365, se = .061, p = .000$). In addition, TMT characteristics were a significant predictor of the performance of Ugandan state agencies ($\beta_1 = 159, se = .078, p = .042$). Nevertheless, the statistical significance of the interaction term (Int_1) shows that the external environment is moderating the path from TMT characteristics to the performance of Ugandan state agencies. This output also represents the R-square change that would be observed by removing the interaction term from the model above [or conversely, it is the R-square increment from a reduced model

without the interaction term to the full model above with the interaction term included]. The R-square change is .022 and is statistically significant (p=.002).

```
Conditional effects of the focal predictor at values of the moderator(s):

       ENV     Effect         se          t          p       LLCI       ULCI
    -.290      -.027       .102       -.265       .792       -.229       .175
     .000       .159       .078       2.048       .042        .006       .312
     .290       .344       .094       3.668       .000        .159       .530
```

Figure 4.36: Conditional Effects of External Environment

The output in Figure 4.36 is from Process and represents simple slope tests that can be used for probing the significant interaction detected. As noted earlier in Figure 4.35, since the researcher means centred the X and W variables product variables (automatically with selection in Process), then the slope associated with X in Figure 4.36 represents the slope for cases falling at the mean of the moderator variable. Thus, the slope for TMT characteristics for cases falling at the mean in the external environment is b=.159 and is significant (p<.05).

```
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/
   TMTCHA     ENV        perofUSA   .
BEGIN DATA.
      -.328      -.290      2.934
       .000      -.290      2.925
       .328      -.290      2.916
      -.328       .000      3.066
       .000       .000      3.118
       .328       .000      3.170
      -.328       .290      3.198
       .000       .290      3.311
       .328       .290      3.424
END DATA.
GRAPH/SCATTERPLOT=
 TMTCHA   WITH     perofUSA BY       ENV      .
```

Figure 4.37: Data for Visualizing the Conditional Effects

This part of the output in Figure 4.37 is useful for visually probing the nature of the interaction using graphs of simple slopes as indicated in Figure 4.38.

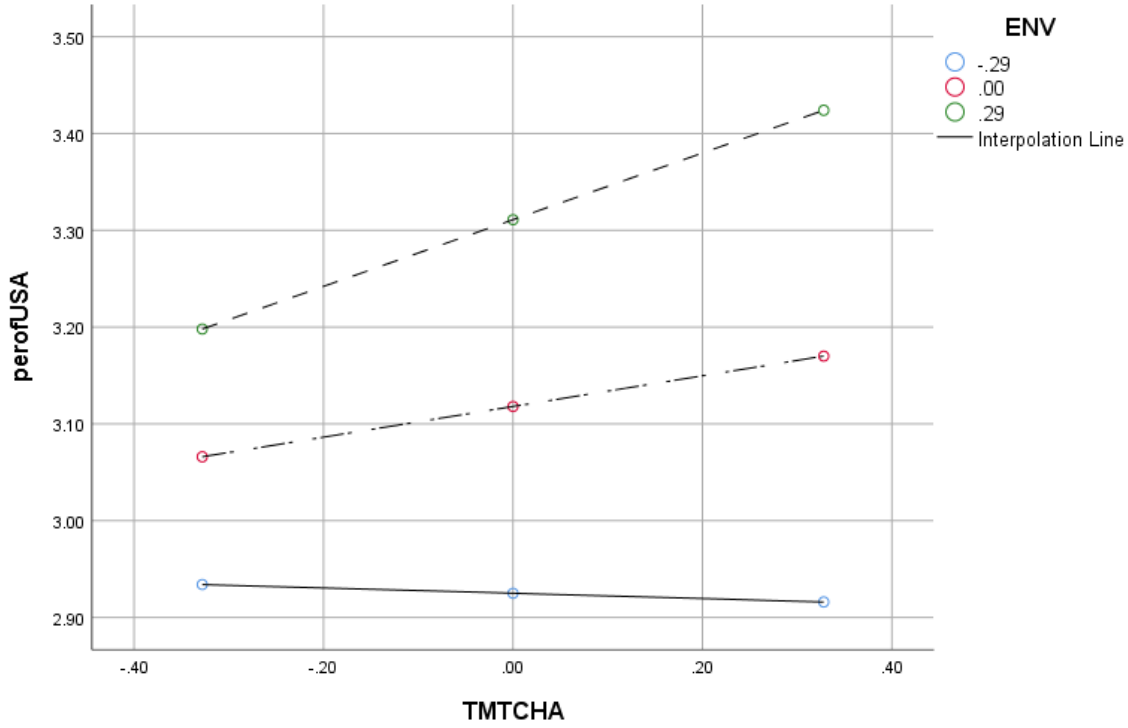


Figure 4.38: Moderating Effect of External Environment

Figure 4.38 shows a general tendency of the slope for the effect of TMT characteristics on the performance of Ugandan state agencies to increase with the increasing external environment.

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Conditional direct effect(s) of X on Y:
        ENV     Effect         se          t          p       LLCI       ULCI
      -.290      -.027       .102       -.265       .792       -.229       .175
       .000       .159       .078       2.048       .042       .006       .312
       .290       .344       .094       3.668       .000       .159       .530

Indirect effect(s) of X on Y:
       Effect     BootSE   BootLLCI   BootULCI
SI       .265       .055       .162       .379

Completely standardized indirect effect(s) of X on Y:
       Effect     BootSE   BootLLCI   BootULCI
SI       .202       .040       .127       .282

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:
          ENV      TMTCHA

NOTE: Standardized coefficients not available for models with moderators.
```

Figure 4.39: Effects of Strategy Implementation on Performance

The researcher tested for the statistical significance of the effects by examining the bootstrap confidence interval provided. If the null of 0 falls between the lower and upper bound of the interval, the researcher concludes that the indirect effect is not significant. If the null of 0 falls outside of the interval, the researcher rejects the null hypothesis. Thus, there exists a significant indirect effect between TMT characteristics and the performance of Ugandan state agencies. The bootstrap confidence interval from the data [.162, .379] does not contain 0, so the researcher concludes that the indirect effect is statistically significant. It can thus be concluded that strategy implementation (mediating variable) and external environment (moderating variable) influence the relationship between TMT characteristics and the performance of Ugandan state agencies

4.9 Summary of Hypotheses

The study had four objectives with corresponding hypotheses. A summary of the findings of these hypotheses is highlighted in Table 4.53.

Table 4.53: Summary of Results and Test of Hypotheses

Objective	Hypothesis	Empirical Evidence	Decision
Objective 1: Determine the relationship between TMT characteristics on the performance of Ugandan state agencies.	H11: There is a significant relationship between TMT characteristics and the performance of Ugandan state agencies	Supported	Accepted
Objective 2: Establish the mediating effect of strategy implementation on the relationship between TMT characteristics and the performance of Ugandan state agencies.	H12: Strategy implementation has a significant mediating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.	Supported	Accepted
Objective 3: Determine the moderating effect of the external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies.	H13: External environment has a significant moderating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies.	Supported	Accepted
Objective 4: Establish if the total independent effects of top management team characteristics, strategy implementation and external environment on the performance of Ugandan state agencies are different from the individual effects.	H14: The total independent effects of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies are different from their individual effects.	Supported	Accepted

4.10 Chapter Summary

This chapter introduced descriptive insights and primer tests on the data. These included mean, standard deviation, and frequencies. The response rate was 95% of the number of samples in this study. This response was contrasted with different investigations and viewed as the best among them. A large portion of the agencies had been in existence for a

time of above five years. The respondents were viewed as educated concerning the factors under study given their length of administration inside the agencies. Results demonstrate of the normality tests revealed that the data were normally distributed. They additionally reflect blended results in the relationship among the constructs. Furthermore, the outcomes further demonstrate that the performance of state agencies is generally good in the period of this study. The proceeding chapter presents the tests of the hypotheses and the discussions of the findings. Further, strong positive relationships among the variables were recorded with the explanatory power of the models. The introduction of the mediating and moderating variables to the relationship between TMT characteristics and performance strengthens and weakens this relationship respectively.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 Introduction

This chapter presents the findings of different tests completed on the hypotheses of this study. These include, that there is no significant relationship between TMT characteristics and the performance of Ugandan state agencies (H01), strategy implementation has no significant mediating effect on the relationship between TMT characteristics and the performance of Ugandan state agencies (H02), the external environment has no significant moderating effect on the relationship between TMT characteristics and performance of Ugandan state agencies (H03), and the total independent effect of TMT characteristics, external environment and strategy implementation on the performance of Ugandan state agencies is not different from their individual effects (H04).

5.2 Discussion of Results

This section discusses the outcomes of different tests completed for every hypothesis of this study. The scholarly material and the outcomes of this study are analysed and the conclusions on the equivalent are elaborated. The discussion contains TMT characteristics and performance of Ugandan State Agencies, TMT characteristics and strategy implementation; TMT characteristics, strategy implementation and performance of Ugandan State Agencies; TMT characteristics, external environment and performance of Ugandan State Agencies; and the total independent effect of TMT characteristics, strategy implementation, external environment and performance of Ugandan State Agencies.

From the demographic characteristics of this study, the age bracket of 48 to 57 years had the highest number of respondents at 35.9%, the age bracket of 38 to 47 years had 34.6% of the respondents while those 58 to 67 years was 14.2%. This meant that in general, the majority of the respondents 70.5% were in the age group of 38 years and 58, suggesting that they are well experienced thus positively affecting performance. In addition, they have

low risk-taking behaviour and high physical and mental endurance which could influence performance more positively. In addition, this implies that as agencies employ the elderly in top management positions, this brings in a vast of experience which promotes the performance of state agencies. In addition, when young people who have the age bracket between 30-40 years of age are employed with the elderly, this can bring in a proper transition since the elderly can teach the young ones who are more energetic at work and can be more innovative to improve the performance of the state agencies. In addition, when the advertisement is well specified in stipulating the number of years an individual has worked, this will help in attracting well-experienced employees who come with a breed of networks and experience and once put in use, this promotes the performance of the Ugandan state agencies. The findings of this study are consistent with past explorations that demonstrated that a few investigations detailed significant positive outcomes of age diversity in TMT on the performance of organisations (Kilduff, Angelmar, & Mehra, 2000). The study findings are also consistent with those of Herrmann and Datta (2005) who figured that older chiefs commonly have less physical and mental endurance, as well as fewer data handling limits.

5.2.1 Top Management Team Characteristics on the Performance

The findings of hypothesis one indicated that TMT characteristics significantly affected the performance of Ugandan state agencies. This study operationalised top management team characteristics by the top management team demographics characteristics, top management team psychological characteristics and top management team behaviour characteristics. This study found that behavioural characteristics, demographic characteristics, and psychological characteristics significantly contributed to the performance of Ugandan state agencies. The behavioural characteristics of TMTs affect the performance of organisations via decisions making, speediness, and superiority of decisions. This study's results are

consistent with other prior results by different scholars that psychological characteristics are better measures of performance compared to TMT demographic characteristics (Dezsö & Ross, 2012). The outcomes are in accordance with the findings of Mkalama (2014) who indicated that demographic characteristics allude to the fundamental characteristics, for example, educational level, gender, length of administration and race of TMT members. Mkalama (2014) contended that for organisations to profit from variety in their TMTs, they should have a blend of the right demographic qualities to empower them appropriately decipher the circumstances in their outer surroundings and make fitting methodologies for sustained competitive advantage. Mkalama (2014) found that TMT demographics significantly affected the performance of state corporations in Kenya. The improved behaviour of the management team will improve the performance of Ugandan State Agencies.

In conditions where the state agency or a reputable organisation promotes TMT characteristics, the most important scenarios can be observed within the organisation. However, there seem a lot of unobservable antecedents that affect this relationship. It is therefore vital to concentrate only on the dimensions that apply to Uganda's context as confirmed by AMOS (Kamukama & Natamba, 2013). In this regard the significance of demographic characteristics and psychological characteristics and their association with the performance of Ugandan state agencies. Considering the direct link between TMT characteristics and the performance of state agencies in Uganda, the association exists and is very significant. This, therefore, implies that as agencies employ the elderly in top management positions, this brings in a vast of experience which promotes the performance of state agencies. Moreover, when an advertisement is well specified in stipulating the length of an individual's work experience, this will help in attracting well-experienced

employees who come with a breed of networks and experience and once put in use, this will promote the performance of state agencies in Uganda.

For state agencies where top management skills are valued above anything is an indicator that performance will be sustained since skills that are required is monitored by the top management and are also rewarded, this will sustain well-skilled employees and the performance of state agencies in Uganda will be maintained. In addition, when top management members are aggressive to competitive opportunities, skilled and more valued employees will always put their brains under use and this will increase their performance and thus the overall performance of the state agencies.

Furthermore, it was noted that when agencies have affirmative action where women are considered during the appointment in managerial top positions, this will improve the performance of the state agencies. This is because they come with their patience skills which improve performance (Satriyo & Harymawan, 2018). It was further noted that when proper academic qualifications are followed during the recruitment process, this will enable the agencies to have well-qualified staff who are knowledgeable in the specific areas of their work, and this will promote improved performance among the state agencies. State agencies ought to set suitable levels of education during the hiring process as well as the duration of their employment to intentionally alter their top management teams demographic characteristics in the rule of balance, to create the optimal configuration for enhancing their outcomes Finally, when the top management retains employees who have worked in the same position for more than three years, this helps in retaining well-experienced workers who can be in a position to learn from their experiences and improve the performance of the state agencies.

This study findings indicate that a substantial and direct association was present between the TMT characteristics and the performance of Ugandan state agencies. This can be

explained by the upper-echelon theory, which suggests that the strategic choices and outcomes of an organisation are influenced by the values, cognitive biases, and personalities of its top managers (Hafiz et al., 2021). The dynamic capabilities theory also supports this finding, as it argues that the ability of an organisation to adapt to changing environments depends on its top management team's skills and knowledge to sense, seize, and reconfigure its resources. Therefore, the TMT characteristics of Ugandan state agencies can be seen as a key factor for their performance in a complex and uncertain context.

The results of this study additionally concur with the proponents of the upper echelon theory such as Walumbwa et al. (2011), Avey et al. (2010), and Whetten et al. (2009) who contended that the psychological attributes of workers offer an added benefit to more established proportions of representatives' positive ways of behaving. The ways of behaving they pinpointed are organisational citizenship as well as demographic and more customary individual differences, for example, character attributes, individual association and individual work fit. The advocates of the UET additionally contend that the psychological qualities of an individual are usual fundamental capacities considered basic to human inspiration, cognitive processing and striving for progress that results in unrivalled performance at work.

Table 4.49 indicated a beta coefficient for psychological characteristics of .114 and a significant p-value of 0.000. Thus, psychological characteristics were shown to be significantly associated with the performance of Ugandan state agencies. This implies that when the internal systems tolerate errors made by top managers by trying to solve them, this will help to minimize errors that would have caused the agency challenges to fight against performance. In addition, when the agency recognises the managers/employees who take risky decisions which turn out to be more important an agency achieves high performance because of that, these employees will tend to work more and this will motivate

others to work more and this will lead to the enhancement of the performance of Ugandan public institutions.

This study's findings revealed that psychological characteristics significantly contributed to the performance of various state agencies in Uganda. The findings are consistent with Luthans et al., (2007) and Cameron et al. (2003) that positive psychological attributes of the labour force (TMTs and different workers) can enhance firms by expanding individual and organisational effectiveness. This is further supported by Hiller and Hambrick's (2005) declaration that with regards to confidence, self-adequacy, locus of control, and emotional stability, higher levels do not ensure superior outcomes and,, Peterson and Zhang's (2011) perception that maybe the connection between top management team psychological characteristics and organisational performance could exhibit a nonlinear pattern, recommending that there might be an ideal degree of top management team psychological characteristics past whereby the association takes a different path. The fact that a few attributes of psychological characteristics constructs might have a positive impact while others have a negative influence, therefore, explains why the beta coefficient for top management team psychological characteristics is low at 0.114. However, the results of this research do not concur with the outcomes by Kinuu (2014) who found that top management team psychological characteristics did not have a substantial impact on the profitability per share outcomes of firms traded on the Nairobi Stock Market.

The findings of this study agree with the UET that posits that TMTs in companies pursue choices that are in agreement with their experience attributes and that those choices emphatically impact the performance of their companies. The extent of effects of the TMT also therefore equilibrates the attention of top management research on both the CEO and the TMT (Carpenter et al., 2004). The theory suggests that TMTs in organisations settle on choices that are predictable with their characteristics (Hambrick, 2007). From the UET's

perspective, tenure of TMTs is connected to experience that accompanies flawlessness, level of education is seen to produce a superior analysis of the issues, age is seen to bring advancement to handling circumstances, and functional backgrounds are seen to get the unique aptitude to the functional circumstances and gender diversity is seen to bring various perspectives of circumstances that are important for the predominant performance of organisations.

This study's results are in line with those of a study by Milana and Maldaon (2015) who found that managerial human capital had a substantial impact on the outcomes of a Syrian public organisation. Milana and Maldaon (2015) showed a positive, robust and substantial impact of tenure managers on organisational performance in the public sector in general.

Furthermore, when the top managers promote the building of networks internally and externally this will help in the sourcing of well-knowledgeable employees and also getting the work done and this will improve the functioning of Ugandan state agencies Moreover, building, internal and external networks help an agency to connect to experts in the field of work related to what an agency does and this promotes building on the shoulders of the giants and leads to improved performance among the state agencies.

And finally, as the top management team members tend to relate well with their peers within the organisation, it enhances performance since there can be a form of delegation of work, helping one another in case one individual is not around and it smoothens the overall performance of the state agencies.

The evidence from this analysis suggests per the dynamic capabilities theory which indicates that institutional processes, through which directors transform their capabilities and resources, integrate them to generate advantageous approaches (Eisenhardt & Martin, 2000). Some agencies are speedier, more observant and more adaptive to transformations in the external environment. They regularly are the leading contenders in the field to

incorporate developments and carry out changes in methods, consequently granting them with a ground for persistent competitive dominance.

Consequently, this study's results fill the gap distinguished in a portion of the past studies that mainly zeroed in on TMT demographic characteristics. TMT demographic characteristics are anything but a decent indicator of the link between TMT characteristics and the functioning of organisations but it increases the value to incorporate different categories of TMT characteristics like behavioural and psychological attributes.

As TMT characteristics improve in terms of demographic characteristics, employing members both women and men achieves a rich company of employees which improves affirmative action and thus promotes performance at work. In addition, when well-qualified top management officers are in office, it improves knowledge sharing on how to improve performance and this results in improved performance of Ugandan state agencies.

This study's findings fill the gap distinguished in a few past studies in the conceptualization and estimation of the variables under study. The study took on a methodology of conceptualizing and estimating TMT characteristics utilising approved constructs acquired from social psychology. TMT research has been tormented by problematic and contradictory discoveries because of conflicting estimations of the variables under study (Kinuu, 2014). It accordingly adds an incentive for scholars to embrace demonstrated measures to abstain from deluding and incongruous findings. Considering the direct association between TMT characteristics and the performance of Uganda's state agencies institutions, there exists a significant association between the variables. The outcome of this study can be elucidated by the descriptive and inferential statistics findings from prior scholars and the upper echelons framework.

5.2.2 Top Management Team Characteristics, Strategy Implementation, and Performance of Ugandan State Agencies

The discussion of the study results relied on descriptive and inferential statistics, previous research evidence, and the upper echelon and dynamic capabilities theories. The hypothesis testing revealed that strategy implementation partially mediates the link between TMT characteristics and the performance of Ugandan state agencies. The study findings are consistent with prior studies that showed that TMT characteristics such as TMT skills and market knowledge do not directly relate to organisational performance but influence it through effective strategic management practices (Dominic & Theuvsen, 2015). The findings also align with those of Penrose (2009) who argued that resources and assets are not the only critical factors for organisational performance but rather how they are utilised. Similarly, Edelman, Brush and Manolova (2005), suggested that it is more beneficial for organisations when resources and assets such as TMT characteristics match organisational processes. This means that the respondents agreed that the characteristics measured in this study under the two sub-factors (institutionalisation and operationalisation) were present in the Ugandan state agencies. These findings can be explained by the fact that the sub-factors institutionalisation and operationalisation are related to the strategic decision-making process while resources and assets, systems, capabilities and structure enable and facilitate the implementation of the strategic decisions made by the TMTs of the Ugandan state agencies.

This study findings also corroborate Mankins and Steele's (2005) argument that most organisations achieve only 63% of their performance goals due to gaps in the execution of their planned strategies by their TMTs. This study findings also support ’ Ouche et al.'s (2016) claim that effective strategy implementation requires TMT with specific attributes such as planning skill, performance confidence and adequate resources. The study results

also agree with Njoroge (2015) finding that strategy implementation significantly and positively influenced the performance of state corporations in Kenya.

It was thus crucial to note that while management focuses on the TMT characteristics of behavioural, demographic and psychological aspects, it should also consider the role of operationalisation and institutionalisation under strategy implementation, as these affect the performance outcomes of the state agency. The findings revealed that the constructs of strategy implementation manifest in the state agencies to a moderate extent. Moreover, the results can be attributed to the fact that the sub-factors of institutionalisation and operationalisation of strategy (in terms of strategy, structures, skills, systems, staff, style, shared values, defining output, setting timelines, taking steps, and responsibility) are related to the strategic decision-making process which facilitates the execution of the strategic choices made by the TMTs of the state agencies.

Also, the study findings support the UET propositions that organisational performance results from the alignment of various factors such as; leadership, people, structure, technology, strategy and culture. The individualised interpretation of key situations arises from differences among leaders in their experiences, values, personalities and other human factors. The UET, therefore, supports the relationship between TMT characteristics, strategy implementation and performance of Ugandan state agencies. Moreover, the TMTs should possess attributes that enable them to make sound strategic decisions that match their agencies' prevailing business environments. The TMTs by implementing these decisions achieve superior performance thus confirming the mediating role of strategy implementation in the link between TMT characteristics and the performance of Ugandan State Agencies.

The hypothesis testing revealed that strategy implementation partially mediates the link between TMT characteristics and the performance of Ugandan State Agencies. This result

can be explained by using the upper-echelon theory. According to this theory, TMT characteristics affect how the strategy is formulated and executed, which in turn affects the performance. The upper-echelon theory assumes that top managers have bounded rationality, which means that they cannot process all the information available in complex and uncertain environments. Therefore, they rely on their own experiences, values, and personalities to simplify and interpret the situation and make decisions. As a result, different TMTs may have different strategic behaviours and outcomes depending on their characteristics.

The study findings also align with those of Penrose (2009) who argued that resources are not the only critical factors for outstanding performance but rather how they are utilised. Similarly, Edelman et al. (2005), suggested that it is more beneficial for firms when resources such as the TMT characteristics match the firms' strategies.

Pearce and Robinson (2011) explained that to effectively manage all factors that influence the growth and performance of the firm, the TMTs should implement strategies that enable the firm to achieve sustained competitive advantage by exploiting the opportunities in the business environment and competitive demands. The TMTs should also balance the diverse interests of the firms' stakeholders that may sometimes be conflicting. The TMTs should do this by setting and monitoring various performance indicators for their departments that contribute to their performance. Based on this background, this study aimed to examine the mediating effect of strategy implementation on the link between TMT characteristics and the performance of Ugandan State Agencies.

Previous studies have also demonstrated that aligning key attributes such as staff skills, systems and processes, management styles, organisational culture and design of strategies being implemented significantly affects strategy implementation and leads to superior organisational performance (Springer, 2005). Furthermore, it has been suggested that

breaking down the strategies being implemented by an organisation into measurable activities structured in work plans with deadlines, allocating budgets to the activities and assigning responsibilities with rewards for achieving the set goals and penalties otherwise also enhances strategy execution and is a boost for superior organisational performance (Okumus, 2003). A portion of the past studies has operationalized strategy implementation regarding leadership, assets, abilities, correspondence, culture, frameworks and structure (Njoroge, 2015). Oketch et al. (2021) categorised TMT characteristics into three sub-factors namely, demographic, psychological and cognitive characteristics.

Strategy is essential for an organisation to achieve its objectives as it provides a direction on how to attain them. Strategy implementation involves executing strategic choices and without effective implementation, the whole strategic process becomes futile. The success of strategy implementation in an organisation requires the involvement of top management as they have the power and influence of providing the resources.

The results in Figure 4.25 showed that the partial mediating effect of strategy implementation on the link between TMT characteristics and the performance of Ugandan state agencies met the criteria of mediation as suggested by Baron and Kenny (1986). The results imply that the specific mechanism by which the relationship between TMT characteristics and the performance of Ugandan state agencies occurs is direct, although strategy implementation plays a role in the contribution. Key to these findings is that the relationship between TMT characteristics and the performance of Ugandan state agencies is partially mediated by strategy implementation. This is also consistent with the theory proposed by Teece et al. in 1997 (Dynamic capability theory) which explains that activities such as strategy development and implementation may be driven by management trends such as philosophy change, process reengineering, empowerment, quality, environmental changes, and declining organisational performance. According to dynamic capabilities

theory, the results of this study demonstrate a direct relationship between TMT characteristics and performance outcomes because they reflect the ability of the TMT members to sense, seize, and transform opportunities and threats in the dynamic context of Ugandan state agencies. TMT characteristics also have an indirect effect on performance through strategy implementation because they determine how well the TMT can orchestrate and deploy the organisational resources and capabilities to execute the strategic plans and actions (Herman & Smith, 2015).

TMT characteristics affect performance outcomes through the mechanism of strategy implementation because it reflects how effectively the organisation can leverage its existing resources and capabilities, as well as acquire or develop new ones, to achieve its goals and objectives. Strategy implementation also depends on how well the organisation can balance exploration and exploitation, learning and innovation, and stability and change in response to environmental turbulence (Bleady, Ali, & Ibrahim, 2018; Gremme & Wohlgemuth, 2017). Therefore, this study implies that improving TMT composition and diversity, enhancing TMT cognitive and behavioural processes, and fostering TMT learning and innovation can lead to better dynamic capabilities and performance outcomes.

According to Golden and Zajac (2001), board tenure is associated with strategic conformity among boards with longer terms. In practice, this means that as a TMT, even though they have the right elderly people who are in a position to put their experience into practice and do the right thing, a better implementation of strategy is required. Furthermore, even though top management officers have much more experience as indicated by the age bracket where most of them were above the age of 40, and they were degree holders which shows much knowledge being put to use, without a better implementation of strategy, state agencies may not achieve their set objectives.

The DCT posits that the top management's strategic role is to integrate, adapt, and reconfigure the firm's internal skills, competencies, and resources to match the environmental changes. Clulow, Gerstman, & Barry (2003) argued that management capabilities allow firms to survive and outperform their rivals by making superior strategic decisions and utilizing their resources effectively, especially in complex and low-entry-barrier environments. In such environments, learning and adapting faster than competitors are critical for the firm's survival and competitive advantage, which are facilitated by dynamic capabilities. These capabilities, along with resources, enable organisations to achieve their strategic objectives through effective planning and implementation.

According to upper echelon theory, the results of this study demonstrate a direct relationship between TMT characteristics and performance outcomes because they shape the vision, mission, goals, and culture of the organisation. TMT characteristics affect performance outcomes through the mechanism of strategy implementation because it reflects how effectively the TMT can align the organisational resources and capabilities with the environmental opportunities and threats. Strategy implementation also depends on how well the TMT can cope with uncertainty, complexity, and change in the dynamic context of Ugandan state agencies. Therefore, this study reveals the significance of TMT characteristics and strategy implementation for the performance of state agencies in Uganda. and that they have a complex relationship with each other. This study also implied that improving TMT composition and diversity, enhancing TMT cognitive and behavioural processes, and fostering TMT learning and innovation can lead to better strategy implementation and performance outcomes.

Moreover, when the top management possesses the right skills, they can use them to achieve results, but these results could be enhanced and optimised if the appropriate implementation strategy is adopted. This is because the right strategy helps to reduce the

cost of doing business and to reallocate the resources to more productive ventures within the agency. This will lead to improved performance of state agencies in Uganda. As TMTs are responsible for formulating and executing strategic decisions for their organisations to attain the desired organisational outcomes, strategy implementation is thus a factor that influences the relationship between TMT characteristics and the performance of agencies or organisations. The confirmed mediating effect, therefore, contributes to the research in strategic management.

5.2.3 Top Management Team Characteristics, External Environment, and Performance of Ugandan State Agencies

From the findings, the regression analysis revealed that the external environment moderates the relationship between TMT characteristics and the performance of Ugandan state agencies. The introduction of the interaction term makes the coefficient of TMT characteristics to negative sign which signifies that the moderating variable (external environment) diminishes the causal impact of TMT attributes on the performance of Ugandan state agencies thus changing the direction of the relationship (Aiken & West, 1991). This further implies that external environmental variations in terms of munificence (whereby the interests of the various stakeholders are put in place), political regime, developed government structure and the country's overall political stability will positively affect the link between TMT characteristics and performance of the state agencies. This is because once there is a positive political regime, there will be political stability and policies will be implemented as designed.

This is in line with the findings of Wu, Wu, Tsai, and Li (2017) who found that risk views and mental frameworks act as mediating elements and are influenced by the TMTs' attributes and decision-making. They additionally discovered that psychological proprietorship applies moderating outcomes on TMTs' attributes and decision-making. It

was also indicated that when there are followed societal norms and values, followed by customs of various communities and regions of host communities, this will also affect the connection between the TMT characteristics and the performance of Ugandan state agencies. Moreover, when there are changes in the laws emanating from the counties, and changes in the cultural practices in terms of land demarcations, pastoralism and farming practices, this will affect the relationship between TMT characteristics and the performance of Ugandan state agencies.

The same findings were advocated by the environment dependence theory (EDT) developed by Ansoff & Sullivan (1993) is used to underpin this study. The theory concedes the contention on the thought that organisations ought to persistently break down, filter and assess the environmental setting wherein they work planning to recognize any patterns at the beginning phase before influencing the performance (Kirui, 2016). Thus, as TMTs create strategies, they are exposed to environmental impacts and thus should consistently guarantee that vital decisions take awareness of dangers in the environment where the organisation works (Ansoff Igor & McDonnell, 1990).

From the findings, the external environment moderates the relationship between TMT characteristics and the performance of Ugandan state agencies. This finding can be explained by using the environmental dependency theory, which implies that the performance of an organisation is contingent on its external environment and its ability to acquire and maintain critical resources from its stakeholders. According to this theory, TMT characteristics affect how the agencies can manage their dependencies and uncertainties in the environment, which in turn affects their performance. The environmental dependency theory assumes that organisations face resource scarcity and competition in their environments, which create power imbalances and constraints for their actions. Therefore, they need to develop strategies that enable them to reduce their

environmental dependency and uncertainty by securing access to vital resources. As a result, different TMTs may have different strategies depending on their characteristics and environmental conditions.

The outcomes of this study endorse the fundamental assumptions of the environmental dependency theory that external environments influence organisations as they conduct their entrepreneurial activities. The TMTs are accountable for completing the organisational processes of their entities to accomplish positive performance however in doing the activities, TMTs should distinguish between open opportunities and dangers in their environments. They should hence have traits to empower them to detect and make moves fundamental either to take advantage of valuable opportunities or neutralize dangers. For Uganda state agencies, the external environment includes the society, economy, regulations and political system that influence their TMTs to fulfil their objectives and expectations.

5.2.4 Top Management Team Characteristics, Strategy Implementation, External Environment and Performance of Ugandan State Agencies

Strategic management research has previously revealed that one variable cannot entirely describe the variations in organisational performance. It is against the scenery of this suggestion that the fourth hypothesis was developed. The fourth objective aimed at determining whether the total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Uganda state agencies is different from the individual effects. This study demonstrated that the total independent effect of these variables on the performance of Ugandan state agencies is different from the individual effects. From the findings, it was noted that TMT characteristics, strategy implementation and external environment are significant predictors of the performance of Ugandan state agencies. This was affirmed by the findings obtained after hierarchical regression analysis.

This study established that the total independent effect of TMT characteristics, strategy implementation, and external environment on the performance of Ugandan state agencies is different from the individual effects. The total independent effect was greater than the individual effect. This finding can be explained by using the UET, DCT, and EDT. According to upper echelon theory, TMT characteristics affect how they perceive, interpret, and respond to environmental opportunities and threats, which in turn affects performance. The dynamic capabilities theory also supports this finding. According to this theory, TMT characteristics affect how the organisation can leverage its resources to implement the strategy effectively, which in turn affects performance. The dynamic capabilities theory assumes that organisations face rapidly changing environments that require constant innovation and renewal of their resource base. Therefore, they need to develop processes that facilitate them to merge, create, and alter internal and external capacities to cope with these changes. Moreover, according to the environmental dependency theory, TMT characteristics affect how the organisation can manage its dependencies and uncertainties in the environment, which in turn affects performance. Therefore, the performance of Ugandan state agencies can be seen as a result of a complex interplay of TMT characteristics, strategy implementation, and external environment.

This study's findings are in agreement with a study by Mezger and Violani (2011), who indicated that an efficient strategy implementation requires adapting suitably to the capacities of the organisation. This particularly pertains to essential issues such as the managers' expertise, accumulated experience, and effective decision-making processes. Execution of the strategy depends largely on TMT, and the team's features may influence its success. These features comprise the team duration, magnitude of the team, professional variety, the team mean age, and gender variety. These features are recognized to affect the success of strategy implementation.

The findings also indicated that strategy implementation is found to have a significant relationship with the performance of Ugandan state agencies. This infers that improvement in the elements of strategy implementation (operationalisation and institutionalisation) that were confirmed by confirmatory factor analysis will bring an improvement in the performance of Ugandan state agencies.

This is advocated by Sorooshian et al. (2010) who analysed SMEs in Iran and uncovered the strategy implementation and performance relationship. An examination by Sorooshian et al. (2010) shows a strong relationship between the variables - strategy implementation and OP. They contend that implementing a strategy is a self-persuaded capacity in the vital administration process. Top supervisory groups denote trendsetters, strategists, inspirations and coordinators during the strategy implementation procedure. Waweru (2008) discovered a significant connection between strategy implementation and performance.

It was additionally noted that the external environment is a considerable indicator of the performance of Ugandan state agencies, this is because any improvement in the dimensions of the external environment in the form of munificent and dynamism would result in an improvement in the performance of Ugandan state agencies. Contrary, if the external environment is negative, it will negatively affect the performance of the state agencies. This was also advocated by Oketch et al. (2020) who concluded that the legal environment significantly moderates TMT characteristics and performance connection. A study by Abdullah and Mansor (2018) revealed that the business environment significantly moderates the connection between entrepreneurial skills and small business performance.

5.3 Chapter Summary

This chapter discussed the outcomes of the preliminary analysis and test the hypotheses of the study. The outcomes were found to generally uphold a few past studies while varying from others. The chapter also presented discussions of the findings dovetailed with proof

in existing scholarly material. The succeeding chapter presented the conclusions, implications, and recommendations of this study.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This concluding chapter presents the synopsis and implication of this study regarding the influence of TMT attributes, strategy execution, and the external context on the performance of Ugandan state agencies. The chapter provides a summary of findings, conclusions, recommendations, implications, and contributions. Furthermore, limitations and suggestions for additional research are also discussed.

6.2 Summary of Findings

A cross-sectional study was utilised to acquire knowledge of the research purpose, and data were undertaken from the TMTs of selected Ugandan state agencies. The questionnaire had standardized and predetermined questions to ensure uniformity in the analysis. Specifically, the first part of the tool assessed the background characteristics of the agency and the TMT biodata whereas the second, third, fourth, and fifth sections assessed TMT characteristics, strategy implementation, the external environment, and the performance of the Ugandan state agency, respectively. The quantitative sections were evaluated using both descriptive and inferential statistics.

6.2.1 Preliminary Findings

This study managed to obtain responses from 152 agencies out of the 160 state agencies that were chosen to take part in it. For the background of the agency, preliminary findings show that 62.5% of the state agencies had spent 10 years and above in existence. In addition, 72.4% of state agencies were operating nationally (countrywide) in terms of scope. The findings further show that 61.2% of the state agencies employed between 100 and 500 employees.

In general, 70.5% of the respondents belonged to the age group of 38 to 57, which is in line with the recommended age of most government agencies. In addition, most of them had worked with the agencies for more than 10 years (67.5%), and 56.1% of them had spent more than 5 years in their current position. The long periods of involvement determine the degree to which the respondent was knowledgeable concerning the business and the agency and their adaptability to react to issues. The outcomes also indicate that the majority (39.5%) were master's degree holders, 27.8% had a professional qualification, 18.5% had a postgraduate qualification, and 8.5% had attained a PhD. This is an indication of well-knowledgeable respondents, and this leads to the high performance of the state agencies. Moreover, the majority (60.3%) were males and 39.7% were females. Finally, most of them were heads of departments (41.4%), and the majority of respondents had held different jobs in the same agency before joining their current position (85.4%).

6.2.2 First Objective

The first objective of this study was to assess the relationship between TMT characteristics and the performance of Ugandan state agencies. This study zeroed in on TMT characteristics that were categorised into a trio of components: demographic characteristics, psychological characteristics, and behavioural characteristics. Findings in Table 4.39 reveal that some Ugandan state agencies considered demographic characteristics, psychological characteristics, and behavioural characteristics to a small extent, as evidenced by the minimum values of 2.10, 2.50, and 2.00, respectively. In general, the amalgamated constructs of top management team characteristics (demographic, psychological, and behavioural) reveal that Ugandan state agencies manifest TMT characteristics to a moderate extent, as demonstrated by a mean of 3.75 and a standard deviation of .33. Table 4.48 displays an R-value of .496, which suggests a moderate correlation between TMT characteristics and the performance of Ugandan state agencies.

Furthermore, the Adjusted R square value of .241 means that TMT characteristics explain about 24.1% of the variation in performance of Ugandan state agencies. Also, there is a significant positive relationship between TMT characteristics and the performance of Ugandan state agencies at a 0.05 significance level. The coefficients of the constructs are statistically significant, that is, demographic characteristics ($\beta = .105, t = 2.938, p = .004$), psychological characteristics ($\beta = .114,\ t = 2.019, p = .045$), and behavioural characteristics ($\beta = .521, t = 11.432, p = .000$). Findings reveal that the behavioural characteristics contributed more significantly to the performance of Ugandan state agencies, followed by psychological characteristic and finally demographic characteristics.

6.2.3 Second Objective

The second objective established the mediating effect of strategy implementation on the relationship between TMT characteristics and the performance of Ugandan state agencies. The constructs of strategy implementation were operationalisation and institutionalization. In summary, a mean of 3.50 and a standard deviation of .42 reveal that strategy implementation moderately manifested among Ugandan state agencies. Hayes' (2022) PROCESS version 4 for SPSS provides a model 4 that was used for examining the mediating role in the association between the predictor and outcome variables.

A significant positive correlation between TMT characteristics and strategy implementation was evident in Figure 4.22 (R = .556). Furthermore, the R square value of .309 indicated that TMT characteristics accounted for 30.9% of the variance in strategy implementation. In the first model in Figure 4.22, TMT characteristics were a positive and significant predictor of strategy implementation (a = .726, se = .089, p < .001). Figure 4.23 also revealed that strategy implementation significantly predicted the performance of Ugandan state agencies (b = .531, se = .074, p < .001).

The performance of Ugandan state agencies was significantly influenced by TMT characteristics and strategy implementation. Figure 4.24 displays the R square value of 0.247, which means that TMT characteristics explain 24.7% of the variation in performance. The p-value of less than 0.05 shows that TMT characteristics significantly predicted the performance of Ugandan state agencies. The indirect effect of strategy implementation was significant, implying that strategy implementation partially mediated the association between TMT characteristics and the performance of Ugandan state agencies. Furthermore, both the indirect and direct effects were significant, signifying a partial mediation.

6.2.4 Third Objective

The third objective aimed at examining whether the external environment significantly moderated the TMT characteristics and performance of Ugandan state agencies' relationship. Hayes (2022) model 1 was used to determine the moderating effect. The output in Figure 4.28 reveals a value of R worth .756 indicating a strong correlation between the TMT characteristics, external environment, and the interaction term and the performance of Ugandan state agencies. The model was statistically significant as evidenced by the p-value of .000, F (3,148) = 65.676. Since the interaction term is significant at 0.05, it reveals that the external environment significantly moderates the relationship between the external environment and the performance of Ugandan state agencies.

6.2.5 Fourth Objective

The fourth objective of this study was to establish if the total independent effect of top management team characteristics, strategy implementation and external environment on the performance of Ugandan state agencies differ from the individual effects. The R-value of 0.795 in Table 4.50 reveals a positive and strong significant correlation between the

combination of TMT characteristics, strategy implementation and external environment and the performance of Ugandan state agencies. The combined variables can explain around 63.2% of the variation in the performance of Ugandan state agencies. The combined variables are found to be significant predictors of the performance of Ugandan state agencies. It can be observed in Table 4.50 that the total independent effect of .632 (TMT characteristics, strategy implementation, and external environment) is different from the individual effect of .247 (TMT characteristics), .193(strategy implementation), and .192(external environment). The findings further reveal that the external environment was the most significant predictor ($\beta = .703, t = 8.790, p < 0.05$), followed by strategy implementation ($\beta = .398, t = 6.400, p < 0.05$), and lastly TMT characteristics ($\beta = .180, t = 2.264, p < 0.05$). This implied that positive forces from the external environment do improve the performance of Ugandan state agencies and vice versa. When the forces are negative, they will lead to a reduction in the performance of the agencies. Conversely, when there is positive strategy implementation, there will be a positive increment in the performance of the agencies and vice versa. Thus, the total independent effect of TMT characteristics, strategy implementation and external environment on the performance of Ugandan state agencies is different from the individual effects.

6.3 Conclusion

From the study results, some conclusions can be drawn. It can be concluded that most of the state agencies in Uganda have operated for over 5 years. Also, the predominant portion of these agencies offer services to citizens nationwide. In addition, most of them have a human resource of more than 100 employees.

This study additionally concluded that the TMTs of the majority of the state agencies in Uganda comprise individuals who are between 38 and 57 years of age. This is in agreement with the retirement age of most government officials in Uganda, who are supposed to retire

when they clock 60 years of age, with the exception of the Uganda People's Defence Forces (65 years) and the Judges (70 years) (The Pensions Act, 1946). The majority of the individuals also have an employment tenure and education level of more than five years and a master's, respectively. In addition, the top management team of the state agencies in Uganda is manned mostly by men.

The results reveal that the indicators of the TMT characteristics (demographic, behavioural, and psychological) manifest in state agencies to a moderate extent. The findings largely concur with different scholars who revealed that the TMT characteristics include behavioural (Okello & Ngala, 2019; Wasike et al., 2015), demographic (Oketch et al., 2021b; Jukka, 2020; Mkalama & Machuki, 2019; Wasike et al., 2015), and psychological characteristics (Oketch et al., 2020c; Kinuu, 2014) as applied in different organisations. In addition, the constructs of strategy implementation (operationalisation and institutionalisation) moderately manifest in the state agencies in Uganda. Furthermore, the indicators of the external environment (munificence, dynamism, and complexity) manifest in the Ugandan state agencies to a moderate extent. Also, state agencies in Uganda register moderate performance.

For the first objective, it can be inferred that TMT characteristics had a significant positive effect on the performance of state agencies in Uganda. The findings largely concur with the conclusions of antecedent studies (Oketch et al., 2021b; Prosvirkina & Wolfs, 2021; Wasike et al., 2015). The findings concur with the outcomes of the UET that the TMT characteristics influence the performance of organisations (Hambrick, 2007). It can also be concluded that TMT behavioural characteristics, TMT demographic characteristics, and TMT psychological characteristics significantly contributed to the performance of state agencies in Uganda. Specifically, it can be concluded that TMT behavioural characteristics contributed more to the performance of Ugandan state agencies, followed by psychological

and demographic characteristics. The findings concur with the outcomes of studies by Papadakis and Barwise (2002) and Hambrick et al. (2005), who indicated that behavioural aspects of TMT are the most germane.

For the second objective, it can be concluded that strategy implementation partially mediated the TMT characteristics and the performance of Ugandan state agencies' relationship. The outcomes largely concur with the outcomes by Wasike et al. (2016) and Machuki et al. (2012) and the postulates of the UET. In addition, the findings also largely concur with the dynamic capabilities' theory. The outcomes suggest that the precise mechanism through which the association between TMT characteristics and Ugandan state agency performance happens is direct, and strategy implementation adds to the relationship.

For the third objective, based on the evidence presented, one can infer that the external environment significantly moderates the TMT characteristics and the performance of Ugandan state agencies relationship. The findings largely concur with the outcomes of studies by Omondi et al. (2022) and Arokodare and Asikhia (2020). In addition, the findings concur with the those of Machuki et al. (2012).

In response to the fourth objective, it can be concluded that the total independent effects of TMT characteristics, strategy implementation, and the external environment on the performance of state agencies in Uganda are greater than the individual effects. The results greatly concur with the outcomes of a study by Wasike et al. (2016).

6.4 Implications of the Study

This section offers a comprehensive integration of the research outcomes and their ramifications for theory development, research design, professional practice, and policy formulation. This sub-section examines the ways in which the findings can inform and enrich the scholarly, policy, and practical aspects of strategic management. The study contributes to the growing literature on TMT characteristics, strategy implementation, the

external environment, and the performance of Uganda state agencies. The contributions of this study can be assessed from theoretical, methodological, managerial, and policy perspectives.

6.4.1 Theoretical Implications

This study is based on three theories: the upper echelon (UET), dynamic capabilities (DCT), and environmental dependency (EDT). This study's results add to the support of the current body of scholarly material by giving empirical proof that TMT characteristics, strategy implementation, and the external environment impact the performance of Ugandan state agencies.

The findings validate the UET, which is founded on top managers and their characteristics. The UET argues that optimal performance is achieved when there is a match between the characteristics of top managers and the environment. Previously, TMT characteristics have been estimated using demographic or psychological aspects, however, this study aggregated the three measures (demographic, psychological, and behavioural characteristics) of TMT characteristics, accordingly affirming the upper echelons' constructs of TMT characteristics and approving that the upper echelons' model is upheld when every one of the three constructs of TMT characteristics is utilised. This study further presents a mediating (strategy implementation) and moderating (external environment) variable into the theory of upper echelons. The environment has to be understood by top managers through learning; hence, a policy framework on the development of highly qualified manpower should be implemented in the agencies to manage the resources available. This could lead to eventual self-sufficiency as opposed to being resource-dependent. The agencies can therefore develop and manage resources that are valuable, rare, and inimitable and may be demanded by other agencies. Strategy implementation focuses on translating strategic decisions that arise from the dissimilarity of TMTs and alter

organisational performance into actions. This presupposes that the decisions are made with some thought given to feasibility and acceptability, which therefore complements organisational performance. The outcomes of this study corroborated the association of UET and dynamic capabilities theory with the performance of Ugandan state agencies. The implications of this study also supported the mediation of strategy implementation on the TMT characteristics and performance of Ugandan state agencies' relationship, thereby offering an advancement of theory by interpreting the distinct ways performance is indirectly influenced by the strategic implementation.

The evidence from the study supported the awareness that there is an association between the UET, DCT, and EDT. The dynamic capabilities theory informs the agencies' capacity to incorporate, form, and reconfigure interior and external resources to address and shape issues quickly. The UET includes the decisions of TMTs that relate with environment dependency theory, which shapes alignment and changes to the environment for resources. All these theories advise the TMTs who learn insights about the environment to synchronize their agencies through distinct strategic decisions that ought to be implemented for advanced performance.

This study supports the environment dependency theory by demonstrating that the external environment influences TMT characteristics and performance relationship and that TMTs need to adapt their strategies and behaviours to changing environmental conditions. This study also validated the dynamic capabilities theory by indicating that TMTs with diverse and complementary characteristics can enhance the organisation's ability to sense, seize, and transform opportunities in the environment and thus improve performance. This study also extended the three theories by showing that the combined effect of TMT characteristics, strategy implementation, and external environment on performance is

greater than the individual effects, suggesting that these factors interact and complement each other in influencing performance.

6.4.2 Methodological Implication

This study utilised a cross-sectional design in a positivistic framework. This technique foreshadowed well the quantitative data that was accumulated and it guaranteed the acknowledgement of predictive and interpretive outcomes through hypothesis creation and testing. This study demonstrated that a cross-sectional design is relevant in a positivistic framework. This methodology is consequently proper for future studies while estimating impact and subsequently, this study proposes this approach in similar evaluations. This study demonstrated the applicability and suitability of a cross-sectional design and a positivistic framework for examining the relationship between TMT characteristics, strategy implementation, external environment, and performance of Ugandan state agencies. This study also illustrated the effectiveness and efficiency of a quantitative approach and a self-administered questionnaire for collecting and measuring data from a large and diverse sample of state agencies in Uganda. This study also employed various statistical techniques (linear regression, multilinear regression, hierarchical regression analysis, and Hayes' model) to analyse the data and test the hypotheses, and examine the direct, indirect, and interactive effects of the independent variables on the dependent variable. Upon conducting assumptions of linear regression and guaranteeing that the regression models used did not have errors, the analysis was attempted to wind up with solid results. A linear regression model was utilised to evaluate the mediating and moderating effects of the strategy implementation and external environment on the relationship between TMT characteristics and the performance of Ugandan state agencies. Haye's (2022) PROCESS Models were preferred in determining the mediating and moderating effects against the causal steps approach and further advanced approaches, for

example, distinction in coefficients or product of coefficients approach. The results affirm that it is applicable in estimating the impacts in a current study. Future studies can embrace other scientific models like structural equation modelling in evaluating the mediating and moderating effect.

One more key implication of this study is the approaches applied while measuring the variables. The variables such as TMT characteristics (behavioural, demographic, and psychological), strategic implementation (operationalisation and institutionalisation), the external environment (munificence, dynamism, and complexity) and performance (efficiency and effectiveness) were assessed particularly with various measures being applied in view of respondents' evaluations on a 5-point Likert scale.

6.4.3 Managerial Implications

This study implies that the managers of state agencies should pay attention to the characteristics of their TMTs and ensure that they have a balanced mix of demographic, psychological, and behavioural traits that can enhance their decision-making and performance. The administration of the recruitment process under the Ministry of Public Service should focus on experience and affirmative action to ensure that the TMT characteristics in the form of behavioural, demographic, and psychological characteristics are captured in the team that is at work. This is because unless the old with experience are in the system, the young ones on the board will always find a hectic task to understand the right direction in the process of trying to come up with critical remedies to the challenging things among the state enterprises.

The study also implies that the managers of the state agencies should implement their strategies effectively and efficiently, by communicating them clearly, allocating resources appropriately, coordinating activities smoothly, and monitoring progress regularly. The relevance of an appropriate strategy should not be ignored when any state agency is trying

to develop, since any organisation whether under the government or private sector that doesn't employ the right straight strategy in the dynamic environment will always find it hard to survive in this 21st century. This calls for the use of the right employees who are well experienced in handling challenges and coming up with the right decisions which aim at achieving high performance among the state institutions. The right strategies can come from well-experienced workers who have vast experience and have worked with either one or different state agencies or in the private sector, or from outsourcing a trainer from a more advanced state who has worked with a different state institution. This can help in making sense and training the employees of the state agencies to focus on institutionalization and operationalisation, which will result in the high performance of the state agencies.

This study also implies that the managers of the state agencies should be aware of their external environment and adapt their strategies and behaviours accordingly, by scanning the environment for signals, analysing the trends and scenarios, and taking proactive and reactive actions. The management of the state agencies should take into consideration the challenges that come with the changing environment. It is very critical for any organisation whether public or private, not to ignore the dynamic nature of the environment that we live in. This calls for a contingency plan within every state agency so that there is always a plan B to handle challenges associated with the changing environment. The same findings were advocated by the environment dependence theory (EDT) developed by Ansoff and Sullivan (1993), who indicated that organisations ought to consistently examine, filter, and assess the environmental setting wherein they work, aiming to identify any patterns at a beginning phase before influencing performance (Kirui, 2016). Thus, as TMTs create strategies, they are exposed to environmental impacts and thus should consistently guarantee that vital decisions take into account of dangers in the environment where the organisation works (Ansoff & McDonnell, 1990).

This study also implies that the managers of the state agencies should foster a learning-oriented and innovative culture among their TMTs and staff, by providing opportunities for training, feedback, collaboration, and experimentation.

6.4.4 Policy Implications

This research suggests that the Ugandan government should assist state organizations in order for them to perform their duties more effectively. This entails giving them sufficient tools, instruction, and rewards for both their managers and staff. These organizations must have all they need to be successful; otherwise, even if the staff members are extremely intelligent and are aware of what has to be done, they won't be able to carry it out without the required funding. In essence, having resources is crucial for every governmental institution to succeed. Therefore, resources serve as a vital enabler for achieving success within any given state agency context. These resources can assist in hiring and training highly experienced workers from other organizations who might need a higher salary to transfer from their current employers to the new state agencies. They can also assist in providing the staff with new skills and new techniques for coming up with ideas and finding solutions to the dynamic environment. In order to create better strategies that can be used in operationalizing and institutionalizing state agencies, the top government bodies that are focused on developing development strategies should collaborate with various agencies. This will help them as they attempt to achieve their predetermined goals and objectives, leading to high performance.

The external environment can never be ignored as long as policymakers want to be relevant as they try to set achievable goals and objectives. This is because it is always evolving and requires a workforce that is knowledgeable on how to handle it. The amount of corporate financial discontent is purposely decreased by a greater environmental exposition that is driven by commonly accepted procedures, claim (Shahab et al., 2019). This nexus is

influenced by the TMT's gender diversity, unaccustomed openness, and political allegiance. This further implies that it's the role of the top management to ensure that there is team diversity, which comes with different experiences in handling the challenges that may be associated with the changing environment.

In conclusion, the performance of state agencies is largely influenced by having the right team that is diverse but cohesive, and by applying appropriate strategies that are suitable for the environment. The governing body of the state agencies needs to ensure that they have adequate resources to accomplish their tasks effectively. This study also demonstrates that state agencies should adopt strategies that align with their goals, mission, and vision and satisfy the needs and expectations of their customers and beneficiaries.

This study also recommends that state agencies should monitor and evaluate their external environment and react to the opportunities and threats that emerge from political, economic, social, technological, ecological, and legal aspects. This study also advocates that the state agencies should foster a culture of innovation and learning among their TMTs and staff and encourage them to develop diverse and dynamic capabilities that can enhance their competitiveness and sustainability.

6.5 Contributions to Knowledge

It has been earlier observed that there has been inadequate information in the assessment of top management team characteristics, strategy implementation, and external environment as determining factors of the performance of organisations. This study contributes to the extant literature by exploring how the characteristics of the top management teams, strategy implementation, and the external environment influence the performance of organisations. By integrating three theories (upper echelon, dynamic capabilities, and environment dependency), this study explores how TMT characteristics shape the organisation's ability to sense, seize, and transform opportunities and threats in

the environment, and how this affects the organisation's performance outcomes. In addition, this study contributes to the upper echelon theory by introducing the behavioural characteristics to the theory.

This study sought to comprehend how the effectiveness of state agencies in Uganda is affected by the characteristics of their TMT, strategy implementation, and their external environment. The effectiveness of state agencies is vital for their public service delivery and accountability. Prior studies have explored how the organisational performance is associated with the demographic characteristics of their TMTs, such as age, gender, and education. However, this study went beyond demographics and also investigated the psychological and behavioural attributes of TMTs, such as their values, attitudes, and decision-making styles. These attributes may influence how TMTs interact with each other, execute their strategies, and react to their external environment. The external environment denotes the political, economic, social, and technological factors that influence state agencies. This study adds to the extant literature by offering a more comprehensive and nuanced analysis of the factors that shape the performance of state agencies in Uganda.

This study utilised reliable and consistent measures to examine the way TMT characteristics, strategy implementation, external environment, and performance are related. These measures were tested for their validity, which means that they accurately captured the concepts they were supposed to measure. This approach reduced the possibility of having unclear or contradictory findings with other studies that did not use valid (for instance validity) measures. The outcomes of this study are valuable for researchers and practitioners who want to understand the key factors that affect performance in organisations. This study also contributes to the ongoing debate on how to manage state organisations effectively and efficiently.

This study also has implications for the field of strategic management, as it enriches our comprehension of the factors and theories that affect organisational performance. For instance, the upper echelon perspective, which asserts that TMT attributes influence their strategic choices and actions, should give more weight to the psychological and behavioural aspects of TMTs, rather than concentrating only on their demographic aspects. Furthermore, this study corroborates the upper echelon perspective by demonstrating that TMTs tend to make decisions based on their prior experiences and that these decisions have implications for their organisational performance.

This study proposes a complex model to explore how top management team characteristics and the performance of Ugandan state agencies are related. This model suggests that the influence of TMT characteristics on performance is not direct but rather mediated by strategy implementation and moderated by the external environment. Mediation means that the relationship between TMT characteristics and performance is explained by another variable that links them. In this scenario, strategy implementation is the mediating variable, which implies that TMT attributes influence the degree of effectiveness of the organisation's strategic execution, which subsequently affects its performance. Moderation implies that the association between two variables alters depending on the magnitude of another variable. In this scenario, the external environment is the moderating variable, which implies that the influence of TMT attributes on strategic execution and performance differs depending on the characteristics of the external environment, such as its stability, complexity, and uncertainty.

6.6 Recommendations of the Study

This study likewise makes recommendations in line with its objectives. This study found a significant positive relationship between TMT characteristics and the performance of Ugandan state agencies. This implies that the attributes of the TMT members, such as their

demographics, values, personalities, and experiences, affect how they perceive, interpret, and respond to the external environment of the organisation. Therefore, it is recommended that Ugandan state agencies recruit and retain TMT members with diverse backgrounds, experiences, and perspectives to enhance their performance and adaptability to changing environments.

This study also suggests that the hiring process of TMTs for the state agencies in Uganda ought to incorporate approaches to choosing candidates with suitable behavioural and psychological characteristics since the traditional recruitment processes involve the assessment of demographic characteristics. This can be achieved by utilising the probation period. During this period, behavioural and psychological characteristics can easily be assessed before one fully assumes office.

This study found that the association between TMT characteristics and the performance of Ugandan state agencies is partially mediated by strategy implementation. Therefore, it is recommended that Ugandan state agencies align their strategy implementation processes with their environmental conditions and organisational goals by using appropriate tools and techniques, such as SWOT analysis, balanced scorecards, project management, and performance measurement. The management should focus on formulating strategies for maintaining or hiring well-knowledgeable employees who have good experience and are in the age bracket of 40. This comes with good experience and a lot of determination, which improves the performance of Ugandan state agencies.

Based on the findings and conclusions, this study also offers recommendations to enhance strategy implementation among Ugandan state agencies. This study recommends that the members of the TMT have substantial professional skills that provide value while formulating and implementing strategies. Moreover, all state agencies in Uganda should think of policies based on the capabilities of the individuals in the TMT. This also suggests

that policies ought to be spread out concerning the duration of service for the top management team and should be regulated to prevent excessive incumbency among its members, as this may result in complacency. This may result in members relying on experience, not policy. Furthermore, a composition of members with varying levels of expertise and exposure is recommended such that they can engage in mutual learning and enhance strategic execution. Concerning age, this study suggests that a composition of members with varying levels of expertise and exposure be employed to integrate experience with technology and adaptability. Regarding the final TMT characteristic, the study advocates for gender parity in Ugandan state agencies and gender inclusion in the government to achieve one-third gender representation.

This study suggests that strategy implementation should have a framework that is immune to politics and corruption. Politics and corruption in a country can hinder processes in an institution, so it is essential to have policies and frameworks that can facilitate strategy formulation and implementation processes in governments.

This study also suggests that state agencies in Uganda should establish a reward and recognition system for TMTs and staff who achieve strategy implementation goals so they can be motivated. This is because it is through strategy implementation that the state agencies in Uganda can fulfil their mandates and enhance service delivery. Rewards provide an opportunity for the TMTs and staff to compete among themselves, and this would foster quality, efficiency, competence, and effectiveness in delivering services.

This study found that the external environment moderates the TMT characteristics and performance relationship. This means that the impact of TMT characteristics on performance varies depending on the characteristics of the external environment, such as its complexity, dynamism, and munificence. Therefore, it is recommended that Ugandan

state agencies monitor and evaluate the external environment regularly and proactively respond to opportunities and threats that may affect their performance.

The study found that the total independent effect of TMT characteristics, strategy implementation, and the external environment on performance in the context of Ugandan state agencies is different from the individual effects. Their total independent effect was greater than their individual effects. Therefore, it is recommended that Ugandan state agencies consider the interactions and synergies among TMT characteristics, strategy implementation, and the external environment when designing and implementing strategies to maximize their performance impact.

In conclusion, this study suggests that Ugandan state agencies get a steady financing component. They should not depend just on the supervising ministries. The government should provide funding for them to be monetarily free to fulfil their responsibilities.

6.7 Limitations of the Study

Contextually, this study was confined to only Ugandan state agencies and did not include non-state organisations. This limits the generalizability of the results to other contexts and sectors in Uganda and beyond. The outcomes of this study cannot be used for generalisation by non-state organisations in Uganda. Future research could broaden the scope of this study by including non-state organisations and comparing their performance with that of state agencies.

Conceptually, it was limited to non-financial performance measures such as efficiency and effectiveness. This limits the scope of the study to one aspect of performance and excludes other important measures such as profitability, liquidity, solvency, etc. The outcomes of this study cannot be used to generalize performance in terms of financial measures, which may have different determinants and implications for state agencies in Uganda. A possible solution for this limitation is to include financial performance measures in the study design

and compare them with non-financial performance measures. This could provide a more holistic and balanced view of the performance of state agencies in Uganda. Thus, the outcomes cannot be used to generalise performance in terms of financial measures.

Methodologically, this study is limited to the use of the 5-point Likert scale in most of the sections of the questionnaire. Likert scales are commonly used in social science research, but they have some drawbacks, especially when dealing with sensitive topics such as performance. The respondents may have been influenced by social desirability bias or other factors that affected the accuracy of their answers. Therefore, the results may not reflect the true picture of the performance of state agencies in Uganda. A possible solution for this limitation is to employ alternative methods of data collection, such as interviews or observations, that can provide more in-depth and nuanced insights into the performance of state agencies. Likert scales have been utilised in most research in sociology, but they are limited to a portion of inquiries, especially those dealing with performance. For instance, the performance of state agencies might have been viewed as touchy because of the overall changes in the environment and conditions throughout the gathering of data. This might have impacted the fairness of the reactions thus; the offered responses probably will not have reflected the genuine picture hence impacting the results of this study.

Additionally, this study utilised a cross-sectional research design that only gave what was happening across the state agencies in Uganda at the time of data collection. This research design supports gathering data at a single point in time, and the results from such studies are generally restricted to this study period. This limits the ability of the study to capture the dynamic and complex nature of performance and its influencing factors over time. The outcomes of this study cannot be used to conclude over a long period, as they may not reflect the changes and trends that occur in the performance of state agencies in Uganda. A possible solution for this limitation is to use a longitudinal research design that collects data

at multiple points in time. This could provide more reliable and valid results that can show the patterns and variations of performance over time.

This study was confined to a quantitative methodology that utilised only a questionnaire to collect primary data and a documentary checklist to collect secondary data. This means that some aspects that could be explored through qualitative methods were excluded from the results. Qualitative methods could provide more rich and contextual data that could complement or challenge the quantitative findings. A possible solution for this limitation is to adopt a mixed-methods strategy that integrates both numerical and textual data gathering and analysis. This could enhance the validity and reliability of the study and offer a more nuanced and holistic insight into the performance of state agencies in Uganda.

6.8 Suggestions for Further Research

Although this investigation provides useful insights for state agencies, managers of the state agencies, policymakers, and other interested parties, it has some limitations and also lends itself to additional research. First, it was a cross-sectional survey, so the researcher recommends that future exploration ought to be embraced to look at the mediation and moderation effect across time. In addition, the study used only quantitative data and hence ignored delving into the qualitative aspect that would have given a real feel of the real-life situation.

Secondly, all variables under investigation had a domestic emphasis, despite the growing importance of variables under study in trying to explain the performance of the state agencies, information asymmetries performance of state agencies is global.

Thirdly, this study indicated that the total independent effects of TMT characteristics, strategy implementation, and the external environment explain 63.2% of the changes in the performance of Ugandan state agencies. More research ought to be carried out to explore different variables that contribute to the agency's performance in Uganda.

This study utilised a cross-sectional design which supports gathering data at a particular moment, and the results from such studies are generally restricted to this study period. Thus, future studies ought to take a different approach, such as longitudinal exploration, where the performance of state agencies in Uganda is monitored over time. A longitudinal survey design would show the connections among the study findings as observed over a given period.

Thus, future examinations ought to consolidate qualitative approaches utilising for instance observations and interview guides.

This study findings suggest some avenues for future research. For instance, it would be worthwhile to examine other TMT characteristics that influence strategy implementation in Ugandan State Agencies. Additionally, alternative analytical methods, such as Chi-square, could be employed to assess the impact of top management on strategy implementation. As a final point, it would be interesting to conduct research on other private agencies to confirm whether all state agencies in Uganda are affected in the same way.

A comparative study on TMT characteristics and performance of state agencies with those of private companies in Uganda is recommended to check whether the discoveries will be something very similar. Similar studies could be done by getting different mediating and moderating factors. This will help in building the literature further through researching other factors and increase the extent of the results and the degree of generalization.

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APPENDICES

Appendix I: Researcher's Introduction Letter

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. Box 1410, Mbarara Uganda. Tel: +256 772415113 | +256 702643713
Email: anuwagaba@must.ac.ug Website: https://www.must.ac.ug
DEPARTMENT OF PROCUREMENT AND MARKETING

25th August, 2021

The Executive Secretary
National Drug Authority
P.O. Box , Kampala
Uganda

Dear Sir ,

Re: Administrative Clearance to Conduct Research in your Agency

I am Arthur Nuwagaba a doctoral candidate at the University of Nairobi seeking administrative clearance to collect data from top management team members in your agency. This administrative clearance is a requirement from Uganda National Council for Science and Technology. The topic under study is "*Top Management Team Characteristics and Performance of Ugandan State Agencies*". The objectives of the study are:

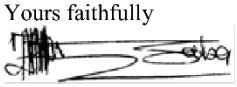
i. Determine the influence of top management team characteristics on the performance of Ugandan state agencies.
ii. Establish the mediating effect of strategy implementation on the relationship between top management team characteristics and performance of Ugandan state agencies.
iii. Determine the moderating effect of the external environment on the relationship between top management team characteristics and the performance of Ugandan state agencies.
iv. Establish the joint effect of top management team characteristics, strategy implementation and external environment on the performance of Ugandan state agencies.

On completion of this study, it will be beneficial to the participating agencies by informing policy on the modalities to improve the performance frameworks for government agencies towards hastening the reforms agenda of achieving sustainability and service excellence. Additionally, the study findings will guide organisational top management on the recommended modalities towards effective strategy implementation in line with the organisational environment to foster performance. This study is only for academic purposes and all the data given will be kept with utmost confidentiality.

I look forward to getting a positive response from you.

Thank you.

Yours faithfully



Arthur Nuwagaba

LECTURER

Ps. Enclosed are supporting documents

Appendix II: Introductory Letter from University of Nairobi

UNIVERSITY OF NAIROBI
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

Telephone: 0204919008
Telegrams: "Varsity" Nairobi
Telex: 22095 Varsity

P.O. Box 30197-00100
Nairobi, KENYA

August 4th, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

INTRODUCTORY LETTER FOR RESEARCH:
ARTHUR NUWAGABA – REGISTRATION NO. D80/50303/2016

The above named is a registered PhD candidate at the University of Nairobi, Faculty of Business and Management Science. He is conducting research on ***"Top Management Team Characteristics and Performance of Uganda's State Agencies".***

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the research project. The information and data required is needed for academic purposes only and will be treated in **Strict-Confidence**.

Your co-operation will be highly appreciated.

Thank you.

PROF. JAMES NJIHIA
ASSOCIATE DEAN,
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

JN/pgr

Appendix III: Research Ethics Committee Letter

UGANDA CHRISTIAN UNIVERSITY
A Centre of Excellence in the Heart of Africa

26/05/2021

To: Arthur Nuwagaba

University of Nairobi
0772415113

Type: Initial Review

Re: UCUREC-2021-128: TOP MANAGEMENT TEAM CHARACTERISTICS AND PERFORMANCE OF UGANDAN STATE AGENCIES, 1, 2021-04-04

I am pleased to inform you that the Uganda Christian University REC, through expedited review held on **26/05/2021** approved the above referenced study.
Approval of the research is for the period of **26/05/2021** to **26/05/2022.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **26/05/2022** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by Uganda Christian University REC:

No.	Document Title	Language	Version Number	Version Date
1	UoN Approval	English	1	2021-04-22
2	PI Profile	English	1	2021-04-28
3	Informed Consent forms	English	1	2021-04-04
4	Data collection tools	English	1	2021-04-04
5	Protocol	English	1	2021-04-04

Yours Sincerely

Peter Waiswa
For: Uganda Christian University REC

Appendix IV: Administrative Clearance Letters from some of the State Agencies

DRUG

NATIONAL **AUTHORITY**

Safe Drugs Save Lives

24th September 2021

OUR REF: 181/SA/NDA/09/2021

Arthur Nuwagaba
Doctoral Student
University of Nairobi

ADMINISTRATIVE CLEARANCE.

Reference is made to your email request seeking for administrative clearance from National Drug Authority to conduct a research study entitled "Top Management Team Characteristics and Performance of Ugandan State Agencies"

In your application, you indicate that this is a requirement by the Uganda National Council for Science and Technology before you are cleared for data collection. You equally indicate that the study is only for academic purposes and that when the study is concluded, it will be beneficial through informing policy on the modalities to improve the performance frameworks for government agencies towards hastening the reforms agenda of achieving sustainability and service excellence.

This is to inform you that permission has been granted to conduct Research in National Drug Authority. Once time for data collection is due, the Authority will be willing to avail you the necessary data.

Nahamya David
SECRETARY TO THE AUTHORITY

HEAD OFFICE
Plot 19 Lumumba Avenue P.O. Box 23096, Kampala, Uganda
Tel: (+256) 417 788 100/1 (+256) 417 788 124/417 788 128
Toll Free: 0800 101 999, 0791 415 555
Website: www.nda.or.ug, Email: ndaug@nda.or.ug
Facebook: Uganda National Drug Authority
Twitter: @UNDAuthority
NATIONAL DRUG QUALITY CONTROL LABORATORY
Tel: (+256) 414 540 067 / (+256) 414 583 095

OUR MISSION
Promoting and protecting public health through the effective regulation of human and animal medicines and healthcare products

REGIONAL OFFICES
Central Region, Nakawa- Tel: +256 393 261 548,
Western Nile Region, Arua - Tel: +256 414 671 033,
South Western Region, Mbarara- Tel: +256 414 671 034,
South Eastern Region, Jinja - Tel/ Fax: +256 434 122 176,
Eastern Region, Tororo - Tel: +256 454 445 195,
Western Region, Hoima- Tel:/Fax +256 465 440 688,
Northen Region, Lira- Tel/Fax +256 414 671 032

Uganda Revenue Authority
DEVELOPING UGANDA TOGETHER

Head Office: Plot M193/M194 Nakawa Industrial Area
P.O.Box 7279, Kampala Uganda
Tel: +256417442097
Fax: +256414334419
Toll Free: 0800117000
Email: info@ura.go.ug

URA/L&D/2021-22 September 23,2021

Nuwagaba Arthur
Mbarara University of Science and Technology
P.O BOX 1410,
MBARARA, UGANDA.

LETTER OF OFFER

Please refer to your request to carry out research on the Topic **"Top Management Team Characteristics and Performance of Ugandan State Agencies."**

This is to inform you that your request has been considered and granted on the following terms:

a) Your research period shall not exceed two (2) months. If you require more time, then you will be required to formally request the Assistant Commissioner Learning and Development.
b) You will also avail a copy of research results in a bound book to the Assistant Commissioner Learning and Development after the completion of the Research.
c) You will sign an Oath of Secrecy to maintain confidentiality of information received in the course of the Research.

Your research will be guided by the Heads of Station where you will issue questionnaires, carry out interviews and you are obliged to agree on how the research will be conducted.

I wish you success in your endeavors.

Nabambi L.
Lydia Nsibambi Mulondo
Assistant Commissioner Learning & Development

Appendix V: Uganda National Council of Science and Technology Research Authorization Letter

Uganda National Council for Science and Technology

(Established by Act of Parliament of the Republic of Uganda)

Our Ref: SS999ES **1 October 2021**

Arthur Nuwagaba
Mbarara University of Science and Technology
Mbarara

Re: Research Approval: **TOP MANAGEMENT TEAM CHARACTERISTICS AND PERFORMANCE OF UGANDAN STATE AGENCIES**

I am pleased to inform you that on **01/10/2021**, the Uganda National Council for Science and Technology (UNCST) approved the above referenced research project. The Approval of the research project is for the period of **01/10/2021** to **01/10/2022**.

Your research registration number with the UNCST is **SS999ES**. Please, cite this number in all your future correspondences with UNCST in respect of the above research project. As the Principal Investigator of the research project, you are responsible for fulfilling the following requirements of approval:

1. Keeping all co-investigators informed of the status of the research.
2. Submitting all changes, amendments, and addenda to the research protocol or the consent form (where applicable) to the designated Research Ethics Committee (REC) or Lead Agency for re-review and approval **prior** to the activation of the changes. UNCST must be notified of the approved changes within five working days.
3. For clinical trials, all serious adverse events must be reported promptly to the designated local REC for review with copies to the National Drug Authority and a notification to the UNCST.
4. Unanticipated problems involving risks to research participants or other must be reported promptly to the UNCST. New information that becomes available which could change the risk/benefit ratio must be submitted promptly for UNCST notification after review by the REC.
5. Only approved study procedures are to be implemented. The UNCST may conduct impromptu audits of all study records.
6. An annual progress report and approval letter of continuation from the REC must be submitted electronically to UNCST. Failure to do so may result in termination of the research project.

Please note that this approval includes all study related tools submitted as part of the application as shown below:

No.	Document Title	Language	Version Number	Version Date
1	Informed Consent forms	English	1	04 April 2021
2	Data collection tools	English	1	04 April 2021
3	Project Proposal	English	1	
4	Approval Letter	English		
5	Administrative Clearance	English		
5	Risk Mitigation Plan	English	1	27 September 2021
6	Sample of Administrative Clearance from selected Agencies	English	1	27 September 2021

Yours sincerely,

Hellen Opolot
For: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

LOCATION/CORRESPONDENCE

Plot 6 Kimera Road, Ntinda
P.O. Box 6884
KAMPALA, UGANDA

COMMUNICATION

TEL: (256) 414 705500
FAX: (256) 414-234579
EMAIL: info@uncst.go.ug
WEBSITE: http://www.uncst.go.ug

Appendix VI: Questionnaire for Top Management Teams of State Agencies

Part I: Agency Background. Please tick ☑ appropriately

1. Name of the agency: ……

2. How long (in years) has your agency been in operation in Uganda?

Less than 5☐ 10 – 15☐

5 – 10 ☐

3. What is the scope of the agency's operations?

National ☐ Regional ☐ Central ☐

4. What is the size of your agency in terms of the number of permanent employees

Less than 100 ☐ 500 – 1000 ☐

100 – 500 ☐ More than 1000 ☐

Top Management Team Bio Data

1. Age

18 – 27 ☐ 48 – 57 ☐

28 – 37 ☐ 58 – 67 ☐

38 – 47 ☐ 68 and above ☐

2. Employment tenure

Less than 2 years ☐ 12 – 14 years ☐

3 – 5 years ☐ 15 – 17 years ☐

6 – 8 years ☐ 18 and above years ☐

9 – 11 years ☐

5. How long (in years) have you held your current position in the agency? Please circle your answer below.

Less than one (1) year ☐ 4 – 5 ☐

1 – 3 ☐ ☐ Greater than 5☐

6. Level of education

Diploma ☐

Bachelors' Degree ☐

Postgraduate☐

Masters ☐

PhD ☐

Others(specify)_____

7. Gender

Male ☐

Female ☐

8. Please indicate your position in the agency

Chief Executive officer/Managing Director ☐

Deputy/ Assistant CEO ☐

Corporation Secretary ☐

Head of Department ☐

9. Before your appointment to the current position, please indicate what your previous position was by circling one of the answers below

I was doing a different role in the current agency or any of its affiliate ☐

I was working for a different agency ☐

other (Please elaborate) _____

Part II: To what extent do the following statements apply to your agency? Give your ratings on a scale of 1-5. (Where 1 = Not at all; 2 = Small extent 3 = Moderate extent 4 = Great extent 5 = Very great extent)

	Top Management Team Characteristics					
	Demographic Characteristics					
DC1	Our agency appoints elderly people to top management team positions					

DC2	Several years of work experience are rated highly when appointing people to top management team positions in our organisations					
DC3	Our agency strives to ensure gender balance in the composition of the top management team					
DC4	Young people have an equal chance to serve in top management team positions in our agency					
DC5	Our agency has affirmative action in the appointment of women to the top management team					
DC6	Our agency has academic qualification criteria that are considered whilst recruiting and promoting top management team					
DC7	Our agency is strict on professional qualifications when employing top managers					
DC8	The majority of the agency's top managers have held their current position for over 3 years					
v.	Psychological Characteristics					
Ps1	The majority of our top managers are sourced from within the agency					
Ps2	Our internal systems tolerate errors made by top managers					
Ps3	Our agency rewards managers that take calculated risks in decision making					
Ps4	Our top managers promote the building of networks internally and externally					
Ps5	In our agency, top management team skills are valued above anything else					
Ps6	Our top management team members are aggressive to competitive opportunities					
Ps7	The majority of our top managers relate well with their peers within the organisation					
	Behavioural characteristics					
Bc1	In our organisation, Top Management makes decisions faster					
Bc2	Top management team members are motivated by high targets					
Bc3	It takes top management team members a short time to make decisions					
Bc4	The communication patterns for top management team members are highly standardized					
Bc5	Doing the same thing in the same organisation for a long time makes top management team members happy.					

Part III: Strategy Implementation

Use a tick to indicate in the space provided the extent to which you agree with the following statements.

No	Item	5	4	3	2	1
Operationalisation						
Op1	The agency has the correct systems to support implementation initiatives					
Op2	The organisation has put in place specific process performance goals					
Op3	Online control of information has been established					
Op4	Information flow through the process is continuous and efficient					
Op5	Process measurements are defined.					
Op6	Tasks performed are is concerning strategy					
Op7	Accountability is clearly defined					
Institutionalisation						
In1	The organisation equips employees with relevant skills to enable them to carry out strategic activities.					
In2	Appropriate knowledge is shared within the organisation to support strategy execution					
In3	The corporation has a program to frequently update employees 'skills and capabilities to support the execution of new strategies					
In4	The organisation has installed operating systems that support strategy implementation					
In5	The organisation has installed information and communication systems that support strategy execution					
In6	The existing systems are flexible as to accommodate any changes during strategy execution					

Part V: External environment

On this basis, please indicate the extent to which the following aspects of the organisational-environment matter to your organisation. Use the key below and TICK as appropriate.

Key: 1-Not at all; 2-Less extent; 3- Moderate extent; 4- Large extent; 5- Very large extent

No	Item	5	4	3	2	1
Munificence						

Mu1	Interests from various stakeholders					
Mu2	Government pronouncements on changes in policy from time to time					
Mu3	The political stability of the country					
Mu4	Change of political regime					
Mu5	Devolved Government structure					
Mu6	The country's overall political stability					
Complexity						
Co1	Government's fiscal policies					
Co2	Taxation policies					
Co3	Inflationary trends in the country					
Co4	Level of the country's overall economic development					
Co5	Foreign exchange rates					
Co6	Interest rates					
Co7	Availability of credit					
Co8	Changes in the taxation regime					
Co9	Annual Budget allocations to the organisation					
Co10	Intermittent budget reviews and re-allocations by Government					
Co11	Occurrences in the natural environment (e.g.; drought, rainy season etc.)					
Dynamism						
Dy1	Societal norms and values					
Dy2	Customs of various communities					
Dy3	The religion of host communities					
Dy4	New laws emanating from the counties					
Dy5	Cultural practices e.g. land demarcation, farming practices, pastoralism, etc					
Dy6	Civil society organisations‟ agitation for environmental concerns					
Dy7	Developments in ICT, for example, the laying down of the fibre optic cable, internet, changes in ICT products etc.					
Dy8	Legislative activities touching on the business of the agency					
Dy9	The legal framework prescribing the mandate of the organisation					

Part V: Performance of the State Agency

Please indicate the extent to which the following statements describe your agency's performance over the past five years. Use the key to TICK as appropriate

Key:

1-Not at all; 2-To a less extent; 3-To a moderate extent; 4-To a large extent; 5-To a very large extent

No	Item	5	4	3	2	1

Effectiveness						
Eff1	The organisation has complied with set budgetary levels					
Eff2	There has been a reduction in costs of operations					
Eff3	The organisation has improved its Appropriation-in-Aid					
Eff4	Allocated funds have been utilized effectively					
Eff5	Allocated funds have been utilized efficiently					
Eff6	The cost incurred in completing business processes has been reduced considerably.					
Eff7	The organisation fulfils the expectation of its stakeholders					
Eff8	There are high-performance work systems in my organisation					
Eff9	The organisation has an effective policy development policy that incorporates the views of the stakeholders					
Efficiency						
Ef1	The organisation responds to customers' complaints promptly					
Ef2	The organisation makes optimal use of its financial resources.					
Ef3	The organisation reacts to any changes in policy, law and new government directives immediately					
Ef4	The organisation evaluates progress made in the organisation from time to time against set targets					
Ef5	The organisation delivers its services/products promptly without any delay					
Ef6	The organisation controls overhead costs.					
Ef7	The organisation responds to customer complaints promptly.					
Ef8	The organisation can retain its customers as compared to its peers in the industry					
Ef9	The organisation has a customer loyalty scheme					
Ef10	There has been increased access to quality public service					
Ef11	The customer satisfaction index has been improving for the last five years					
Ef12	It takes lesser time to complete basic processes					
Ef13	The organisation offers excellent service to its customers					
Ef14	Clients are satisfied with our services					
Ef15	The organisation’s internal processes have improved considerably in the last three years					
Ef16	In our organisation, we actively implement utility efficiency programs					

Thank you.

Appendix VII: Documentary Check List

Performance of the State agency (Review of strategic plans, performance reports, and Auditors' reports published on various websites of the state agencies)

vi. The agency utilizes allocated resources/funds on the budget

vii. The agency attains its goals

viii. It takes lesser time to complete basic processes

ix. The agency achieves its set targets

x. The agency achieves the assignments on time with the correct assets and in the correct quality

xi. The agency utilises its resources

xii. The activities of the agency have continued to improve for the last five years

xiii. Corruption eradication has been mainstreamed in the organisational activities

Appendix VIII: Government Agencies

HEALTH	Health Service Commission
	National Drug Authority
	Mulago Hospital Complex
	Butabika Hospital
	Uganda Aids Commission
	Uganda Heart Institute
	Uganda Cancer Institute
	Referral Hospitals
	Uganda Blood Transfusion Service
	National Medical Stores
	Allied Health Professionals Council
	Joint Clinical Research Centre
	National Chemotherapeutic Laboratory
	Uganda Medical and Dental Practitioners Council
	Uganda National Health Research Organisation
	Uganda Nurses and Midwives Council
	Uganda Pharmacy Council
	Uganda Trypanasomiasis Control Council
	Uganda Blood Transfusion Services
	Uganda Heart Institute
	Medical and Dental Practitioners Council
	Pharmaceutical Society of Uganda
	Virus Research Institute
EDUCATION	Education Service Commission
	Education Standards Agency
	Makerere University
	Mbarara University of Science and Technology
	Makerere University Business School
	Gulu University
	Busitema University
	Uganda Management Institute
	Kyambogo University
	Muni University
	African Institute for Capacity Development
	National Council for Higher Education
	Crested Crane Hotel and Tourism Training Institute
	Inter-University Council
	Management Training and Advisory Centre
	Mandela National Stadium
	Makerere University Business School
	Nakivubo War Memorial Stadium
	National Curriculum and Development Centre

	National Leadership Training Centre
	Public Libraries Board (Library of Uganda)
	Uganda National Council of Sports
	Uganda National Examinations Board
	Students Financing Board
WORKS AND TRANSPORT	Uganda National Roads Authority
	Uganda Road Fund
	Civil Aviation Authority
	Engineers Registration Board
	National Roads Safety Council
	Transport Licensing Board
	Uganda Railways Corporation
	National Roads Safety Boards
	Rift Valley Railways
INFORMATION AND COMMUNICATION TECHNOLOGY	National Information Technology Authority
	Uganda Posts Ltd
	Uganda Communications Commission
	Uganda Telecoms Ltd.
	Uganda Institute of Information & Communications Technology
	New Vision Printing and Publishing Company
	Uganda Printing and Publishing Corporation
	Parliamentary Service Commission
	Uganda Broadcasting Corporation
	Posta Uganda
	National Records and Archives Agency
	National Passport Issuance agency
LEGISLATURE, JUSTICE, LAW AND ORDER	Judicial Service Commission
	Uganda Law Reform Commission
	Uganda Human Rights Commission
	Uganda Police Force
	Uganda Prisons Services
	Uganda Prisons
	National Citizenship & Immigration Control
	Uganda Registration Services Bureau
	Uganda NGO Registration Board
	Centre for Alternative Dispute Resolution
	Law Development Centre
	Tax Appeals tribunal
PUBLIC SECTOR MANAGEMENT	Office of the Prime Minister
	Local Government Finance Commission
	National Planning Authority
	Kampala Capital City Authority
	Uganda Land Commission
	Amber House

LANDS, HOUSING AND URBAN DEVELOPMENT	National Housing and Construction Company
	Uganda Property Holdings Limited
ENERGY AND MINERAL DEVELOPMENT	Rural Electrification Agency
	Electricity Regulatory Authority
	Rural Electrification Fund
	Uganda Electricity Distribution Company Limited
	Uganda Electricity Generation Company Limited
	Uganda Electricity Transmission Company Limited
	Uganda National Meteorological Authority
	Uganda Atomic Energy Council
	Uganda National Oil Company
	Petroleum Authority of Uganda
	Uganda Oil Refinery
	Uganda Energy Credit and Capitalization Agency
	National Chemotherapeutic Research Institute
ACCOUNTABILITY	Uganda Revenue Authority
	Uganda Bureau of Statistics
	Office of the Auditor General
	Directorate of Ethics and Integrity
	Inspectorate of Government
	Public Procurement & Disposal of Public Assets Authority
	Attorney General of Uganda
	Bank of Uganda
	Capital Markets Authority
	Housing Finance Company of Uganda
	Kilembe Mines Ltd
	National Insurance Corporation
	National Social Security Fund (NSSF)
	Non-Performing Assets Recovery Trust
	Post Bank
	Tropical Africa Bank Ltd (Libyan Arab Holding)
	Uganda Development Bank
	Metropolitan Physical Planning Authority
	Uganda Insurance Commission
	Insurance Regulatory Authority
	Uganda Microfinance Regulatory Authority
	The Microfinance Support Centre Limited
	Uganda Financial Intelligence Authority
	Uganda Retirement Benefits Regulatory Authority
	Uganda Deposit Protection Fund
	National Identification Regulatory Authority
	Uganda Free Zone Authority
	Non-Performing Assets Recovery Tribunal

	National Lotteries Board
	Tax Appeals Tribunal (TAT)
	Departed Asians' Property Custodian Board
	Economic Policy Research Centre
WATER AND ENVIRONMENT	National Environment Management Authority
	National Forestry Authority
	National Environment Management Agency
	National Water and Sewerage Corporation
PUBLIC ADMINISTRATION	Office of the President
	Electoral Commission
	State House
	Inspector General of Government
	Population Secretariat
	National Population Council
TOURISM, TRADE AND INDUSTRY	Uganda National Bureau of Standards
	Uganda Industrial Research Institute
	Uganda Tourism Board
	AGO Secretariat
	Cable Corporation
	Kinyara Sugar Works
	Mweya Safari Lodge
	Nile Hotel
	Sugar Corporation of Uganda
	Uganda Development Corporation
	Uganda Export Promotion Board
	Uganda Investment Authority
	Uganda National Council of Science and Technology
	Uganda Wildlife Authority
	Uganda Wildlife Education Centre Trust
	UGMA Engineering Company Ltd
	Uganda National Chamber of Commerce and Industry
	Uganda Cleaner Production
	Textile Development Agency
	The Uganda Warehouse Receipt System Authority
	Uganda Commodity Exchange
	Uganda Island Chimpanzee
SOCIAL DEVELOPMENT	Equal Opportunities Commission
	Amnesty Commission
	Uganda National Cultural Centre
	National Council for Children
	National Disability Council
	National Women Council
	National Children Authority
	National Citizenship and Immigration Control

	National Council for Disability
	National Council for Older Persons
	National Youth Council
AGRICULTURE	National Agricultural Advisory Board
	Dairy Development Authority
	National Agriculture Research Organisation
	Cotton Development Organisation
	Dairy Corporation Ltd
	Lake Victoria Fisheries Organisation
	National Agricultural Advisory Services
	National Agricultural Genetic Resource Centre
	Plan for Modernisation of Agriculture
	Zonal Agriculture Research Institute
	National Agricultural Research Organisation
	National Animal Genetic Resource and Information Centre
	Plan for Modernisation of Agriculture Secretariat
	National Genetic Resource Centre and Databank
	Coordinating Office for the Control of Trypanosomiasis in Uganda
	Uganda Livestock Industries Limited
	Uganda Coffee Development Authority
	Uganda Seeds Limited
	Uganda Commodities Exchange
	Uganda Cotton Development Agency
SECURITY	Internal Security Organisation
	External Security Organisation
	National Enterprise Corporation
	Uganda Air Cargo
	Enterprise Uganda Foundation Limited

Source: UBOS, 2019

Appendix IX: Krejcie and Morgan

Required Sample Size†

Population Size	Confidence = 95% Margin of Error				Confidence = 99% Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586