



**INNOVATION ADOPTION AND THE IMPLEMENTATION OF AUTOMOBILE
INDUSTRY PROJECTS IN NAIROBI CITY COUNTY, KENYA**

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ABSTRACT

The general objective of this study was to examine the effect of innovation adoption on the implementation of automobile industry projects in Nairobi City County, Kenya. Specifically, the study sought to determine the effect of product innovation on the implementation of automobile industry projects in Nairobi City County, Kenya and to establish the effect of market innovation on the implementation of automobile industry projects in Nairobi City County, Kenya. The study was guided by The Institutional Theory and Innovation Theory. The study used cross-sectional research design to be able to get a wide variety of information from the variables. The study target population was automobile industry in Nairobi City County. The study sample comprised of 300 respondents who are the managers, chief officers and field operation team since they are experienced with the area of the study. The study used questionnaires to collect primary data. Both open and close ended questionnaires were used. The pilot was done on the targeted population from the energy sector in Nairobi City County, Kenya. The pilot sample helped in ascertaining the reliability and validity of the instrument. The questionnaires were sorted, cleaned and data was coded and edited for completeness and consistency. Quantitative data was analyzed by employing descriptive statistics and inferential analysis using statistical package for social science (SPSS) version 24. The data presentation was done using charts, graph and tables. The study used the multiple regression analysis models to measure the relationship between independent and dependent variables and the significant of the study. The study concludes that product innovation has a significant effect on the implementation of automobile industry projects in Nairobi City County, Kenya. The study also concludes that market innovation has a significant effect on the implementation of automobile industry projects in Nairobi City County, Kenya. Based on the findings, this study recommends that companies should focus on enhancing systems integration within their projects. This involves ensuring that various technological components and systems work seamlessly together. Developing standardized integration processes can improve efficiency and reduce project delays.

Key Words: Innovation adoption, Product innovation, Market innovation, Implementation of automobile industry projects

Background of the Study

The automotive industry is relevant in terms of its impact on the economy as well as on technology. As stated by Humphrey and Memedovic (2018), the automotive sector is global and is characterized as a capital-intensive industry with vertical integration and economies of scale (Reena, & Shakil, 2019). It has been responsible for the development of technological innovation and management, and the original major change on the industrial production processes

Since the mid-1980s, the automotive industry has been going through a transition, in which domestic industries are adapting to an integrated global market (Sharu, & Guyo, 2015). According to Olusola A. (2018), this integration took place mainly in the buyer-supplier relationship, especially among automakers and their suppliers. In the early 21st century, the automotive industry, which had already achieved a level of maturity and high structure, has to be pressed by globalization, government regulations concerning energy consumption, emissions and safety and technological advances in electronics, communication and design.

Muyengwa, *et al* (2016) explains that governments in various parts of the world have been implementing measures to increase this importance, such as Brazil, where the Brazilian vehicle registration program was created to improve the energy efficiency of new light vehicles. In the US, with emission control legislation, In China, where the National High Technology Research and Development Program (AlNuaimi, & Khan, 2019). Moreover, in some European countries, with the implementation of the European Union End-of-Life Vehicle Directive (ELV), which aims to increase the recovery of end-of-life vehicles and thus, reduce waste and improve environmental performance (Atteridge, & Weitz, 2017).

In the world economy, the automotive industry generates more than \$2.5 trillion in revenue per year and corresponds, in general, to roughly 10% of the Gross Domestic Product (GDP) of developed countries (Boamah, 2020). According to annual data from the National Association of Vehicle Manufacturers, in 2008, China surpassed the United States in the production of auto vehicles. During this period, China produced 9,299,000 units against 8,695,000 units in the US. In 2012, China produced 19.272 million units and the United States ranked second with 10.329 million units, followed by Japan, Germany and South Korea, with 9943, 5649 and 4,558,000 units, respectively. Brazil was in seventh place with a total of 3.403 million units (Borowski, 2021).

Statement of the Problem

Kenyan automotive industry is growing rapidly due to intense competition among internal and external automotive competitors. Currently, 39.7% of the Kenyan population is urbanized and this figure is projected to rise to 50% by 2030 at which Kenya is expected to reach middle income status. This has increased high demand of vehicles both locally and internationally. Currently, Kenya is viewed as an ideal base for regional East African market. According to Hannigton (2018), the delay in lead time for orders has made it strategically important for automobile manufacturers to have a solid base in Kenya. This points Kenya as a particularly an attractive investment base in the East African market (Ferguson, 2017).

At the moment, Kenyan automobile industry is primarily focused on retail and distribution of new and second hand vehicles. The established dealers face intense competition from imported second-hand vehicles, mainly from Japan and United Arab Emirates which account for 70% of the Kenyan market and Chinese dealers who have struck deals to supply government agencies with vehicles. The slump in the volume of new cars sold is attributed to the increased competition from second hand vehicles and depressed automotive industry. This has made the Kenyan market to be saturated with vehicles from independent dealers raising concerns over the quality and safety of services being offered by some automobile dealers.

Government's focus on improving the aggregate trade balance through controls, currency

intervention, tax systems, the cost of labour and materials may affect industries on the margin but it is far from decisive in shaping long-term competitive advantage in automobile industry. At the low end of automobile industry, Kenyan's are keen to get value for their hard earned and often meager investment (Olusola, 2018).

Innovation in project management has not been used as a tool to improve organization performance and automobile sector need to be continually supported with innovation by reforming and updating the regulatory (Sharma, Shahbaz, Kautish and Vo, 2021). Also delayed and lack of policies supporting innovation activities should take place to improve and increase access. Innovation in automobile industry faces limited investment leading poor implementation and lack of developed ICT structures (OECD, 2017). It is therefore essential to establish the effect innovation adoption on the implementation of automobile industry projects in Nairobi City County, Kenya.

Research Objective

The general objective of the study is to examine the effect of innovation adoption on the implementation of automobile industry projects in Nairobi City County, Kenya.

- i. To examine the effect of product innovation on the implementation of automobile industry projects in Nairobi City County, Kenya
- ii. To establish the effect of market innovation on the implementation of automobile industry projects in Nairobi City County, Kenya

LITERATURE REVIEW

Theoretical Review

The Institutional Theory

Institutional theory describes the effects of external institutional pressures on organizations and defines institutions as regulatory structures, government agencies, laws, courts, and professions, as well as interest groups and public opinion (Wernerfelt (1984). The rules and norms set out by the institutions in an environment are endorsed by various actors. A strength attributed to institutional theory is its ability to explain non-choice behaviour of organizations how they conform to norms without questioning them and undertaking public function (Lowell (1994).

According to Nunnally (1978) institutions are composed of cultural-cognitive and regulative elements that together with associated activities and resources give meaning to life. The author explains the three pillars of institutions as regulatory (policy), normative and cultural cognitive. The regulatory (policy) pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism with emphasis on compliance. The institution theory advocates on the economic procedure or approach chosen carefully as guidelines for bids evaluation thus supporting tender qualification and selection. This theory will be used to assess the effect of product innovation on the implementation of automobile industry projects in Nairobi City County, Kenya.

Innovation Theory

Innovation theory, also called diffusion of innovation theory, explains on advancements gain traction throughout a specific population. These advancements are new ideas, technology, behaviors or products. Diffusion of Innovation (DOI) Theory by Rogers (1962), is one of the oldest social science theories. The theory originated in communication to explain idea or product gains momentum and diffuses (or spreads) through a specific population or social system.

Adoption of a new idea, behavior, or product does not happen simultaneously in a social system;

rather it is a process whereby some people are more apt to adopt the innovation than others. Researchers have found that people who adopt an innovation early have different characteristics than people who adopt an innovation later. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation (Uddin, 2018). This theory will be used to establish the effect of market innovation on the implementation of automobile industry projects in Nairobi City County, Kenya.

Conceptual Framework

A conceptual framework as a diagram that links the concepts under study and shows their relationship. It defines the independent variables, and the dependent variable on effect of innovation adoption on the implementation of automobile industry projects in Nairobi City County, Kenya.

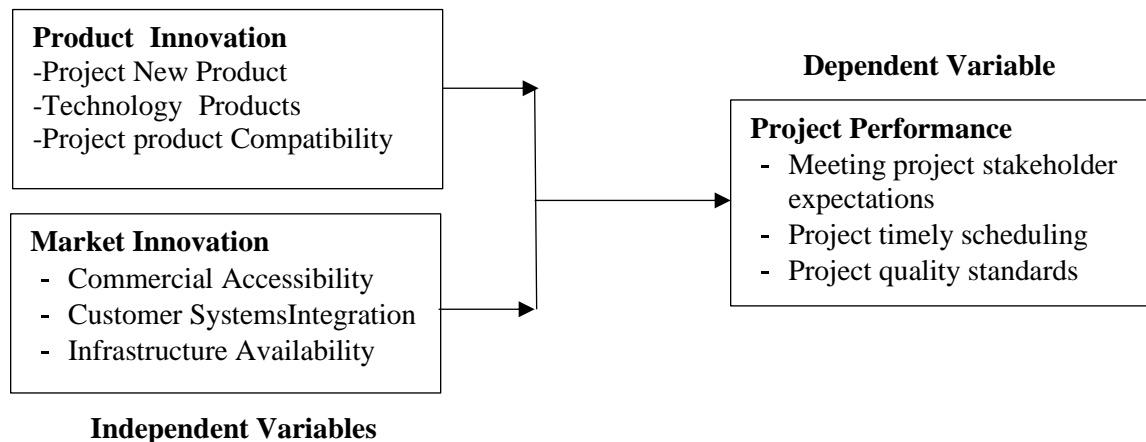


Figure 1: Conceptual Framework

Product Innovation

Product innovation is the creation and subsequent introduction of a good or service that is either new, or an improved version of previous goods or services. This is broader than the normally accepted definition of innovation that includes the invention of new products which, in this context, are still considered innovative (Borowski, 2021). Product innovation is the adoption of new or significantly improved production methods. These methods may involve changes in equipment or production organization or both. The methods may be intended to produce new or improved products which cannot be produced using conventional plants or production method or essentially to increase the production efficiency of existing products. Product innovative can be analyzed by looking into the internal side and external side of the product. Internal side, where it depends on knowledge, capacities, resources and the technologies used in the company while the external side would be the consumers' needs and the owners' expectations towards the company's product (Ko, iu, Ngugi & Chapleo, 2018).

Rasool, Samma & Khan (2019) product features is major decision variables used by marketer to influence the product evaluations and purchase behaviors of potential customers. To effectively make decisions regarding these variables, marketers seek knowledge about how consumers use product attribute information in the evaluations of products. Besides that, many product features can be included in the communication message. Much research focusing on the diffusion of innovations has identified characteristic (e.g., relative advantage, compatibility) of innovations that affect the rate of their adoption (Uddin, 2018). Jirakraisiri, Badir, and Frank (2021) mentioned when consumers are asked why they have recently purchased particular products, they typically mention price and performance (product features) as reasons, which are measures of overall value.

Market Innovation

A marketing innovation is the implementation of a new marketing method (marketing idea or strategy) that differs significantly from the previous marketing method used by the enterprise and that has not been previously used by the enterprise. A requirement for a marketing innovation is that it involves significant changes in the product design or packaging, product placement, product promotion or pricing. Market innovation entails commercial accessibility, customer Systems Integration and infrastructure availability (Jirakraisiri, Badir, & Frank 2021).

System Integration refers to the process by which multiple individual subsystems or sub-components are combined into one all-encompassing larger system thereby allowing the subsystems to function together. In other words, the symbiosis created through system integration allows the main system to achieve the overarching functionality required by the organization. Customer integration is the component of customer relationship management which puts technology in place that allows customers to process their own transactions and to have direct contact with the organization. This means that the need for middlemen is reduced. It is a way for the organization to do business with substantial savings on human resources (Van den Bossche *et al*, 2015).

Empirical Review

Product Innovation and Project Implementation

Innovation has been used as a tool to improve competitiveness and organization performance (Borowski, 2021). Innovation has continually been reforming and updating the regulatory and institutional framework within which innovation activities takes place (Bhatia, 2021). Innovation has a direct role on improving organizations performance by means of developing ICT innovation adoption (Khalil, Khawaja, & Sarfraz, 2021).

Ko, iu, Ngugi and Chapleo, (2018) conducted a study on external supply chain flexibility and product innovation performance. This study used a cross-sectional questionnaire survey of 236 UK-based SME manufacturers. The study established that to promote product innovation performance, SME managers should focus on building good relationships with their suppliers rather than their logistics service providers. SME managers should be particularly aware of the different types of informal control mechanisms that govern their supply chain relationships and adjust their managerial approaches accordingly. This study distinguishes between ISF and OLF and examines their impacts on SMEs' product innovation performance. Ko, iu, Ngugi and Chapleo, (2018) recommends the differential effects of lead supplier influence and normative integration on the relationship between external supply chain flexibility and SMEs' product innovation performance.

Jimenez, Martínez and Rodriguez (2019) conducted a study on the mediating role of supply chain collaboration on the relationship between information technology and innovation. Structural equation modeling was used to check the research hypotheses with a sample of 200 manufacturing companies. Jimenez, Martínez and Rodriguez (2019) results show supply chain collaboration has a positive effect on technological innovation, showing that the collaboration with external agents foster both incremental and radical innovations. Furthermore, results show that IT directly enhances both types of product innovation incremental and radical indirectly through supply chain collaboration.

Rasool, Samma & Khan (2019) conducted a study to examine the effect of strategies in human resource management (HRM) practices on organizational innovation (OI) in the banking sector of China. Questionnaire survey was used in this study. The correlation and regression analysis were used to test the hypotheses with a sample of 140. The results indicate that modern human resource management practices have a positive relationship with OI. The finding highlights among

all modern HRM practices performance management has a strong, positive effect on OI. However our study indicates that a higher level of performance management provides a higher level of OI in the banking sector of China.

Uddin (2018) conducted a study on knowledge management tool for enhancing organizational innovation that was research proposed to signify the effects of knowledge management on management practices and organizational innovations in different multinationals. The questionnaire was prepared to collect primary data from 200 employees working at different public and private banks. Silva, Gomes and Sarkis, (2019) studied on the role of innovation in the implementation of green supply chain management practices. The study used data from 119 SMEs within manufacturing industries in the Midlands, United

Kingdom Farooq, Ullah and Hameed (2016) reported there is lack of human resource practices and organizational innovation strategy. Magnier and Benton (2017) examined the study on management innovation into firm performance in Japanese companies. While past research has been inconsistent on the role of management innovation on firm performance, this research considers how management innovation in organizations can promote tacit and explicit knowledge creation, and whether this leads to higher firm performance. This research used a questionnaire survey of employees of Japanese firms and applied conditional process analysis. The study established there was no direct effect of management innovation onto firm performance, and that instead, both tacit and explicit knowledge fully mediated the relationship between management innovation and firm performance. While management innovation programs by themselves did not directly increase firm performance, the alignment of these programs with knowledge management initiatives enhanced performance. Magnier and Benton (2017) highlights the need for management innovation that first considers the type of knowledge needed for enhanced performance. Previous research did not consider the role of knowledge as a means to translate management innovation into firm performance.

Market Innovation and Project Implementation

Market Innovation also known as Market Driven Innovation (MDI) is not new, but still today, many companies find it difficult to transform their innovation work from the entrenched technology-forward approach they have been using to a market-back or human-centered approach (Paramonova, Nehler & Thollander, 2021). The entire business processes have been built around the assets and products they produce and their go-to-market strategy based on their historical sales experience and sets of customers with whom they have the best relationships. This results in the premature commoditization of their value propositions and their most important assets (Jirakraisiri, Badir, & Frank 2021).

Market-Driven Innovation begins with a business oriented toward targeted markets. These markets define strategy, which informs resource allocations especially those resources dedicated to the innovation process (Singh, Rathi, & Garza-Reyes 2021). Market-Driven Innovation is based on a strict set of principles such as engineering and technical resourcing decisions are made based on a validated market need and drivers of customer behavior as the foundation for an attractive business case. Organizational focus is achieved from understanding market segments sets of customers who are similarly motivated and targeting the most attractive segments for growth and technology development is accelerated because better design specifications of a targeted set of customers are captured from the onset of development (Omara, Odongo & Kule, (2021).

Market Innovation is to incorporate the advances in market, technology or engineering to increase the effectiveness and efficiency of market, to gain competitive advantage and increase shareholder value. Cheah and Yuen-Ping, (2021) suggests that Market innovation entails the generation and implementation of new ideas for creating, communicating, and delivering value to customers and managing customer relationships and further argues that marketing innovation should be

developed concurrently with product innovation. Market innovation is the capacity to re-conceive the existing industry model in ways that create new value for customers, undermine competitors, and produce new wealth for all stakeholders. The market innovation is effective digital when it adapts to change, and grasp new opportunities. Being able to innovate allows brands to conceptualize new ideas and put them into practice.

Organizational innovation means the implementation of a new organizational method in the undertaking of business practices, workplace organization or external relations (Leovaridi & Popescu, 2018). Organizational innovation can be intended to increase a firm's performance by reducing the administrative costs or transaction costs, improving workplace satisfaction (and thus labor productivity) or reducing cost of supplies (Gunday *et al*, 2019). The ability of an organization to innovate is reconditioned for successful utilization of inventive resource and new technologies.

Innovation implementation organizational method in the undertaking's business practices, workplace organization or external relations (Van den Bossche *et al*, 2018). Changes in business practices, workplace organisation or external relations that are based on organisational methods already in use in the undertaking, changes in management strategy, mergers and acquisitions, ceasing to use a process, simple capital replacement or extension, changes resulting purely from changes in factor prices, customization, regular seasonal and other cyclical changes, trading of new or significantly improved products are not considered innovations (Van den Bossche *et al*, 2018).

RESEARCH METHODOLOGY

Research design is the blueprint used to guide a research study to ensure that it addresses the research problem. The study used cross-sectional research design, according to Orodho, (2018) descriptive research aims to accurately and systematically describe a population, situation or phenomenon.

The study targeted the automotive industry. The automotive industry in Nairobi City County, Kenya is primarily involved in the assembly, retail and distribution of motor vehicles and grouped into five main sub-sectors namely: Motor vehicle assemblers, Trailer assemblers, Motorcycle assemblers, parts and components manufacturers, and Body builder's sub-sectors. The study targeted management employees in these five categories

Table 1: Target Population

Strata	Population
Managers	22
Chief Officers	104
Field Operation Team	1076
Totals	1202

The final sample was calculated using Yamane (1967) simplified formula. Using the stratified sampling method, the sample size was 300. The study used questionnaires to collect primary data. Both Open and close ended questionnaires were used. zPilot test is a method that is used to test the design and instrument before carrying out the main research (Gall, Gall, & Borg, 2017). It involves conducting pre-test sample of 1% -10% depending on the sample size (Mugenda & Mugenda, 2019). The pilot was done in TATA MOTORS LTD Tata Africa House, Mombasa Road. The pilot sample helped in ascertaining the reliability and validity of the instrument

Quantitative data was analyzed by employing descriptive statistics and inferential analysis using statistical package for social science (SPSS) version 24 (Coakes & Steed 2018). Both descriptive and inferential statistics were used to analyze the data collected. Descriptive statistics involved

computation of mean scores, standard deviation, percentages, cross tabulation and frequency distribution which described the demographic characteristics of the organization and the respondents. Inferential statistics was used to determine the relationships and significance between independent and dependent variable.

DATA ANALYSIS AND FINDINGS

Out of 300 questionnaires which were distributed, 291 were duly filled and returned. The drop-off and pick-up-later method yielded the high response rate of 97%. According to Babbie (2017), a response rate of 75 per cent is adequate for analysis as well as making conclusions and inferences about a population. In addition, Kumar (2019) indicates that a response rate of 60% and above is acceptable for analysis.

Descriptive statistics

Product Innovation and Project Implementation

The third specific objective of the study was to examine the effect of product innovation on the implementation of automobile industry projects in Nairobi City County, Kenya. The respondents were requested to indicate their level of agreement on various statements relating to product innovation and the implementation of automobile industry projects in Nairobi City County, Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutrals, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 2.

From the results, the respondents agreed that local talent and expertise play a pivotal role in driving product innovation and project success in Kenya's automobile industry. This is supported by a mean of 3.961 (std. dv = 0.896). In addition, as shown by a mean of 3.919 (std. dv = 0.814), the respondents agreed that customer satisfaction and local market insights are central to shaping their product innovations for the Kenyan market. Further, the respondents agreed that they are committed to offering a diverse range of products that cater to both urban and rural mobility needs in Kenya. This is shown by a mean of 3.887 (std. dv = 0.900). The respondents also agreed that the successful implementation of product innovations requires a holistic approach that includes research, development, testing, and market adaptation. This is shown by a mean of 3.834 (std. dv = 0.792).

From the results, the respondents agreed with a mean of 3.813 (std. dv = 0.884) that they view product innovation as a continuous journey, and they invest in ongoing improvements to provide the best solutions for Kenyan consumers and businesses. Further, as shown by a mean of 3.798 (std. dv = 0.786), the respondents agreed that they are dedicated to supporting Kenya's economic growth by manufacturing and innovating automobile products locally. The respondents also agreed that measuring and analyzing customer feedback and sales data are integral to their product innovation strategy in the Kenyan automobile industry. This is shown by a mean of 3.788 (std. dv = 0.892). Further, the respondents agreed with a mean of 3.723 (std. dv = 0.786) that they take pride in contributing to Kenya's vision of industrialization by offering innovative and reliable automotive solutions.

Table 2: Product Innovation and Project Implementation

	Mean	Std. Dev.
Local talent and expertise play a pivotal role in driving product innovation and project success in Kenya's automobile industry.	3.961	0.896
Customer satisfaction and local market insights are central to shaping our product innovations for the Kenyan market.	3.919	0.814
We are committed to offering a diverse range of products that cater to both urban and rural mobility needs in Kenya.	3.887	0.900
The successful implementation of product innovations requires a holistic approach that includes research, development, testing, and market adaptation.	3.834	0.792
We view product innovation as a continuous journey, and we invest in ongoing improvements to provide the best solutions for Kenyan consumers and businesses.	3.813	0.884
We are dedicated to supporting Kenya's economic growth by manufacturing and innovating automobile products locally.	3.798	0.786
Measuring and analyzing customer feedback and sales data are integral to our product innovation strategy in the Kenyan automobile industry.	3.788	0.892
We take pride in contributing to Kenya's vision of industrialization by offering innovative and reliable automotive solutions.	3.723	0.786
Aggregate	3.832	0.873

Market Innovation and Project Implementation

The fourth specific objective of the study was to establish the effect of market innovation on the implementation of automobile industry projects in Nairobi City County, Kenya. The respondents were requested to indicate their level of agreement on various statements relating to market innovation and the implementation of automobile industry projects in Nairobi City County, Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 2.

From the results, the respondents agreed that local talent and expertise play a pivotal role in driving market innovation and project implementation in Kenya's automobile industry. This is supported by a mean of 3.943 (std. dv = 0.986). In addition, as shown by a mean of 3.926 (std. dv = 0.840), the respondents agreed that the successful implementation of market innovations requires a holistic approach that encompasses research, adaptation, and customer-centricity. Further, the respondents agreed that they view market innovation as an ongoing journey, constantly adapting to meet the changing landscape of the Kenyan market. This is shown by a mean of 3.846 (std. dv = 0.879). The respondents also agreed that measuring and analysing market data, consumer behaviour, and competitor strategies are central to our market innovation strategy in Kenya. This is shown by a mean of 3.831 (std. dv = 0.904).

As shown by a mean of 3.816 (std. dv = 0.789), the respondents agreed that they take immense pride in contributing to Kenya's economic growth through innovative automotive offerings. Further, the respondents agreed that their organization is unwavering in its commitment to delivering high-quality, innovative products that align with Kenya's development goals. This is shown by a mean of 3.796 (std. dv = 0.937). The respondents also agreed that market innovation is not just about products; it's about creating value and addressing the unique needs of Kenyan consumers and businesses. This is shown by a mean of 3.689 (std. dv = 0.876). As shown by a mean of 3.634 (std. dv = 0.687), the respondents agreed that their experiences in the Kenyan market have taught us that market innovation is a key driver of long-term sustainability and success

Table 2: Market Innovation and Project Implementation

	Mean	Std. Dev.
Local talent and expertise play a pivotal role in driving market innovation and project implementation in the automobile industry.	3.943	0.986
The successful implementation of market innovations requires a holistic approach that encompasses research, adaptation, and customer-centricity.	3.926	0.840
We view market innovation as an ongoing journey, constantly adapting to meet the changing landscape of the Kenyan market.	3.846	0.879
Measuring and analysing market data, consumer behaviour, and competitor strategies are central to our market innovation strategy in Kenya.	3.831	0.904
We take immense pride in contributing to Kenya's economic growth through innovative automotive offerings.	3.816	0.789
Our organization is unwavering in its commitment to delivering high-quality, innovative products that align with Kenya's development goals.	3.796	0.937
Market innovation is not just about products; it's about creating value and addressing the unique needs of Kenyan consumers and businesses.	3.689	0.876
Our experiences in the Kenyan market have taught us that market innovation is a key driver of long-term sustainability and success.	3.634	0.687
Aggregate	3.778	0.843

Successful Implementation of Automobile Industry Projects

The respondents were requested to indicate their level of agreement on various statements relating to the implementation of automobile industry projects in Nairobi City County, Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 3.

From the results, the respondents agreed that automobile industry projects are completed within the set budget. This is supported by a mean of 3.991 (std. dv = 0.860). In addition, as shown by a mean of 3.918 (std. dv = 0.941), the respondents agreed that automobile industry projects are completed within the specified time. Further, the respondents agreed that automobile industry projects are completed within the set standard. This is shown by a mean of 3.908 (std. dv = 0.610). The respondents also agreed that there are few customer complaints on the quality of the completed projects. This is shown by a mean of 3.881 (std. dv = 0.900).

As shown by a mean of 3.861 (std. dv = 0.771), the respondents agreed that they are satisfied with the effectiveness of implementation of automobile industry projects. From the results, the respondents agreed that project stakeholders actively participate in the implementation of automobile industry projects. This is supported by a mean of 3.854 (std. dv = 0.962).

Table 3: Successful Implementation of Automobile Industry Projects

	Mean	Std. Dev.
automobile industry projects are completed within the set budget	3.991	0.860
automobile industry projects are completed within the specified time	3.918	0.941
automobile industry projects are completed within the set standard	3.908	0.610
There are few customer complaints on the quality of the completed projects	3.881	0.900
Am satisfied with the effectiveness of implementation of automobile industry projects	3.861	0.771
Project stakeholders actively participate in the implementation of automobile industry projects	3.854	0.962
Aggregate	3.865	0.776

Inferential Statistics

Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (product innovation and market innovation) and the dependent variable (the implementation of automobile industry projects in Nairobi City County, Kenya). Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

Table 4: Correlation Coefficients

		Organization Performance	Product Innovation	Market Innovation
Organization Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	291		
Product Innovation	Pearson Correlation	.817**	1	
	Sig. (2-tailed)	.002		
	N	291	291	
Market Innovation	Pearson Correlation	.880**	.271	1
	Sig. (2-tailed)	.000	.076	
	N	291	291	291

The results revealed that there is a very strong relationship between product innovation and the implementation of automobile industry projects in Nairobi City County, Kenya ($r = 0.817$, p value $=0.002$). The relationship was significant since the p value 0.002 was less than 0.05 (significant level). The findings are in line with the findings of Jimenez, Martínez and Rodriguez (2019) that there is a very strong relationship between product innovation and project implementation.

The results also revealed that there was a very strong relationship between market innovation and the implementation of automobile industry projects in Nairobi City County, Kenya ($r = 0.880$, p value $=0.000$). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the results of Cheah and Yuen-Ping, (2021) who revealed that there is a very strong relationship between market innovation and project implementation.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (product innovation and market innovation) and the dependent variable (the implementation of automobile industry projects in Nairobi City County, Kenya)

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.951	.904	.901	.10125

a. Predictors: (Constant), product innovation and market innovation

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r -squared for the relationship between the independent variables and the dependent variable was 0.904 . This implied that 90.4% of the variation in the dependent variable (the implementation of automobile industry projects in Nairobi City County, Kenya) could be explained by independent variables (product innovation and market innovation).

Table 5: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	141.081	4	35.270	1388.58	.000 ^b
Residual	7.254	286	.0254		
Total	148.335	290			

a. Dependent Variable: implementation of automobile industry projects

b. Predictors: (Constant), product innovation and market innovation

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 1388.58 while the F critical was 2.403. The p value was 0.000. Since the F-calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of product innovation and market innovation on the implementation of automobile industry projects in Nairobi City County, Kenya.

Table 6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	0.241	0.064		3.765	0.000
	product innovation	0.357	0.098	0.356	3.643	0.002
	market innovation	0.375	0.099	0.376	3.788	0.001

a Dependent Variable: implementation of automobile industry projects

The regression model was as follows:

$$Y = 0.241 + 0.357X_1 + 0.375X_2 + \varepsilon$$

The results revealed that product innovation has significant effect on the implementation of automobile industry projects in Nairobi City County, Kenya, $\beta_1=0.357$, p value= 0.002). The relationship was considered significant since the p value 0.002 was less than the significant level of 0.05. The findings are in line with the findings of Jimenez, Martínez and Rodriguez (2019) that there is a very strong relationship between product innovation and project implementation.

In addition, the results revealed that market innovation has significant effect on the implementation of automobile industry projects in Nairobi City County, Kenya, $\beta_1=0.375$, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings are in line with the results of Cheah and Yuen-Ping, (2021) who revealed that there is a very strong relationship between market innovation and project implementation.

Conclusions

The study concludes that product innovation has a positive and significant effect on the implementation of automobile industry projects in Nairobi City County, Kenya. The study findings revealed that project New Product, technology Products and project product Compatibility influence the implementation of automobile industry projects in Nairobi City County, Kenya.

The study also concludes that market innovation has a positive and significant effect on the implementation of automobile industry projects in Nairobi City County, Kenya. The study findings revealed that commercial accessibility, customer Systems Integration and infrastructure Availability influence the implementation of automobile industry projects in Nairobi City County, Kenya.

Recommendations

The companies should place a strong emphasis on designing and planning infrastructure that supports automobile projects. This includes efficient factory layouts, logistics networks, and transportation systems. Collaborate with local authorities to address infrastructure gaps and challenges.

The companies should develop a market-centric approach by aligning automobile projects with the specific needs and preferences of the Kenyan market. Tailor product offerings and strategies to address local demands effectively. In addition, the companies should improve the accessibility of their products and services to a wider customer base in Kenya. This can involve expanding dealership networks, leveraging e-commerce platforms, and exploring partnerships with local distributors.

Suggestions for Further Studies

The study found that the independent variables (product innovation and market innovation) could only explain 90.4% of the implementation of automobile industry projects in Nairobi City County, Kenya. This study therefore suggests further research on other factors affecting the implementation of automobile industry projects in Nairobi City County, Kenya.

Further, study was limited to successful implementation of automobile industry projects in Kenya, hence the study findings cannot have generalized to projects in other sectors in Kenya. The study therefore suggests further studies on the effect of innovation adoption on the implementation of automobile industry projects in Nairobi City County, Kenya.

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