

# Effects of Organization Policy and Information Communication Technology on Administration of Transport Management Strategies in the Public Sector in Kenya a Case of Ministry of Health Headquarters

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**Abstract:** The objective of the study was to establish the effect of organisational policy and information communication technology on the administration of transport management strategies in the public sector in Kenya. The target population was 400 employees, with a sample size of 200, which was arrived at using Cochran's formula. The analysis shows the strong correlation between organisation policy and ICT on transport management strategies and due consideration would result in better transport management strategies at MOH. The management needs to ensure that all the policies that pertain to the administration of transport management strategies in the public sector in Kenya are adhered to within the organisation. The management should also ensure that all the employees that are in the department are trained to use technology in order to facilitate effective administration of transport management strategies in the public sector in Kenya. There is a need for robust leadership training, strategic planning, and decision-making frameworks to ensure that top management can effectively guide and enhance the performance of transport management.

**Keywords:** Transport Management Strategies, Organisational Policy, Information Communication Technology.

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## I. INTRODUCTION

### A. Background of the Study

According to Wolfe, McDonald, & Holmes, (2020), transport management is the process of organizing, coordinating, and directing the movement of people, goods, or automobiles from one place to another. It covers a wide range of topics, including scheduling, fleet management, logistics, infrastructure management, and optimization. Transport management strives for efficient, safe, and cost-effective movement of goods and people, prioritizing environmental sustainability and resource optimization. It seeks to balance resource efficiency with environmental effect reduction, making sure that transportation networks are financially sustainable, socially just, and ecologically conscious. Schulthoff, Kaltschmitt, et al (2022), argues that transport management uses strong tactics to maximize

sustainability, safety, and efficiency while coordinating the movement of people and products. It includes fleet management, careful control of the infrastructure, and logistical coordination. Route planning minimizes expenses and environmental impact by navigating complexity using state-of-the-art algorithms. Adherence to strict requirements guarantees safety standards and operational integrity. Adopting cutting-edge technologies like telematics and GPS improves operational effectiveness and visibility. Transport management is ultimately the key to smooth transportation; it promotes economic expansion and reduces environmental impact by allocating resources strategically and by coming up with creative solutions.

Ayodele and Oluwagbenga, (2023) states that the administration of transport management strategies in the health sector in Nigeria is a critical aspect of ensuring

efficient and effective healthcare delivery, particularly in remote and underserved areas. With Nigeria diverse geography and varying levels of infrastructure development, implementing robust transport management strategies becomes imperative to overcome logistical challenges and ensure timely access to healthcare services for all citizens. Logistics planning plays a pivotal role in transport management administration. By forecasting demand for medical supplies, establishing optimal inventory levels, and designing efficient distribution networks, administrators can prevent stock outs, minimize wastage, and enhance the overall reliability of healthcare supply chains. Collaborating with suppliers and logistics providers further facilitates the smooth procurement and distribution of essential medical resources.

Wamwea, and Moi (2023), asserts that when it comes to handling the problems of accessibility and prompt delivery of medical resources, transport management strategies are essential to the administration management of healthcare services. Access to healthcare for all citizens of the nation is severely hampered by the large geographic area, infrastructural constraints, and unequal resource distribution. Kenya's health sector uses a variety of tactics to improve service, optimize resource allocation, and manage transportation in order to overcome these obstacles. Logistics planning and coordination are important components of transport management in the healthcare industry. This means that medical supplies, equipment, and personnel must be systematically arranged and distributed to healthcare facilities around the country. Effective logistical planning is key to guaranteeing that vital medical services reach even the most remote and underserved populations in Kenya, given the country's varied geography and various levels of infrastructure development.

Ojwaka and Osoro, (2023), states that transport management plans is a complex process that is essential to maximizing the flow of products, services, and people, especially in the medical field. In Kenya, where infrastructure constraints and geographical diversity create particular difficulties, efficient management is crucial to guaranteeing prompt access to medical care, particularly in isolated areas. Transportation resource optimization and centralized coordination are the fundamental components of administration. In order to enable the prompt delivery of medical supplies, equipment, and personnel to healthcare facilities around the nation, this includes the deployment of ambulances, medical vehicles, and other transportation assets. Administrators can guarantee the optimal and effective utilization of resources by optimizing processes and reducing redundant work. Another crucial component of transport management administration is route optimization. Using technologies like routing software and geographic information systems (GIS), administrators can determine the most cost-effective routes for staff and medical supply transportation. This lessens the impact on the environment and saves money and time on travel while also increasing fuel economy. Technology integration is essential to the administration of modern transportation management. Administrators may make preventive decisions and respond

to catastrophes more quickly by keeping an eye on the flow of medical supplies and vehicles thanks to real-time tracking technologies. Comparably, telemedicine systems increase accessibility for marginalized communities by providing healthcare services to far-flung locations, eliminating the need for physical transportation (Korir, Nyangau, & Muo, 2023).

#### *B. Statement of the Problem*

While several studies have examined various aspects of transportation challenges in Kenya, there remains a notable gap in addressing the specific obstacles impeding the effective administration of transport management strategies within the public sector. Existing research predominantly focuses on broader issues such as infrastructure inadequacies, traffic congestion, road safety, and logistical inefficiencies. For instance, a study by Ghosh, (2020), highlighted the significant impact of poor road maintenance and congestion on travel times and safety, exacerbating the flaws within Kenya's transportation infrastructure. Furthermore, research conducted by Irandu, & Owilla, (2020), emphasized the challenges posed by rapid urbanization and ineffective traffic management systems, particularly in major cities like Nairobi and Mombasa. These studies underscored the detrimental effects of congestion on productivity, pollution levels, and overall transportation system performance. Additionally, investigations into road safety issues conducted by Lesutis, (2020) revealed alarming accident and fatality rates attributed to factors such as inadequate road conditions and lax enforcement of traffic laws.

While these studies provide valuable insights into the broader transportation challenges facing Kenya, there remains a paucity of research specifically addressing the administrative hurdles hindering the implementation of effective transport management strategies within the public sector. Therefore, the proposed study aims to fill this gap by assessing the current landscape of challenges and identifying opportunities for improvement in the administration of transport management strategies, thereby contributing to the development of more sustainable, inclusive, and responsive transportation policies in Kenya."

#### *C. Objective of the Study*

- To determine the effects of organization policy on administration of transport management strategies in the public sector in Kenya
- To find out the effects of information communication technology on administration of transport management strategies in the public sector in Kenya

#### *D. Significance of the Study*

The proposed study will be important in guiding on the factors that should be considered in effective transport management system. It will also assist in policy formulation by the government that should be applied within the ministries and other government institutions. It will also add to the knowledge on research on public transport.

## II. THEORETICAL LITERATURE REVIEW

### A. Upper Echelons Theory

Upper Echelons Theory, developed by Donald Hambrick and Phyllis Mason in 1984, offers profound insights into the dynamics of decision-making at the highest levels of organizations. In the context of transport management, this theory posits that the backgrounds, experiences, values, and personalities of top managers significantly influence strategic choices and organizational outcomes. These influential factors can shape how transportation companies approach challenges, make decisions, and ultimately implement strategies that impact the efficiency, effectiveness, and sustainability of their operations (Venkatesh, Thong, & Xu, 2012). The Upper Echelons Theory, which emphasizes the significance of top managers in shaping organizational strategies and outcomes. In the context of the administration of transport management strategies, this theory suggests that the backgrounds, experiences, values, and personalities of top managers play a crucial role. By understanding how these factors influence decision-making, transportation companies can align their strategies with the preferences and objectives of key decision-makers (Saraswati & Madyatmadja, 2020). Leveraging the diverse perspectives and leadership qualities of top managers can help companies navigate challenges, seize opportunities, and foster growth and innovation in the transportation sector. Thus, the paragraph highlights the relevance of the Upper Echelons Theory in understanding and optimizing transport management strategies

### B. Competency-Based Theory

The theory is a prominent technique in strategic management and evidently offers a helpful idea for preserving a competitive edge (Bresser et al. 2000; Barney 2002). It was developed by individuals such as Hamel and Prahalad (1994), Sanchez et al. (1996), and Teece et al. (1997). In order to explain the nature of the company, the competence-based view provides a viable alternative to other theories currently in use, such as the more static transaction cost approach that concentrates on contractual difficulties. The competence-based view provides certain insights into the nature of human behaviour that are helpful to a robust theory. To address institutional dynamics, the variable ICT and organisation policy architecture is especially helpful.

### C. Diffusion of Innovations Theory

The Diffusion of Innovations Theory, formulated by Rogers, Singhal, & Quinlan, (2014), provides a comprehensive framework for understanding how new ideas, technologies, and practices propagate within the realm of transport management. This theory elucidates the process by which innovations are adopted over time, considering factors such as communication channels, the social system, time, and innovation attributes. In the context of transport management strategies, this theory offers valuable insights into how novel approaches, technologies, and methodologies are embraced and integrated into the operations of transportation organizations. Innovations in transport management encompass a wide range of

advancements aimed at enhancing efficiency, safety, sustainability, and effectiveness in transportation operations.

Diffusion of Innovations Theory provides a valuable framework for transportation managers seeking to administer transport management strategies effectively. By understanding the mechanisms by which innovations spread and are adopted within the industry, managers can develop informed strategies to promote the adoption and integration of new technologies, methodologies, and practices. Through effective communication, collaboration, and strategic planning, transportation organizations can leverage innovation to enhance efficiency, sustainability, and competitiveness in an ever-evolving transportation landscape.

### D. Empirical Literature Review

Ham, (2020), states that organization policies form the foundation of successful transport management strategies in businesses, providing a framework for decision-making and execution in a variety of transport-related areas. These policies define expectations and standards that regulate every facet of transportation-related activities in addition to providing guidelines, rules, and procedures. Organizational policies ensure consistency, efficiency, and adherence to industry standards and regulations by offering a clear framework for operations. By defining requirements for driver qualifications, hours-of-service laws, vehicle inspections, and transportation permits, organization policies offer a path for compliance.

Pettersson, (2018), argues that in transport management, organizational policies pertaining to safety procedures are crucial. These regulations set standards for emergency response protocols, car upkeep, driver education, and accident avoidance. Organizations can lower risks, prevent accidents, and safeguard assets and personnel by placing a high priority on safety. In addition to guaranteeing adherence to legal mandates and industry norms, safety policies cultivate a mindset of safety awareness and responsibility within the company. To monitor and enhance safety performance, transportation managers must strictly enforce safety policies, offer continuing training and assistance, and put technologies like telematics and driver monitoring systems into place.

Organizational policies are essential for guaranteeing that transport operations comply with regulations. These rules include standards for transportation permits, vehicle inspections, hours-of-service laws, and driver qualifications. Organizations may preserve their operational integrity and reputation while avoiding fines, penalties, and legal obligations by conforming to regulatory regulations. Transportation managers are responsible for keeping up with regulatory changes, effectively communicating policy updates to staff, and putting training programs in place to teach staff members about compliance obligations. Strong compliance procedures can show an organization's dedication to moral behavior and conscientious business operations (Akao, 2020).

According to World Health Organization, (2019), the importance of organization policies that address environmental sustainability in transportation management has grown. These regulations prioritize cutting fuel use, cutting carbon emissions, and supporting environmentally beneficial behaviors like electric cars, alternative fuels, and route optimization. Organizations may reduce their environmental effect, adhere to rules, and improve their reputation by using sustainable transport strategies. Transportation managers need to use technology like hybrid cars and idle reduction systems, create and execute sustainability policies that support business objectives, and track performance using important sustainability metrics.

Fleet management policies within an organization set standards for the purchase, use, upkeep, and disposal of vehicles. These guidelines cover things like fleet replacement cycles, repair procedures, preventive maintenance schedules, and vehicle selection criteria. Organizations can manage operating expenses, minimize downtime, and maximize asset utilization by putting in place efficient fleet management policies. Transportation managers are required to create fleet policies that strike a balance between dependability and efficiency, make investments in fleet management technologies like GPS tracking and predictive maintenance programs, and keep an eye on fleet performance to make sure policy goals are being met (Koh, Dolgui, & Sarkis, 2020).

According to Farazmand, (2023), organization policies also govern employee behavior and conduct within transport operations. These policies outline expectations regarding professionalism, ethics, confidentiality, and customer service. By establishing clear guidelines for employee behavior, organizations can foster a positive work culture, promote teamwork, and maintain customer trust and satisfaction. Transportation managers must communicate and enforce employee behavior policies consistently, provide training and coaching as needed, and address violations promptly to uphold organizational values and standards. Wensveen, (2023), asserts that with the increasing digitization of transport operations, organization policies related to data security and privacy are essential. These policies address issues such as data encryption, access controls, data retention, and regulatory compliance (GDPR, CCPA). By safeguarding sensitive information, organizations can protect against data breaches, unauthorized access, and legal liabilities. Transportation managers must implement robust data security policies, educate employees on best practices for data handling, and leverage technologies such as encryption and authentication to ensure the confidentiality and integrity of data.

Organization policy plays a fundamental role in shaping the administration of transport management strategies within companies. By establishing guidelines and standards for safety, regulatory compliance, environmental sustainability, fleet management, employee behavior, and data security, organization policies provide a framework for decision-making and execution in transport operations. Transportation managers must develop, communicate, and

enforce policies effectively, ensuring alignment with corporate goals and industry best practices. By adhering to organization policies, transportation companies can mitigate risks, improve operational efficiency, and enhance stakeholder trust and confidence in their transport management strategies (Ajay, Nagaraj, Pillai, Suthakorn, & Bradha, 2022).

Ali, (2018), Information and communication technology (ICT) has transformed the planning, execution, and optimization of transportation operations, and has grown to be a vital tool in the administration of transport management strategies. Modern digital technologies have made it possible for transportation businesses to use ICT to boost productivity, increase visibility, cut expenses, and provide better customer service. This shift is visible in a number of areas related to transportation management, including supply chain management, customer interaction, fleet operations, and logistics. The ability to track and monitor transportation assets in real-time is one of the most important effects of ICT on transport management. Transportation companies can obtain real-time visibility into the location, status, and condition of their vehicles and cargo by utilizing technologies like GPS, telematics, and sensors. Transportation managers can make well-informed decisions, react promptly to disruptions or delays, and optimize routes and schedules to meet customer demands and increase efficiency with the help of real-time monitoring. Transportation companies can reduce risks, improve operational efficiency, and guarantee the timely delivery of goods and services by utilizing real-time data (Adisa, 2017).

Fleet management systems, which optimize fleet operations and streamline administrative tasks, can be implemented more easily with the help of ICT. By automating repetitive procedures like fuel management, driver scheduling, and vehicle maintenance, these systems free up transportation managers to concentrate on strategic projects as opposed to menial duties. Fleet management systems enable proactive maintenance to lower costs and minimize downtime, track vehicle performance metrics, and offer insights into fleet operations. Transportation companies can maintain regulatory compliance, increase fleet efficiency, and improve safety by utilizing these technologies (Mulwa, 2015).

Owino, Otieno, & Odoyo, (2017), argues that another crucial ICT tool that changes transport management strategies is transportation management software (TMS). Transport management systems (TMS) platforms simplify a number of transport management processes, such as carrier selection, load optimization, route planning, and freight auditing. To optimize operations, enhance stakeholder collaboration, and improve decision-making, these systems integrate with other technologies and data sources. Transportation managers can lower transportation costs, maximize resource use, and enhance supply chain visibility and control by utilizing TMS technologies. Transportation management systems (TMS) enable transportation firms to optimize procedures, boost productivity, and provide



exceptional client care. Wairiuko, Nyonje, & Omulo, (2018), indicates that ICT also makes the supply chain more transparent and visible, completely changing how transportation companies track and manage shipments. Blockchain and RFID technologies facilitate safe and traceable transactions; data analytics and predictive modeling offer insights into demand trends and supply chain performance. Transportation managers can better meet customer expectations by identifying bottlenecks, mitigating risks, and optimizing transportation strategies with enhanced supply chain visibility. Transportation companies can lower costs, increase customer satisfaction, and improve operational efficiency by utilizing these technologies.

ICT innovations, such as robotic systems, drones, and driverless cars, are revolutionizing last-mile delivery and logistics. These technologies make it possible to automate monotonous jobs, lower the rate of human error, and boost transportation process efficiency. For instance, autonomous cars can maximize route planning, use less fuel, and improve safety by lowering the chance of collisions. Delivering goods to customers more quickly and effectively is possible with the help of robotic systems and drones, which can simplify last-mile delivery operations. Transportation managers can improve the efficiency of deliveries, lower expenses, and boost network dependability by adopting automated logistics solutions (Gikenye, & Ocholla, 2014).

Atieno, (2014), ICT is also essential for customer experience and engagement because it allows transportation companies to communicate with customers via e-commerce platforms, mobile apps, and digital platforms. Consumers can give feedback on their transportation experiences, receive delivery updates, and track shipments in real-time. Transportation companies can provide individualized service, promptly address customer inquiries, and proactively address problems with the help of these digital touchpoints. Transportation companies can differentiate themselves in a competitive market, increase customer satisfaction, and foster loyalty by utilizing information and communication technology to improve customer engagement. Transportation companies can now operate with greater efficiency, visibility, and innovation thanks to the revolutionary changes brought about by information and communication technology. In an increasingly digital and connected world, transportation managers can optimize their strategies, boost performance, and provide value to customers by utilizing ICT tools and solutions. ICT has emerged as a key component of contemporary transport management, driving efficiency, cutting costs, and improving the general customer experience. Examples of this include real-time monitoring and fleet management systems, supply chain visibility, and automated logistics solutions. Transportation companies need to keep adopting ICT innovations as technology develops in order to remain competitive and prosper in a sector that is changing quickly (Macharia Ngombo Wilson, Iravo, Tirimba, & Ombui, 2015).

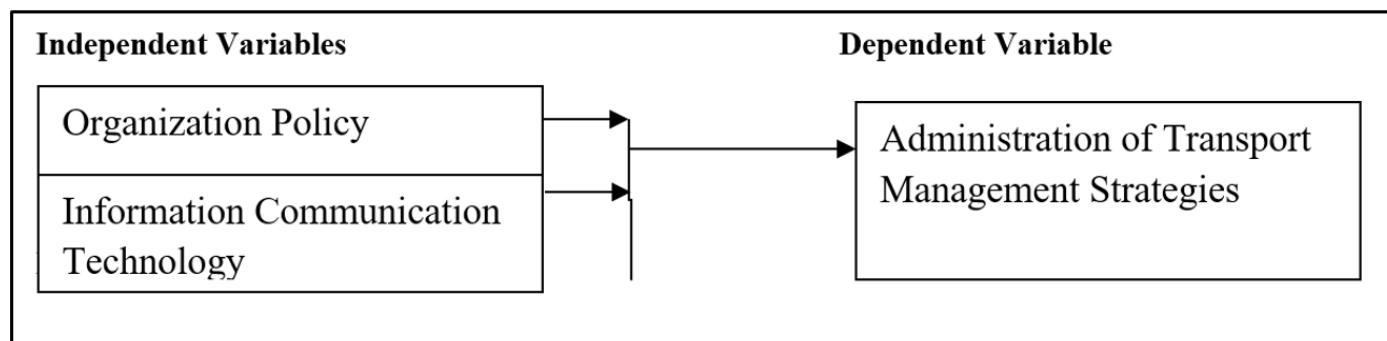


Fig 1 Conceptual Framework

### III. RESEARCH DESIGN

This research problem was studied using a descriptive survey research design. According to Creswell (2014), a descriptive survey research design is a type of study used to collect data that can help identify specific traits of a group.

#### A. Target Population

In this study, the target population included 400 management-level employees based at the Ministry of Health Headquarters at Afya House Nairobi classified into top management (20), Middle Management (120) and Lower-level management (260). The composition of this target population was as summarized in Table 1.

Table 1 Target Population

Category	Number	Percentage
Top Management	20	5%
Middle Management	120	30%
Lower-Level Management	260	65%
<b>Total</b>	<b>400</b>	<b>100</b>

Source: Human Resource Ministry of Health (2024)

**B. Sample and Sampling Technique**

This study used stratified random sampling because the population from which the sample was heterogeneous. Selection of sample items from each stratum was done randomly. Saunders, Lewis, and Thornhill (2018) recommended that the study sample size be random in order to eliminate biases, and that 1–10% of the target population is considered an appropriate size. Cooper and Schindler (2018) agreed. The Cochran formula is used to determine the sample size, which is 260 at the 5% significance level.

$$n = \frac{N}{[1 + N(e)^2]}$$

Where; n – sample size N – Population size e – Level of significance  $n = 400 / 1 + 400(0.05)^2 = 200$  Therefore the sample was 200 respondents

**C. Data Collection**

In this study, structured questionnaires comprising both open and closed-ended questions were used as they are easier to administer, analyze, and cost-effective. The questionnaire included closed-ended questions structured around a 5-point Likert scale.

**D. Pilot Study**

This subset was chosen to test the validity and reliability of the research instrument (Sekaran, 2015). In this study, validity was ensured through rigorous methods tailored to the research context. Firstly, content validity was achieved by aligning the questionnaire items closely with the specific aspects of green procurement and organizational performance being studied (Hair et al., 2019). Secondly, construct validity was established by examining how well the selected measures represented the theoretical constructs of interest. This involved techniques such as factor analysis to confirm the underlying structure of the data and assessing convergent and discriminant validity (DeVellis, 2016). These steps ensured that the questionnaire accurately captured the intended variables related to staff competency in green procurement, eco-design, supplier participation, and their impact on organizational performance. The Cronbach coefficient for the study was estimated to be 0.83 meaning that the instruments are reliable (Sekaran 2015)

**E. Data Analysis and Presentation**

The need to have all questionnaires checked for completeness and consistency is of paramount importance. After that the instruments were coded and data checked for errors and omissions. With the help of statistical package of social sciences, the data was then be analyzed. Given that the study was both qualitative and quantitative in nature descriptive statistics that included frequencies and mean were used. Qualitative data was also analyzed a per the themes of the study and presented in prose form. The computed frequencies and mean were presented in form of tables.

**F. Ethical Considerations**

Ethics has been defined as that branch of philosophy which deals with one's conduct and serves as a guide to one's behavior (Mackinnon, 2011). The purpose of ethics in research is to ensure the researchers conduct research with integrity and do not undertake research for personal gain or research that had a negative effect on others. In addressing research ethics, the study adopted informed consent, voluntary participation, confidentiality, privacy and anonymity.

**G. Results, Findings and Recommendations**

The relationship between ICT, organization policy and transport management strategies were determined using correlation analysis Pearson's correlation and the mean score for every independent variables were determined using SPSS. An asterisk (\*) indicates a correlation that was conducted at either the 0.05 or 0.01 significant levels, or both. In order to ascertain whether the variables have a substantial link, the p-value must be compared to the significance criterion. A significance level of 0.05 (alpha, for short). A correlation coefficient of 0.05 means that there is a 5% chance of assuming a relationship when none exists. The degree of deviation of the correlation coefficient from zero is indicated by its p-value. Statistical significance is attained when the association's p-value is less than or equal to 0.05. If the p-value is greater than 0.05, or the significant threshold, the association is not considered statistically significant. Table 2 displays the correlation's findings.

Table 2 Correlation Matrix

		<b>Transport management strategies</b>	<b>Organization policy</b>	<b>ICT</b>
Transport management strategies	Pearson Correlation	1.000		
	Sig. (2-tailed)			
Organization policy	Pearson Correlation	.765**	1.000	
	Sig. (2-tailed)	0.000		
ICT	Pearson Correlation	.522**	.314**	1.000
	Sig. (2-tailed)	0.000	0.000	

Table 2 shows the strong correlation ( $r = 0.765$ ,  $p = 0.000.05$ ) between organization policy and transport management strategies. This suggested that as organization policy had a positive impact, an improvement would result in better transport management strategies at MOH. The data indicates that there is a significant positive correlation between ICT and transport

management strategies at MOH ( $r = 0.522$ ,  $p = 0.00 < 0.05$ ). Additionally, it was implied that since ICT had a positive and substantial influence, enhancing it would enhance MOH's ability to provide services.

Table 3 Model Summary for Organization Policy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.642 <sup>a</sup>	.499	.395	.60906

➤ *Predictors:* (Constant), Organization policy

Table 3 illustrates the relationship between the predictor component, organization policy, and transport management strategies. There is a high positive correlation between organization policy and transport management strategies, as indicated by  $R = 0.642$  and  $R^2 = 0.499$ , which suggest that changes in organization policy may account for 49.9% of delivery variation. Other factors impact MOH transport management strategies to the tune of 50.1%.

Table 4 ANOVA<sup>a</sup> Results for Organization policy

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.578	1	26.578	75.042	.000 <sup>b</sup>
1 Residual	42.902	136	.315		
<b>Total</b>	<b>69.480</b>	<b>137</b>			

➤ *DV:* Transport management strategies

➤ *Predictors:* (Constant), Organization policy

Organization policy has a considerable impact on transport management strategies, as seen by the  $F = 75.042$  values in Table 4, demonstrating both the model's good fit to the data and the importance of organization policy in MOH transport management strategies. Based on a significance level of .000, regression model properly predicts the DV when the value is less than 0.0.

Table 5 Regression Coefficients<sup>a</sup> for Organization policy

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.095	.431		3.309	.001	.439	1.751
Organization policy	.688	.079	.632	8.668	.000	.531	.845

➤ *DV:* Transport management strategies

Table 5 shows how the organization policy of the MOH significantly improves transport management strategies. The data demonstrate a strong correlation between transport management strategies and organization policy;  $p = 0.01$  ( $0.05$ ). Increasing the organization policy method's mean index should enhance transport management

strategies by 68.8% as the strategy's value is significant ( $t = 8.668$ ,  $p.05$ ). The following is the regression model that explains the findings in Table 5. Organization policy for transport management strategies is equal to  $1.095 + 0.688$ . The model demonstrates and clarifies how the organization policy affects MOH transport management strategies.

Table 6 Model Summary for ICT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.595 <sup>a</sup>	.431	.325	.6427

➤ *Predictors:* (Constant), ICT

The model adequately captures the data and demonstrates that ICT has a big impact on transport management strategies.  $F = 56.864$  indicates that ICT has a

significant impact on transport management strategies. Table 7 indicates that at a significance level of .000, or less than 0.05, the regression model accurately predicts the DV.

Table 7 ANOVA<sup>a</sup> Results for ICT

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.411	1	24.411	56.864	.000 <sup>b</sup>
1 Residual	46.628	136	.342		
<b>Total</b>	<b>70.039</b>	<b>137</b>			

➤ *DV:* Transport management strategies

➤ *Predictors:* (Constant), ICT

The model adequately captures the data and demonstrates that ICT has a big impact on transport

management strategies.  $F = 56.864$  indicates that ICT has a significant impact on transport management strategies. Table 7 indicates that at a significance level of .000, or less than 0.05, the regression model accurately predicts the DV.

Table 8 Regression Coefficients<sup>a</sup> for ICT

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.739	.545		2.873	.000	.669	1.069
ICT	.644	.186	.476	8.412	.000	.547	.823

➤ *DV:* Transport management strategies

MOH's use of ICT has significantly enhanced transport management strategies. The results show a significant correlation ( $p = 0.05$   $P = 0.00$ ) between ICT and transport management strategies. Given this, the ICT values are statistically significant ( $t = 7.480$ ), indicating that transport management strategies should improve if the ICT mean

index is raised by .644 points. Regression analysis using transport management strategies as an example yields the following equation:  $1.739 + 0.644$  (ICT). The model demonstrates how MOH's transport management strategies are positively impacted by ICT.

#### H. Overall Multivariate Analysis

Table 9 Model Summary Multivariate Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.648 <sup>a</sup>	.568	.452	.58289

➤ *Predictors:* (Constant), ICT, organization policy

Regression analysis was used to predict transport management strategies and Table 9 shows that there is a positive correlation between  $R = 0.648$  and  $R^2 = .568$ ,

indicating that altering any one of the predictor factors may account for 56.8% of the variation in transport administration.

Table 10 ANOVA<sup>a</sup> Results for Model Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.678	2	8.169	24.210	.000 <sup>b</sup>
1 Residual	37.118	135	.274		
Total	69.796	137			

➤ *DV:* Transport management strategies

➤ *Predictors:* (Constant), ICT and organization policy

The results of  $F = 24.210$  show that the transport administration has a significant influence on MOH transport management strategies and that the model well describes

the data. These numbers demonstrate that each predictor variable affects transport management strategies in a way that is statistically significant. Table 10 shows that the DV is significantly predicted by the entire regression model at the significance level of 0.000, or less than 0.05.

Table 11 Regression Coefficients<sup>a</sup> for Multivariate Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.675	.367		1.504	.000	.176	1.281
Organization policy	.479	.118	.329	3.027	.000	.123	.592
ICT	.428	.114	.274	2.697	.001	.081	.532

➤ *DV:* Transport management strategies

The results of the study demonstrate that predictor factors greatly enhance Transport management strategies at ( $P = 0.01$ ) and ( $p = 0.05$ ) The data demonstrates a clear connection between efficient transport management strategies. Thus, the mean index of predictive dynamics should be increasing transport management strategies since

the predictor variable values are statistically significant at  $p.05$ . The results are summarized in Table 11. The model demonstrated that organisation policy and ICT had the largest effects on the transport management strategies. The least effective strategy for enhancing transport management strategies is MOH transport management. As a result, the regression model for the study is:



$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 +$$

Where:

Y= Transport management strategies

(Bi; i=1, 2, 3,4) = various coefficients for the independent variable

Xi for; X<sub>1</sub>= Organization policy and X<sub>2</sub>= ICT

Transport management strategies = .675 + .479  
(Organization policy) + .428 (ICT)

#### IV. CONCLUSION

The predictor factors have a positive and significant impact on MOH transport management strategies. The results show a strong correlation between transport management strategies and transport administration. Consequently, as  $P < .05$  indicates statistical significance for the values of the predictor variables. An increase in their mean index should improve transport management strategies. Organisation policy and transport management strategies are significantly positively correlated, according to the regression analysis, and shifts in organisation policy can be linked to variations in transport management strategies. The results show that administration of transport significantly affects MOH transport management strategies and that the regression model accurately accounts for transport management techniques, and transport management strategies are greatly impacted by organisation policy. The results of regression analysis indicate a robust positive correlation between ICT and transport management strategies, implying that differences in ICT could be the root cause of disparities in transport management strategies. The study's findings demonstrate that MOH ICT significantly affects transport management strategies, demonstrating that the regression model appropriately takes into account that ICT is crucial to the process of providing services.

#### RECOMMENDATIONS

The management needs to ensure that all the policies that pertain to the administration of transport management strategies in the public sector in Kenya are adhered to within the organisation. There should be no relentless effort to ensure the policies are followed by the organisation. Policy is an important factor for the effective performance of the business, as it protects them from being exploited in terms of tax and price. To enhance the effectiveness of transport management, it is crucial for organisations to develop and implement robust policies that are aligned with their strategic objectives. This focus on policy development can lead to improved efficiency, better resource utilisation, and more effective management of transport systems. The use of technology should be seen as very important and viewed as a necessity in carrying out administration of transport management strategies in the public sector in Kenya; hence, appropriate software should be installed in the transport department. This will enhance speed and efficiency within

the organisation. The management should ensure that all the employees that are in the department are trained to use technology in order to facilitate effective administration of transport management strategies in the public sector in Kenya. Employee training and development needs must be analysed when formulating and implementing new strategies for the effective performance of administration of transport management strategies in the public sector in Kenya. It was recommended that training should be enhanced in the transport department to enable the employees to use new technology introduced within the department. Therefore, prioritising the development of staff skills and competencies is essential for improving the performance and efficiency of transport management systems. This focus on competency development can lead to better transport management strategies, increased efficiency, and more effective implementation of transport policies and strategies.

#### REFERENCES

- [1]. Adisa, V. K. (2017), Transport management technologies and performance of third party logistics providers in Kenya (Doctoral dissertation, University of Nairobi).
- [2]. Ajay, P., Nagaraj, B., Pillai, B. M., Suthakorn, J., & Bradha, M. (2022), Intelligent ecofriendly transport management system based on iot in urban areas. *Environment, Development and Sustainability*, 1-8.
- [3]. Akao, Y. (2020), Hoshin Kanri: Policy deployment for successful TQM. Productivity Press.
- [4]. Ali, A. M. (2018), Intelligent Fleet Management Systems, information Communication Technology and Operational Performance of Transport Companies in Mombasa County, Kenya (Doctoral dissertation, University of Nairobi).
- [5]. Allen, L., Holland, K. K., Holland, H., Tome', S., Nabaala, M., Seno, S., & Nampushi, J. (2019), Expanding staff voice in protected area management effectiveness assessments within Kenya's Maasai Mara National Reserve. *Environmental management*, 63, 46-59.
- [6]. Atieno, E. O. (2014), Information and communications technology and supply chain performance among logistics firms in Nairobi, Kenya (Doctoral dissertation, University of Nairobi).
- [7]. Ayodele, D. V., & Oluwagbenga, M. (2023), The Roles of Transportation Systems in Food Security and Stability in Osun State, Nigeria. *British Journal of Multidisciplinary and Advanced Studies*, 4(1), 72-81.
- [8]. Cheptora, N. C., Osoro, A., & Musau, E. G. (2018), The impact of information and communication technology on procurement performance in manufacturing firms in Kenya. *International journal of academic research in business and social sciences*, 8(9), 605-616.
- [9]. Creswell, J. W. (2014), Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications.

- [10]. Denzin, N. K., & Lincoln, Y. S. (2018), *The Sage handbook of qualitative research*. Sage Publications.
- [11]. Farazmand, A. (Ed.). (2023), *Global encyclopedia of public administration, public policy, and governance*. Springer Nature.
- [12]. Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2014), *How to design and evaluate research in education*. McGraw-Hill Education.
- [13]. Ghosh, A. (2020), Possibilities and challenges for the inclusion of the electric vehicle (EV) to reduce the carbon footprint in the transport sector: A review. *Energies*, 13(10), 2602.
- [14]. Giathi, V. M., Abayo, R., & Muhoho, J. (2021), Strategic procurement management processes on performance of public institutions in Kenya: a case of National Transport and Safety Authority. *International Academic Journal of Human Resource and Business Administration*, 3(9), 434-463.
- [15]. Gikenye, W., & Ocholla, D. N. (2014), The diffusion of information and communication technologies in the informal sector in Kenya. *Mousaion*, 32(3), 29-48.
- [16]. Gure, A. K., & Karugu, J. (2018), Strategic management practices and performance of small and micro enterprises in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(1), 1-26.
- [17]. Ham, C. (2020), *Health policy in Britain: The politics and organization of the National Health Service*. Routledge.
- [18]. Hambrick, D. C., & Mason, P. A. (1984), Upper echelons: The organization as a reflection of its top managers. *Academy of management review*, 9(2), 193-206.
- [19]. Irandu, E. M., & Owilla, H. H. (2020), The economic implications of belt and road initiative in the development of railway transport infrastructure in Africa: The case of the standard gauge railway in Kenya. *The African Review*, 47(2), 457-480.
- [20]. Johnson, R. B., & Christensen, L. B. (2019), *Educational research: Quantitative, qualitative, and mixed approaches*. Sage Publications.
- [21]. Koh, L., Dolgui, A., & Sarkis, J. (2020), Blockchain in transport and logistics—paradigms and transitions. *International Journal of Production Research*, 58(7), 2054-2062.
- [22]. Korir, K. K., Nyangau, S. P., & Muo, C. (2023), Role of Humanitarian Logistics Management Practices on Drought Management Response in Kenya. *International Journal of Social Science and Humanities Research*, 1(1), 1-19.
- [23]. Kyusya, J. M. (2015), *Effect of logistics outsourcing on the operational performance of shipping industry in Kenya* (Doctoral dissertation, University of Nairobi).
- [24]. Lesutis, G. (2020), How to understand a development corridor? The case of Lamu Port– South Sudan– Ethiopia-Transport corridor in Kenya. *Area*, 52(3), 600-608.
- [25]. Macharia, D., Iravo, M. A., Tirimba, O. I., & Ombui, K. (2015), Effects of information technology on performance of logistics firms in Nairobi County. *International Journal of Scientific and Research Publications*, 5(4).
- [26]. Ojwaka, L. A., & Osoro, A. (2023), Logistics Outsourcing Services And Performance Of Dairy Firms In Kiambu County Kenya. *International Journal of Management and Business Research*, 5(1), 229-238.
- [27]. Owino, H. O., Otieno, S., & Odoyo, F. S. (2017), Influence of information and communication technology on revenue collection in county governments in Kenya: A Comparative Study of Migori and Homa Bay County Governments. *International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)*, 4(1), 66-96.
- [28]. Patton, M. Q. (2014), *Qualitative research & evaluation methods: Integrating theory and practice*. Sage Publications.
- [29]. Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014), Diffusion of innovations. In *An integrated approach to communication theory and research*. Routledge.
- [30]. Schulthoff, M., Kaltschmitt, M., Balzer, C., Wilbrand, K., & Pomrehn, M. (2022), European road transport policy assessment: a case study for Germany. *Environmental Sciences Europe*, 34(1), 92.
- [31]. Wairiuko, J. W., Nyonje, R., & Omulo, E. O. (2018), ICT infrastructure and adoption of E-government for improved transport management strategies in Kajiado county Kenya. *European Journal of Business and Management*, 10(30), 205-221.
- [32]. Wamwea, C. N., & Moi, E. (2023), Influence of Transport Sector Reforms on Performance of Public Transport Sector, A Case Study of Nairobi City County. *International Journal of Public Administration and Management Research*, 8(5), 17-29.
- [33]. Wensveen, J. (2023), *Air Transportation: A Global Management Perspective*. Routledge.
- [34]. Wolfe, M. K., McDonald, N. C., & Holmes, G. M. (2020), Transportation barriers to health care in the United States: findings from the national health interview survey, 1997–2017. *American journal of public health*, 110(6), 815-822.