

American Journal of
Leadership and Governance
(AJLG)

LEADERSHIP
and
GOVERNANCE

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Performance Contracts (PC) in Road Agencies in
Kenya**

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Relationship between Idealized Influence (II) and Performance Contracts (PC) in Road Agencies in Kenya



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Article history

Submitted 24.01.2024 Revised Version Received 05.02.2024 Accepted 07.02.2024

Abstract

Purpose: This study entailed a diagnostic analysis of the relationship between idealized influence and performance contracts in road agencies in Kenya. The objective of this research was to investigate the relationship between idealized influence and performance contracts in road agencies in Kenya. Operationalization of variables included idealized influence as an independent variable and performance contracts as a dependent variable. Theories that guided the study included transformational leadership theory and public management theory.

Materials and Methods: Descriptive research design was used for the study and pragmatism was adopted as the philosophical framework for the research. Convergent parallel mixed method approach was adopted where data was collected through questionnaires for quantitative data and structured interviews for qualitative data. The target population for the research was all staff members at top management and other officers in job group 6 (six) and above for the three road agencies in Kenya. These road agencies included Kenya National Highway Authority (KeNHA), Kenya Urban Roads Authority (KURA) and Kenya Rural Roads Authority (KeRRA). Data collected was analyzed through descriptive statistics, inferential analysis and hypothesis testing. The collected data was presented through tables and figures. Findings from the above analysis indicated that the performance contracts process and its outcomes in road agencies in Kenya could be predicted by idealized influence. The null hypothesis was rejected as p value was less than $p < 0.05$ threshold of significance level and the study concluded that idealized influence has a significant relationship with performance contracts in road agencies in Kenya.

Findings: The study rejected the null hypothesis that there is no significant relationship between idealized influence and performance contracts in road agencies in Kenya. The foregoing was supported by both results and findings from descriptive statistics, hypothesis tested and structured interviews conducted in the three road agencies. Leaders who were interviewed in these road agencies indicated that they also practiced integrity and leadership behaviors that could be emulated by their followers.

Implications to Theory, Practice and Policy: The study thus supported the transformational leadership theory that was adopted for the study. Further, the study has bridged and addressed gaps on motivation, training and lack of leadership as identified in the statement of problem. This study has recommended that policy makers in road agencies should include idealized influence in their leadership and also align it with their strategies as detailed in strategic plans, performance contracts and individual workplans to enhance motivation, training and capacity building among employees of the studied organizations. The study also contributed to the transformational leadership theory as the was supported by the findings that leaders in these organizations should be role models and practice integrity in the process of performance contracting in road agencies. The study further recommended that policy makers in road agencies should entrench appropriate leadership (transformational leadership) during the process of performance contracting in road agencies.

Keywords: *Transformational Leadership, Role Model, Integrity*

1.0 INTRODUCTION

Leadership has a critical and central role in assisting teams and members to face challenges and work towards realizing set organizational goals and target (Abbas, 2010). Leaders in organizations are expected to promote changes through a vision, a mission and strategies that are beneficial to organizations. Organizations' leadership take charge of their operations as they set goals and objectives while steering them in achieving their results through strategies that are efficient and effective (Yazdanifard & Hao, 2015). The construct of leadership originally studied or considered under the functions of directing under general management, is taking a more central focus and attention in the organizations' life. The foregoing is due to the strategic role leadership plays in steering organizations in carrying out their obligations in a highly turbulent environment.

As most organizations experience increased turbulence, there is a lot of growing interest on how leadership can be deployed in offering directions to those organizations for them to survive and achieve their strategic goals to the satisfaction of expectant stakeholders (Kurt, 2018). Even though leadership has traditionally been studied as a component of management, in the era where organizations are experiencing increased turbulence, it is becoming clear that leadership plays a far much greater role in contributing to their success (Dembowski, 2018). Organizations must therefore take into consideration the foregoing perspective of leadership in making investments in this area so that they can also realize benefits which are linked to organizational performance and alignment of systems of organizations that can and will sustain the same level of performance even in future (Karamat, 2013).

Statement of the Problem

Performance contracts are a tool with a clear definition of goals and objectives, and they are used to support innovation in organizations (Kemei, 2015). As part of the new public management, measurement of performance in organizations is pertinent in delivery of improved services. New public management principles place a lot of faith in leadership and its inclination to empowerment of managerial and general performance management principles in organizations (Paul & Sarisa, 2015). Notable challenges or gaps in the implementation of performance contracts processes in the public sector include inadequate capacity development, and lack of awareness of performance contracts meaning and purpose by the middle and lower-level personnel in most organizations (Gichini, 2015). According to Kemboi (2020), other challenges that have greatly hindered implementation of performance contracts in Kenya include lack of leadership, organizational culture, financial constraints and resistance to change. He opines that lack of training and motivation among the workers contributes a lot to low levels of achievement of set targets and goals. This study therefore investigated how idealized influence can be used to improve on the identified gaps which are training, motivation, capacity development and strategy formulation in the implementation of performance contracts in road agencies in Kenya.

Research Objective and Hypothesis

The study was guided by the following objective,

To investigate the relationship between idealized influence and performance contracts in road agencies in Kenya and the hypothesis tested was.

H₀₁: There is no significant relationship between idealized influence and performance contracts in road agencies in Kenya.

Scope, Limitation and Delimitation of the Study

Content scope of the research was designed to investigate the relationship of two variables which are performance contracts as the dependent variable and idealized influence as independent variable. The study focused on all employees who included director generals, directors, deputy directors in all sections of road agencies. Other cadres of officers included assistant deputy directors/principal officers, senior officers and officers. Geographical scope entailed the head offices of the three road agencies and other randomly selected road project sites which represented all operations of road agencies in Kenya. . Due to lack of existing studies regarding performance contracts for road agencies in Kenya, this study utilized questionnaires which were structured to collect relevant data and information necessary for drawing well informed conclusions based on the study variables. It was also assumed that data collected from respondents would be biased as there could be fear of revealing organization's shortcomings in the aspect of performance contracts in road agencies. The study was meant to use cross-sectional survey design which provided limited information regarding studied institutions and therefore the use of longitudinal study would have provided observations for a longer period.

2.0 LITERATURE REVIEW

Idealized Influence

Idealized influence is the aspect of transformational leadership where leaders act as role models to followers due to their high level of morality, ethical values and integrity. Their belief in ethical doctrines, make these leaders respected, trusted and greatly admired by followers as they clearly communicate vision and mission of organizations to followers (Reza,2019). Through this process leaders can instill pride in team members that allows them to connect with others in groups or teams in those organizations. Leaders sacrifices their personal interests for the sake of others while showing a sense of power and competence thus raising respect of followers to the leader (Korejan & Shabazi, 2016). According to Northouse (2019), the first character of transformational leadership is the emotional component of the leadership. This is the aspect or characteristic that depicts a leader who is a strong role model to the followers and they are always identifying with this type of a leader, and they always want to emulate them and their leadership styles. This aspect of transformational leadership is measured in two main components which are attributional and behavioral components.

According to Chebon et al., (2019), idealized influence is that behavior that provides for leader's considerations of the needs and wants of followers higher than those of leaders. This type of leaders demonstrates high levels of ethical behaviors which impresses followers and therefore enhancing their level of performance in organizations. Langat et al., (2019), opine that, leaders who exhibit ethical behaviors that are exemplary, by acting as good examples give idealized influence on followers in organizations. Subordinates can identify these types of leaders through their values and beliefs and levels of objectivity which naturally gives followers that additional push to perform their duties excellently. Some of the notable elements of idealized influence are charisma, ethical leadership, and trust. Leaders are expected to be very authentic and holding to a moral standard and enduring work ethic and they also set aside self-interests to ensure organizations achieve collective vision and mission (Shah, 2017). Through idealized influence leaders apply emotional influence to followers and he or she also gains regard and respect from them when they act and also behave as good examples by demonstrating ethical behaviors. The resultant effects of what has been demonstrated by leaders is winding up of the followers' ideas and self-esteem being identified with leaders (Langat et al., 2019).

Performance Contracts

Organizations globally are improving their effectiveness and efficiency through performance management as they set targets and achieve them within a specified period. Due to competitive environment where organizations operate, they face challenges of improving their quality of services, the production process and customer satisfaction. Principles of performance management are based on the agreement by contract as opposed to management by command or coercion (Bommett, Kindiki & Too, 2014). The concept of performance contracts has been practiced in different countries of the world starting with the United Kingdom in regulation of the energy sector. This concept was further adopted in New Zealand to aid in pushing for reforms and enhance performance and management for all state and national functions (Sila et al., 2018).

According to Gakure et al., (2013), use of performance contracts has been witnessed in countries like Bangladesh, China, Korea, Pakistan and Sri Lanka, Argentina, Brazil, Bolivia, Chile, Colombia, Mexico, Venezuela, Uruguay, Malaysia, USA and Canada. The United Kingdom introduced the concept of performance contracts in the late 1990s as a public service agreement (PSA) which outlined a set of performance targets that all government agencies had to act and report on. In Denmark and Finland, performance contracts have been practiced since 1987 and the same has played a critical role in ensuring efficiency and increasing control of the laid down policies in public sector. In Africa like in other parts of the world, there has been a notable poor performance in the public sector which has informed a comprehensive reform aimed at addressing these problems. Performance contracts systems of management were therefore adopted in African countries which included Ghana, Nigeria, Gambia, and Kenya from the year 2005 (Gakure et al., 2013).

East African countries which included Kenya, Uganda and Tanzania developed a framework for common achievements which included implementation of strategic plans for the period between 2012-2017. The foregoing was meant to ensure that appropriated work plans were developed and implemented for a comprehensive set of performance (Rael & Kiptum, 2017). In Kenya this concept can be traced back to 1990 when performance contracts were conceived and designed with the aim of realizing tangible impacts in the management of public services. This was meant to create new behavior and also change employees' attitude in work ethics in delivery of the entire public service. The foregoing would ensure faith on services delivered by Government to citizens and other development partners which included International Monetary Fund (IMF) and World Bank (Gakure et al., 2013).

The Economic Recovery Strategy for Wealth and Employment Creation (ERS) 2003-2007, documented key public reforms measures that included introduction of performance-based management practices in public sector and pegged promotion of individuals on performance. These provisions ensured that all Permanent Secretaries and Chief Executives of Parastatals were put on performance Contracts (GOK, 2003). The performance contracts concept has different components of management which basically constitute definition of responsibilities and what is expected by either party in achieving agreed results. This tool articulates organizations' objectives while at the same time supporting management through innovation, monitoring and having in place well established control methods (Kogei et al, .2013).

The variable of performance contracts was operationalized through contract targets setting, contract strategy implementation and contract monitoring and evaluation. Performance contracts constitute a range of management tools which are useful in articulating objectives that are clearer and supports innovation, monitoring, control, and evaluation of achievements of set targets in organizations. This process also imparts managerial and operational autonomy for managers in the public services (Nyaigo

et al., 2013). Performance of both individuals and organizations is enhanced through measurement of parameters or set targets which also promotes a culture of continuous improvement. Measurement of performance in public sector, helps in ensuring that there are gains in public confidence in the utilization of public resources especially tax revenues collected among other resources (Cheche & Muathe, 2014).

Roads Agencies in Kenya

Road infrastructure in Kenya is very instrumental in the country's economic development and their development has grown steadily in line with the national government agenda (Ogai et al., 2020). Gross Domestic Product of a country is greatly affected either positively or negatively by quality of road network. High quality road network, leads to reduced transportation cost and increased gains for the investment (Gatitu et al., 2020). In Kenya, since independence the roads development and management activities were being handled by several ministries some of their departments and these continued all the way to the year 2006.

The foregoing led to poor state of roads in the republic and in the year 2006, Cabinet approved Sessional Paper 5 that provided several policies that were to be pursued by Government regarding the medium-term national economic growth on road development. The paper also stipulated the legal and institutional framework for the management of roads in Kenya. It also articulated the ownership, clarification of responsibilities, financing, and commercialized management of all road network in Kenya (Ministry of Roads, 2012). This paper led to the enactment of Kenya Roads Act in 2007, which established three Roads Authorities with clearly defined mandate on the management of road network.

The three Authorities/Agencies established were Kenya National Highway Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads Authority (KURA) (Mugambi, 2016). These Authorities were mandated to carry out their responsibilities based on classification of roads in the country. KeNHA was mandated to develop, maintain, and rehabilitate S, A, B classes of roads. KeRRA was to handle maintenance of class C roads while KURA was to handle roads in all municipalities in the county (The Kenya Roads Act, 2007). The promulgation of Constitution in the year 2010, provided an opportunity of reclassifying roads into new classes and transferring some of responsibilities of the management of the roads to County Governments (Overseas Development Institute, 2016).

Empirical Review

This section reviews empirical literature that is related to study variables as detailed in the conceptual model above. The section also reviews empirical literature on how independent variables which idealized influence are related to the dependent variable which is performance contract. Nyokabi et al.,(2017) in their study on the effects of idealized influence and inspiration motivation of the chief executive officers (CEO) on performance in the private sector in Kenya established that CEO's idealized influence significantly predicts performance of senior managers in organizations. Further, the study established that inspirational motivation of CEOs also significantly predicted the performance of managers in organizations.

In their study they adopted the positivism research philosophy and descriptive correlational research design and used the concepts of idealized Influence, inspiration motivation and performance in the private sector. There is therefore a conceptual gap in relation to the current study as the same investigated influence of idealized influence on performance contracts in road agencies. The context of the reviewed study was in the private sector while the current study is on Road Agencies which are public institutions. Ngaihe et al., (2016), examined the effects of idealized influence and inspiration

motivation on performance of staff in state owned enterprises in Kenya. They established that idealized influence and inspirational motivation significantly predicted and influenced overall performance of staff in these organizations. The study used positivism philosophy and descriptive research design. The current study investigated the influence of idealized influence on performance contracts in road agencies in Kenya which are also in the domain of public sector organizations. Pragmatism was used as the research philosophy which is different from what has been adopted in the reviewed study. There therefore a philosophical gap between the two studies. Kariuki (2021), conducted a review of extant conceptual, theoretical and empirical literature on the idealized influence and inspiration motivation dimensions of transformational leadership style in microfinance context.

The study established that idealized influence and inspiration motivation have a direct link to staff retention and performance of organizations. The context of the study was microfinance institutions in the private sector while the current study investigated influence of the idealized influence to performance contracts in road agencies in Kenya. The methodology used in the study was literature review or desktop analysis of the extant conceptual, theoretical and empirical while this study employed mixed methods which were qualitative and quantitative to collect the primary data for the research. There was therefore a contextual and methodological gaps between the two studies. Chebon et al., (2019), carried out an investigation on influence of transformational leadership on employees' performance with evidence from Moi teaching and referral hospital (MTRH) in Kenya.

The study established that employees were motivated to high levels of performance by their leaders through creativity and innovation and they ensured existence of clear flow of information between departments in that organization. In their study, they employed a descriptive research design and used stratified sampling methods for the recruited sample population. The study was based on health organization context, but the current study investigated influence of idealized influence in the context of road agencies in Kenya. There is therefore a contextual and conceptual gap between the reviewed and the current study.

Theoretical Framework

This study was underpinned on two main theories which were the transformational leadership theory as the main theory regarding leadership. New public management will be considered to provide the analysis of performance contracts as public management paradigm in public sector.

Transformational Leadership Theory

Transforming leadership concept or theory was first introduced by James V. Downton in 1973 and was further developed by Burns in 1978 as a form of relationship of mutually stimulations and elevations which is believed to converts followers into leaders while transforming leaders to moral agents (Northouse, 2019). Burns believed that transforming leader alters, elevates and shapes values, and goals of followers and therefore achievement of huge changes in the process (Gosling et al., 2003). The theory provides that leaders and followers elevate one another to higher levels of motivation and morality. According to Burns, other leadership theories that had been developed prior to transformational leadership lacked ethical and moral dimensions and he elaborated facts that there is a crucial role that is played by followers in leadership spectrum (Khan et al., 2017). In the 1980s, Bass provided an expanded and refined version of transformational leadership theory based on Burns model but not consistent on the same. Bass modified the work of Burns by placing more attention to the followers' needs than the leaders. He suggested that transformational leadership could be applied in areas where outcomes were not positive. He gave more attention to the emotional elements in this leadership but not only on

charisma which he described as necessary but not sufficient for transformational leadership (Northouse, 2019). This theory was very important for the current study as it provided one of the elements of transformational leadership which was the independent variable of the study and was investigated to determine its individual influence to performance contracts in road agencies in Kenya.

New Public Management Theory

New Public Management (NPM) theory can be traced back to the neo-liberal ideas' ascendancy in the 1980s in the United States and the United Kingdom. The same can be associated with the accession of "new right intellectuals" and the choice economist of American ideas. The concept of NPM increased its effects to New Zealand, Canada, and other European Countries due to then ongoing economic crisis (Simonet, 2011). The NPM theory posted that managerial and market-oriented shift to the delivery of public services did not simply reform the role of citizen and the public administrator but propelled them to a new shift. NPM theory drew much attention to the growth of management-oriented service delivery of public against traditional administrative approach. The focus of the theory was on professional approach while subjecting the same to performance management and drawing lessons from private sector operations and service delivery (Osborne, et al., 2013). NPMs are themes relate to processes of reforming organizations and procedures of public sector with the aim of being competitive and utilizing available resources in an efficient and effective way in delivery of services. The concept of new public management theory is meant to improve accountability, and maximizing utilization of scarce resources when providing quality goods and services to the general public (Cheche & Muathe, 2014).

Conceptual Framework

The main aim of the study was to explore the relationship between idealized influence and performance contracts in road agencies in Kenya. The study was carried out through reviewing available literature and use of available data which included primary and secondary data from identified institutions or road agencies. The foregoing was useful in bridging the identified gaps between theories and practical aspects of idealized influences as the independent variable and performance contracts as the dependent variable in road agencies in Kenya. Operational indicators of each of the variables was as indicated in the conceptual framework below and guided by the conceptual and empirical literature reviews.

Dependent variable

Dependent Variable

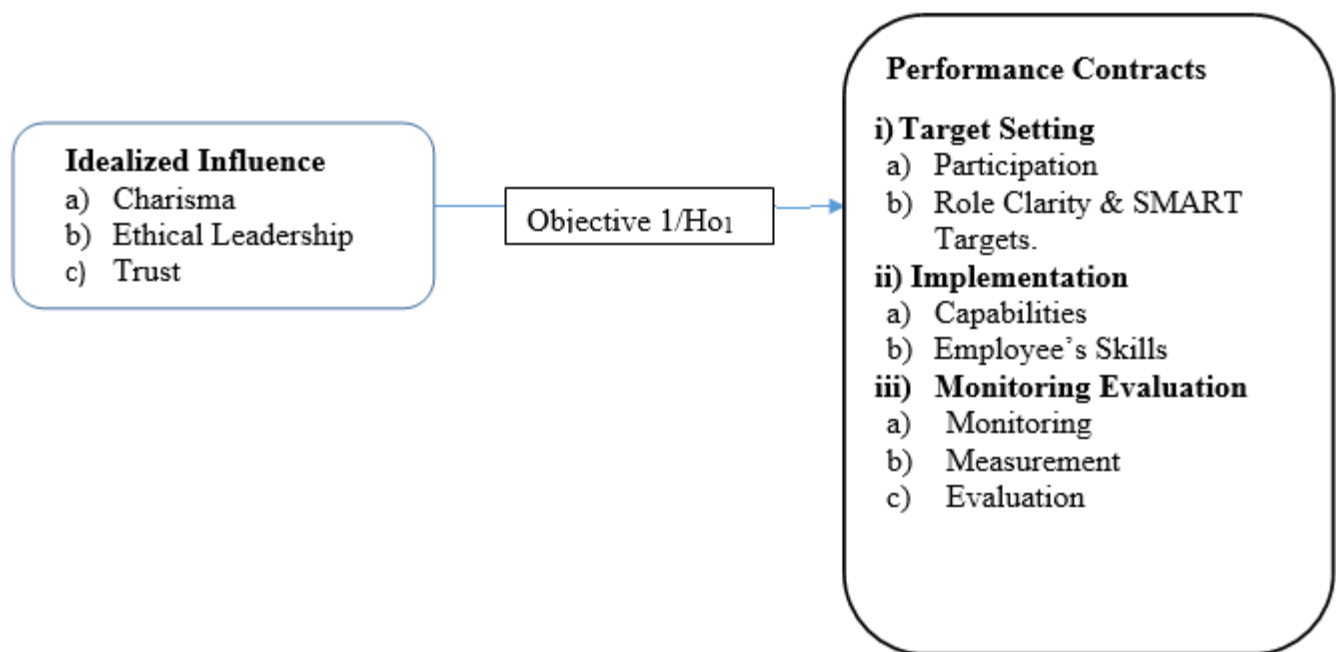


Figure 1: Conceptual Framework

3.0 MATERIALS AND METHODS

Research Design

Convergent parallel mixed method approach was adopted for the study where data was collected through questionnaires for quantitative and structured interviews for qualitative data. Descriptive research design was adopted for the research and was used in describing situations and phenomenon as they existed in the selected organizations which were road agencies in Kenya. Descriptive research design is normally used or meant to describe the status of an existing situation or phenomena as accurately as they are already available. This research design allows researchers to use or collect data for available information through research instruments that may include questionnaires, interviews and observations (Haryanto, 2018). According to Kothari (2004), this research design allows researchers to only report what has happened in the past or happening and they have no controls over the chosen study variables. He argues that this research design is commonly used to measure frequency, the peoples’ preferences, or data that is similar for a certain phenomenon and uses research methods that could be either correlational, or comparative in nature. Descriptive research design was adopted due to study scope, nature of data collected and methodology used for analysis. Collected descriptive data was subjected to statistical analysis aligned with the proposed study hypothesis and objective to draw conclusions and probable recommendations.

Research Philosophy

The study used mixed methods which were qualitative, and quantitative and adopted pragmatism as the philosophical framework. The choice of the research philosophy was informed by the fact that the pragmatic approach would give less influence on philosophical assumptions for the conduct of the

research methods (Creswell, 2014). The main focus of this philosophical approach was on consequences of the research questions and not entirely on methods (Kaushik & Walsh, 2019). This philosophy provides less restriction in terms of how to carry out research and approach also in the amalgamation of both quantitative and qualitative data as collected from the field (Kelly & Cordeiro, 2020). Pragmatism philosophy focuses mainly on the nature of experience while other philosophies which are post positivism and constructivism focus on the nature of reality.

This paradigm provides that the world is full of unique human experiences and that there are no universal truths but warranted beliefs which are shaped by actions that are repeated in similar situations, experiences and outcomes (Kausshik & Walsh, 2019). Pragmatism is commonly considered as the appropriate paradigm in the mixed method literature review approach. The adopted research philosophy gave room for flexibility in adopting an appropriate and practical approach in answering research questions (Brierley, 2017). Pragmatism is a notion that considers what works and it refers to the theory of truth and leans towards solving practical problems in the world that are considered real rather than building the same on assumptions about the nature of knowledge. Pragmatism philosophy is related to research procedures that are action oriented and thus justifying its use in this study which has adopted mixed methods approach (Maarouf, 2019).

Population and Sampling Methods

The target population for the research was in the selected road agencies which were Kenya National Highway Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads (KURA). All staff in those organizations were considered as respondents and they included head offices personnel and staff managing or supervising road projects at sites across the country. The study focused on respondents from the selected road agencies in Kenya as they played a critical role in providing requisite data and information for the finalization of the research especially in implementation of performance contracts. The foregoing was mainly due to their level of understanding of issues related to planning, design, development, rehabilitation and maintenance of roads in Kenya and more particularly in the three road agencies. The research used random sampling method as the same focused on the population for smaller samples from the big population. Each member of the subset carried an equal opportunity of being chosen as part of the target population. Random sampling is meant to be an unbiased representation of the total population and it was chosen for this study research as it enabled and facilitated collection of data from the total population (Taherdoost, 2016). Employees of the road agencies were divided into two different groups that included top management which were director generals and directors in job group 1 and 2. Middle managers and others cadres included deputy directors, principal officers/assistant deputy directors, senior officers, officers in job group 3, 4, 5 and 6. The table shows road agencies and their corresponding population sizes in these organizations.

Table 1: Road Agencies Population Sizes

S/No.	Agencies	Staff Size
1	Kenya National Highway Authority (KeNHA)	516*
2	Kenya Rural Roads Authority (KeRRA)	681**
3	Kenya Urban Road Authority (KURA)	322**

*Source: KeNHA Annual Report Financial 2020/2021,

**Source: KeRRA Annual Report of Financial Year 2019/2020,

***Source: KURA Strategic Plan of 2018-2022.

Table 2: Population and Sampling Frame

Population	All Employees of roads agencies in Kenya
Sampling Frame	CEOs (Director Generals), directors, deputy directors, assistant deputy directors/principal officers, senior officers,
Sampling Procedure	Random sampling
Sample Size	As computed below
Sampling Unit	Individual/employees

The sample size was determined using the Nassiuma (2000) formula as indicated below.

$$n = \frac{NC^2}{C^2 + (N - 1)e^2}$$

Where n was the sample size, N was the population, C was the coefficient of variation (0.5) and e was the precision level of (0.05). The sample sizes were computed as follows for each agency and the study adopted a total sample size of 214 respondents from the three road agencies. Sample size from KeNHA, KERRA, and KURA were 84, 87 and 43 respectively.

a) KeNHA

$$n = \frac{516(0.5)^2}{0.5^2 + (516 - 1)0.05^2}$$

$$= 83.9 \approx 84$$

b) KeRRA

$$n = \frac{681(0.5)^2}{0.5^2 + (681 - 1)0.05^2}$$

$$= 87.3 \approx 87$$

c) KURA

$$n = \frac{322(0.5)^2}{0.5^2 + (322 - 1)0.05^2}$$

$$= 43.4 \approx 43$$

The purposive sampling technique is also referred to as judgment sampling and is commonly used to choose participants due to the qualities they possess. The sampling method does not need underlying theories and the researcher decides the topic of the study and finds individuals who are able to provide that information based on their level of knowledge and experience. The technique mainly concentrates with individuals with characteristics who are proficient and well informed with a phenomenon of interest and willing to participate in the research (Etikan et al., 2016). The purposive sampling was used in the scheduled interviews for respondents in job group 1 and 2 which included Director Generals and Directors in road agencies. The foregoing was informed by the fact that these officers were well versed and knowledgeable in areas of expertise which included corporate services, planning, designing, development, maintenance and rehabilitation of roads which are the core and supporting activities in the implementation of performance contracts in road agencies in Kenya.

Table 3: Strata and Sample Size

S/N	Description	Respondent Strata	Sample Size
1	Scheduled Interviews	Director Generals, Directors	21 (7 persons/road agency)
2	Questionnaire	Deputy Directors, Assistant Director/Principal officer, Resident Engineer (RE), Senior officer and officers	214

Data Collection Tools and Procedure

Data was collected from road agencies in Kenya which were Kenya National Highway Authority (KENHA), Kenya Urban Roads Authority (KURA) and Kenya Rural Roads Authority (KeRRA). This data was considered as the primary data that was collected through interviews and questionnaires. Questionnaires were administered to the cadres of officers from deputy directors, assistant directors/principal officer, senior officers and officers. Questionnaire as tool of data collection was considered and adopted guided by the fact that it was easy to design and to administer to respondents in these organizations. Further, questionnaires are considered as the main means of collecting quantitative data for a research as they are less costly and consume less time in their administration to the respondents (Roopa & Satya 2012).

Questionnaires were designed to have only structured questions which were based on the 5 points Likert scale and were used to collect data on relationships between study constructs as adopted in the study. These constructs included idealized influence inspiration motivation as an independent variable and performance contract as the dependent variable. Questionnaires were selected and considered as appropriate as they collected data and information that could not be observed directly in those organizations (Gachiengo, 2018). Scheduled interviews were also used mainly to collect qualitative data for the research and process involved asking interviewee/s questions through face-to-face contact. Through this approach interviewer was required to collect information directly from the targeted sources (Kothari, 2004). Personal interviews were administered to purposively sampled respondents within a certain cadre of officers which included director generals and directors in these organizations. These groups were interviewed as key informants to the study as they were considered knowledgeable in their areas of expertise and therefore provided data and information that was used on the qualitative analysis through emerging thematic areas in research.

4.0 FINDINGS

Response Rate

Response rate is very critical in any research as it determines aspects of generalization of the study findings and results based on collected data from the target population. Response rate also determines whether the final envisaged output will be of required quality or not. In circumstances when the response rate is low, the quality of the data collected is considered to be low and significantly impacting on the findings and results in the study. The foregoing also affects levels of generalization of the obtained results while high response rate results to large data thus enhancing statistical power for the data collected. A response rate that is greater than 70% is generally accepted to provide strong support to the analysis and presentations of the findings (Faizan et al., 2021). The response rate for this study was determined by comparing the number of questionnaires issued as guided by the sample size which was 214 against the total number of questionnaires filled and returned. The table below provided the

summary of the response rate. The response rate recorded in the table below was approximately 83% of the total estimated sample of 214 respondents. These results represented a response rate of 9.6% and 10.7% for respondents in job group 3 (deputy directors) and job group 4 (assistant director/principal officers respectively. Lower level of personnel in job group 5 (senior officers) and job group 6 (officers) represented a response rate of 35.4% and 34.3% respectively. The foregoing indicates that respondents in the lower cadres in road agencies were available to provide information and data road agencies in Kenya as per research instrument questionnaire distributed.

Table 4: Response Rate

Details	Frequency	Percentage
Response	178	83.2%
None Response	36	16.8%
Total	214	100%
	Actual Response	Percentage
Deputy Directors	17	9.6%
Assistant Directors/Principal officers.	19	10.7%
Resident Engineers	18	10.1%
Senior Officers	63	35.4%
Officers	61	34.3%
Total	178	83.2%

Reliability of the Questionnaire

Reliability is the extent by which measurement through research instruments provides stable results that are consistent and in line with what was expected to be measured. The same is related to the repeatability of the measurement using the same tool in different areas of study under constant conditions. This testing refers to the level of consistency for the instrument while measuring certain constructs of the study (Taherdoost, 2016). For this study testing of reliability was established from twenty (20) filled questionnaires that were used for pilot study which were 10% of the computed sample size for the study. These respondents were not included in the final analysis. The results of Cronbach Alpha coefficients from the above process are as outlined in table below. From the table above, the Cronbach Alpha coefficients of transformational leadership, performance contract, idealized influence, inspiration motivation, intellectual stimulation, individual consideration, collaboration and external factors were 0,782, 0.868, 0.805, 0.786, 0.813, 0.813, 0.813, 0.899 respectively. The average value of the Cronbach was computed as 0.822. According to Daud et al., (2018) if the value of Cronbach Alpha is greater than 0.7 which is the threshold of reliability, then the research tool is considered to be reliable. Findings from this analysis indicated that questionnaires used in the study and for the analysis of the data were reliable.

Table 5: Reliability Tests

Variables	Cronbach's Alpha	No of items
Transformational Leadership	.782	20
Performance Contract	.868	20
Idealized Influence	.805	20
Inspiration motivation	.786	20
Intellectual Stimulation	.813	20
Individual Consideration	.813	20
Collaboration	.813	20
External factor	.899	20
Average	.822	20

Validity of the Research Instrument

Validity test was carried out for the questionnaires developed to ascertain whether the same met all requirements of the two validities that is construct and content validity. Validity tests provide accuracy of the data obtained representing proposed theoretical and conceptual concepts of the study. These tests reflect consistency of responses obtained with what was expected to be measured (Li, 2016). The two main tests that were conducted for this study included construct and content validities. For construct validity this was achieved by ensuring that the questionnaire was divided into specific sections that were aligned with the objective of the study. On the content validity, the questionnaire was thoroughly examined by supervisors and ascertain adequacy of the data that will be collected through the study instruments.

Descriptive Analysis

Idealized Influence

Descriptive analysis of idealized influence was computed for mean and standard deviation and the results are as tabulated in the table below. Average mean of this variable idealized influence was established to be 4.05. The foregoing indicates that there was a general agreement on questions in the questionnaire for this particular variable among the respondents in road agencies in Kenya. General conclusion on the aspects of idealized influence was that most respondents agreed that leaders in their organizations demonstrated integrity, admirable behaviors, did not demonstrate selfish behaviors during the process of implementation of performance contracts in road agencies in Kenya. From the findings there was a general consensus that leaders in some of these organizations are role models, demonstrated competence and followers are keen to emulate them while implementing performance contracts in these organizations. Aggregate value of standard deviation of 0.805 indicated that leadership of the studied organizations practiced idealized influence while implementing performance contracts.

The study confirmed that idealized influence from the leader could be used to enhance motivation of employees in these organizations thus enhancing performance of organizations and achievement of set targets. Leaders who also demonstrate this trait of idealized influence act as role model during process of strategy formulation as they will set good examples to be emulated by followers. They can also develop training programmes in their respective organizations that will be used to capacity build employees who will eventually improve their performance levels. The foregoing is in line with the study of Nyokabi et al., (2017), who established that there was correlation between leaderships' idealized influence and performance of senior managers in organizations. Ngaithe et al., (2016), also

examined influence of idealized influence and inspiration motivation on performance of staff in state owned enterprises in Kenya. Their findings established that leaders' idealized influence and inspirational motivation significantly predicted the overall performance of managers in those studied state-owned organizations.

Table 6: Descriptive Results for Idealized Influence (II)

	N	Mean	Std. Deviation
The organization's leadership demonstrates integrity while setting, implementing, monitoring, and measuring targets in performance contracts.	178	4.11	.763
The organization's leadership behaviours are admirable during the process of setting, implementing, monitoring, and measuring targets in performance contracts.	178	4.04	.769
The organization's leadership does not demonstrate selfish interests during setting, implementing, monitoring, and measuring of targets in performance contracts.	178	3.98	.833
The organization's leaders role models for their followers in the process of setting, implementing, monitoring and measuring of targets in performance contracts.	178	4.02	.792
The organization's leaders demonstrate competence while setting, implementing, monitoring and measuring of targets in performance contracts.	178	4.14	.786
The followers emulate the organization's leader's behaviors in the process of setting, implementing, monitoring, and measuring of targets in performance contracts.	178	4.03	.875
Average/Aggregate	178	4.05	.805

From the findings on the structured interviews conducted in road agencies to collect qualitative data, the study noted that few of the senior managers were aware of transformational leadership and its four elements which included idealized influenced among others. Most of the officers or directors interviewed indicated that idealized influence was being practiced in these organizations though at varying degrees which was at approximately 50%. They pointed out that, during the process of performance contracting, organizations' leadership demonstrates aspects of integrity and admirable behaviours that can be emulated by followers in the road agencies. They also indicated that leaders in these organizations do not demonstrate selfish interests in the whole process of implementing performance contracts. The study noted that these leaders also demonstrate high level of competence as they set targets, implement, monitor, measure and evaluate performance contracts in road agencies.

Other directors at management level felt that the element of idealized influence was not practiced at some positions in these organizations especially in the aspects of leaders being role models to followers. Some of the leaders did not demonstrate behaviours that are admirable to followers or the organizations' employees. Leaders in these positions did not instill a sense of pride and honor to followers, they did not connect well, they lacked power and competence to deliver the vision of the organization. Leaders in one of the road agencies indicate that leaders played a critical role by being role models in certain aspects which included time management, setting good examples and exemplifying strength and attitudes towards execution of work in these organizations. These leaders indicated that they actual demonstrated and led by being good examples to their followers which significantly and positively impacted on the achievement of the set targets in performance contracts.

Performance Contracting

The dependent variable for the study was performance contracts and was measured through target setting, implementation, monitoring, measuring and evaluation of achievement of the set targets. Firstly, the respondents were asked to indicate whether the organization leadership fosters participation of employees and uninterrupted flow of information during target setting process of performance contracts. Secondly, respondents were required to indicate whether organizations' leadership allocate adequate resources and level of utilization of the available capabilities and skills during implementation of the performance contracts in road agencies in Kenya. Third and final part of this variable was the role of employees in the process of monitoring, measuring and evaluation of the achieved targets. Findings of the descriptive analysis for the three main areas are as indicated and summarized in table 4.16 above. Aggregate value for the mean score was 3.89 which implied that majority of respondents agreed with the three main areas which the dependent variable was operationalized.

Specifically, respondents indicated that their organization leadership fostered participation of employees in the process of target setting at a mean score of 4.07. Secondly, respondents indicated that their organizations' leadership fosters utilization of the available skills and capabilities during the process of implementation of performance contracts where the mean score was 3.96. On monitoring, measuring and evaluation, majority of respondents indicated that their organizations' leadership encouraged involvement of the employees in the process as the mean score was at 3.92. Surprisingly, through the findings, the respondents noted that organizations' leadership allocate inadequate resources and also that there is low flow of information while setting and implementing set targets in performance contracts in road agencies in Kenya. The computed mean score for the two focus areas was at 3.76.

From the findings of structured interviews indicated that leaders are the vision bearer in organizations especially during the phase of target setting and they should communicate the same to the followers in a clear and inspiring manners. Employees are also supposed to participate in the process of target setting in performance contracts so that they can own the process and be able to implement set targets as planned in the contracts in road agencies. Interviewed directors also indicated that organizations' leadership must allocate adequate resources and also facilitate followers or employees during implementation process for the set targets in performance contracts in road agencies in Kenya. Leaders must also ensure that there is availability of requisite skills and capabilities in organizations during implementation process of performance contract in road agencies to facilitate smooth implementation planned activities. The foregoing will ensure that proper mechanisms are in place in ensure achievement of set targets as appropriate execution and control measures are put in place through knowledgeable individuals or followers. During monitoring and evaluation, the leaders must lead the process by ensuring that the followers are participating in monitoring, measuring and evaluation process. The foregoing will ensure that feedback is noted and also the lesson learned are documented for utilization and improvement of the next cycle of performance contracts in road agencies in Kenya.

Table 7: Descriptive Results for Performance Contract (PC)

	N	Mean	Std. Deviation
The organization's leadership fosters participation of employees in performance contracts target setting process.	178	4.07	.793
There is uninterrupted flow of information from organization's leadership during target setting phase.	178	3.76	.904
The organization's leadership allocates adequate resources to facilitate the achievement of the set targets.	178	3.76	.997
Organization's leadership fosters utilization of the available capabilities and skills during implementation of the set targets.	178	3.96	.875
The organization's leadership encourages employees' involvement in the process of monitoring, measurement of the achieved targets.	178	3.92	.948
The organization's leadership encourages employees' involvement in evaluation and analysis of achieved targets.	178	3.92	.837
Average/aggregate	178	3.89	.892

Hypotheses Testing

Based on study objectives and hypotheses, the study investigated the influence of idealized influence to performance contracts in road agencies in Kenya. Hypothesis tested was there is no significant influence of idealized influence to performance contracts in road agencies in Kenya. Results of the regression analysis for this model is as indicated in the table below.

Table 8: Model Summary for Idealized Influence and Performance Contracts

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.538 ^a	.289	.285	.60080

Results indicate that factor of analysis was 0.538 implying that there was a positive and a strong correlation between idealized influence and performance contracts in road agencies in Kenya. The coefficient of determination adjusted R squares (R^2) was 0.285 which implied that though relatively low, idealized influence determined 28.5% of the outcomes of the process of implementation of performance contracts in road agencies in Kenya. These results therefore indicated that other factors other than idealized influence determined outcomes of performance contracts implementation process in the three road agencies in Kenya. The study further determined that significance of the model in determining outcomes and processes of performance contracts in road agencies in Kenya. ANOVA analysis was conducted and results are as summarized in table below.

Table 9: ANOVA Results for Idealized Influence and Performance Contracts

	Sum of Squares	df	Mean Square	F	Sig.
Regression	25.817	1	25.817	71.524	.000 ^b
Residual	63.529	176	.361		
Total	89.346	177			

Results indicated that F factor was 71.524 and greater than F factor critical $F = 2.416$. This model was therefore considered significant for determining outcomes in the process of implementing performance contracts in road agencies in Kenya. In regard to significance, the results indicated that the P-value was 0.000 and was less than 0.05 the significance threshold level and therefore the study concluded that this model was fit for determining outcomes of the process of implementing performance contracts in road agencies in Kenya.

Table 10: Regression Coefficients for Idealized Influence and Performance Contract

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.325	.308		4.306	.000
Idealized influence	.635	.075	.538	8.457	.000

The linear regression equation from the findings in table 4.22 above is as indicated in the following equation.

$$PC = 1.325 + 0.538II + \varepsilon$$

The above indicates that, if all other factors were held at constant, then performance contracts process in road agencies in Kenya would be at 1.325 as provided for by the constant value in the above equation. Standardized beta coefficient for idealized influence was 0.538 implying that increasing one unit of idealized influence while holding all other factors constant would result to an increase of 53.8% of the process of implementation of performance contracts. Results further indicated that significance level of the model was at $0.000 < 0.05$ which indicated that the model was significant thus rejecting the null hypotheses that there is no significant influence of idealized influence to performance contracts in road agencies in Kenya. Study thus concluded that there was a significant influence of idealized influence to performance contracts process in road agencies in Kenya. These findings are in line with the results of Ngaithe et al., (2016), who examined the influence of idealized influence and inspiration motivation on performance of staff in state owned enterprises in Kenya. Their study established and concluded that idealized influence significantly predicted and influenced overall performance of staff in the studied organizations.

Table 11: Summary of Hypotheses Testing

Hypotheses	Findings	Decision	Remarks and conclusion
H02- There is no significant relationship between idealized influence to performance contracts in road agencies in Kenya.	$p < 0.05$	Reject the H02	Idealized influence has significant relationship with performance contracts in road agencies in Kenya

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATION

The objective of the study was to investigate the relationship between idealized influence and performance contracts in road agencies in Kenya. Hypothesis that was tested was that there was no significant relationship between idealized influence and performance contracts in road agencies in Kenya. Findings and results indicated that idealized influence has a significant relationship with performance contracts in road agencies in Kenya. The study rejected the null hypothesis that there is no significant relationship between idealized influence and performance contracts in road agencies in

Kenya. The foregoing was supported by both results and findings from descriptive statistics, hypothesis tested and structured interviews conducted in the three road agencies. Leaders who were interviewed in these road agencies indicated that they also practiced integrity and leadership behaviors that could be emulated by their followers.

They also indicated that they participate fully in the process of implementing performance contracts in road agencies. They also noted that this is an element of leadership which requires fostering in these organizations as followers would be encouraged and motivated to perform much better as leaders set good examples. Observed results further indicated that idealized influence as an element of transformational leadership was practiced in road agencies in Kenya thus demonstrating a high level of relationship between idealized influence and performance contracts in these organization. Further, the study also noted performance contracts processes and outcomes in road agencies in Kenya can be predicted by idealized influence and that this element was important and significant in the whole process. The study thus concluded that leaders must also strive to be role models to their followers through mentorship and training programmes to motivate them during the process of setting targets, implementing and measuring achieved targets for performance contracts in road agencies in Kenya.

Leaders in these organizations must also ensure that followers are part and parcel of strategy formulation and that capacity building of them is enhanced through trainings that are in line with the unique needs of the employees in road agencies in Kenya. The study also contributed to the transformational leadership theory as the was supported by the findings that leaders in these organizations should be role models and practice integrity in the process of performance contracting in road agencies. Further the study also contributed to the theory of New Public Management through performance contracts in the three E's which include economic, efficiency and effectiveness. The new public management theory meant to improve accountability, and maximizing utilization of scarce resources which is the main concept of performance contracts in public sector. The study further recommended that policy makers that they should entrench appropriate leadership (transformational leadership) during the process of performance contracting to enhance the achievement of the set targets for the road agencies in Kenya.

REFERENCES

- Abbas, W. (2010). The Role of Leadership in Organizational Change.
- Ali, F., Ciftci, O., & Ryu, K. (2021). Response rate in Hospitality Research: An overview of Current Practises and suggestions for future research. *Sage Journal*, 62(1), 10–120.
- Brierley, A., J. (2017). The role of a pragmatist paradigm when adopting mixed methods in behavioural accounting research.
- Chebon, Kulei, S., Aruasa, Kipkurui, W., & Chirchir, Kipkorir, L. (2019). Effects of Inspirational Motivation and Idealized Influence on Employee Performamnce at Moi Teaching and Referral Hospital, Eldoret Kenya. *International Journal of Business and Social Sciences*, 10(7).
- Cheche, G. S., & Muathe, S. (2014). A Critical Review of Literature on Performance Contracting. *Global Journal of Commerce & Management Perspectives*, 3(6), 65–70.
- Creswell, W., J. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*.
- Daud, Mat, Azhar, K., khidzir, Zulkarnaen, N., Ismail, Rasdan, A., & Abdullah, Aryani, F. (2018). Validity and Reliability of Instrument to measure social media skills among small and medium entrepreneurs at Pengkalan Datu River. *Intenational Journal of Development and Sustainability*, 7(3), 1026–1037.
- Etikan, I., Musa, Abubakar, S., & Alkassim, Sunusi, R. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4.
- Gachiengo, Wanjiku, L. (2018). Inter-Organizational Collaborations and Performamce of Courier Firms in Nairobi City County, Kenya.
- Gatitu, Njuguna, J., Kabubo, Karimi, C., & Ajwang, P. (2020). Approaches on Mitigating Variation Orders in Road Construction Industry in Kenya: The Case of Kenya National Highways Authority (KeNHA). *Engineering, Technology & Applied Science Research*, 10(5), 6195–6199.
- Gosling, R., B., Marturano, J., A., & Dennison, P. (2003). No Title.
- Haryanto, A. (2018). Research Methods in TEFL Studies: Descriptive Research, Case Study Error Analysis, and R & D. *Journal of Language Teaching and Research*, 9(1), 197–204. <https://doi.org/http://dx.doi.org/10.17507/jltr.0901.25>
- Kariuki, K., J. (2021). Idealized Influence and Insppiration Motivation in Microfinance Context: Review of Literature. *International Journal of Organizational Leadership*, 10(1), 120–140.
- Kaushik, V., & Walsh, A., C. (2019). Pragmatism as a Research Paradigm and its implications for Social Work Research.
- Kausshik, V., & Walsh, A. C. (2019). Pragmatism as a Research Paradigm and Its Implications for Social Work Research. *Journal of Social Sciences*, 8(255), 1–17.
- Kelly, M., L., & Cordeiro, M. (2020). Three principles of pragmatism for research on organizational processes. *Sage Journals*, 13(2), 1–10. <https://doi.org/10.1177/2059799120937242>
- Kemboi, K. G. (2020). Performamce Contracting: Challenges and pospects of its implementation in the Lake Basin Development Authority-Kenya. *International Multilingual Journal of Science and Technology (IMJST)*, 5(7), 1270–1278.

- Khan, Ahmad, Z., Bhat, Jan, S., & Hussein, I. (2017). Understanding the Leadership Theories- A Review for Researchers. *Asian Journal of Research in Social Sciences and Humanities*, 7(5), 249–264.
- Korejan, M., & Shabazi, H. (2016). An Analysis of The Transformational Leadership Theory. *Journal of Fundamental and Applied Sciences*, 8(32), 452–461.
- Kothari, R., C. (2004). *Research Methodology (Methods and Techniques)*.
- Langat, K. G., Linge, K. T., & Sikalieh, D. (2019). Influence of Idealized Influence on employee Job performance in the insurance industry in Kenya. *International Journal of Research in Business and Social Sciences*, 8(5), 266–273.
- Li, Y. (2016). How to determine the validity and reliability of an instrument.
- Maarouf, H. (2019). Pragmatism as a Supportive Paradigm for the Mixed Research Approach: Conceptualizing the Ontological, Epistemological and Axiological Stances of Pragmatism. *International Business Research*, 12(9), 1–12.
- Ministry of Roads. (2012). *Policy on Aligning the Roads Sub-Sector with the Constitution*.
- Mugambi, Mwandiki, A. (2016). Roads Infrastructure investment and economic growth in Kenya: The role of private and public sector.
- Ngaithe, L., K'Aol, G., Lewa, P., & Ndwiga, M. (2016). Effect of idealized influence and inspirational motivation on staff performance in state owned enterprises in Kenya. *European Journal of Business and Management*, 8(30), 6–13.
- Njiraini, Andrew, N., K'Aol, O., G., & Linge, Kinge, T. (2018). Influence of Individualized Consideration on Job Satisfaction Among Employees in Commercial Banks in Kenya. *Journal of Human Resources and Leadership*, 3(3), 1–13.
- Northouse, G., P. (2016). *Leadership Theory and Practice*.
- Northouse, G., P. (2019). *Leadership Theory and Practice*.
- Nyokabi, Susan, M., K'Aol, O., G., & Njenga, K. (2017). Effects of Idealized Influence and Inspirational Motivation of the CEO on performance in the private sector in Kenya. *American Journal of Leadership and Governance*, 2(2), 16–38.
- Ogai, M., Oektch, T., Kihui, E., & Gachanja, J. (2020). Post-COVID Economic recovery: Rethinking Kenya's road Infrastructure development model. 27th Institution Engineers of Kenya (IEK), Conference, 1–19.
- Ogola, Ogutu, Ganga, M., Sikalieh, D., & Linge, Kavoo, T. (2017). The Influence of Individualized Consideration Leadership Behavior on Employee Performance in Small and Medium Enterprises in Kenya. *International Journal of Business and Social Sciences*, 8(2). www.ijbssnet.com
- Osborne, P., S., Radnor, Z., & Nasi, G. (2013). A New Theory of Public Management? Toward a (Public) Service-Dominant Approach. *The American Review of Public Administration*, 43(2), 135–158. <https://doi.org/10.1177/0275074012466935>
- Overseas Development Institute. (2016). *Leaving no one behind in the in the roads Sector; An SDG stocktake in Kenya*.
- Pkemei, Amunda, G. (2015). *Effect of performance contracting strategy on eervice quality in ublic units in Nakuru County*. Egerton University.

Reza, Hossain, M. (2019). Components of Transformational Leadership Behavior. *EPR International Journal of Multidisciplinary Research (IJMR)*, 5(3), 119–124.

Roopa, S., & Satya, Menta, R. (2012). Questionnaire Design for a Survey. *The Journal of Indian Orthodontic Society*, 46(4), 37–41.

Shah, A., R. (2017). Transformational Leadership: The Role of Follower Autonomy.

Simonet, D. (2011). The New Public Management Theory and the Reform of European Health Care Systems: An International Comparative Perspective. *International Journal of Public Administration*, 34(1), 815–826.

Taherdoost, H. (2016a). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management (IJARM)*, 5(2), 18–27. www.elvedit.com

Taherdoost, H. (2016b). Validity and Reliability of the Research Instrument; How to test the Validation of Questionnaire/Survey in Research. *International Journal of Academic Research in Management*, 5(3), 28–36.

The Kenya Roads Act, 2007, 27 (2007).

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