DRIVERS OF STRATEGIC PERFORMANCE OF STANDARD GAUGE RAILWAY IN SUSTAINING COMPETITIVE ADVANTAGE

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ABSTRACT

Transport growth is incredibly fast due to global demand and gradually becoming competitive equally struggling to improvement and sustain a competitive advantage. In addition, there is a high demand for worldwide high-speed railway (HSR) systems. There is need for rail businesses to define and adopt strategic approaches. The improvement of great capability Standard Gauge Railway (SGR) transport system aimed at addressing the existing challenges of railway transport services in Kenya. The study aimed at exploring drivers of strategic performance of standard gauge railway in sustaining competitive advantage in Kenya. The study based on dynamic capability and Competitive Intelligence theory. Descriptive research design was used using Stratified sampling to sample a population of 100 respondents consisting of manager in commercial, planning, operations, rolling stock, operation control Centre manager and major clients. Structured questionnaires were administered and data was analyzed using SPSS as descriptive statistical tool. Multiple regression and correlation analysis was used to show the effect of the independent variables on the dependent variable. The study had 100% response rate where the respondents were operations managers who have less than 3 years of work experience and majority manage and operate within Nairobi region. The study concluded that SGR need to involve the staff in execution and decision making meetings, offer workshop/training. The study recommends adoption of continuous improvement focusing on rapidly changing environments and continuously utilization of risk assessments and reporting mechanisms. Investing in SDF and strong management follow up and commitment. Allow benchmarking and streamline all operation to achieve greater performance and sustain its competitive advantage.

INTRODUCTION

Background of the study

The potential segment for driving economic and development worldwide is Railway. One important component of the reform process of the railway sector has been the drive to increase its efficiency (Lin, 2018), economic development (Irandu, 2017) and to satisfy the customers in order to gain competitive advantage (Onditi 2014). Transport growth is incredibly fast due to global demand. The rail business environment globally and locally is progressively becoming competitive as they struggle to survive in an increasingly competitive environment making it difficult to gain and sustain a competitive advantage. Such competitive growth leads to greater energy demand to run high speed rail; trains and quality infrastructure (Gnap, et al., 2021). Therefore, there is need for businesses to

define and adopt strategic approaches as recommended by Porter (2007). According to Komen (2014) many public corporations experiencing decline in performance and have turnaround crisis (MonicaSantana, Valle, & Jose-LuisGalan, 2017) opting to implement strategies to improve their performance and sustain competitive advantages.

Porter (2007); Porter (2001) argues that competitive advantage is obtained when an organization develops or acquires a set of attributes (or executes actions) that allow it to outperform its competitors. In order to cope with dynamic environment, David (2011) and Hill (2014) recommend strategic management which has taken the center stage in organizations that intend to succeed in the business environment. David (2011) further describes strategic management as the science and art used to formulate, implement and evaluate decisions across functions that enables firms to achieve their objectives. Djordjević et al., (2021) suggests monitoring progress towards sustainability in order to maximize their potential, Ali & Eliasson (2021) evaluates the necessity to improve and do experimentation with additional effective and clear capacity allocation procedures with greater investment in the construction of high-speed railways and good railway infrastructure (Gnap, et al., 2021). Li, et al., (2019) Suggests optimization and adjustment of the freight rate and Yusoff, Ng, & Azizan (2021) recommends sustainable railway development policy framework.

Global perspective on performance in sustaining competitive advantage

In developed countries, there is a high demand for worldwide high-speed railway (HSR) systems in Europe, Japan, Russia, North and South America according to International Energy Agency report (2019), in order to provide a reliable opportunity for freight transportation. Watson et al., (2020) confirms Rail Baltica in northern Europe, California High-Speed Rail (CAHSR) in the USA, China Railway Express and High Speed Two (HS2) in the UK. In European countries, the HSR is capable to transport goods in an extra efficient, safe and cost-effective way, which can improve trade links in Europe and the rest of the world. UK used innovation models and strategies in HSR significantly reduced the transportation costs, congestions and emissions than air transport sustains competitive advantage. According to Herranz-Loncán (2011), railways is considered significant innovations that fostered the transition of Latin America to economic growth and the construction of railway networks which has a huge influence on the reduction of domestic transport costs. Brazil achieved success by means of creating from two principal types of strategic advantage as illustrated Ritchie and Crouch (2010) as comparative advantages and competitive advantage. Japan achieved to be most efficient rail by application of advanced technology (Kim & Huang, 2019), China Railway Express promotes cost function factored by timeliness, cost-effective, dependability, suitability, security, and environmentally friendly. The study established adjustment and optimization of the freight rate of China Railway Express to maximally promote competitiveness and its sustainable development (Li, et al., 2019).

Indian railways (IR) having multi-gauge network aids the world's second major commuter transportation volume (African Development Bank, 2015). Its main aim is effective and efficient movement of passenger and freight traffic. The Indian railways (IR) used strategy of higher volumes with the concept of revenue management in the passenger business where in differential prices were charged for differential services were leveraged as illustrated by Raghuram (2007).

Regional Perspective on performance in sustaining competitive advantage

In the developing countries, railway systems lag behind compared to the developed economies. Wangai, Rohacs, & Boros (2020) argue that African railway network harbor challenges namely has former colonization interests, uses significantly different rail-gauge and poor maintained rail lines systems. Worst of all they continue to state that rail freight traffic in Africa compared to global total accounts for only 7%. Thus, making rail performance a challenge in sustaining competitive advantage worldwide and its owed environ. In Africa, integration rail gauge lacks network including narrow gauge, standard gauge and Cape gauge, however hardly crosses from one country, region to another (African Development Bank, 2015).This contributes to poor performance and inability to sustain competitive edge. Researcher indicates that for instance, South Africa has a more supportive policy environment on rail performance and are using vertically integrated concessions to improve service delivery and reduced transport costs (Mathabatha, 2015). While in Ghana HSR intention has influences the need for travel time reliability, and transport safety (Sagoe, et al., 2021).

Kenya having the need for reliability and competitive prices to ferry goods via SGR, Masinde (2016) states that KRC have adopted rail principal strategies in making a sustained recovery from a period of performance decline including Transfer through concession management; firming the company's financial base; Transformation of the railway infrastructure; rationalizing of the stuffed workforce; improved technology adoption and company culture change.

Local perspective on performance in sustaining competitive advantage

In 2006 the Governments of the Republic of Kenya and the Republic of Uganda agreed to business and Rift Valley Railways (RVR) signed Concession Agreements in 2006 and deeds were signed through the respective legal entities, Rift Valley Railways Kenya Ltd. (RVRK) and Rift Valley Railways Uganda Ltd. (RVRU) in order to rehabilitate, operate and maintain the rail networks as one railway system so as to improve the management, operation and financial performance of the two rail networks in a coordinated manner as indicated by African Development Bank Group (2013).

African Development Bank, (2015) states that road transportation contributes to 50%, water-based is approximately 30% and rail merely 11% utilized. Pendo (2019) claims that freight companies in Kenya are faced with unforeseen market challenges and loss of several lucrative deals due to the Standard Gauge Railway (SGR) thus in Kenya, road transportation is generally known, 24 hours a day and its affordable mean and while rail is long transit known to be second most important mode of transport.

Masinde (2016) acknowledge the implementation of any strategy effectiveness in rail industry in Kenya has resistance to transformation that impacts negatively. He therefore recommended rail principal strategies that KRC adopted in making a sustained recovery from a period of performance decline namely: Privatization through concession management; strengthening the corporation's financial base; Modernization of the railway infrastructure; Downsizing of the bloated workforce; Enhanced technology adoption and corporate culture change. Poor performance of the

concessionaire (RVR) (Masinde, 2016), institutional challenges, insufficient staff capacities and complex institutional oversight and regulatory capacity (Onditi, 2014) resulting to slow or/and the challenges of strategy development at KRC in the process of SGR development.

SGR strategic performance in sustaining competitive advantage

Before the development of SGR, according to Wahome (2010) performance of freight movement was done by Rift Valley Railway (RVR). RVR was challenged due to changing management from Sheltam Rail Corporation to América Latina Logística (ALL). Nyalwal (2013), Onditi (2014) and Okoth (2016) study findings doubted the performance of RVR dimmed by lack of finances, poorly motivated staff, fierce competition, poor infrastructure and poor strategies in improving and sustaining competitive advantage. The identification for the development of a modern, high capacity Standard Gauge Railway (SGR) transport system for both freight and passengers is aimed at addressing the existing challenges of railway transport services in Kenya.

SGR, ambitious infrastructure project aimed at connecting western Kenya and six other East African countries, including Ethiopia and Tanzania. According to Olievschi (2013) argues that defining a successful railway there is no universal set of rules but have competitive advantage for large volumes of transport on specific markets, freight on medium and long distance, have fast commuter services in metropolitan or fast long-distance services. SGR steered important development in the construction sector (Lin, 2018), increased imports trading from China, and suspected of violation of environmental standards (Githaiga & Bing, 2019), increase of external Liability in Kenya (Olander, 2020).

Githaiga (2021) acknowledges SGR being the principal infrastructure project in Kenya intended to reduce freight transport charges, reduced travel periods, reduce congestion and increase economy of Kenya. Although SGR is strained on cargo attraction, administrative and logistical encounters in cargo clearance, ticketing issues and passengers (Githaiga, 2021); exceedingly expensive project (Wasike, 2019), immensely suffering billions of dollar loans and insignificant incorporation with any export in Kenyan and industrialized zones (Taylor, 2020). Taylor (2020) continues to note thus import/export operators are greatly flexible and dependable on Kenya's road networks. Lin, (2018) and Githaiga (2021) confirms great competition in optimizing services in return for a balanced allocation of resources at SGR to achieve great performance and sustain its competitive advantage. Therefore, the study is aimed at explore drivers of strategic performance including product positioning, technological aspect, safety, service delivery of standard gauge railway in sustaining competitive advantage.

Problem statement

Today railway transport modernization and high-speed trains is visible in developed countries resulting to strong demand for cargo transportation and trade growth. Africa is lagging behind in modernizing its railway transport. Excessive pressure on railway service and performance emerged in Kenya to transform Kenya into a middle-earnings nation according to Kenya's Vision 2030. Therefore, government of Kenya identified two corridors for the development of a modern, high

capacity Standard Gauge Railway (SGR) transport system for both freight and passengers. This is aimed to address the current challenges of railway transport services. Githaiga (2021) acknowledges SGR being the principal infrastructure project in Kenya intended to reduce freight transport costs, cut travel times, reduce congestion and increase economy in Kenya. Although SGR is strained on cargo attraction, administrative and logistical encounters in cargo clearance, ticketing issues and travelers (Githaiga, 2021); exceedingly expensive project (Wasike, 2019), immensely suffering billions of dollar loans and insignificant incorporation export in Kenyan and industrialized zones (Taylor, 2020). Taylor (2020) continues to note thus import/export operators are greatly flexible and dependable on Kenya's road networks. African Development Bank, (2015) confirms that Road transportation contributes to 50%, water-based is approximately 30% and rail merely 11%. Despite the perceived significant development of SGR, there is great competition in optimizing services in return for a balanced allocation of resources thus the study perceives the need for SGR to heighten its strategies toward sustain its competitive advantage. This paper tends to find the drivers of strategic performance of SGR in sustaining competitive advantage.

Objectives of the Study

General objective

The study out to explore drivers of strategic performance of standard gauge railway in sustaining competitive advantage in Kenya.

Specific objectives

i. To establish product positioning drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage
ii. To assess the technological aspect affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage
iii. To establish safety drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage
iv. To determine service delivery effects on strategic performance of Standard Gauge Railway in sustaining competitive advantage

Research questions

i. What product positioning drivers affect strategic performance of Standard Gauge Railway in sustaining competitive advantage?
ii. What is effect of the technological on strategic performance of Standard Gauge Railway in sustaining competitive advantage?
iii. How do safety drivers affect strategic performance of Standard Gauge Railway in sustaining competitive advantage?
iv. What is the effect of service delivery on strategic performance of Standard Gauge Railway in sustaining competitive advantage?

Significance of the study

Significance of the study will benefit several stakeholders' including the freight and logistic companies, the government and KRC, academicians and customers for the market share.
The freight and logistic companies will be able to improve on innovation and automation, manage customers' expectations and growth emphases on products and services benchmarking. This will enable to evaluate cost benefit of the business.

The government will be able to effectively manage and control complex projects and support win international trade. This study will aid in benchmarking with international rail innovation models and strategies in implementing High Speed Rail.

Kenya Railway Corporation will be able to understand competitive environment actions, addressing the existing SGR challenges, optimize services and resources in sustaining competition thus increase its performance.

Customers will be benefit in retaining track of the competition. The researcher will be able to identify research gap and knowledge areas in sustaining competitive advantage.

Scope of study

The study will look at the Drivers affecting strategic performance of SGR in sustaining competitive advantage. The study will target of 100 respondents consisting of manager in commercial, planning, operations, rolling stock, operation control center manager and major clients of SGR. The subject was chosen because they take part in decision making and their key role in overseeing the performance is achieved.

LITERATURE REVIEW

This section captures theoretical framework, conceptual framework, and empirical review, critique of the literature and research gap of the study.

Theoretical framework

Theoretical framework involves the theories conveyed by specialists in the field planned to research, draw upon to provide a theoretic support for data analysis and interpretation of results (Kivunja, 2018). The theories will aid in describing the relationships among variables, explaining research problem, also recommendations for future research. The study will be guided by two performance theory of sustaining competitive advantage namely dynamic capabilities and competitive intelligence.

Dynamic capabilities theory

Dynamic capabilities (DC) theory defines the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Teece et al., 2009) and (Helfat et al., 2007). The process of familiarizing to an eco-friendly condition is defined as dynamic (Shahmansouri, 2013), effect of internal capabilities and external networks on firm performance (Lee et al., 2001), Porter's five forces framework; identification and commitment to paths (Pisano, 2015), assets position and Processes factor (Teece, 2007).

Bitar & Walter-J, (2004) describe as an extension of the Resource Based View (RBV) framework and as a relation among the RBV (with its internal focus) and environmental models of competitive advantage (with their external focus). RBV, industry analysis; organization theory, organizational behavior, evolutionary economics and complexity theory can be called on within the Dynamic Capabilities framework to better explain the strategic formation process and strategy content (Bitar & Walter-J, 2004). Davies et al., (2016) recommends DC benefits management of complex projects highlight the ongoing instability of dynamic capabilities, flexibility and harmonizing role with respect to demands for stability and change in complex, uncertain, and volatile project environments. This shows that application of DC will significantly benefit SGR as a complex project in sustaining competitive advantage.

Competitive intelligence

For an organization to achieve information in a systematic manner, Competitive intelligence (CI) is used as a strategic tool. According Wright et al. (2009) CI is a process of collecting competitive and its environment to be used in planning and making decision on how to improve company performance. Jones & Van Doren (2010) confirms that this tool aid in creating differentiation, marketing communication plan integration, and company validity. Amiri et al., (2017) states CI process as continuously integrated including development, collection, study of competition, communication, process and structure, organizational awareness and culture.

According to Gaidelys & Dailydka (2016) studied analysis of competitors in the railway sector by means of Knowledge House, as CI business models and argues that benefit the organization levels of the competitive retardation, competitor's capability, weaknesses, the current and future strategies, stimulate culture changes of a company, support to advance the standards of productivity and effectiveness. Stefanikova et al., (2015) study on use of knowledge of enterprises showed that CI supports sustainable growth and innovation and development in the competitive businesses environment and growing of their market share. Infinite research (2017) indicates that using CI Solution supports an Airline Industry by enhancing risk management capabilities. There are little studies on competitive intelligence techniques applied by authors for the railway industry. Despite insufficient application of CI, CI is depicted equally a significant tool for strategy to sustaining competitive growth and innovation for rail sector. Therefore, the study will adopt CI theory.

Conceptual framework

Notably, Kivunja (2018) describes as set of ideas that expresses the different concepts that can be used in a study and supports facilitation of the interpretation of results. The study will explore drivers of strategic performance of standard gauge railway in sustaining competitive advantage in Kenya. Figure 1 shows relationship of independent variables namely: product positioning, technological aspect, safety, service delivery quantified against sustaining competitive advantage at SGR in Kenya as dependent variable.

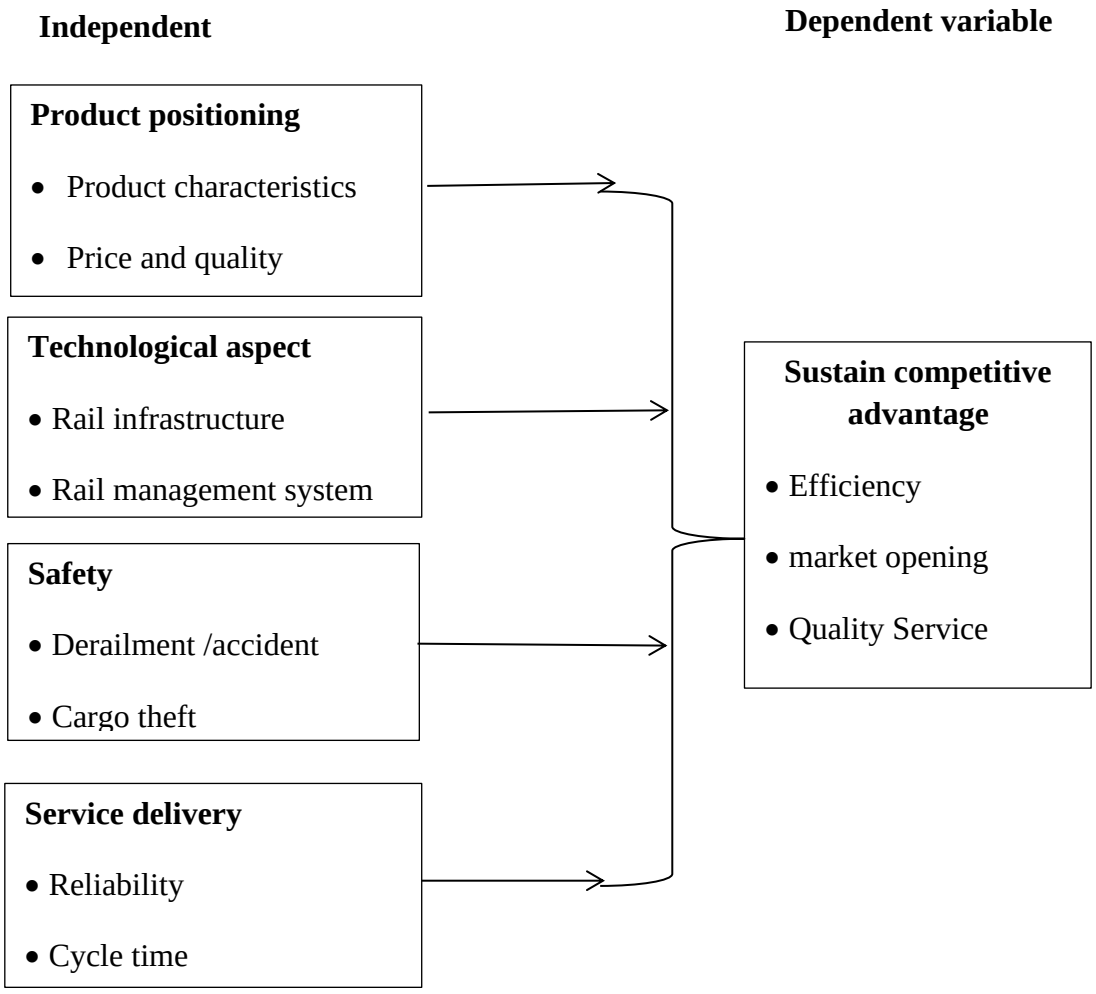

Figure 1.1: Conceptual framework

Product positioning

Positioning is a significant foundation and performs as a provision for gaining competition. Competition is a reference point for positioning (Kotler, 2009). For a company to be effective, positioning approach reflects the strengths and weaknesses of a business, customer's needs, and market, and competitor's position. Basing on dynamic capabilities theory, in order for SGR to outshine and beat their competitor, SGR must have an idea of what brand stand for in the

rail product categories and such brand can be achieved through market communications. Baraskova (2010) notes that positioning is done to mind of prospect and not to product/service.

Lehmann & Winner (2002) acknowledges that positioning shifts emphasize on marketing from the product to the encounter of business mind and it's an act of planning company's image to inhabit a different place of the targeted market's mind. Lehmann & Winner (2002) defines product position as an essential approach and as a differential advantage communicated to the target customer and can be employed into product cost and product characteristics or features. For Porter & Kramer (2007), competitive advantage critical to success is innovation and therefore an organization can be in a secured position relative to its competitors if it has an innovative product. According to Lehmann & Winner (2002) product characteristics is non-price differential strategy that allows to obtain a price higher than the price that would be allowed under perfect competition. Therefore, differential advantage intends to create added value in the mind of customer meaning the customer focus on the product benefits other than price.

Kotler (2009) defines product level as the client value grading namely essential advantage, simple, predictable, augmented, and potential product. He states that basis of product augmentation occurs where differentiation rise and competition progresses. Lehmann & Winner (2002) defines five areas for product differentiation as quality, status, branding, convenience and service, distribution channels while Kotler (2009); Kotler (2011) defines as form, features, customization, performance and quality, reliability, durability, reparability, style and design of conformance; service differentiation (e.g. delivery, installation, customer training, consulting service, repair etc.); personnel differentiation (e.g. competence, courtesy, credibility, reliability, responsiveness, communication); Image differentiation (e.g. symbol, atmosphere, events etc.)

Wheeler (2012) states strategic tool and an asset that offers quality reporting, improved recognition and competitive variances as brand identity. Kotler (2011) argues that brand identity contains the methods accepted by a business in identifying product position. He continues to state that the projected positioning must be distinguished, inimitable and linked to the target, making sure the advantages of the brand is with key competitors. While positioning, a firm must convey the concept for a particular brand only not for all the competing brands that consists of product category/class and firm should follow that positioning concept over the life of the brand/product (Cravens & Piercy, 2009). Wheeler (2012) points out that organizations should choice an ideal blend of tangible and intangible product characteristics laterally with prices for positioning their brands/products in the targeted market.

Kotler (2011) states that price stands very significant to the business's position in relative to its target. Quality is also a vital tool in gaining competitive advantage and is understood as essential to an individual business that be able to effectively contest in a marketplace globally. Lehmann & Winner (2002) indicate that quality means superior design. For Kotler (2009), quality model includes reliability, responsiveness, assurance, empathy and tangible. Therefore, to sustaining competitive advantage is an advantageous way above competitors if only competitive intelligence is applied, which is gained by contributing consumer's superior value, moreover lowering prices or by providing products that contributes to consumer superior payback and services justified by a

higher price, Kotler (2009; 2011). Having lowest price doesn't determine consumer markets and what to purchase but quality of a product as influential factor, therefore pursuing low cost important activities should be focused in which the cost competitiveness is low, Lehmann & Winner (2002). He continues to stress that certain risks may be posed by low price strategy, (1) a customer tastes shift and product being produced in large quantities may be no longer desired and (2) technology shifts. Porter (2001) shows that Cost leadership highlights on low cost relative to that of the competitors, needs of customer, and quality is a key differentiating influence amongst products.

Technological aspect

Advanced technology in rail is used to cut costs, increase performance especially time and implementation of advanced stages of safety (Network Rail, 2018) thus adoption of greatest technology and continuous innovation in attain great performance (Lin, 2018). He continues stating that in order to have digital Railway technologies, it requires better levels of incorporation across track and train operations and between real time control systems and IT business systems thus basing on dynamic capability of railway the effect of internal capabilities and external networks is vital. African Development Bank (2015) acknowledge rail industry has been experiencing of delivery challenges namely rolling stock fixture, integration with Train Operating department and licenses and freight fixture.

African railway infrastructure has been challenged by very poor technical condition and old large structural buildings and tracks, more so suffers from several encounters and long eras of political discontent, and therefore damaged or sometimes incapable to operate, Nyalwal (2013). According to Ivica et al. (2014) technological characteristics of quality infrastructure should be considered and competitive intelligence (Stefanikova et al., 2015) as to sustain railway infrastructure quality in the recognized level measures including consistency, availability and railways use, infrastructure safety, and infrastructure cost constraints.

Al-Douri, Tretten, & Karim (2016) argues that rail infrastructure developed with technological innovation comprising track age, system for train inspection, right of way, railway signaling, stations and electrification system grows pedestrian suitability, efficiency of freight transportation, reduction of environmental contamination, land usage patterns enhancement and improved socio-economic prospects of an area, Kinuthia (2014). Hre´n & Parida (2009) emphasizes on the use of Railway infrastructure effectiveness (ORIE) model quantify the degree toward how railway infrastructure system achieves its approved performance to the traffic operatives. They continue to state that ORIE as a key performance indicator provides significant input for effective decision making and recommends that ORIE should be changed in achieving the exact essentials of the railway infrastructure system (Hre´n & Parida, 2009).

The Concepts of logistics system have been developed as technological strategies for urban freight transportation. Marinov et al., (2010) describes them as components of an integrated logistics and that Freight Transport Logistics that focuses on the organization, planning, control, management and execution of freight transport operations in the supply chain. Marinov et al., (2010) claims e-Freight and Intelligent Transport Systems (ITS) is equally typical for data movements in ensuring

the integration and interoperability of modes at data level and provide an open, robust data architecture primarily for business data flows. According to Evans (2013) introduction of Automatic Train Protection (ATP) system in the UK and EU, and Positive Train Control' (PTC) system in the USA supported train preventable accidents due to driver's errors (Evans, 2013).

In Kenya basic technologies described as e ticketing, e maintenance, automated cargo handler robotic technologies and ITS. These technologies enhanced efficiency and performance of SGR. Thus, maintenance is vital in order to increasing safety and to reduce costs.

Safety

Based on dynamic capability theory, Al-Douri, Tretten, & Karim (2016) notes the significance of role of Rail transport in safely and economically moving risky resources all over the countries. More so operating train safety is vital urgency to both rail industry and the government. Thus Teece et al. (2009) noted that reconfiguring internal and external competences to address rapidly changing environments is key in ensuring safety strategies. Track deterioration and deformation of the rail head, dangerous rail cracks, and damage to the sleepers due to speed and overloading the rolling stock has been noted as main train accidents (Al-Douri, Tretten, & Karim, 2016). Train accidents damages infrastructure and rolling stock (Liu, Saat, & Barkan, 2012). In developed countries railway safety has improved over the last two or three decades for instance train accidents and personal accidents has been improved by integrating safety management systems, formal documentation processes, good safety information systems, a proactive approach to risk management and trained expertise in safety management and human factors (Evans, 2013). Donaldson & Edkins (2004) claims that the cause of the accident is overturning speed on a curve area. It's vital to have continuous maintenance of track since it's the central part of railway infrastructure. Therefore, maintenance of track should be deliberate reliability, availability, safety, and cost effective (Evans, 2013).

The major known type of train accident is derailments. Due to complexity of the rail transportation it has become a challenge to eliminate completely, although efficient allocation of resources may prevent accidents (Liu, Saat, & Barkan, 2012). Train safety and risk analysis depend on exact valuation of derailment possibility and derailment rate is defined as the number of derailments standardized by traffic exposure (Liu et al., 2017) and they recommended its usefulness in statistic to estimate the likelihood of a derailment. Derailment may be caused by Sharp Curve and Overspeed (Sun, 2018). Liu et al. (2017) notes that lower derailment rate is caused by complex track class and complex traffic density. In developed countries, several measures have been set for instance, In USA PTC (Positive Train Control) and in Japan signaling systems ATC support the prevention of excessive speed running; designing of lower C.G height vehicles (Matsumoto, 2016).

Theft of goods in transit goods cost billions each year. Mayhew (2001) claims that major theft are employees either directly or indirectly. Kolbenstvedt & Amudsen (2011) recommend cargo visibility and integrity as key technological development that enables to track shipment and its content at any given time during transit, regulation of Trans-border crossing cargo and technical device for cargo visibility and integrity. Therefore, identification and authorization measures is vital

in rail industry. Lorenc, et al., (2020) states that Cargo theft occurs where higher value, poor security and rail transport volume is seen. Mayhew (2001) states freight-forwarding yards, warehouses and during transportation in trucks, as airfreight and on ship and is vulnerable while in the process of being loaded or unloaded from trucks, or through documentary fraud and also inadequate insurance cover or poor compensation. Kenya not left behind, the illegal sale of stolen cargo undercuts prices in legitimate businesses.

Kolbenstvedt & Amudsen (2011) recommends proper balancing security; risk management, have regulations and feedback processes and have security research. Mayhew (2001 suggests physical target-hardening security measures; detailed cargo inventory, rapid auditing and pinpointing of losses, speed of trains is low and various stops causes an increased risk of cargo theft. Lorenc et al., (2020) ascertain measures that create freights more challenging toward steal include painting with lime, wagons wiring, wagons monitoring with drones. Gaidelys & Dailydka (2016) recommends the CI business models that benefit the organization levels of the competitive retardation, competitor's capability, weaknesses, the current and future strategies in curbing the issues of safety in rail business.

Service delivery

A service delivery framework (SDF) is a set of principles, standards, policies and constraints to be used to guide the designs, development, and deployment in result to customer satisfaction. According to Geetika (2010), Service quality has been viewed as a determinant of customer satisfaction, and which describes reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/ knowing the customer, and tangibility. Service quality can be measured in terms of customer perception, customer expectation, customer satisfaction, and customer attitude (Sachdev and Verma 2004). According to Prasad & Shekhar (2010) service quality for public transport industry is the measures of accessibility, reliability, comfort, convenience, and safety and they continue to state that the three new dimensions (Service Product, Social Responsibility and service delivery) are added to the original five SERVQUAL dimensions (i.e. assurance, empathy, reliability, responsiveness and tangibles). Transit quality is perceived performance of transit service from the customer point of view.

A good transport system performing in logistics activities brings benefits not only to service quality but also to company competitiveness. Service delivery is affected by various factors such as remuneration of its workforce, training, promotional procedures, and culture of the systems and among other factors. Sachdev and Verma (2004) notes that if the factors are not looked at may result to lack of transparency, efficiency, and unsecure delivery of services. Gaidelys & Dailydka (2016) study on CI argues that CI component will contribute to the innovation, creation, and quality of information that can benefit the service quality. Improving the quality of service is one of the ways to improve the competitiveness of Railway Passenger Business as concluded by Prasad & Shekhar (2010). Railways should follow an integrated (between business units) and collaborative (strategic, tactical and operational) approach to cause-and-effect-based performance management (Westhuizen & Gräbe, 2013).

Small and mid-sized manufacturers to be able to eliminating losses and improving performance is measured by Cycle Time Reduction (CTR). Horning & McCann (2003) outlines rail Cycle Optimization encompasses the process of effecting improvements to the length of rail vehicle cycle times and a reduction in overall transit variability. Bešinović, Quaglietta, & Goverde (2019) defines cycle time as the minimum amount of time over which all train events (i.e. arrivals, departures, passing) in the target line plan can be scheduled without conflicts. Rail Cycle Time consist of time cargo is loaded to end customer, and time taken empty back to reloading point, QTS (2013). According to Horning & McCann (2003) factors that can stretch the order-to-delivery cycle include (1) Too many non-value-added activities, (2) Measuring the wrong parameters, (3) Capacity management, (4) Corporate culture in that employee attitudes toward work can have an adverse effect on performance. According to Abadi & Gatew (2014) rail company should have railway timetable including Maintenance time; Driving time; Dwell time; Passenger transfers time; Switching time; Headway times; Allowance time; Route distance; Train speed; Route direction or movement (from-to) and Train (cargo) connecting (disconnecting) time. According to Bešinović, Quaglietta, & Goverde (2019) for a company to improved Cycle time reduction strong management commitment is vital therefore quality service delivery can be achieved by increasing effectiveness of railway timetable in order to stop unwanted delays completely.

SGR has adopted integrated logistics management platform that purpose at providing detailed information on train positions and loads. The aim is to enable all movements between Mombasa and Kampala to be managed from a single control center in Nairobi, allowing better use to be made of capacity. initially it was expected to help cut transit times from eight to four days by 2015, IRSE News (2013) but now the SGR will reduce the journey time for passenger trains from Mombasa to Nairobi from over ten hours to four hours; freight trains will aim to complete the trip in under eight hours (Taylor, 2020). This is an integrated logistics and operations solution used in modern railway management system that gives real time information on multiple dimensions of the railway line and rolling stock.

Empirical review

Empirical review will describe literature review of strategic performance factors illustrated in a conceptual framework in term of product positioning, safety, service delivery and technological aspect in relation to rail industry competitive advantage.

Product positioning

Gnap, et al. (2021) study on the Relationship between Transport Infrastructure and Performance in Rail and Road Freight Transport with a Case Study of Japan and Selected European Countries. The study aimed investigating if there any correlation between transport performance and infrastructure or investment in infrastructure. The findings showed that there is need for freight capacity increase and improvement of availability of combined transport terminals, and seaports may therefore not receive sufficient financial support. Therefore, the absence of funding and support for the construction of high-speed railways, and COVID-19 pandemic may lead to failure to meet EU targets for increasing rail freight transport.

The study done by Yuan, Wu, & Hu, (2018) analyzed the role of railway in the express market. Based on the advantages and disadvantages of China's railway express. The study defined railway express position in three fundamentals namely timely, accurately, and rapidly. In addition, designed a series of preliminary scheme products for different types of railway express goods and batch size. Chocholáč et al., (2018) studied the Use of brand management for the czech railways long-distance trains from the marketing perspective. The finding showed that People tend to trust the brand regardless of the quality of the products or services. The Czech Railways company used brand management for specific long-distance train lines namely Metropolitan, Západní expres, Slovácký expres or Jižní expres to evaluate customer survey results.

Technological aspect

Lin (2018) investigated influence of Technological Strategies on Performance of Standard Gauge Railway in Kenya. The findings showed that SGR has e-ticketing technology, automated cargo handlers. Automated stacking cranes and automated guided vehicles (AGVs), Intelligent Transport Systems (ITS) and e-maintenance technology. Technological advancement has enabled efficient operation.

Ahmad (2019) study describes an empirical investigation into innovation in the UK rail industry. Mixed-methods approach was used to analyze the issues associated with innovation development and implementation within the UK. The findings showed that Innovation Model was developed in transformations to gain sustainable competitive advantage and improving the railway performance.

Service delivery

Ali & Eliasson (2021) studied European railway deregulation: an overview of market organization and capacity allocation. The study compared how competition has been introduced and regulated with focus on describing capacity allocation and track access charges. It resulted to railways having different deregulation outcomes, e.g., market organization, capacity allocation, development and experimenting with more efficient and transparent capacity allocation procedures will recognize and allow market competition.

Mathabatha (2015) study on rail transport and the economic competitiveness of South Africa: timeous delivery of goods and demurrage. The study was aimed at understanding of the views of freight rail transport consumers and the impact of rail transport on the economic competitiveness of South Africa. The study adopted quantitative and uses a survey research questionnaire. The finding indicated that due to unavailability and unreliability of the freight rail transport, companies use roads to transport freight a ‘just in time’ (JIT) system. The study recommends improving service delivery therefore leading to reduced traffic congestion and accidents, enhanced employment opportunities and the country’s economic competitiveness.

Bešinović, Quaglietta, & Goverde (2019) study investigated Resolving instability in railway timetabling problems. Mixed integer linear programming (MILP) model was described for minimizing the cycle time to find an optimized stable timetable for the given line plan. The findings

showed that model can generate stable timetables by removing train services from the critical circuit, and also, higher transportation demand can be satisfied. Thus, increase service delivery.

Safety

Lorenc et al., (2020) study on predicting the Probability of Cargo Theft for Individual Cases in Railway Transport is caused by high value, poor security and volume of rail transport. Authors' model was developed that uses past information transport cases for the learning process of Artificial Neural Networks (ANN) and Machine Learning (ML). The results showed that the model supports system for securing the rail infrastructure.

Liu, Saat, & Barkan (2012) Study investigated analysis of Causes of Major Train Derailment and Their Effect on Accident Rates. The analysis was done and revealed that broken rails or welds were the leading derailment cause. The study recommended quantitative risk analysis of railroad freight train safety, with an objective of optimizing safety improvement and more cost-effective risk management.

Critique of the existing literature

Description of dynamic capabilities (DC) theory according to Teece et al. (2009) defined as the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments. Shahmansouri (2013) described capable dynamic as the process of adapting to environmental conditions, and strategy through new combination of resources organizations that make changes in the business environment and achieves present and future needs of the organization. Wright et al. (2009) defines CI as a process of collecting competitive and its environment; Teece (2007 heritage resources that shaped the firm's options for future capability expansion; Lee (2001) concludes firm's capability strategy as pattern of investment; Infinite research (2017) describes ci support risk Management Capabilities. Gaidelys & Dailydka (2016) states ci supports organization levels of the competitive retardation, rival's capacity, weaknesses, the current and future strategies, stimulate culture changes of a company, support to advance the standards of productivity and effectiveness. Jones & Van Doren (2010) confirms that ci tool aid in creating differentiation, marketing communication plan integration, and company validity. Bitar & Walter-J, (2004) and Wright et al. (2009) links between DC and ci environmental models of competitive advantage.

There several authors of competitive advantage and sustaining innovation but little research on CI on rail industries. The CI authors indicate the great significance of CI application in rail and transport industries. For that reason, it's vital for SGR to adopt DC framework and integrate it with CI that can lead to a tighter integration between essential components of strategy in order to sustain competitive advantage. The theories are appropriate in defining the capability of SGR in sustain competitive advantage.

Summary

The study will be based on David Teece description of dynamic capabilities (DC) and defined the theory as the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments, Teece et al. (2009) and Competitive Intelligence, Wright et al. (2009). According to Lehmann & Winner (2002) product characteristics is non-price differential strategy that allows to obtain a price higher than the price that would be allowed under perfect competition and employed into product cost and product characteristics or features. Kotler (2011) defines as form, features, customization, performance and conformance quality, durability, reliability, reparability, style and design; service differentiation; personnel; Image differentiation. Wheeler (2012) states that brand identity is a strategic tool and an asset that provides quality reporting, increased recognition and competitive differences.

Lehmann & Winner (2002) describes quality means superior design; Kotler (2009), quality model includes reliability, responsiveness, assurance, empathy and tangible. Sustaining competitive advantage is an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing products that gives the consumer greater benefits and services that justifies a higher price, Kotler (2009) and Kotler (2011) but Lehmann & Winner (2002) says that low price core strategy poses certain risks.

Ivica et al. (2014) states that two aspects of infrastructure quality must be taken into account in order to maintain the quality of railway infrastructure in the accepted level. hre´n & Parida (2009) emphasizes on the use of Railway infrastructure effectiveness (ORIE) model to measure the extent to which the railway infrastructure system manages to deliver its agreed performance to the traffic operators. Marinov et al. (2010) describes components of an integrated logistics system and claims e-Freight and Intelligent Transport Systems (ITS) which is a standard for information flows while Evans (2013) Introduction of Automatic Train Protection (ATP) and Positive Train Control' (PTC) and IRSE NEWS (2013) defines Translogic integrated logistics management.

Evans (2013) claims use of appraisal of railway safety measures; integrated safety management systems (Donaldson & Edkins, 2004); Train safety and risk analysis relies on accurate assessment of derailment likelihood (Liu et al. 2017). Kolbenstvedt & Amudsen (2011) and Mayhew (2001) study suggest that major theft are employees either directly or indirectly. Mayhew (2001) says that Cargo theft occurs in freight-forwarding yards, warehouses and during transportation in trucks, as airfreight and on ship and is vulnerable while in the process of being loaded or unloaded from trucks, or through documentary fraud. Kolbenstvedt & Amudsen (2011) recommends baselines for risk management, have regulations and feedback processes and have security research. Prasad & Shekhar (2010) conclude Quality of service to improve the competitiveness of Railway Passenger Business; Horning & McCann (2003) discusses Cycle Time Reduction (CTR); Abadi & Gatew (2014) recommend railway timetabling.

Research gap

There are many studies that have been conducted to establish strategic performance in sustaining competitive advantage but there has been insufficient research that has been conducted to find out the same in strategic performance of standard gauge railway in sustaining competitive advantage thus the study will investigate determinants including term of product positioning, safety, service delivery and technological aspect in relation to rail industry competitive advantage in SGR.

RESEARCH METHODOLOGY

This section explores how the research will be done including the research design, target population, sample size and sampling technique, data collection procedure, reliability and variability, measurement and analytical techniques. The area of the study explored drivers of strategic performance of standard gauge railway in sustaining competitive advantage in Kenya.

Research design

Research design is an arrangement of conditions for collection and analysis of data in a way that combines their relationship with the purpose of the research (Chandran, 2011). Qualitative research is characterized by its aims, which relate to understanding some aspect of social life, and its methods which generate words, rather than numbers, as data for analysis. According to Cooper and Schindler (2003) a descriptive study is concerned with finding out the what, where and how of a phenomenon. Descriptive research design was used because it enabled the study to generalize the findings to a larger population. As defined by Mugenda and Mugenda (2003), a case study is an in-depth investigation of a specific individual or specific context. The study considered SGR as a case study. This study used descriptive research design due to its ability to enable to generalize the findings to a larger population.

Population of the study

The term population refers to a well-defined group from which a sample can be drawn and which is specified in very concrete terms as stated by Neuman (2000). Mugenda and Mugenda (2003) defines target population as that population the study studies, and whose findings are used to generalize to the entire population. The target population for the study was 100 respondents since the total population of managers are 100 persons. The population consisting of manager in commercial, planning, operations, rolling stock, operation control center manager and major clients of SGR. The subject was chosen because they take part in decision making and their key role in overseeing the performance. The respondent were achieved by engaging a conceptual framework seeking to illustrate the relationship between the various variables in drivers that affect strategic performance of standard gauge railway in sustaining competitive advantage in Kenya.

Sampling technique

Stratified sampling was used to sample to group. Homogeneous subgroup was created and sample size derived from it. Sample size was calculated using a Kothari (2004) formula;

$i = n\ (^{N}/_{P})$,

Mugenda and Mugenda (2003) defined a sample as a fraction of population and it is also referred as a proportion obtained from the large population. The study adopted stratified sampling to sample the four groups which include commercial, planning, operations, rolling stock, operation control center manager and major clients of SGR. Stratified sampling involves selecting departments with characteristics of equivalent interest 'in such a way that the existing subgroups in the population are more or less reproduced in the sample' and Kothari (2004) conclude that each subgroup is more homogeneous than the total population. Mugenda and Mugenda (2003) argues that the main factor considered in determining the sample size is the need to keep it manageable enough. Also, this enabled the researcher to derive from its detailed data at an affordable cost in terms of time, finances and human resource, Mugenda and Mugenda (2003). According to Saunders et al (2003) study, a sample size of 30% was sufficient for social science research. The study adopted stratified sampling technique to select suitable sample sizes.

Sample size

Sample size depends largely on the degree to which the sample population approximates the qualities and characteristics of the general population. The researcher focused on the population of the study when drawing a sample. The selected members or part of the entire population is called the sample Kothari (2004). The sample drew a sample size. The sampling method determines the validity and reliability of the research conclusion Kothari (2004). Sample size was calculated using a Kothari (2004) formula;

$i = n\ (^{N}/_{P})$, Where:

i are the number of respondents in the stratum to be sampled,

n is the sample size,

N is the population of the specific stratum,

P is the population.

Table 1.1: Sample Size

Respondent	Population(N)	Sample size (n) **$i = n\ (^{N}/_{P})$**
Commercial managers/Agents	20	6
Operations managers	20	6
Rolling stock managers	20	6
OCC officers	15	4
SGR Clients	25	8
Totals	100	30

Data collection method

Both primary and secondary data was used to collect data. Primary data namely questionnaire was adopted and report, publication and statistics on SGR strategic performance was used as secondary data. The structured questionnaires were administered to the respondents with an effort to conserve time and money as well as to facilitate easier analysis as they are in immediate usable form. Copper and Schindler (2003), to get as much information as possible from the limited space on the form.
A questionnaire is a formalized list of questions that are used to solicit information from respondents. Structured questionnaire is a type of interview with a particular set of predefined questions. This type of questionnaire was used ease the load of thinking on the respondent and makes it easier to code and analyze. Structured or closed questions are meant to save the respondents' time and get definite answers, Kothari (2004). Copper and Schindler (2003), state that structured questions necessitate getting as much information as possible from the limited space on the form. The structure questionnaires were administered to the respondents which were involved four section, section A included general information or demographic information, and section B-D describes breakdown information on conceptual framework.

Data Collection Procedure

The refined questionnaires were administered to the various managers. Saunders et al (2003) argues that a reasonable and moderate high response rate is guaranteed with self-administered questionnaires, hand delivered and collected questionnaires. A formal request letter from the University was presented and the questionnaire to SGR to seek permission to use the company as the target population. Therefore, the questionnaire was delivered in person and was distributed after initial communication with the respondents to seek consent. The respondents were given some days to answer the questionnaires after which the questionnaires were collected for analysis. No public postal service or email service were used to distribute questionnaires. The structured questions were used in an effort to conserve time and money as well as to facilitate easier analysis as they are in immediate usable form. Since the nature of questionnaire was structured, Likert scale method was used for the majority of the questions presented to the respondents. Giving categories such as strongly agree, agree, neutral, disagree and strongly disagree to select. In cases where the rating scale provided very accurate responses, a ranking scale was used where the respondents were asked to respond without biasness.

Pilot study

A pilot study, is a small experiment designed to test logistics and gather information prior regarding a larger study, in order to improve the latter's quality and efficiency, Mugenda & Mugenda (2003). A pilot study can reveal deficiencies in the design of a proposed experiment or procedure and these can then be addressed before time and resources are expended on large scale studies. Pilot study was conducted to 10 SGR staff in HR and 5 train drivers purposively to capture the six strata employed in the sampling technique to pre-test the tools of data collection. The responses from the respondents was used to adjust and refine the questionnaires accordingly.

Validity

Validity is the extent to which differences found with a measuring tool reflect true differences among respondents being tested, Copper and Schindler (2003). The validity of the tools was checked in terms of their ability to generalize the population and accurately determine what the researcher planned to measure. Purposively selected expert at SGR were asked to remark on depiction and suitability of the questions and suggestion of improvements to be made to the questionnaire. Internal validity was achieved by assessing and comparing questionnaire responses with objective measures. Questionnaire were generalized to test external validity (Taherdoost, 2016). Validity was tested using Pearson correlation using SPSS, correlating each item score with total score. If significantly correlated with total score, then the items are valid. Based on the validity analysis conducted in this study as shown in Appendix V: Internal consistency validity TEST, the internal consistency coefficients of validity of the questionnaire showed that the instrument has good quality as a measurement tool.

Reliability

Reliability refers to the accuracy and precision of a measurement procedure, Copper and Schindler (2003). Taherdoost (2016) state that reliability is concerned with repeatability. Cronbach alpha, which is a measure of internal consistency, was used to test the internal reliability of the measurement instrument (Mugenda & Mugenda, 2003). It most significant when using use of Likert scales and to achieve reliability would be equal to or above 0.60 (Taherdoost, 2016); 0.70 or above (Taber, 2017) while acceptable values is 0.7 or 0.6 (Griethuijsen, 2014) Thus, this study according to table 2 reflected that the co-efficient is acceptable, scoring alphas above 0.60 confirming the internal consistency of the constructs.

Table 3.2: Reliability Statistics

Variables	Cronbach Alpha Score	No. of items	No. of cases
Product positioning	0.757	16	15
Technological aspect	0.789	13	15
Safety	0.855	13	15
Service delivery	0.675	22	15

Source: Research data (2022)

Data analysis

The Descriptive statistics was used to analyze the collected data. According to Kothari (2004) data analysis involves reducing to manageable proportions the wealth of data that had been collected or had become available. The aim of data analysis is to transform data into an answer to the original research question. The qualitative data was collected, coded, edited, and cleaned to ensure consistency and error reduction of the study. Collected data was summarized into group of data using a combination of tabulated description (tables), graphical description (graphs and charts) and statistical commentary.

Statistical Package for Social Science (SPSS) computer software was used to support data cleaning, analysis and statistical calculations. Then coding was done by itemized the data using unique name and the answers were converted into number and was fed into SPSS. Descriptive command was used to determine measures of central tendency (mean) and measures of dispersion. A standard deviation is close to zero it indicates that data points are close to the mean. This study used five-point Likert scale: Strongly disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly agree (5). The data will be entered into SPSS.

Quantitative data was used correlation coefficients to measure the strength of relationship between two variables which can be positive or negative. The correlation statistics obtained from SPSS was used to explain the degree of relationship between strategic performances of standard gauge railway in sustaining competitive advantage. With the aid of Pearson's correlation (R),

Regression analysis was delivered to show a linear prediction in strategic performance of standard gauge railway in sustaining competitive advantage. Also, multiple regression analysis was used in this study to determine how one variable affects another. The regression equation aided in controlling the effect of the independent variables on the dependent variable as below;

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Where:

Y = Sustaining competitive advantage

β_0 = Constant Term; $\beta 1$, β_2 and β_3 = Beta coefficients;

X_1= Product positioning

X_2= Technological aspect

X_3= Safety

X_4 = Service delivery

ε = Error term.

Assumption of regression model

Before conducting a multiple linear regression analysis, classic assumption tests were done including multicollinearity, heteroscedasticity, linearity and normality tests (Ghozali, 2013). The regression model assumed that the model is characterized by a straight line that is assumption of linearity for each of the IVs and the DV. If the two variables have linear relationship with significance level of more than 0.05 then it's said to be no autocorrelation in the regression model.

Second assumption is normality. The residuals errors should follow a normal distribution that is zero for mean of residuals and residuals are equally distributed then there is no worry about linearity. This means that If significance value Sig. (2-tailed) is greater than or equal to 0.05 then it shows data has normal distribution. Histogram, t test and Anova was used to test the equality and homogeneity of variance.

Thirdly, there is no multicollinearity by checking correlation coefficients and variance inflation factor (VIF) values. Therefore, when the tolerance value surpasses 0.1 or the VIF value is equal to or lower than 10, multicollinearity measured has not occurred. If too highly correlated with one another then may lead to problems with understanding which independent variable contributes to the variance explained in the dependent variable.

Fourth, Heteroscedasticity means unfit scatter in the context of residual or error term of the study.in regression the residuals should have a constant variance. if p-value is greater than 0.05, the variance of residual has no heteroscedasticity. SPSS Statistics generated tables of output for a multiple regression analysis.

DATA PRESENTATION, ANALYSIS AND RESULTS

This chapter presents data analysis and interpretation related to the respondents' back ground information and the four independent variables Product positioning, Technological aspect, Safety and Service delivery from SGR. The questionnaires were served to the respondents and a sample size of 30 respondents were selected and administered with questionnaire by the researcher. All respondents filled and returned the questionnaires that translated total of response rate 100%. A response rate of 50 percent is adequate, 60 percent is good and 70 % and above very good (Mugenda & Mugenda, 2003). Therefore, 100% response rate in this study was adequate for analysis. The recorded response rate can be attributed to the data collection procedures, where the researcher utilized structured questionnaire.

Respondents background information

This section presented the respondents distribution by number of years worked and regional scope of management or operations at SGR.

Respondents distribution by the number of years worked

The study required to find out the number of years worked of the respondents who participated in the study. The figure 4.2 shows 17 (57%) of the respondents worked for less than 3 years while 13 (43%) worked for 3 to 9 years at SGR. This implies that the respondents have less than 3 years of work experience.

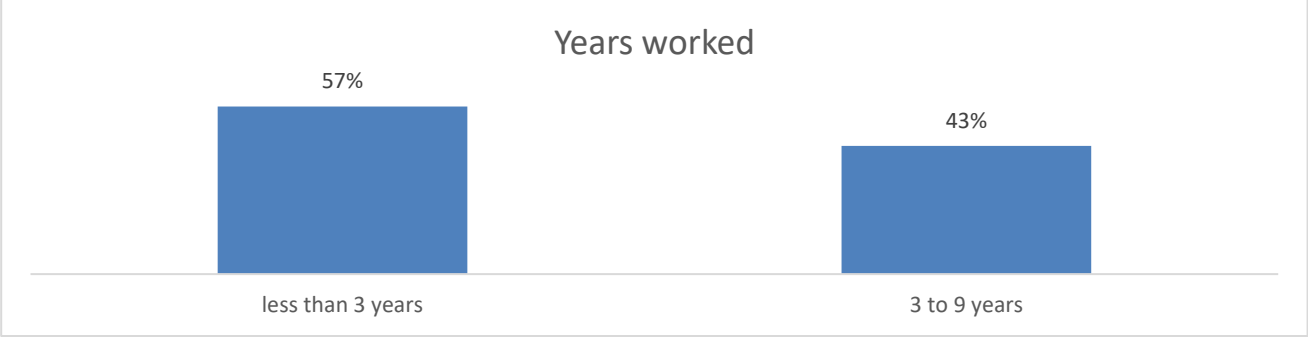

Figure 4.2: Number of years worked at SGR

Respondents regional scope

The study required to find out the regional scope management or operations of the respondents who participated in the study.

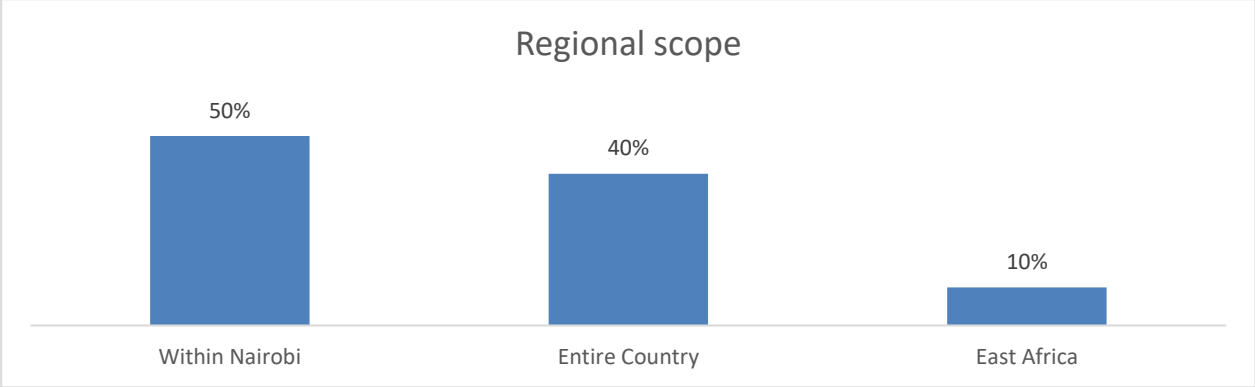

Figure 4.3: Respondents Regional scope of Management

The Figure 4.3 shows that 15 (50%) manage within Nairobi,12(40%) manage entire country while 3(10%) of the respondent manage east Africa region. This indicates that majority manage and operate within Nairobi region since localization of SGR operation is mainly done within Nairobi region.

Product positioning

This section presents the data of the respondents regarding the product positioning drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage. Responses were assumed on a five-point Likert scale, where, 1= strongly disagree; 2= disagree; 3= Neutral; 4 = agree; 5= strongly agree.

Table 4.3: Product positioning drivers

		brand Identity	product characteristics	cost	Differentiation strategy	customer target	Composite mean
N	Valid	30	30	30	30	30	
	Missing	0	0	0	0	0	
Mean		3.37	3.93	4.03	3.30	3.60	**3.646**
Std. Deviation		1.189	1.081	1.033	.837	1.329	

The table 4.1 shows Product positioning drivers that affect strategic performance, the respondents indicated that the average brand Identity is 3.37 (SD=1.189), average product characteristics 3.93(SD=1.081), average cost 4.03(SD=1.033), average differentiation strategy 3.30 (SD=0.837) and average customer target 3.30(SD=1.329). This implies that product positioning drivers that affect strategic performance of Standard Gauge Railway in sustaining competitive advantage were not familiar with the respondents recording a composite mean of 3.646 in spite of Lehmann &

Winner (2002) defines product position as an essential approach. An average of 4.03 was agreed by respondent as Cost or price affect performance and sustaining competitive advantage as stated by Kotler (2011) that cost competitiveness that is low is very significant to the business's position.

Bases on differentiation strategy, the study required to find out if the SGR have product characteristics that attracts the customer/client. The table 4.2 shows indicated that mean of product characteristics including service differentiation was 4.7(SD=0.834), personnel differentiation 3.87(SD=0.776), Image differentiation 3.23(SD-1.251) and product quality is 3.47(SD=1.196). This implies that based on differentiation strategy, service differentiation with a mean of 4.7 which included delivery, installation, customer training, consulting service characteristics of product was agreed by respondent to affect strategic performance of Standard Gauge Railway in sustaining competitive advantage as agreed by Porter & Kramer (2007 study that differential advantage intends to create added value in customers' mind. While the other differentiation factors do not attract the client which was responded as neutral in 5 Likert scale. More so with a composite mean of 3.685 indicated neutral to differentiation strategy of product characteristics attracts SGR clients/customers. Kotler, (2009) argues that through differentiation and competition progresses, makes basis of product augmentation.

Table 4.4: Product characteristic based on differentiation strategy

	N	Minimum	Maximum	Mean	Std. Deviation
Service-Diff	30	3	5	4.17	.834
Personnel-diff	30	3	5	3.87	.776
Image-diff	30	1	5	3.23	1.251
Product quality	30	1	5	3.47	1.196
Valid N (list wise)	30				
Composite mean				**3.685**	

KEY: Diff- differentiation

The study likewise required to find out the strengths of SGR positioning strategy. Table 4.3 indicates that the respondents were neutral towards SGR having an idea of what brand stand for in the rail product categories, 3.53 (SD=1.137), SGR has market communications strategies with a mean of 3.40 (SD=1.003), Secured position comparative to its competitors with a mean of 3.30 (SD=1.343), SGR has an innovative products and services with a mean of 3.40(SD=855), SGR gives product and services that justifies the higher price with a mean of 3.40(SD=0.932) and product positioning has enabled SGR to sustain competitive advantage with a mean of 3.70(SD=0.915). This implies that the strength of all the positioning strategies were not up to meet the performance and sustain competitive advantage of SGR. On a combined average of 3.445, the respondents were neutral to the strengths of SGR positioning strategy that affect the strategic performance. Kyrylenko et al. (2016) study on competitive Strategies showed that transportation service of passengers through its

differentiation argue that increased competitiveness. Porter (2001) and Kortal (2011) argues that if only competitive intelligence is applied then may gain competitive advantage.

Table 4.5: strength of positioning

		Mean	Std. Deviation
1	SGR has an idea of what brand stand for in the rail product categories	3.53	1.137
2	SGR has market communications strategies	3.40	1.003
3	Secured position comparative to its competitors	3.30	1.343
4	Has an innovative products and services	3.40	.855
5	Give product and services that justifies the higher price	3.40	.932
6	Product Positioning has enabled SGR to sustain competitive advantage	3.70	.915
	Composite mean	**3.455**	

Table 4.6: Model Summary for Product positioning drivers

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817[a]	.677	.649	.315

a. Predictors: (Constant), Product positioning

b. Dependent Variable: Sustain competitive advantage

The study also required to establish the relationship between Product positioning and Sustain competitive advantage. Table 4.4 provides the Pearson's R and R^2 value. The R value is 0.817, which represents the simple correlation indicating a high degree of correlation. The R^2 value indicates how much of the dependent variable Sustain competitive advantage can be explained by the independent variable, Product positioning drivers. In this case, 67.7% can be explained as very large. This implies that the finding is significant and the difference between independent and dependent variable is significant. Porter & Kramer (2007) study indicated that the success to

competitive advantage is strategic positioning and therefore an organization can be in a secured position relative to its competitors.

From table 4.5, the p-value (sig for significance) is less than .05 is generally considered statistically significant.

Table 4.7: ANOVA Table on Product positioning

	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.575	1	21.575	50.4206	.000[b]
Residual	11.982	28	.428		
Total	**33.557**	**29**			

The **ANOVA** table 4.5 indicates that the regression model predicts the outcome variable significantly fit. This indicates the statistical significance of the regression model that was applied since $p < 0.00$, which is less than 0.05, and indicates that, overall, the model applied is statistically significantly predict product positioning the outcome.

Table 4.8: Product positioning Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.778	.243		3.200	.002
Product positioning	.821	.057	.817	14.421	.000

a. Dependent Variable: Sustain competitive advantage

The table 4.6, Coefficients, provides with information on the predictor variable. This gives the information we need to predict Sustain competitive advantage and product positioning. The constant and sustain competitive advantage contribute significantly to the model thus present the regression equation as:

Sustain competitive advantage = 0.778 + 0.821(Product positioning)

From ANOVA Table 4.5 and Coefficients Table 4.6 since the p-value is 0, the relationship between Sustain competitive advantage and Product positioning is significant. From Table 4.6 the correlation coefficient, R, is 0.817. Therefore, it can be concluded that sustain competitive advantage is positively correlated with Product positioning and the relationship is very strong as established also by Yuan, Wu, & Hu, (2018) study.

Technological aspect of strategic performance and sustaining competitive advantage

This section required to assess technological aspect affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage. Reactions were assumed on a five-point Likert scale, where, 1= strongly disagree; 2= disagree; 3= Neutral; 4 = agree; 5= strongly agree.

Table 4.7 indicates that average of Digital Railway infrastructure technologies was 3.67 (SD=0.884), Real time control systems and ICT business systems 3.33 (SD=1.373), Logistics systems and operations 3.53 (SD=1.279), Track and train operations 3.27 (SD=1.081), Safety strategies 3.60 (SD=0.814), Maintenance strategies 3.20 (SD=1.186. This implies that technological aspect was not up to affect strategic performance of Standard Gauge Railway in sustaining competitive advantage. On a composite mean of 3.433, the respondents were neutral to technological aspect affecting strategic performance which disagree with that of Lin (2018) study which included technological advancement has enabled efficient operation.

Table 4.9: Technological Aspect

	N	Minimum	Maximum	Mean	Std. Deviation
Digital railway	30	2	5	3.67	.884
Real time control	30	1	5	3.33	1.373
Logistics systems	30	1	5	3.53	1.279
Track and train operation	30	1	5	3.27	1.081
Safety strategies	30	2	5	3.60	.814
Maintenance strategies	30	1	5	3.20	1.186
Valid N (listwise)	30				
Composite mean				**3.433**	

The respondents were asked to state what were the challenges of SGR in terms of Technological infrastructure. Table 4.8 indicates average of rail Infrastructure being 3.33 (SD=1.561), technical competence means of 3.07 (SD=0.785), Licensing and train fixtures 3.00 (SD=1.174), System integration 3.60 (SD=1.221), Delivery 2.67 (SD=0.802), infrastructure cost 3.60 (SD=1.221), environment pollution and land use pattern was 3.53 (SD=1.042). This implies that the challenges of SGR in terms of Technological infrastructure did not up to affect the performance of SGR but respondents disagreed that Delivery challenge was affected by technological infrastructure. More so, respondent concluded with composite mean of 3.257 indicated that respondent was neutral to challenges of technological infrastructure affecting strategic performance. African Development Bank (2015) study agreed that SGR suffers by very poor technical condition and old large structural

buildings and tracks and Hre´n & Parida (2009) emphasizes on the use of Railway infrastructure effectiveness (ORIE) model quantify the degree toward how railway infrastructure system achieves its approved performance to the traffic operatives.

Table 4.10 Challenges of technological infrastructure at SGR

	N	Minimum	Maximum	Mean	Std. Deviation
Rail Infrastructure	30	1	5	3.33	1.561
Technical competence	30	2	4	3.07	.785
Licensing and train fixtures	30	1	5	3.00	1.174
System integration	30	1	5	3.60	1.221
Delivery	30	1	4	2.67	.802
Infrastructure Cost	30	1	5	3.60	1.221
Environment pollution and land use pattern	30	1	5	3.53	1.042
Valid N (listwise)	30				
Composite mean				**3.257**	

The study required to establish the relationship between technological aspect and Sustain competitive advantage.

Table 4.11: Model Summary for technological aspect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837[a]	.701	.549	.315

a. Predictors: (Constant), technological aspect

b. Dependent Variable: Sustain competitive advantage

This table 4.9 provides the Pearson's R and R^2 value. The R value is 0.837, which represents the simple correlation. It indicates a high degree of correlation. The R^2 value indicates how much of the dependent variable Sustain competitive advantage can be explained by the independent variable, technological aspect. In this case, 70.1% can be explained, which is very large. This shows that the finding is significant and Lin (2018) study found out the same that there is a significant difference between means of technological aspect and competitive advantage.

Table 4.12: ANOVA Table on Product positioning

	Sum of Squares	df	Mean Square	F	Sig.
Regression	22.570	1	22.570	63.221	.000[b]
Residual	9.982	28	.357		
Total	**32.552**	**29**			

This section shows the p-value (sig for significance) of the predictor's effect on the criterion variable. P-values less than .05 are generally considered "statistically significant.

The **ANOVA** table 4.10 indicates that the regression model predicts the outcome variable significantly well. This indicates the statistical significance of the regression model that was applied since $p < 0.00$, which is less than 0.05, and indicates that, overall, the model applied statistically significantly predict the outcome variable.

The table 4.11, Coefficients, provides with information on the predictor variable. This gives the information we need to predict Sustain competitive advantage from technological aspect. The constant and sustain competitive advantage contribute significantly to the model thus present the regression equation as: Sustain competitive advantage = 0.698 + 0.871(technological aspect).

Table 4.13: Technological aspect coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.698	.243		3.200	.002
Technological Aspect	.871	.057	.837	14.421	.000

a. Dependent Variable: Sustain competitive advantage

From ANOVA Table 4.10 and Coefficients Table 4.11 since the p-value is 0, the relationship between Sustain competitive advantage and technological aspect is significant. From Table 4.11 the correlation coefficient, R, is 0.837. Therefore, it concludes that Sustain competitive advantage is positively correlated with technological aspect and the relationship is very strong. This supported by Network Rail (2018) and lin (2018) studies that adoption of greatest technology and continuous innovation attains great performance.

Safety of strategic performance and sustaining competitive advantage

This section required the respondents to establish safety drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage. Reactions were assumed on a five-point Likert scale, where, 1= strongly disagree; 2= disagree; 3= Neutral; 4 = agree; 5= strongly agree. Table 4.12 indicate the average of rail infrastructure was 3.00(SD=1.187), Train staff Competence 3.08 (SD=1.311), Theft of goods 3.58 (SD=1.084), risk management 3.58 (SD=1.165), Safety management system 3.17(SD=S1.193), and track maintenance 3.42 (D=0.900). This implies that safety drivers were not up to affect strategic performance of SGR. With a composite mean of 3.305, the respondents indicated neutral to safety drivers to affect strategic performance of SGR. This finding disagrees with Al-Douri, Tretten, & Karim (2016) study which indicated that railway safety improved through reconfiguring internal and external competences.

Table 4.14: Safety drivers

	N	Minimum	Maximum	Mean	Std. Deviation
Rail infrastructure	30	1	5	3.00	1.187
Staff competence	30	1	5	3.08	1.311
Theft of goods	30	2	5	3.58	1.084
Risk management	30	1	5	3.58	1.165
Track maintenance	30	2	5	3.42	.900
Safety management system	30	1	5	3.17	1.193
Valid N (listwise)	30				
Composite mean				**3.305**	

The respondents were asked to identify what challenges affecting SGR in terms of safety. Table 4.13 indicates the average of Track deterioration and deformation 3.00(SD= 1.206) were neutral, Derailment of trains was strongly disagreed with mean of 1.92(1.084), licenses and insurance was disagreeing with mean of 2.25(SD=1.357), Cargo Theft 2.33(1.073), Overturning speed 2.17(SD=0.937), Risk management 2.33(SD=1.231), and Cargo inventory and audits 2.92(SD=1.311) respectively. This implies that the respondents disagreed to safety drivers' challenging SGR in strategic performance. It is Further indicated with a composite mean of 2.417. this was agreed by Githaiga (2021) study that SGR is strained on cargo attraction, administrative and logistical encounters but not safety drivers.

Table 4.15: Safety challenges

	N	Minimum	Maximum	Mean	Std. Deviation
Track deterioration	30	1	5	3.00	1.206
Derailment	30	1	4	1.92	1.084
Licenses and insurance	30	1	5	2.25	1.357
Cargo theft	30	1	5	2.33	1.073
overspending	30	1	4	2.17	.937
risk management	30	1	5	2.33	1.231
cargo inventory	30	1	5	2.92	1.311
Valid N (listwise)	30				
Composite mean				**2.417**	

Table 4.16: Model Summary for safety drivers

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.866[a]	.837	.549	.315

a. Predictors: (Constant), safety drivers

b. Dependent Variable: Sustain competitive advantage

The study required to establish the relationship between safety drivers and Sustain competitive advantage. Table 4.14 provides the Pearson's R and R^2 value. The R value is 0.866, which represents the simple correlation. It indicates a high degree of correlation. The R^2 value indicates how much of the dependent variable Sustain competitive advantage can be explained by the independent variable, safety drivers. In this case, 83.7% can be explained, which is very large. This indicates that the finding is significant as shown in Evans (2013) study that a proactive approach to risk management and trained expertise in safety management and human factors lead to safety improvements.

Table 4.17: ANOVA Table on safety drivers

	Sum of Squares	df	Mean Square	F	Sig.
Regression	23.375	1	23.375	59.072	.000[b]
Residual	11.082	28	.396		
Total	**34.457**	**29**			

This section shows the p-value (sig for significance) of the predictor's effect on the criterion variable. P-values less than .05 are generally considered statistically significant.

The **ANOVA** table 4.15 indicates that the regression model predicts the outcome variable significantly well. This indicates the statistical significance of the regression model that was applied since $p < 0.00$, which is less than 0.05, and indicates that, overall, the model applied statistically significantly predict the outcome variable.

Table 4.18: safety drivers coefficient

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.718	.243		3.200	.002
Safety	.667	.057	.866	14.421	.000

a. Dependent Variable: Sustain competitive advantage

The table 4.16, Coefficients, provides with information on the predictor variable. This gives the information we need to predict Sustain competitive advantage from safety drivers. The constant and sustain competitive advantage contribute significantly to the model thus present the regression equation as:

Sustain competitive advantage = 0.718 + 0.667(safety drivers)

From ANOVA Table 4.15 and Coefficients Table 4.16 since the p-value is 0, the relationship between Sustain competitive advantage and safety drivers is significant. From Table 4.16 the correlation coefficient, R, is 0.866 Therefore, it can be concluded that Sustain competitive advantage is positively correlated with safety drivers and the relationship is very strong as indicated also in Al-Douri, Tretten, & Karim (2016) study.

Service delivery of strategic performance and sustaining competitive advantage

The study required to determine service delivery effects on strategic performance of Standard Gauge Railway in sustaining competitive advantage.

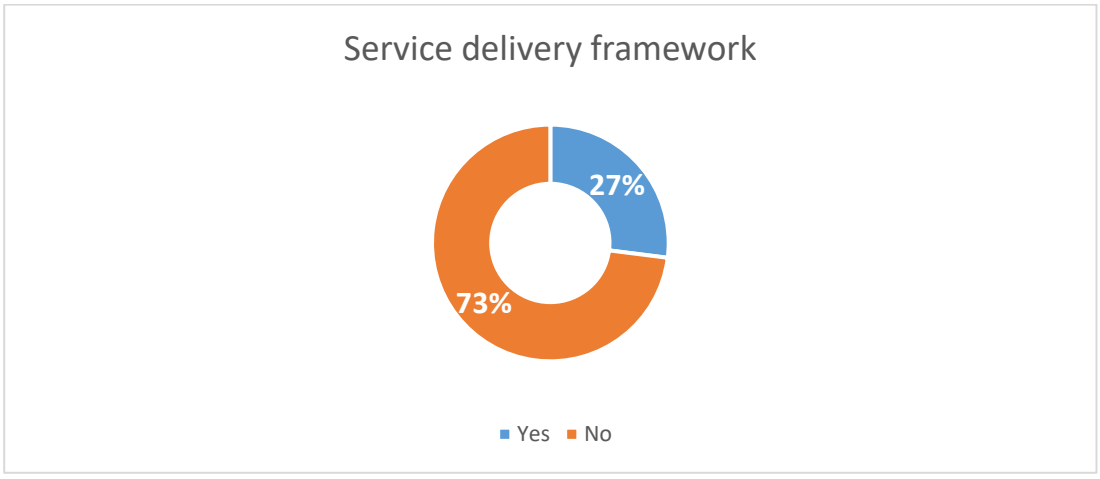

Figure 4.4: Service delivery framework

The study sought to find out if SGR have service delivery framework and according to figure 4.4 shows that 73% of respondents to No meaning there is no service delivery framework while 27% indicate Yes, agreeing that SGR has a service delivery framework. This implies that SGR do not have service delivery framework in place. The finding disagrees with Geetika (2010) study which

indicated the use of SDF which guides the designs, development, and deployment which result to customer satisfaction.

The respondents who agreed were asked and their reactions were assumed on a five-point Likert scale, where, 1= strongly disagree; 2= disagree; 3= Neutral; 4 = agree; 5= strongly agree to show if the service delivery framework met the following requirement. The table 4.17 shows the average of SDF 1(SD=0.00), reliability comfort 3.97(SD=1.273), responsiveness 3.17(SD=1.147), convenience 3.67(SD=1.093), accessibility 2.97(SD=1.351), credibility 3.27(SD=1.172), security 3.50(SD=0.509), and customer oriented 3.30 (SD=1.022). According to respondent who agreed that there is SDF, they agreed that SDF did not meet the requirement to affect strategic performance of SGR. Also the findings indicated that with a composite mean of 3.402 respondents were neutral to SDF having met the requirements. This finding was disagreed and argued by Prasad & Shekhar (2010) study that SDF should meet the requirement for service quality equals to determinant of customer satisfaction.

Table 4.19: Service delivery framework requirements

	N	Minimum	Maximum	Mean	Std. Deviation
Reliability	30	1	5	3.97	1.273
comfort	30	1	5	3.37	1.189
responsiveness	30	1	5	3.17	1.147
convenience	30	2	5	3.67	1.093
accessibility	30	1	5	2.97	1.351
credibility	30	1	5	3.27	1.172
security	30	3	4	3.50	.509
customer oriented	30	1	5	3.30	1.022
Valid N (listwise)	30				
Composite Mean				**3.402**	

The respondents were also asked to indicate the service delivery drivers that are affecting strategic performance. Table 4.18 shows that Service quality 3.53(SD=1.137) cycle time reduction 3.87(0.973), railway timetable 3.67(SD=0.922), customer satisfaction 3.93(0.828), capacity management 4.03(SD=0.964), and corporate culture 3.27(SD=0.785). This implies that service delivery drivers were not up to affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage except capacity management which was agreed to affect the performance of SGR. However, merged mean of 3.716 is an indication that respondents were neutral as per 5-likert scale. Abadi & Gatew (2014) study disagree to the finding and indicated that drivers have adverse effect on performance.

Table 4.20: Service delivery drivers

	N	Minimum	Maximum	Mean	Std. Deviation
Service quality	30	2	5	3.53	1.137
cycle time reduction	30	2	5	3.87	.973
railway timetable	30	2	5	3.67	.922
customer satisfaction	30	3	5	3.93	.828
capacity management	30	3	5	4.03	.964
corporate culture	30	2	5	3.27	.785
Valid N (listwise)	30				
Composite mean				**3.716**	

Further, the respondent indicated their experience of SGR Railway timetable to be characterized as shown in table 4.19. The average of Driving time was 3.33(SD=1.398), maintenance 3.53 (SD=1.479), passenger transfers 3.33(SD=1.028), route distance 3.00(SD=1.414), train speed 3.17 (SD=1.085), cargo connecting time 3.13(SD=0.730), route direction 3.03(SD=1.377), and switching time 3.07(SD=1.048). This implies that SGR Railway timetable characterization is not up to affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage. With a composite mean of 3.198 indicating that the respondents were neutral to characteristics of SGR Railway timetable.

Table 4.21: SGR Railway timetable characteristics

	N	Minimum	Maximum	Mean	Std. Deviation
Driving time	30	1	5	3.33	1.398
Maintenance time	30	1	5	3.53	1.479
passenger transfers time	30	2	5	3.33	1.028
route distance	30	1	5	3.00	1.414
train speed	30	1	5	3.17	1.085
cargo connecting time	30	2	4	3.13	.730
route direction	30	1	5	3.03	1.377
switching time	30	1	5	3.07	1.048
Valid N (listwise)	30				
Composite Mean				**3.198**	

The study also required to establish the relationship between service delivery and Sustain competitive advantage. Table 4.20 provides the Pearson's R and R^2 value. The R value is 0.937, which represents the simple correlation. It indicates a high degree of correlation. The R^2 value indicates how much of the dependent variable Sustain competitive advantage can be explained by the independent variable, service delivery. In this case, 87.7% can be explained, which is very large.

Table 4.22: Model Summary for service delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.937[a]	.877	.549	.315

a. Predictors: (Constant), service delivery

b. Dependent Variable: Sustain competitive advantage

This section shows the p-value (sig for significance) of the predictor's effect on the criterion variable. P-values less than .05 are generally considered statistically significant.

Table 4.23: ANOVA Table on service delivery

	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.075	1	23.375	217.956	.000[b]
Residual	11.082	28	.099		
Total	**32.157**	**29**			

The **ANOVA** table 4.21 indicates that the regression model predicts the outcome variable significantly fit. This indicates the statistical significance of the regression model that was applied since $p < 0.00$, which is less than 0.05, and indicates that, overall, the model applied can statistically significantly predict the outcome variable.

The table 4.22, Coefficients, provides with information on the predictor variable. This gives the information we need to predict Sustain competitive advantage from service delivery. The constant and sustain competitive advantage contribute significantly to the model thus can present the regression equation as:

Sustain competitive advantage = 0.718 + 0.667(Service delivery)

Table 4.24: Coefficients of service delivery

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.718	.243		3.200	.002
Service delivery	.667	.057	.937	14.421	.000

a. Dependent Variable: Sustain competitive advantage

From ANOVA Table 4.21 and Coefficients Table 4.22 since the p-value is 0, the relationship between Sustain competitive advantage and service delivery is significant. From Table 4.22 the correlation coefficient, R, is 0.937, Therefore, it can be concluded that sustain competitive advantage is positively correlated with service delivery and the relationship is very strong. As agreed by Prasad & Shekhar (2010) study that improving the quality of service is one of the ways to improve the competitiveness.

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATION

Summary of the findings and discussion

The study provided two types of data analysis; descriptive and inferential. The descriptive analysis helped the study to describe the relevant aspects of the phenomenon under study. The frequencies, percentages, mean and standard deviation were determined. For the inferential analysis, the study used Pearson correlation and multivariate regression analysis techniques to establish the relationship between the independent and dependent variables. Further the Respondents were requested to respond to questions using a five-point Likert scale, where, 1= strongly disagree; 2= disagree; 3= indifferent; 4 = agree; 5= strongly agree.

Respondent background

The study had 100% response rate where the respondents were operations managers who have less than 3 years of work experience and majority manage and operate within Nairobi region. This indicating that the SGR need to have staff who have more experience to understand the nature and complexity of SGR. Finding from several research points out that experience depends on the number of years worked thus the ability to articulate issues at work.

Product positioning of strategic performance and sustaining competitive advantage

The study sought to establish product positioning drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage. Majority of the respondent were neutral to product positioning driver that affected strategic performance of Standard Gauge Railway in sustaining competitive advantage with composite mean of 3.646. However, minority agreed that Cost or price driver would affect strategic performance of SGR and sustain its competitive advantage indicated by a mean of 4.03.

Based on differentiation strategy, the study required to find out if the SGR product characteristics attracts the customer/client. An indication was shown by respondent that differentiation strategy was agreed with mean of 4.7. This implies that based on differentiation strategy service differentiation was agreed by respondent to affect strategic performance of Standard Gauge Railway in sustaining competitive advantage while the other differentiation factors moderately attract the client which was responded as neutral in 5 Likert scale. More so, with a composite mean of 3.685 indicated neutral to differentiation strategy of product characteristics that attracts SGR clients/customers.

The study likewise required to find out the strengths of SGR positioning strategy namely; if SGR has an idea of what brand stand for in the rail product categories, if SGR has market communications strategies, does secured position comparative to its competitors, if SGR has an innovative products and services, if it gives product and services that justifies the higher price, and if product positioning has enabled SGR to sustain competitive advantage. As shown in Table 4.3, a combined average of 3.445 indicated that the respondents are neutral to the strengths of SGR positioning strategy that affect the strategic performance.

Pearson model was used to establish the relationship between Product positioning and Sustain competitive advantage. A correlation coefficient of R= 0.817 indicated a high degree of correlation and R^2= 0.672 (67.2%) can be explained as very large. Therefore, it can be concluded that sustain competitive advantage is positively correlated with Product positioning and the relationship is very strong.

Technological aspect of strategic performance and sustaining competitive advantage

This section required to assess technological aspect affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage. The technological aspect including digital Railway infrastructure technologies, real time control systems and ICT business systems, logistics systems and operations, track and train operations, safety strategies and maintenance strategies was show on a composite average of 3.433 that the respondents were neutral on technological aspect affecting strategic performance of SGR.

In addition, the respondents were asked to state the challenges of SGR in terms of technological infrastructure that affect the performance included rail infrastructure, technical competence, systems integration, licensing and train fixtures, delivery challenges, infrastructure cost, environmental pollution reduction and land use patterns. A composite mean of 3.257 indicated that respondents were neutral to state the challenges, however minority of respondents disagreed that delivery challenge with a mean of 2.67 is affected by the technological infrastructure of SGR.

Further, the study established the relationship between technological aspect and sustain competitive advantage. The R value is 0.837, which represents the simple correlation indicated a high degree of correlation and the R^2 value of 0.701 (70.1%) indicated how much of the dependent variable Sustain competitive advantage described by the independent variable, technological aspect. which is very large. Therefore, it can be concluded that sustain competitive advantage is positively correlated with technological aspect and the relationship is very strong.

Safety of strategic performance and sustaining competitive advantage

This section required to establish safety drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage included train accidents, train staff Competence, theft of goods, safety management system, track maintenance and risk management. With a composite mean of 3.305, the respondents indicated neutral to safety drivers to affect strategic performance of SGR. Further, respondents were asked to identify the challenges including track deterioration and

deformation, derailment of trains, licenses and insurance, cargo Theft, overturning speed and risk management, cargo inventory and audit affecting SGR in terms of safety. A merged mean of 2.417 respondents disagreed that safety challenges affecting SGR performance.

Additionally, the study sought to establish the relationship between safety drivers and sustain competitive advantage. A high degree of correlation was indicated where R=0.866 and R^2 =0.837(83.7%) is also very large. Since the p-value is 0, the relationship between Sustain competitive advantage and safety is significant. Therefore, it can be concluded that sustain competitive advantage is positively correlated with safety drivers and the relationship is very strong.

Service delivery of strategic performance and sustaining competitive advantage

The study sought to find out if SGR have service delivery framework and according to figure 4.4 shows that 73% of respondents indicated that there is no service delivery framework (SDF). This implies that SGR do not have service delivery framework in place. According to 27% respondents who agreed that there is SDF, showed that SDF did not meet the requirement including reliability, comfort, responsiveness, convenience, accessibility, credibility, security and customer oriented to affect strategic performance of SGR. A composite mean of 3.402, respondents were neutral to SDF having met the requirements.

The respondents were also asked to indicate the service delivery drivers namely service quality, cycle time reduction, railway timetable, customer satisfaction, capacity management and corporate culture, that are affecting SGR strategic performance. Merged mean of 3.716 is an indication that respondents were neutral as per 5-likert scale. This implies that service delivery drivers were not up to affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage except capacity management which was agreed to affect the performance of SGR.

Further, the respondents indicated from their experience that, SGR Railway timetable is characteristics including driving time, maintenance time, passenger transfers time, route distance, train speed, train (cargo) connecting (disconnecting) time, route direction or movement and Switching time, was not up to affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage. A composite mean of 3.198 illustrated that respondents were neutral to the characteristics of the timetable.

The study required to establish the relationship between service delivery and sustain competitive advantage. A high degree of correlation R value is 0.937 and R^2 =0.877 which is very large. Since the p-value is 0, the relationship between Sustain competitive advantage and service delivery is significant Therefore, it can be concluded that sustain competitive advantage is positively correlated with service delivery and the relationship is very strong.

Conclusion

Respondents background study

The study revealed that the respondents were operations managers who have less than 3 years of work experience and majority manage and operate within Nairobi region. Further to that, respondents indicated neutral to majority of questions. This indicating that the SGR need to have staff who have more experience to understand the nature and complexity of SGR.

Product positioning of strategic performance and sustaining competitive advantage

The findings showed that sustain competitive advantage is highly positively and strong correlated with Product positioning. The respondents were neutral to product positioning drivers in sustaining competitive advantage. Kotler (2009) assert that positioning approaches that reflects the strengths and weaknesses of a business, customer's needs, and market, and competitor's position. Therefore, he encouraged SGR to identify dynamic capabilities and must have an idea of what brand stand. Kotler (2011) claims that projected positioning must be distinguished, inimitable and linked to the target, making sure the advantages of especially, the brand, is with key competitors. Lehmann & Winner (2002) argued that product position as an essential approach and as a differential advantage. As stressed by Kotler only if competitive intelligence is applied.

Minority respondents agreed that Cost or price driver would affect strategic performance of SGR and sustain its competitive advantage. This was confirmed by Porter (2001) that, by providing products that have consumer's superior value and have cost leadership is a key differentiating influence amongst products. Service differentiation strategy was agreed by respondent to real influence and generates competitive advantage as asserted by Adegbite et al. (2019) that it offer unique service options that consumers judge to be of high value and rivals in the industry cannot easily duplicate.

The study gives the impression that strengths of SGR positioning strategy were still moderate to affect but Chocholáč et al., (2018) study justifies that people tend to trust the brand regardless of the quality of the products or services if only positioning is timely, accurately, and rapidly.

Technological aspect of strategic performance and sustaining competitive advantage

The study sought to establish the relationship between technological aspect and sustain competitive advantage. The finding showed high degree of correlation and the relationship between Sustain competitive advantage and service delivery is positively significant. Therefore, advancing technology in rail cut costs and with continuous innovation increases performance (Network Rail, 2018). The respondents were neutral on technological aspect affecting strategic performance of SGR. Lin (2018) assert that having digital Railway technologies requires better levels of incorporation across track and train operations and between real time control systems and IT business is vital in order to sustain competitive advantage.

It was notably from the findings that respondents were also neutral to state the challenges of technology that affect SGR. Despite the challenges described in Africa by many authors, Stefanikova et al., (2015) emphasizes in sustaining railway infrastructure and technology quality by recognizing level of measurement including consistency, availability and railways use, infrastructure safety, and infrastructure cost constraints. However, minority of respondents disagreed that delivery challenges affect the technological infrastructure of SGR.

Safety of strategic performance and sustaining competitive advantage

This section required to establish safety drivers of strategic performance of Standard Gauge Railway in sustaining competitive advantage. The results showed that high degree of correlation and positive relationship between Sustain competitive advantage and safety is significant strong. The respondents indicated neutral to safety drivers to affect strategic performance and sustaining competitive advantages. Teece *et al*. (2009) and Al-Douri, Tretten, & Karim (2016) discussed that by reconfiguring internal and external competences to address rapidly changing environments is key in ensuring safety strategies and drivers.

Merged mean of respondents disagreed that safety challenges affecting SGR this is supported by Evans (2013) and acknowledge that improving integrating safety management systems, having formal documentation processes, good safety information systems, a proactive approach to risk management and trained expertise in safety management and human factors may increase competitiveness.

Service delivery of strategic performance and sustaining competitive advantage

The study sought to find out if SGR have service delivery framework and respondent agreed that SGR do not service delivery framework (SDF). This is declared by Geetika (2010) that SDF as set of principle guides the designs, development, and deployment in result to customer satisfaction.
Despite the minority whom declared SGR having SDF, showed that it did not meet the requirement namely reliability, comfort, responsiveness, convenience, accessibility, credibility, security and customer oriented as elaborate by Prasad & Shekhar (2010). Without service quality and not considering SDF, SGR may lack of transparency, efficiency, and unsecure delivery of services.

Further respondents were neutral that service delivery drivers were not up to affecting strategic performance of Standard Gauge Railway in sustaining competitive advantage. The unavailability and unreliability of the freight rail transport customer may opt to use roads to transport freight a ‘just in time’ (JIT) system. This was affirmed by Mathabatha (2015) study that concluded that by improving service delivery leads to reduced traffic congestion and accidents, enhanced employment opportunities and economic competitiveness. In addition, capacity management was agreed by respondents to affect the performance of SGR. Ali & Eliasson (2021) study noted that the more efficient and transparent capacity allocation procedures will recognize and allow market competition and also capacity management, corporate culture in that employee attitudes toward work can have an adverse effect on performance (Horning & McCann, 2003).

Abadi & Gatew (2014) acknowledge that rail company should have railway timetable but respondents were neutral to the timetable and its characteristics. Bešinović, Quaglietta, & Goverde (2019) noted that having railway timetable improves Cycle time reduction however strong management commitment is vital to stop unwanted delays.

Recommendation

The study out to explore drivers of strategic performance of standard gauge railway in sustaining competitive advantage in Kenya and study revealed its high significance. The study revealed that the respondents had inadequate experience so SGR need to involve the staff in planning and decision making meetings, offer workshop/training so as to have better and deeper understanding and serve as a valuable reference for developing competitive advantages in and sustain SGR.

The study recommends SGR to identify its dynamic capabilities, must have an idea of the view of product/service and project their positioning approaches. More so, applying competitive intelligence and cost leadership as key differentiating strategy. The study revealed service differentiation strategy to affect SGR, consequently, in order to achieve considerable value of service differentiation strategy, SGR should note factors; internal, external and industry so as to have successful outcome.

Technology advancement has been seen to enable efficient operation in rail industry. It is remarkably, SGR has advanced its technological infrastructure, however respondent did not show how it will influence in sustaining its competitive advantage. Therefore, the study recommends the adoption of continuous improvement on all aspect of technological advancements and especially investing in e-maintenance, e-ticketing, intelligent transport system strategies should be monitored as it is vital. The study also identified moderate response on safety from respondents, the study recommends focusing on rapidly changing environments and continuously utilization of risk assessments and reporting mechanisms on safety.

It was notably that SGR does not have service delivery framework (SDF) so the study recommends investing in SDF that will support transparency, efficiency, and secure delivery of services. For continuous service delivery quality and improvement SGR should increasing its right capacity management. Further, adopt railway timetable that improves Cycle time reduction which has however strong management follow up and commitment.

In general, SGR should involve all the stakeholders in decision making, recruit and induct the right staff in training and workshops attendance, allow benchmarking and streamline all operation by integrating all freight and rail systems and monitoring and evaluation to achieve greater performance and sustain its competitive advantage.

Area of further research

It is hopeful the findings will add value to existing body of knowledge and utilize in the future research. It is however recommended to look at the capacity management and involvement of right

staffing so as to give better results in any future research. The study was not exhaustively done on the other drivers of strategic performance like government, monitoring, work experience of a staff and management involvement.

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