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Abstract

Purpose: The primary purpose of this study was to investigate the effects of market penetration strategies on the competitive advantage of telecommunication firms in Kenya. Specifically, the study sought to establish the influence of market penetration strategies on competitive advantage and to examine the moderating effect of ICT regulatory policy on the relationship between market penetration strategies and competitive advantage. The research was driven by critical challenges in the Kenyan telecommunication sector, including declining voice revenues, regulatory shifts, technological disruptions, and evolving customer demands.

Methodology: A total of 130 respondents, drawn from a pool of 196 senior and middle-level managers across five telecommunication firms in Kenya, participated in the study. The respondents were selected using purposive sampling to ensure targeted representation. Data were collected using structured questionnaires and analyzed using descriptive and inferential statistical techniques.

Findings: Regression analysis revealed a strong positive relationship (R = 0.781) between market penetration strategies and competitive advantage, indicating that these strategies are fundamentally linked to firm performance. The R-squared value of 0.610 demonstrated that 61.0% of the variation in competitive advantage could be attributed to changes in market penetration strategies. Furthermore, the analysis confirmed that ICT regulatory policy significantly moderates this relationship, highlighting its critical role in shaping competitive dynamics within the industry. The study concludes that a robust causal relationship exists between market penetration strategies and competitive advantage. Effective implementation of these strategies significantly enhances competitive positioning. Additionally, ICT regulatory policies play an integral role in moderating this relationship, emphasizing their importance in influencing market behaviors and the success of market penetration efforts.

Unique Contribution to Theory, Practice and Policy: The study was grounded in three theoretical frameworks: Ansoff Matrix Theory, Competitive Advantage Theory and Regulatory Capture Theory, which provided a foundation for understanding the strategic and regulatory dimensions of market penetration and competitive advantage.Based on these findings, the study recommends that ICT regulatory policies be structured to support informed decision-making and promote growth and operational efficiency within the telecommunications sector. Policymakers are encouraged to align regulations with competitive strategies to foster synergy, sustain market penetration efforts, and strengthen competitive advantage. For academia and industry, the study serves as a valuable resource for future research and a practical guide for managers seeking to optimize business operations and implement effective growth strategies to enhance competitive performance.

Keywords: *Market Penetration Strategy, Competitive Advantage, Telecommunication*

INTRODUCTION

The competitiveness of businesses is a key factor in determining their market position. In today's rapidly evolving business landscape, strategic leadership is increasingly vital to maintain competitiveness amidst future uncertainties (Mwilu & Njuguna, 2020). Business growth strategies, such as market penetration, play a critical role in enabling firms to gain a competitive edge by expanding their market presence, financial resources, and overall influence (Katzaman, 2018).

The Kenyan telecommunications industry has experienced substantial transformation since the establishment of the first telephone lines in the late 19th century (Wasiams & Kwofie, 2022). This sector witnessed a groundbreaking shift with the introduction of mobile phones in the 1980s and 1990s. In 1993, Kenya became one of the pioneering African nations to adopt mobile telecommunications, launching the Nairobi Cellular Telephone System (NCTS). This marked the beginning of a mobile phone revolution that has redefined the dynamics of the industry (Wasiams & Kwofie, 2022).

As competition within the telecommunications sector intensifies, firms are increasingly adopting market penetration strategies to secure a competitive advantage. This study, therefore, seeks to explore how these strategies influence the competitive positioning of telecommunication firms in Kenya.

Competitive Advantage

The concept of competitive advantage refers to the unique attributes or strategies that allow an organization to outperform its competitors (Wang *et al*., 2011). According to Barney and Clark (2007), competitive advantage arises from an organization's core competencies or capabilities that cannot be easily replicated or surpassed by competitors. Dewit and Meyer (2010) echo this by stating that a firm achieves competitive advantage when it is able to outsmart its rivals and win customer loyalty through distinctive strategies. Similarly, Schermerhorn *et al.* (2014) emphasize that a competitive advantage results from an organization's ability to operate in ways that are difficult for competitors to imitate.

Porter (1980) argues that for a firm to achieve long-term success, it must possess a compelling belief in its capacity to compete effectively against both current and potential competitors. This necessitates not only identifying key areas where it can differentiate itself but also sustaining these advantages in the face of evolving market dynamics.

This research focuses on how Kenyan telecommunication firms use market penetration strategies to gain and sustain competitive advantage, and how these strategies influence their market dominance in an increasingly competitive landscape.

In the highly competitive Kenyan telecommunications industry, Safaricom has been the market leader for a long time, with a competitive advantage over Airtel Networks Kenya Limited and Telkom Kenya (Milao, 2014). However, regulatory changes, entry of banks into the mobile banking space, and technological advancements have threatened Safaricom's position, resulting in declining growth, especially in traditional telecommunication areas of voice. For survival in the industry, it is imperative that telecommunication firms establish areas of competitive advantage over their rivals, whether within the same industry or outside.

Statement of the Problem

The telecommunications sector in Kenya has seen heightened competition due to continuous innovations in products, markets, technology, and operational processes (Mugo & Macharia, 2021). This competitive environment aligns with global trends where telecoms are under constant pressure to innovate, particularly as traditional services like voice communication see declining revenues (Saloner & Shepard, 2019). In Kenya, customers increasingly expect better services at reduced costs, posing a significant challenge for telecom operators (Maithya, 2021). Additionally, the industry must navigate challenges such as shifting government regulations, changing consumer preferences, and declining voice service revenues. The Communications Authority of Kenya (CA, 2023) noted a marked decline in mobile voice traffic in 2022, which it attributed to the rising adoption of Voice over Internet Protocol (VoIP) services, particularly in urban areas, echoing global trends in the digitalization of voice services (Vogelstein, 2020).

Sustaining competitive advantage in such an environment necessitates the adoption of effective growth strategies. According to Hussain *et al.* (2013), sustainable growth strategies are essential for firms to maintain their market position and achieve expansion goals. Market penetration strategies, which involve increasing market share in existing markets, have become vital for telecommunication firms seeking to preserve relevance amid a fast-evolving technological landscape (Amit & Zott, 2021). However, despite the widely acknowledged role of ICT regulatory policy in moderating the relationship between market penetration strategies and competitive advantage (Moen, 1999; Ismail, Rose, Uli, & Abdullah, 2010; Çetinkaya, Niavand, & Rashid, 2019), there remains a dearth of research examining this relationship within the Kenyan telecommunications sector. The majority of studies in this area have been conducted in developed markets, such as North America and Europe (Wan & Bullard, 2008; Hosseini, Soltani, & Mehdizadeh, 2018), thus creating a gap in understanding how these strategies operate in emerging economies like Kenya (Katzaman, 2018).

Further complicating the issue is the pace of technological advancements, frequent regulatory changes, and the rapid evolution of customer demands, which together require a more sophisticated and strategic approach to growth and competitiveness (Barney, 2007; Porter, 1980). The existing literature underscores that for firms to remain competitive, they must not only innovate but also align their business strategies with regulatory frameworks to navigate the challenges posed by evolving market dynamics (Hill, 2013).

This research aims to address this gap by focusing on four key growth strategies—market penetration, product development, market development, and resource-constrained innovation—within the Kenyan telecommunication industry. It also investigates the moderating effect of ICT regulatory policy on the relationship between these strategies and competitive advantage, adding to the limited but growing body of research in emerging economies (Abdullah & Rosliyati, 2020; Wan & Bullard, 2008).

By focusing on Kenya's telecommunications sector, the study not only contributes to existing knowledge but also provides crucial insights for industry stakeholders, including policymakers, business leaders, and investors. The conclusion of this study reaffirms the significance of market penetration strategies in enhancing the competitive advantage of telecommunication firms in

Kenya. The findings illustrate a robust causal relationship, indicating that firms employing effective market penetration strategies are likely to achieve greater competitive positioning and market share. These outcomes inform strategic decision-making, support the development of policies, and enhance practices that boost the long-term competitiveness and growth of telecommunication firms in Kenya (Begg, 2020). This research has significant implications for the broader understanding of business growth strategies in emerging markets, particularly in rapidly evolving industries such as telecommunications.

Objectives of Study

i. To establish the influence of market penetration strategies on the competitive advantage of telecommunication firms in Kenya.

ii. To examine the moderating effect of ICT regulatory policy on the relationship between market penetration strategies and competitive advantage of telecommunication firms in Kenya.

Study Hypotheses

H_{01}: Market penetration strategy has no significant effect on the competitive advantage of telecommunication firms in Kenya.

H_{02}: ICT regulatory policy has no significant effect on the relationship between market penetration and competitive advantage of telecommunication firms in Kenya.

Justification of Study

Market penetration enables companies to delve deeper into their respective markets, thereby solidifying and expanding their market share (Anyanga & Nyamita, 2016). However, various factors either promote or hinder market penetration efforts, which, in turn, can significantly affect the competitive positions of firms within an industry (Abeck, 2017). While internal business-level strategies for market penetration, such as pricing and product diversification, can either promote or impede competitive advantage, external factors like regulatory policies influence the entire telecommunications sector (Mwaniki & Anene, 2023; Njeri, 2019).

This study is justified by its focus on understanding how market penetration strategies impact the competitive advantage of telecommunications firms in Kenya. Given the increasing complexity of the telecom market and the influence of ICT regulatory policies, it is essential to explore how these regulations moderate the relationship between market penetration strategies and competitive outcomes. In addition, the findings of this study contribute to the body of knowledge on competitive strategies within the telecommunications sector, particularly in emerging markets like Kenya, where regulatory environments and market conditions are distinct from those in developed countries (Moen, 1999; Çetinkaya, Niavand & Rashid, 2019).

By examining the interactions between market penetration strategies and ICT regulatory policies, this research holds practical implications for both industry practitioners and policymakers. It provides insights that can refine business practices within the telecommunications industry and inform regulatory approaches that support sustainable growth and competitive advantage (Ismail *et al.*, 2010). Thus, the study offers valuable contributions to both academic literature and industry practice.

Scope of Study

This study focuses on the Kenyan telecommunications market and examines the market penetration strategies employed by firms within this sector. The scope is confined to the telecommunication companies operating under the ICT regulatory policies specific to the Kenyan government. These policies shape the business environment and influence the strategies used by telecommunication firms to gain a competitive advantage. Data for this study was gathered from the managers of key telecommunication firms in Kenya, providing insights into the market penetration strategies and competitive dynamics at play.

Although the study is concentrated on Kenya, its findings contribute to a broader understanding of market penetration and competitive strategies in the global telecommunications sector. The knowledge generated from this research could inform similar markets in other regions, especially in emerging economies with comparable regulatory and market challenges. This global applicability

Limitations of Study

Although the research successfully gathered responses, some participants hesitated to provide detailed information, likely due to concerns about the true intent of the study. To address these concerns, the researcher employed informed consent and emphasized the confidentiality, privacy, and academic nature of the research, which helped reassure participants and encouraged their cooperation.

The findings of this study are specifically applicable to Kenya's telecommunications sector, limiting the generalizability of the results to other regions with different market structures, regulatory environments, and competitive dynamics. Thus, the conclusions drawn from this study may not fully apply to countries with dissimilar telecommunications landscapes.

Additionally, the research was conducted within a constrained timeframe, limiting the ability to observe long-term effects of market penetration strategies on competitive advantage. This restriction could affect the study's ability to capture evolving market trends and strategic adjustments over time, thereby affecting its temporal validity. Future studies conducted over an extended period could provide more insights into the sustainability of the competitive advantages gained through these strategies.

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LITERATURE REVIEW

Theoretical Review

Ansoff Matrix Growth strategies

The Ansoff Matrix, developed by Igor Ansoff in 1957, is a strategic planning tool that helps organizations determine their growth strategies by evaluating their products and markets. The matrix categorizes growth options into four primary strategies: market penetration, market development, product development, and diversification. This framework aids firms in assessing the risk associated with each strategy based on their current and potential market and product scenarios (Wright, 2022). This study focuses on three of these strategies: market penetration strategy, market development strategy, and product development strategy.

To address the increasing diversity of product innovation strategies suitable for both existing and untapped markets, De Waal (2016) expanded the Ansoff model. This extension incorporates additional strategies such as resource-constrained innovation, necessity innovation, and reverse innovation, resulting in a total of seven distinct growth options (De Waal, 2016; Ranjan & Read, 2021). Given the study's context within a developing country, De Waal's extended model is particularly relevant for examining the fourth objective concerning resource-constrained innovation strategy.

Recent research underscores the importance of adapting growth strategies to dynamic market conditions. For instance, innovations in mobile technology and changing consumer behaviors necessitate agile market penetration and development strategies (Kumar et al., 2020; Wang & Wu, 2022). By employing the Ansoff Matrix and its extensions, this study aims to elucidate how these growth strategies specifically market penetration, market development, and product development contribute to the competitive advantage of telecommunications firms in Kenya.

Each strategy provides unique pathways for firms to enhance their market position, adapt to local conditions, and respond effectively to competitive pressures. This theoretical framework facilitates a comprehensive analysis of how well-executed growth strategies can lead to improved performance and sustainability in a dynamic industry environment (Oketch & Muathe, 2022; Mugo, 2020).

Competitive Advantage Theory

Competitive advantage refers to a company's ability to outperform its competitors in the market, either through lower costs or superior products (Anning-Dorson, 2018; Wang et al., 2011). Differentiation strategy is often based on multiple factors such as quality, technology, reliability, brand image, and customer service, making it difficult for competitors to imitate (Mose, 2010). Achieving a competitive advantage led to increased profits, market share, customer satisfaction, and business survival (Saiman, 2014; Yasa et al., 2020). Companies with a competitive advantage can improve their overall performance and provide economic benefits, customer satisfaction, and relationship effectiveness (Patrisia, 2020; Mentzer et al., 2000; Li et al., 2006).

In the telecommunication industry, competitive advantage is primarily achieved through financial performance, market share, and the introduction of new products and services that attract customer loyalty and increase sales revenues (Mathenge, 2011). This study investigated whether growth

strategies such as product development and market development directly affected the competitiveness of telecommunication firms in Kenya, and whether ICT regulatory policy moderated this relationship, based on the competitive advantage theory.

Conceptual Framework

The study focused on the effect of the market penetration strategies on the competitive advantage of the telecommunication firms in Kenya with the competitive advantage forming the dependent variable while the market penetration strategies form the independent variable and the ICT regulatory policy the moderating variable as presented in Figure 1.

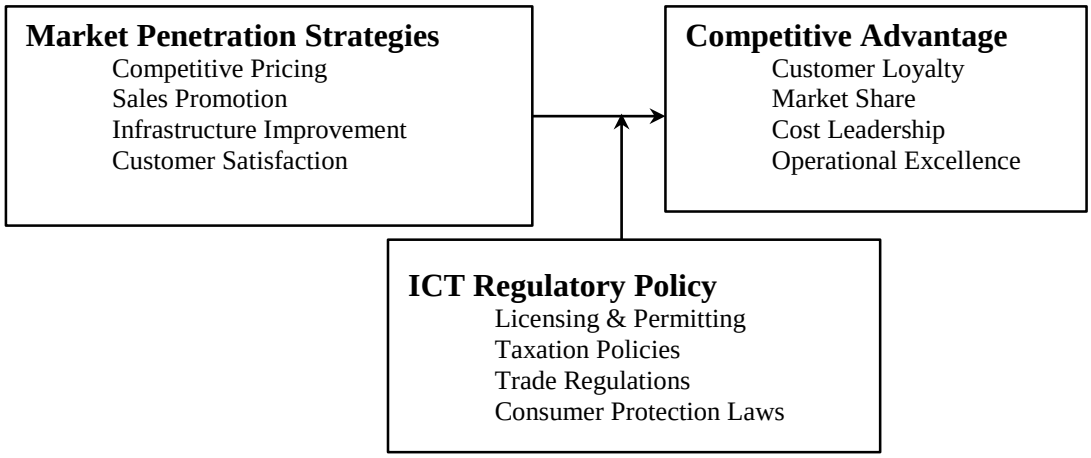

Figure 1: Conceptual Framework

Empirical Review

Market Penetration Strategy

One of the most critical decisions facing business leaders in the strategic management process involves adopting a market penetration strategy. This strategy focuses on increasing usage among existing customers while also attracting customers from competitors (Gecheo et al., 2016). Market penetration strategies are essential for measuring the growth levels of a business and can lead to significant competitive advantages when executed effectively (Tien, 2020; Kotler & Keller, 2021).

According to the Ansoff Matrix Theory, market penetration is achieved through intensified distribution, enhanced promotional practices, and competitive pricing strategies (Dugguh *et al*., 2018; Ansoff, 1957). Additionally, the competitive advantage theory emphasizes that businesses must pursue distinctive growth strategies to differentiate themselves within their industry (Wanjiru & George, 2015; Porter, 1985). Market penetration strategies aim to boost consumption and enhance the competitiveness of existing products in the current market. This approach seeks to increase market share through heightened marketing efforts (Divrik, 2023). These strategies can be applied independently or in conjunction with other growth strategies (Ekankumo, 2023). Effective market penetration tactics may include expanding the number of sellers, increasing

advertising expenditures, offering sales promotions, or enhancing public relations efforts (Tien, 2020; Gupta *et al*., 2021).

The link between market penetration and competitive advantage is also reinforced by the competitive advantage theory, which posits that firms gain an edge by implementing growth strategies that distinguish them from their industry peers (Wanjiru & George, 2015). By leveraging market penetration, firms can reduce operational costs through economies of scale, improving their cost leadership position, a key driver of competitive advantage (Porter, 1985). For example, telecommunications firms that expand their customer base through promotions and pricing strategies can spread fixed costs across a larger volume of customers, thus achieving cost leadership (Iansiti & Lakhani, 2020).

Chandola and Fu (2017) emphasized the role of the marketing mix in market penetration. Their study of Chinese smartphone firms expanding into India found that a combination of competitive pricing, aggressive promotions, and distribution networks enabled these firms to penetrate a new market and simultaneously gain competitive advantage. Similarly, Alkasim *et al.* (2017) demonstrated that market penetration strategies positively impact competitive advantage by driving cost leadership. Their research on Nigerian SMEs revealed that businesses employing penetration strategies not only increased market share but also enhanced their operational efficiency and cost advantages.

Porter's Five Forces further illustrate the connection between market penetration and competitive advantage. In highly competitive industries, market penetration helps firms mitigate the effects of competitive rivalry by capturing a larger share of the market and creating barriers for new entrants (Porter, 1980). This is particularly relevant in telecommunications, where firms must continuously strengthen their position through sustained penetration efforts to maintain a competitive edge (Mugo, 2020).

The measures that guided this research included sales promotions, infrastructure improvement, customer satisfaction, and competitive pricing. These strategies, as highlighted in studies across various industries, have proven effective in driving market penetration and reinforcing competitive advantage (Ojokwa & Deya, 2018; Gecheo *et al.*, 2016; Musyimi & Kariuki, 2019; Arkolakis, 2008; Muchele & Kombo, 2019). For instance, competitive pricing not only enables firms to attract price-sensitive customers but also forces competitors to adapt, thus intensifying competitive rivalry while strengthening the firm's market position (Kim & Mauborgne, 2015).

ICT Regulatory Policy

A policy is a plan or course of action, of a government, political party or business, intended to influence and determine decisions, actions, and other matters (Eisner *et al.*, 2000). The task of the regulator in industry-specific regulatory regimes is complex (Correa, 2020). The regulator is typically charged with calibrating a complex market system comprising multiple participants, each with separate strategic and operational agendas (Davies *et al*, 2009).

Perkins (2014), provided a comprehensive framework to assess and evaluate industry regulation across nations. The ICT regulatory policy for ("the ICT regulatory policy") defines the fundamentals of competition for the European telecommunication sector and is currently under review by the European Commission (Liikanen, 2011). The issues addressed by the framework

were separated into two broad groups. First, the framework defines which market segments of the telecommunication sector should be put under an ex-ante approach of regulation and which market segments should be left to ex post regulation, i.e. competition policy. This is the question of what is the optimal instrument—ex ante regulation or competition policy. Second, it defines and harmonizes the rules for ex ante regulation between the European member states. This is the question of how to optimize the instrument of ex ante regulation (Liikanen, 2011).

Although policies are formally put in place by governments, different stakeholders and in particular the private sector make inputs into the policy process and affect its out-comes. The government therefore provides an environment – this is providing resources e.g time, money and logistics to start the process of an ICT policy development (Kandiri, 2019).

In Kenya, the Communications Authority of Kenya (CA) regulates the telecommunication industry by issuing licenses, setting standards, and enforcing compliance with regulations (CA Sector Report, 2021). The CA has implemented various policies and initiatives to promote the development of the sector, such as the roll-out of broadband infrastructure and the promotion of digital literacy. Despite these efforts, the industry has faced numerous challenges, including high taxes and fees, changing consumer needs, changing regulations, limited access to capital, and inadequate infrastructure in rural areas (Mugo & Macharia, 2020). These challenges have resulted in declining voice revenues, cut-throat competition, numerous regulations, technological progress, and varying consumer needs.

The measures of ICT regulatory policy that guided this research are; Licensing & Permitting, Taxation Policies, Trade Regulations and Consumer Protection Laws. These measures have been used by previous researchers to study the impact of government policy on firms' performance (Mugo, 2011).

Competitive Advantage

Competitive advantage refers to a firm's ability to outperform its rivals in the marketplace, allowing it to secure a superior market position (Bandaranayake & Pushpakumari ,2021). This advantage stems from various internal factors such as innovation capacity, business capabilities, product differentiation, resource utilization, financial performance, and market positioning (Bandaranayake & Pushpakumari, 2021). The importance of competitive advantage lies in its ability to drive a firm's market penetration efforts, particularly in competitive industries like telecommunications. Market penetration, defined as a strategy aimed at increasing market share within existing markets, relies heavily on a firm's competitive strengths to succeed (Kotler & Keller, 2016).

The concept of competitive advantage is deeply embedded in the Resource-Based View (RBV) of the firm, which holds that companies gain sustained competitive advantage (SCA) by leveraging resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). These resources whether they are tangible assets like technology, or intangible assets like brand equity enable firms to execute effective market penetration strategies by offering superior products and services at competitive prices (Grant, 1996). In telecommunications, for example, firms with strong infrastructure and brand loyalty can leverage these advantages to increase their market share by offering improved network coverage and customer service (Wirtz & Lovelock, 2022).

Dynamic capabilities, defined as a firm's ability to adapt and reconfigure resources in response to changing market conditions, play an essential role in linking competitive advantage to market penetration. According to Teece, Pisano, and Shuen (1997), firms that are agile and innovative can not only defend their market positions but also expand their presence by capitalizing on emerging opportunities. In the fast-evolving telecommunications industry, companies with strong dynamic capabilities can adjust their strategies to penetrate underserved markets or introduce new products faster than their competitors (Eisenhardt & Martin, 2000). For instance, Safaricom in Kenya has successfully used its dynamic capabilities to expand its mobile money platform, M-Pesa, as a market penetration tool, capitalizing on both technological and financial innovation (Ndung'u, 2020).

Porter's (1985) competitive strategy framework also sheds light on the relationship between competitive advantage and market penetration. Firms pursuing cost leadership can increase their market share by offering products or services at lower prices, while those that adopt differentiation strategies can penetrate the market by offering unique or superior products. In telecommunications, where competition is intense, firms often combine these strategies to enhance their market penetration. Kim and Mauborgne (2015) argued that firms must create a "blue ocean" by entering untapped markets or creating new demand to achieve both market penetration and competitive advantage simultaneously.

Market penetration strategies also require a strong emphasis on technological innovation, which has been linked to competitive advantage in modern markets. Firms that adopt advanced technologies, such as 5G networks, artificial intelligence, and data analytics, can improve their customer experience, operational efficiency, and service quality—key drivers for both market penetration and competitive advantage (Iansiti & Lakhani, 2020). According to Chaffey and Ellis-Chadwick (2019), digital transformation is an essential factor for firms seeking to penetrate new markets, as it enhances their ability to meet changing customer needs while maintaining operational flexibility.

Customer relationship management (CRM) also plays a significant role in market penetration strategies. Payne and Frow (2017) noted that businesses that manage customer interactions effectively are better positioned to retain existing customers and attract new ones. In telecommunications, where customer churn is a critical issue, firms can use CRM systems to offer personalized services, thereby improving customer retention and driving market penetration. This ability to build strong customer relationships, supported by technology, gives firms a competitive edge in crowded markets (Wirtz & Lovelock, 2022).

Competitive advantage in this study was measured by customer loyalty, market share, cost leadership, and operational excellence, all of which are critical to driving market penetration in the telecommunications industry. Customer loyalty, supported by effective customer relationship management, helps firms retain customers and reduce churn, which is vital for maintaining a competitive position (Payne & Frow, 2017). Loyal customers are less likely to switch providers, allowing firms to penetrate the market with a stable customer base (Chaffey & Ellis-Chadwick, 2019).

Market share reflects a firm's dominance and capacity to benefit from economies of scale, which enables it to reinvest in innovation and improve service offerings (Kotler & Keller, 2016). Firms with significant market share can use their resources to expand further and capture untapped markets (Kotler & Keller, 2016). Cost leadership and operational excellence work in tandem, as firms that streamline their operations reduce costs and deliver high-quality services efficiently. This enables them to offer competitive pricing, enhancing their ability to penetrate price-sensitive markets (Porter, 1985; Wirtz & Lovelock, 2022). Resource-Based View Theory posits that only firms with distinctive and unique resources can achieve a competitive edge and superior outcomes (Chacha, 2010). Capabilities, described by Furrer *et al*. (2008) as intangible assets, enable firms to develop strategic business models that address performance challenges. These capabilities, which encompass unique values, firm's market share, brand names, processes, and networks, contribute to competitive advantage and superior performance when they are not easily replicated by competitors (Kenneth *et al*., 2011; Lockett *et al*., 2009).

In Kenya's telecommunication industry, a model organization has been Safaricom, which has enjoyed decades of dominance in Kenya's telecommunication market. Oloko *et al*. (2014) finds that Safaricom's marketing strategies promoted Safaricom's growth in market share and profitability. These techniques contain different value propositions that have helped to improve the market share for Safaricom but attracting new customers and extending the loyalty of existing customers. Such strategies are also associated with greater probability, providing sample insights on how to grow telecommunication companies in Kenya (Oloko *et al*., 2014).

METHODOLOGY

Research Design

The study followed a positivist philosophical approach, which emphasizes the use of objective and empirical methods rather than subjective interpretation based on feelings, reflection, or intuition (Easterby *et al.*, 2002). A descriptive cross-sectional survey design was selected for this research. Descriptive research aims to provide a clear representation of phenomena by investigating the "what", "when" and "how much" aspects at a specific point in time (Bougie & Sekaran, 2019). Cross-sectional studies collect data at one particular moment, making them suitable for descriptive research, as they focus on capturing data that reflects current conditions (Zikmund, 2003). This design enabled the study to examine the relationship between market penetration strategies and competitive advantage among telecommunications firms in Kenya within a defined time frame.

Target Population

The target population is a critical concept in research, referring to a specific group of individuals, events, or objects—either real or hypothetical—upon which the findings of a study are intended to be applied (Johnson & Duberly, 2014). In a similar vein, Mugenda and Mugenda (2012) describe a population as the complete set of individuals or items being studied, all of which share a common characteristic.

In this study, the target population comprises all Mobile Network Operators (MNOs) in Kenya, as detailed in Table 1 provided by the Communication Authority. The research focused on 196 senior and middle-level managers employed in these telecommunications firms. Data regarding the number of managers in each company was sourced from the Human Resource Departments,

ensuring an accurate representation of the managerial workforce within the sector. This targeted approach facilitates a comprehensive understanding of the dynamics of market penetration strategies and their impact on competitive advantage in the Kenyan telecommunications landscape.

Table 1: Distribution of Manager Level Employees

Mobile Network Operator	Target Population (Managers)
Safaricom PLC	116
Airtel Networks Kenya Limited	30
Telkom Kenya Limited	20
FinServe Kenya Limited	15
Jamii Telecommunications Limited	15
	196

Source: CA Report 22, Safaricom HR, Airtel HR, Telkom HR

Sample Size

Sample designs can be categorized into two main types: probability and non-probability sampling. In probability sampling, each element of the population has a known chance of being included in the sample, allowing for greater accuracy and generalizability of the findings. In contrast, non-probability sampling does not provide a mechanism to determine this probability, which may limit the reliability of the results (Pandey & Pandey, 2015).

For this study, the sample size was determined using a formula derived from Yamane (1967), which is suitable for calculating the sample size at a specified confidence level and margin of error. The formula used is as follows:

For;

Where:

$$S = \frac{Z^2 NP\,(1-P)}{d^2(N-1) + Z^2 P(1-P)}$$

$$S = \frac{1.96^2 \text{ x } 196 \text{ x } 0.5(1-0.5)}{0.05^2(196-1) + 1.96^2 \text{x} 0.5\,(1-0.5)}$$

$$= 130$$

This gives a total sample size of 130 individuals for the whole study

Z = Z-score at 95% confidence level (1.96)

N = The Population Size (196 respondents in this case)

P = The Population Proportion (Assumed to be 0.5 since this would provide the maximum sample size)

d – The degree of accuracy expressed as a proportion (0.05)

Using a Z-score of 1.96 for a 95% confidence level and assuming a population proportion of 0.5 to maximize the sample size, the calculation yielded a total sample size of 130 individuals for the study.

These 130 respondents were selected from the pool of 196 senior and middle-level managers working across five telecommunication firms in Kenya. To ensure that the sample accurately reflected the different firms represented in the study, a non-probability purposive sampling method was employed. This technique allowed the researcher to focus on specific individuals who possess relevant knowledge and experience regarding market penetration strategies within their organizations. Additionally, a sampling proportionate to size was utilized to determine the total number of managers from each firm, as detailed in Table 2.

Table 2: Sample Size

Mobile Network Operator	Sample (Managers)	Sample Size
Safaricom PLC	116	76
Airtel Networks Kenya Limited	30	20
Telkom Kenya Limited	20	14
FinServe Kenya Limited	15	10
Jamii Telecommunications Limited	15	10
	196	**130**

Regression Models

$Y= \beta_0 + \beta_i X_i + \varepsilon$ (i=1, 2, 3, 4);

$Y= \beta_0 + \beta_i X_i + \beta X_2 + \varepsilon$;

$Y= \beta_0 + \beta_i X_i + \beta X_2 + \beta X_j * X_2 + \varepsilon$

Where: Y= is the dependent variable (Competitive Advantage)

$\{\beta_i ; i=1,2,3,4\}$ = The coefficients for the various independent variables

X_i for; X_1 = is market penetration strategy, X_2 = ICT regulatory policy (moderator); X1*X2= market penetration strategy * ICT regulatory policy are the interaction term; ε = Error term

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FINDINGS AND DISCUSSION

Table 3: Response Rate

Response rate	Frequency	Percentage
Responded	115	88
Did not respond	15	12
Total	**130**	**100**

Table 3 displays the response rate of the participants in the study. Out of the 130 questionnaires distributed, 115 were successfully recovered, while 15 were not returned. This indicates a response rate of 88 percent, with 12 percent of the questionnaires remaining unreturned. The high response rate suggests a strong engagement from the participants, which enhances the reliability of the study's findings.

Table 4: Market Penetration Strategy

Market Penetration Strategies	SD	D	MA	A	SA	Mean	Std. D
Focuses on improving competitiveness by reducing prices of existing products in the existing market	1.7%	7%	7.8%	37.4%	46.1%	4.19	.972
Convinces existing customers to use more of the existing products through advertisement and sales promotions	2.6%	6.1%	10.4%	40%	40.9%	4.10	.994
Acquires a rival in the same market to increase both market share and sales	17.4%	7%	11.3%	30.4%	33.9%	3.57	1.458
Introduces loyalty schemes and incentives to increase usage by existing customers	0.9%	6.1%	10.4%	36.5%	46.1%	4.21	.922
Increase infrastructural capacity to accommodate more users	3.5%	7%	5.2%	33.9%	50.4%	4.21	1.055
Focuses on customer experience and satisfaction initiatives	2.6%	0.9%	12.2%	35.7%	48.7%	4.27	.901

Strongly disagree=SD, Disagree=D, Moderately Agree=MA, Agree=A, Strongly Agree=SA

Table 4 presents the results of the market penetration strategies responses. The findings indicate that respondents emphasized the importance of improving competitiveness by reducing prices of existing products in the current market, reflected in a mean score of 4.19 and a standard deviation of 0.972, with responses ranging from 1.7% to 46.1%. This finding aligns with the literature that suggests competitive pricing is crucial for attracting price-sensitive consumers and enhancing market share (Kotler & Keller, 2016). Additionally, the strategy of convincing existing customers to utilize more of the current products through advertising and sales promotions received a mean score of 4.10 (standard deviation 0.994), with a range of 2.6% to 40.9%. This underscores the effectiveness of promotional efforts, which have been shown to increase brand awareness and product usage (Chandola & Fu, 2017).

The acquisition of a rival within the same market to boost market share and sales yielded a mean score of 3.57 (standard deviation 1.458), with responses between 7% and 33.9%. While this

strategy received moderate endorsement, it reflects the view that consolidation can enhance competitive advantage through increased market power (Mugo, 2020). Respondents also recognized the effectiveness of introducing loyalty schemes and incentives to encourage increased usage among existing customers, scoring 4.21 (standard deviation 0.922) with a range of 0.9% to 46.1%. This finding aligns with research indicating that loyalty programs can significantly enhance customer retention and profitability (Payne & Frow, 2017).

Furthermore, increasing infrastructural capacity to accommodate more users also scored 4.21 (standard deviation 1.055), with responses ranging from 3.5% to 50.4%. This highlights the importance of infrastructure investment in supporting market penetration efforts, as adequate infrastructure facilitates service delivery and customer satisfaction (Wirtz & Lovelock, 2022). Finally, focusing on customer experience and satisfaction initiatives achieved the highest mean score of 4.27 (standard deviation 0.901), with a range of 0.9% to 48.7%. This finding emphasizes that enhancing customer experience is crucial for driving competitive advantage, as satisfied customers are more likely to become repeat buyers and advocates for the brand (Homburg *et al.*, 2015).

Overall, the findings reveal that market penetration strategies positively and significantly impact the competitive advantage of firms. Therefore, firms should consider adopting targeted market penetration strategies, such as niche marketing, to improve their performance and strengthen their competitive position, as supported by prior research (Alkasim *et al.*, 2017).

Table 5: ICT Regulatory Policy

ICT regulatory policy	SD	D	MA	A	SA	Mean	Std. D
The government has a role in timely issuance of service provision licenses in our communication sector	7%	3.5%	9.6%	40.9%	39.1%	4.02	1.124
The government is always interested in regulation of services prices such as call tariffs in our company	4.3%	5.2%	7%	28.7%	54.8%	4.24	1.081
The government is involved in determining the market structure by controlling new entries into the market	2.6%	7.8%	7.8%	29.6%	52.2%	4.21	1.055
The regulatory authority is involved in enforce consumer protection and their rights	7%	7%	20%	34.8%	31.3%	3.77	1.172
The government is involved in Enforcement of antitrust rules in the telecommunication industry	7%	4.3%	8.7%	35.7%	44.3%	4.06	1.157
The government is responsible for the Authorizing of mergers and acquisitions in the telecommunication industry	8.7%	5.2%	3.5%	24.3%	58.3%	4.18	1.261

Strongly disagree=SD, Disagree=D, Moderately Agree=MA, Agree=A, Strongly Agree=SA

Table 5 presents the results of the responses regarding ICT regulatory policy. The findings reveal that respondents believe the government plays a critical role in the timely issuance of service provision licenses within the communication sector, reflected in a mean score of 4.02 (standard deviation 1.124), with responses ranging from 3.5% to 40.9%. There is also a strong consensus regarding the government's interest in regulating service prices, such as call tariffs, evidenced by a mean score of 4.24 (standard deviation 1.081), with responses spanning from 4.3% to 54.8%. The government's involvement in determining market structure by controlling new entries received a mean score of 4.21 (standard deviation 1.055), indicating broad support, with responses ranging from 2.6% to 52.2%.

While the regulatory authority's role in enforcing consumer protection and rights scored lower at 3.77 (standard deviation 1.172), with a response range of 7% to 34.8%, it still underscores the importance of consumer advocacy in the sector. Additionally, the findings indicate that the government actively enforces antitrust rules within the telecommunications industry, achieving a mean score of 4.06 (standard deviation 1.157) and a response range of 4.3% to 44.3%. The government's responsibility for authorizing mergers and acquisitions in the telecommunications sector also received significant support, with a mean score of 4.18 (standard deviation 1.261) and responses ranging from 3.5% to 58.3%.

These results suggest that government regulation plays a significant role in shaping competitive advantage within Kenya's telecommunications sector. This aligns with the perspectives of researchers such as Monsreal-Barrera et al. (2019), who argue that regulatory oversight is essential in preventing customer exploitation by rival firms, thereby enhancing competitive advantage through effective policy implementation. Similarly, Wanjiru and George (2015) emphasize that a well-regulated environment fosters fair competition, ultimately benefiting consumers and improving market performance.

Furthermore, Okello and Tineo (2020) highlight that regulatory frameworks are pivotal in shaping competitive dynamics within the telecommunications sector, suggesting that effective regulation can lead to improved service quality and increased consumer satisfaction. Overall, these findings underscore the critical role of ICT regulatory policies in creating a competitive landscape that benefits both firms and consumers.

Table 6: Competitive Advantage

Statement	SD	D	MA	A	SA	Mean	Std. D
My company has grown in terms of customer loyalty over the last five years	8.7%	5.2%	7.8%	22.6%	55.7%	4.11	1.276
My company has grown in terms of market expansion over the last five years	8.7%	7%	7%	32.2%	45.2%	3.98	1.263
My company has grown in terms of Subscribers over the last five years	10.4%	7.8%	8.7%	39.1%	33.9%	3.78	1.283
My company has grown in terms of Number of money subscribers over the last five years	7.8%	1.7%	10.4 %	30.4%	49.6%	4.12	1.171
My company has grown in terms of Market differentiation over the last five years	7.8%	4.3%	18.3 %	35.7%	33.9%	3.83	1.177
My company has grown in terms of market focus over the last five years	7%	3.5%	6.1%	40.9%	42.6%	4.09	1.121

Strongly disagree=SD, Disagree=D, Moderately Agree=MA, Agree=A, Strongly Agree=SA

Table 6 presents the results of the responses regarding competitive advantage. The findings indicate that respondents perceive their companies have experienced significant growth across several dimensions over the past five years. Specifically, the mean score for customer loyalty is 4.11 (standard deviation 1.276), with responses ranging from 5.2% to 55.7%. This suggests a robust perception of enhanced customer relationships, which aligns with research indicating that customer loyalty is a vital component of competitive advantage in the telecommunications sector (Kumar & Shah, 2004; Aydin & Ozer, 2005).

In terms of market expansion, the mean score is 3.98 (standard deviation 1.263), with a response range of 7% to 45.2%. This indicates a favorable view of the company's efforts to penetrate new markets. Previous studies have shown that successful market expansion strategies significantly enhance competitive positioning and overall performance (Olsen et al., 2013; Weerawardena, 2003). Additionally, growth in subscriber numbers received a mean score of 3.78 (standard deviation 1.283), with responses ranging from 7.8% to 39.1%. This reflects a moderate increase in the customer base, supporting findings that subscriber growth is a key performance indicator in telecommunications (García-Murillo & Gabel, 2009).

Respondents reported notable growth in the number of money subscribers, with a mean score of 4.12 (standard deviation 1.171) and a response range of 7.8% to 49.6%. This highlights the increasing significance of mobile financial services, corroborated by recent research suggesting that such services enhance customer retention and brand loyalty (Seyal et al., 2015; Chawla et al., 2020).

Market differentiation also scored a mean of 3.83 (standard deviation 1.177), with responses ranging from 4.3% to 35.7%. This indicates a focus on unique offerings, essential for maintaining a competitive advantage in a crowded market (Porter, 1985; Chen et al., 2011). Lastly, growth in market focus received a mean score of 4.09 (standard deviation 1.121), with responses between 3.5% and 42.6%. This reflects strategic alignment toward specific market segments, as highlighted

by researchers who assert that a concentrated market focus can enhance performance and competitive edge (Baker & Sinkula, 2005; Narver & Slater, 1990).

Overall, these results demonstrate that competitive advantage is a crucial dimension for organizations in the telecommunications sector. The findings are consistent with existing literature, emphasizing the significance of customer loyalty, market expansion, subscriber growth, differentiation, and market focus in achieving sustained competitive advantage.

H_{01}: Market penetration strategy has no significant effect on the competitive advantage of telecommunication firms in Kenya

Table 7: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.781[a]	.610	.606	.67366	.610	176.412	1	113	.000

Table 7 presents the model fitness statistics, highlighting the coefficients of correlation, which include R, R-squared, and Adjusted R-squared values. The findings reveal that the R value is 0.781, indicating a strong positive correlation between the independent variables and the dependent variable. The R-squared value is 0.610, suggesting that approximately 61% of the variation in the dependent variable can be explained by the independent variables included in the model. Furthermore, the Adjusted R-squared value of 0.606 indicates that the model retains a high explanatory power even after adjusting for the number of predictors. These statistics collectively signify that the model is robust and provides a substantial understanding of the relationships among the variables under investigation.

Table 8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.060	1	80.060	176.412	.000[b]
	Residual	51.282	113	.454		
	Total	**131.342**	**114**			

Table 8 presents the results of the analysis of variance (ANOVA), which evaluates the overall significance of the model. The findings indicate an F-statistic of 176.412, accompanied by a p-value of 0.000. These results suggest that market penetration strategies have a statistically significant effect on competitive advantage. The low p-value, well below the conventional threshold of 0.05, reinforces the conclusion that the model is statistically significant and that the independent variables effectively contribute to explaining variations in the competitive advantage of telecommunication firms.

Table 9: Coefficients of Regression

Variables	Beta	Std. Error	t-statistics	p-values
(Constant)	-0.371	.334	-1.110	.269
Market Penetration Strategy	1.065	.080	13.282	.000

Table 9 presents the results of the regression coefficients, highlighting the significance of the test statistics. The associated p-value was found to be 0.000, indicating that all test statistics are significant. The beta coefficient was measured at 1.065, suggesting that a one-unit increase in market penetration results in an increase in competitive advantage by 1.065 units. The t-statistic was recorded at 13.282, with a corresponding p-value of 0.000. This strong statistical evidence leads to the rejection of the null hypothesis, which posits no association between market penetration and competitive advantage.

Given these results, management should focus on the market penetration strategies employed, as they are crucial for enhancing the company's positioning. Market penetration involves selling existing products or services to the current market with the aim of increasing market share and achieving growth (Tien, 2020). This strategy not only emphasizes selling more of the existing product to current customers but also involves attracting new customers to enhance sales (Kimaru, 2018). Consequently, effective implementation of market penetration strategies can significantly bolster competitive advantage in the telecommunications sector.

H_{02}: There are no statistically significant effects of the ICT regulatory policy in the relationship between market penetration strategies and the competitive advantage of telecommunication firms in Kenya

Table 10: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1..781[a]	.610	.606	.67366	.610	176.412	1	113	.000
2..809[b]	.727	.724	.45023	.117	140.986	1	112	.000
3..910[c]	.898	.863	.45171	.171	.268	1	111	.006

Table 10 presents the results of the model fitness statistics. The coefficient of correlation indicated that R-Square increased from 72.7% to 89.8%, demonstrating a significant enhancement in the model's explanatory power. Additionally, the associated F-statistics also experienced a substantial increase, indicating that the model effectively captures the relationship between market penetration strategies and competitive advantage, particularly when moderated by the ICT regulatory policy. The significant change in R-Square and the F-statistics suggests that the hierarchical model is statistically significant, reinforcing the importance of regulatory policy in influencing competitive dynamics within the telecommunications sector.

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Table 11: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.060	1	80.060	176.412	.000[b]
	Residual	51.282	113	.454		
	Total	**131.342**	**114**			
2	Regression	108.638	2	54.319	267.970	.000[c]
	Residual	22.703	112	.203		
	Total	**131.342**	**114**			
3	Regression	108.693	3	36.231	177.568	.000[d]
	Residual	22.648	111	.204		
	Total	**131.342**	**114**			

Table 11 presents the results regarding the moderation effect of ICT regulatory policy on the relationship between market penetration strategies and competitive advantage. The findings indicate that all F-test statistics across the three models were statistically significant, with associated p-values less than 0.05. Specifically, the F-statistics were 176.412 (p = 0.000), 267.970 (p = 0.000), and 177.568 (p = 0.000) for each respective model. These results strongly support the existence of a moderation effect, suggesting that ICT regulatory policy plays a crucial role in influencing the dynamics between market penetration strategies and competitive advantage in the telecommunications sector.

Table 12: Coefficients of Regression

	Variables	B	Std. Error	t-statistic	p-values
1	(Constant)	-0.371	.334	-1.110	0.269
	Market Penetration strategy	1.065	.080	13.282	0.000
2	(Constant)	-0.330	.223	-1.476	0.143
	Market Penetration strategy	0.221	.089	2.477	0.015
	ICT Regulatory Policy	0.837	.070	11.874	0.000
3	(Constant)	-0.644	.647	-.995	0.322
	Market Penetration Strategy	0.836	0.149	5.623	0.0000
	ICT Regulatory policy	1.389	0.131	10.576	0.0000
	Market Penetration Strategy * ICT Regulatory Policy	-0.165	0.0368	-4.489	0.0000

Table 12 presents the results following the introduction of ICT regulatory policy as a moderator in the relationship between market penetration strategies and competitive advantage. The findings indicate a statistically significant and negative association between market penetration and competitive advantage when moderated by ICT regulatory policy. Specifically, the interaction term for Market Penetration * ICT Regulatory Policy yielded a coefficient of -0.165, with a standard error of 0.0368, a t-statistic of -4.489, and a p-value of 0.0000.

These results support the views of researchers such as Kiveu *et al.* (2019), who observed that government interventions can undermine fair competition in the telecommunications sector. High entry fees imposed by the government may deter potential competitors and restrict market entry, adversely affecting firms that could otherwise leverage market forces for competitive advantage.

Moreover, studies by Maithya (2021) and Mugo and Macharia (2021) have highlighted how regulatory changes can create uncertainties that impact business strategies and competitive positioning. In times of political influence, particularly during election cycles, firms that have established competitive advantages may lose their edge due to regulatory shifts that favor specific market players (Hosseini, Soltani & Mehdizadeh, 2018). This underscores the necessity for a regulatory framework that promotes a level playing field, enabling all firms to compete effectively and sustain their competitive advantages in the dynamic telecommunications landscape.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The first objective of the study focused on evaluating the relationship between market penetration strategy and the competitive advantage of telecommunication firms in Kenya. The research aimed to determine whether a significant causal effect exists between these two variables, operationalizing this objective through various measures to capture the responses of the research participants.

Hypothesis testing was subsequently conducted to assess the statistical significance of this relationship. The findings from the analysis of variance indicated a statistically significant relationship between market penetration strategy and competitive advantage. This aligns with recent research suggesting that effective market penetration strategies enhance competitive positioning and drive firm performance (Awuor & Karuoya, 2022; Kotler & Keller, 2016). Additionally, the regression coefficients for the different models estimated were found to be statistically significant, reinforcing the notion that the interaction between market penetration strategy and competitive advantage is substantial.

This finding is consistent with the work of Mwaura and Oduor (2020), who argue that firms pursuing aggressive market penetration achieve higher market shares and competitive advantage. Therefore, managers in the telecommunications sector should prioritize strengthening the association between market penetration strategies and competitive competition, as highlighted by Chen and Paulraj (2004), who emphasize the critical role of strategic alignment in achieving competitive success.

The second objective assessed the effect of ICT regulatory policy as a moderator on the relationship between market penetration strategy and competitive advantage of telecommunication firms in Kenya. The study investigated the association between ICT regulatory policy, market penetration strategy, and competitive advantage, utilizing various measures to capture relevant responses.

Hypothesis testing revealed a statistically significant moderating effect of ICT regulatory policy on the relationship between market penetration strategy and competitive advantage. The coefficients on interaction terms confirmed this significant effect, supported by the F-statistics indicating a collective linear causation of ICT regulatory policy on the relationship. The regression coefficient results also demonstrated statistical significance regarding the effect of ICT regulatory policy as a moderator on the interaction between market penetration strategy and competitive advantage. This aligns with recent findings by Njuguna and Musyoka (2021), which emphasize

the importance of regulatory frameworks in enhancing competitive advantage in rapidly evolving sectors.

Conclusion

The study concludes that a statistically significant causal effect exists between market penetration strategy and the competitive advantage of telecommunication firms in Kenya. This finding emphasizes the importance of key dimensions within market penetration strategies for these companies. The results strongly support a positive relationship, highlighting that effective implementation of market penetration strategies enhances competitive positioning.

Through factor analysis, including principal component analysis, correlation analysis, and regression results, the study confirms a robust association between market penetration strategy and competitive advantage. These insights align with existing literature, which underscores the necessity for firms to leverage market penetration tactics to secure a competitive edge (Kotler & Keller, 2020; Mwaura & Oduor, 2021).

Furthermore, the study assessed the moderating effect of ICT regulatory policy on this relationship. The hypothesis testing revealed a significant moderation effect, indicating that ICT regulatory policies play a crucial role in shaping the dynamics between market penetration strategies and competitive advantage. The correlation and regression results affirm that regulatory frameworks not only influence market behaviors but also enhance the effectiveness of market penetration efforts (Okello & Tineo, 2022).

Thus, the findings underscore the need for telecommunication firms to navigate and adapt to ICT regulatory policies strategically, as these factors significantly impact their competitive advantage in the Kenyan market.

Recommendations

The findings of this study carry significant implications for both regulators and policymakers within the Kenyan telecommunications industry. By elucidating the relationship between market penetration strategy and competitive advantage, the study recommends that ICT regulatory policy should facilitate informed decision-making regarding regulations that promote growth and enhance operational efficiency in the sector. The results assist in the formulation of new regulations and the evaluation of existing policies to ensure alignment with the competitive strategies employed by industry players. This alignment is expected to foster greater synergy within the telecommunications sector, ultimately promoting sustainable market penetration strategies and enhancing competitive advantage.

Furthermore, this study serves as a valuable resource for academic and research endeavors in the fields of market penetration strategy and competitive advantage within the telecommunications industry. The findings can provide a foundation for future research aimed at exploring the nuanced effects of market penetration strategies on firm competitive advantage. Researchers and academics can utilize these results to identify gaps in existing literature and design studies that cover various aspects of this critical issue.

Additionally, the findings guide students interested in conducting research on market penetration strategies in the telecommunications sector. They highlight the need for management to understand

how to optimize business operations and achieve competitive advantages in their organizations. The insights from this research should be leveraged by strategists within telecommunications firms to comprehend the impact of growth strategies on competitive advantage, thereby driving improved performance for both firms and the sector as a whole. Managers should prioritize market penetration strategies to enhance operational efficiency, given their substantial contribution to achieving competitive advantage.

Suggestions for Further Research

This study was specifically focused on telecommunication firms, highlighting the need for further research in other sectors of the economy that contribute to communication. Future studies should explore communication-sensitive sectors such as radio stations, television networks, and social media platforms.

Additionally, incorporating other study variables into business growth strategies would enhance the robustness of the findings. This could involve examining factors such as customer engagement, technological innovations, and market trends, which may provide a more comprehensive understanding of competitive advantage across different sectors. Expanding the scope of research in these areas can lead to valuable insights that benefit both academia and industry practitioners.

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