ISSN:2455-7838 (Online)
DOI : 10.36713/epra2016

SJIF Impact Factor(2022) : 8.197 ISI I.F Value : 1.241

EPRA International Journal of

RESEARCH & DEVELOPMENT

(IJRD)

Monthly, Peer Reviewed (Refereed) & Indexed International Journal

Volume - 7 Issue - 10 October 2022

ISSN (Online): 2455-7838
SJIF Impact Factor (2022):8.197
ISI I.F. Value : 1.241
DOI : 10.36713/epra2016

EPRA International Journal of

Research & Development

(IJRD)

Monthly Peer Reviewed & Indexed International Online Journal

Volume: 7, Issue:10, October 2022

Indexed By:

Published By
EPRA Publishing

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

CONTRIBUTION OF TOP MANAGEMENT LEADERSHIP AND COMMITMENT TO INNOVATION TOWARD EFFECTIVE CRISIS MANAGEMENT AT SAFARICOM PLC KENYA

Joseph Wachira Muiru
Student, Kenya Methodist University

ABSTRACT

There are many similarities between organizational innovations and crisis management. A crisis can take many different shapes. If not properly managed, a crisis can lock an organization out of business. The objective of the study was to determine and establish the contribution of product innovations toward effective crisis management at Safaricom PLC Kenya. The study was supported by the Dynamic Capability Theory and the Resource Based View Theory. A total of 90 employees of Safaricom Kenya drawn from various departments formed the study's target population. The study sample was 30 employees computed as 30% of the target population. The data collection instrument for this study was a structured questionnaire. The program, Statistical Package for Social Sciences (SPSS) version 25 was used to code the data and then analyze it. Both descriptive statistics (frequency, means, and percentages) and inferential statistics were used to examine the data (regression analysis). Graphs and tables were used to present the findings. The study established that effective crisis management was not significantly predicted by top management leadership and commitment. The study established product innovation was a significant predictor of effective crisis management. Safaricom's product innovation strategy focuses on improving product performance during a crisis. The study concluded that product innovation strategy though well focused was not adequate during a crisis. The study thus, recommended that the top management team at Safaricom PLC should consider carrying out research and development (R & D) so that appropriate product innovation strategies that focus on the improvement of product performance and product quality during a crisis are developed. The findings of this study can be utilized by the management at Safaricom Kenya Limited in guiding the formulation of supportive policies and procedures that enhance the contribution of product innovation to effective management.

KEYWORDS: *Safaricom PLC Kenya, Product innovation, Organizational Innovations, Effective Crisis Management*

INTRODUCTION

The global work environment has become increasingly complex and unstable as a result of rapid development. An organizational crisis is a high-impact, low-probability that presents a risk to the organization's survival. Uncertainty regarding the causes, impacts and available solutions characterizes it and a conviction that decisions need to be taken immediately. A crisis might occur as a consequence of an industry-wide economic downturn or recession, or it can occur as a result of both internal and external factors (Głodziński & Marciniak, 2016). Crises make it easier for businesses to use new product ideas created quickly by others, but they also make it more difficult, and these innovations come in handy as crisis management enablers (Bessant et al., 2015).

Organizational innovation is one of the most significant and challenging issues that business organizations must deal with. This is because studies have demonstrated that innovation significantly affects an organization's performance and survival (Alharbi, Jamil, Mahmood and Shaharoun, 2019). This enhances flexibility and inventiveness, which encourages the development of technical advances (Monson, 2017). Innovative organizational practices are essential components of crisis response plans. The telecommunication sector has not been left behind, as the sector continues to experience innovations year after year, in this ever-dynamic world.

Internet of Things (IoT) devices and sensors in practically every area of the technological economy are affected by them. Other trends in the telecommunications sector for 2022 include connectivity technologies, 5G network and technology; cloud computing, artificial intelligence, cybersecurity, high-resolution content, and communication models (Husami, 2022). The COVID-19 epidemic

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

and rising worldwide connectivity give telecom firms several chances to expand their subscriber bases and introduce cutting-edge products and services (Altman, 2022).

In the Philippines, Trabaho (2022) pointed out that, amidst COVID-19, companies that can swiftly create new products and services are better positioned to adjust to shifting market conditions. According to the analysis, 83% of non-R&D-intensive firms were adversely affected by the 2020 pandemic, compared to 60% of R&D-intensive enterprises that were questioned in 2019.

By the end of 2019, the population of Sub-Saharan Africa was 45% women. There were 477 million subscribers to mobile services. Over the next five years, the mobile market in the area will hit numerous significant milestones, including half a billion mobile customers in 2022. By 2024, there will be 1 billion mobile connections, and by 2025, there will be 50% of subscribers (GSM Association, 2020).

The growth of mobile technology has led to a combined total of 70.98 million customers throughout Uganda, Kenya, and Tanzania, or nearly 58% of their combined population. The Three countries have a total of 15 million, 29.2 million, and 26.8 million, subscribers, correspondingly. With 74% of the population using mobile services, Kenya has the highest penetration rate; Tanzania came next with 62 percent, and Uganda with 42.4 percent (International Finance Corporation, 2015).

Over the past three decades, the telecommunications sector has been growing invisibly around the globe (Neirotti *et al.*, 2016). The number of persons entering the telecom business has increased throughout this period as well. Many people have decided to access fixed phone lines, the internet, and cell phones. In this way, several nations are resolving to promote finance-related growth. Today's fastest-growing economies, China and India provide several essential standard components. One of the world's major telecom markets is China, and according to expert estimates, more than 1.25 million new mobile subscribers join each week (Pyramid, 2018).

With an average fan base of around 149.2 million people in Africa, Nigeria is arguably the finest medium for transmitting innovations on earth (Nigerian Communication Commission [NCC], 2017). The base of supporters is always growing, and a piece of it has consistently provided significant advantages for undertakings. Nigeria's Gross Domestic Product (GDP) is mostly supported by telecommunication, which accounts for 9.1% of the country's GDP (Nwakanma et al., 2018).

Three mobile phone providers, Safaricom Limited and Airtel Kenya Limited, and Telkom Kenya Limited control the majority of the country's telecom market. The services provided are mainly basic voice and text messages -SMS, and to a lesser extent, data, facsimile, voicemail, and electronic mail. Through organizational innovations, Safaricom has grown into the present-day gigantic status in the East African region (CCK, 2021). Data and broadband subscriber numbers during the second quarter of the fiscal year 2021–2022, which concluded in December 2021, were revealed to be 46.35 million and 29.15 million, respectively. The overall number of 3G and 4G subscribers during the review period, as determined by Kenya's ICT regulator Communications Authority, was stated as 28.36 million (Abuya, 2022).

Table 1. 1: Market Share Summary for Mobile and fixed broadband coverage

Data Service Provider	Subscriptions	Market share (%)
Dimension Data	11.1K	1.4
JTL	157K	19.7
Liquid	14K	1.8
Mawingu	11.4K	1.4
Poa!	71K	9.0
Safaricom	293K	36.8
Telkom Kenya	4.4K	0.6
Truth Wireless	600	0.1
Wananchi Group	229K	28.7
Others	4.4K	0.6

Source: CCK (2022)

With several service categories licensed separately as infrastructure or facility public telecommunications service providers and none facility service providers, the sector has a market structure that is characterized by technology and services. Other authorized operators include VoIP-using IBGOs like Jamii Telecom Ltd., wireless LLOs like Popote Wireless Ltd., Flashcom Ltd., and Access Wireless Ltd., and PDNOs like Kenya Data Network (Communications Commission of Kenya (CCK), 2021).

Safaricom Limited was founded in April 1997 as a subsidiary of KPTC to provide mobile phone services. On 26th May 2000 Vodafone Plc Group of UK acquired 40% shares with TKL retaining 60% to form a JV company (Safaricom Limited, 2021). Vodafone transferred 5% shares to an off-shore firm, Mobitelea Ventures Ltd, registered in Guernsey Island, through Vodafone Kenya Ltd (The East Africa, 20-26 November 2006; Daily Nation, 9 March 2007; 10 August 2007). The company's mission is to "be Kenya's

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

mobile communication leader" by enhancing the lives of its users and promoting more mobile connectivity among people, organizations, and communities. Customer satisfaction, staff contentment, individual and collective accomplishments, and corporate social responsibility are the core principles of the company (Safaricom Company Limited, 2022).

Safaricom's aggressive marketing strategies and provision of its products in areas where no other competitors operate (Abuya, 2022). Organizational crisis presents both danger and an opportunity at same time. At Safaricom the business model is to be aware of the danger and recognize the opportunity. Systems of activities, capabilities, and resources that enable businesses to provide the value offer to consumers and gain a competitive edge are known as value creation and delivery processes, value capture, which demonstrates how firms generate revenues and profits from delivering its value propositions, are all components of a business model (Baldassarre, Calabretta, Bocken, & Jaskiewicz, 2017).

Due to the intense rivalry in Kenya's telecommunications sector, Safaricom has been wise to focus on organizational innovation as a means of standing out from competitors by offering distinctive services and products that address new consumer needs (Kanyingi, 2018). Investment is also channeled towards making innovation useful for crisis management. Safaricom is eager to broaden its creative problem-solving methodology in order to better serve the demands of its clients and the general public (Safaricom Company Limited, 2022).

In the 2019 fiscal year, Safaricom Ltd reorganized our Strategy and Innovation Division and created the new position of Chief Business Development Officer. These five teams—Strategy, Innovation, Market Research and Consumer Insights, Big Data and Analytics, and Regional Growth make up what is currently known as the Business Development Division. These are considered useful contributors towards crisis management. It is important to find out whether the introduced organizational innovations contribute towards effective crisis management at Safaricom (Safaricom Company Limited, 2022).

Statement of the Problem

Ideally, organizations need to cushion themselves to be able to survive during crisis and in the post crisis era. Additionally, as a way of ensuring that these businesses continue to be relevant in the market, they need to create and implement new strategic plans focused on creating, carrying out, and offering process improvements. Research studies show that organizations that appropriately utilize sound organizational innovations are able to withstand crisis related business setbacks (Scott & McMurray (2022). The telecommunication sector is one of the sectors that thrive much on innovations owing to its global competitiveness and the ever-dynamic market environment. One of the major companies in the sector in Kenya is the Safaricom Company. The company needs to retain a competitive advantage in the telecommunication arena and continue catering to the needs of its customers even in times of crisis. Mushrooming new technologies, novel customer products, and customer demands require innovation to become their core strategic objective.

Research studies in the telecommunication sector in Kenya appear to have ignored to focus on organizational innovations as crisis management strategies. The focus has been on the link between organizational innovations and organizational performance and organizational growth. For instance, a study by Letangule and Letting (2012) discovered that these firms improved organizational performance as a result of their use of innovative techniques. A study by Njoroge *et al*, (2016) found that innovations positively influenced the organizational performance of telecommunication companies in Kenya. According to Ngugi and Mutai's (2014) study on factors impacting the growth of mobile telephony in Kenya at Safaricom Limited, innovation contributes to the growth of mobile telephony. This, therefore, implies that there was limited research on the contribution of product innovations on crisis management.

Objective

To establish the contribution of product innovations toward effective crisis management at Safaricom PLC Kenya innovation strategies

Research Questions

What is the contribution of product innovations towards effective crisis management at Safaricom PLC Kenya innovation strategies?

Theoretical framework

This study is supported by the Dynamic Capability Theory by David Teece, Gary Pisano, and Amy Shuen" in 1997, The Schumpeter Theory of Innovation by Joseph Schumpeter in 1994 and the Resource Based View Theory by Birger Wernerfelt (1984), and Jay Barney in 1991.

Empirical Literature

The study's empirical review is presented in this section.

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

Crisis Management

Effective crisis management, according to Marker (2020), happens when a company uses competent preparation and a proactive response to completely prevent a crisis, reduce its intensity and duration, or transform it into an opportunity. A crisis is described as an unanticipated occurrence or circumstance that immediately jeopardizes priorities or restricts the ability of the business to operate or flourish.

The business world of today is dynamic and somewhat predictable. Additionally, Customers' demands for project execution flexibility in terms of time, cost, quality, and scope are increasing as a result of the intense rivalry among project-based businesses. Due to the aforementioned factors, many entities strike a balance between sustainability and unsustainability. The organization should continuously use the crisis management idea to prevent degradation. One of the most often used tools supporting business operations, risk management, appears inadequate in the aforementioned circumstances.

Jugo (2013) explained that crisis communication strategies that are both proactive and reactive have their uses, and both need extensive planning. No company should ever wait until a problem spirals out of hand before formulating a strategy. Organizations fail there, managers are fired, and businesses crumble. In light of this, we will discuss the nature of crisis communication, the distinctions between proactive and reactive crisis communication strategies, and their function in reputation management.

Some businesses are at risk of extinction during times of crisis (O'Reilly III & Tushman, 2011). Crises endanger business organizations' initiatives and stunt their progress since they have a detrimental effect on every aspect of the external business environment (Dhochak & Sharma, 2015). For example, in times of crisis, organizations have very few funding opportunities owing to poor capital market efficiency, lack of information, and economic component deficiencies (Cowling *et al.*, 2012; Mason & Harrison, 2015). Governments should encourage NGOs to offer SMEs various forms of support, such as consultations, training, advice, and direction, as well as emotional support, to help them deal with the challenges brought on by crises.

Organizational Innovation

Adapting the core to meet changing customer needs is a more urgent action to take during a crisis. Other necessary actions include recognizing and swiftly addressing new opportunity areas brought about by the changing environment, reassessing the portfolio of innovation initiatives to make sure resources are allocated appropriately, and laying the foundation for post-crisis growth to maintain competitiveness throughout the recovery period (Am, Furstenthal, Jorge & Roth, 2020). Changes in the organization structure, adjustments to the workforce, creation of new markets and acquisitions of a new raw material source, changes to the enterprise's market position, adjustments to the economic, social, and environmental policies, and changes to the control system are all examples of innovations that can be used to get the company out of a crisis.

Businesses in underdeveloped nations (like Vietnam) have less access to information and have less protection for their property rights (Welter and Smallbone, 2011). As a result, it is challenging for them to innovate like their peers in industrialized nations (Nguyen et al., 2016). In such an organizationally volatile and resource-constrained context, it is easier to understand why Vietnamese enterprises utilize organizational innovation more frequently than any other type of innovation (Nguyen *et al.*, 2013). They gain expertise via repetition, which enables them to perform better the more they use it. The results of this study show that businesses in Vietnam should give innovation in workplace organization and business practices greater consideration since these two factors have a strong beneficial impact on performance. Organizational innovation performance in one area is unaffected by organizational innovativeness in other areas, therefore businesses can carry out each of the organizational innovation components separately or concurrently.

According to Niemien (2020), organizational innovation culture is crucial for crisis management. An organization that really encourages and promotes innovation may be said to have an innovation culture if there are persistent, visible patterns of behavior that allow individuals to actively drive innovation throughout the company. According to a metanalysis research by Nieminen (2020), a staggering 64% of the studies indicated a major barrier to innovation as the issue with the least amount of cultural support. Only 6% of executives reported being happy with their performance in terms of innovation, and this was ascribed to a lack of effort and support.

Organizational innovation, according to Zaied and Affes (2016), improves work quality, information interchange, learning capacity, and the utilization of new technologies and knowledge to increase a company's success. Organizational innovation should therefore possibly enhance corporate performance. The results of this study show that businesses in Vietnam should give innovation in workplace organization and business practices greater consideration since these two factors have a strong beneficial impact on performance. Organizational innovation performance in one area is unaffected by organizational innovativeness in other areas, therefore businesses can carry out each of the organizational innovation components separately or concurrently. In reality, according to OECD (2005), organizational innovation may boost employee happiness and productivity at work and/or lower administrative and transaction costs, both of which can boost profitability even in times of crisis.

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

According to Am, Furstenthal, Jorge, and Roth (2020), a number of Norwegian businesses were persistent in their organizational innovation between 1999 and 2004, and this persistence increased the (positive) effects of organizational innovation on their performance. A major financial and human toll is incurred during crises, particularly the one we are currently experiencing. Assets and human capital are left stranded, and there is enormous social and economic disruption. The introduction of new business models is a result of disruption, which is a forerunner to many of these processes. For instance, the sharing economy emerged from the emergence of marketplaces for underutilized assets as a result of the financial crisis of 2009 thanks to technology, which caught incumbents off guard as people sought for much-needed additional revenue streams. The 2002 SARS epidemic that wracked Asia and forced its residents to take refuge in their homes served as the catalyst for the expansion and broad acceptance of e-commerce in that region, making China the hub of social commerce innovation.

Gódziski and Marciniak (2016) conducted research on crisis management in project-based enterprises and its characteristics and looked into the range and significance of organizational innovations. The study found that the key components of crisis response techniques are organizational innovations. By implementing organizational innovations, the entity will experience short-term gains as they work to increase the company's adaptability, flexibility, and control over ongoing initiatives.

Product Innovation

The term "new product" has been defined and its boundaries explained in many ways in the literature. According to Sheng, Hartmann and Chen (2015), Multinational Corporation's product innovation refers to their capability to introduce and develop new products that will fulfill needs across multiple country markets. Crawford describes a new product as " one that the company requires new marketing for, conveys the major changes, but avoids any alterations that would call for straightforward promotions " (Kim, Park & Sawng, 2016). For "new products," there are several categorization categories. Four groups may be created from these new products. These are significant product upgrades, new additions, and repositioned products.

A high degree of perceived crisis may lead to higher new product performance, according to Samra, Zhang, Lynn, and Reily's (2019) investigation of how organizations handle crises in new product development (NPD) in the United States. Survey research is used to gather information from 119 NPD teams in high-tech companies so as to conduct hypothesis testing. The study established that the development of few products or services were an effective way of managing crises. The results show that the relationship between new product performance and perceived crises is somewhat mediated by formal communication.

Xiao et al. (2016) looked at whether sharing knowledge always leads to better team decision-making. The study looked at the concealed profile condition for developing new products. According to the study, businesses that are going through a crisis frequently have the opportunity to take a bigger risk on a brand-new product that would guarantee their survival. A new product may be effectively introduced along with competent NPD process management, providing a remedy for this dilemma. To address such a dangerous issue, the NPD team might create a new product.

Wenzel, Stanske, and Lieberman (2020) studied strategic responses to the crisis. The study established that it is challenging to mobilize new product innovations early in a social crisis since private enterprises must first focus on protecting existing operations in the short term, this typically includes cost-cutting measures like layoffs. The study findings suggested that product innovations contributed positively to crisis management.

According to Ndesaulwa and Kikula (2017), there are two reasons why product innovation improves an organization's productivity and outcomes. The first issue is that new technological innovations and product advancements won't be viewed as cost-effective measures but rather as a significant improvement to the company's performance. Furthermore, in order to show how well this company is using its capital, these spending needs are tied to the expenses of production. Additionally, a higher ratio shows that management is very open to adopting and being creative with developing technology, whereas a lower proportion shows the opposite, indicating an antiquated, non-innovative attitude to corporate development.

Velegol (2020) claims that the majority of chemical industry research and development (R&D) facilities are closed or are only accessible to limited personnel. Many of the conventional innovation tactics used by R&D executives and organizational managers are no longer applicable, despite their desire to innovate during this period. You and they are not alone in this; virtually all businesses in the chemical process industries (CPI) are now dealing with similar issues and are concerned about the future. Engineers and researchers are balancing conflicting demands while spending less time in labs or on-site facilities as they strive to stay useful to their organizations.

RESEARCH FINDINGS AND DISCUSSIONS

A total of 29 out of the targeted 30 employees completed the surveys correctly and returned them. A 98% response rate was shown by this. Self-administered questionnaires were employed, and a 98% response rate was reported. Additionally, respondents were informed that the data they provided would be kept confidential. This was adequate for the researcher to provide trustworthy

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

conclusions and suggestions. For surveys conducted on paper, a 75% response rate is recommended (Nulty, 2008). In light of this, the research's reached response rate was adequate. Additionally, Bell and Costa (2006) claimed that when the response rate rises, the non-response error reduces. The response rate, in this case, was good as a consequence.

The results show that the male respondents made up 55% of the respondents, while females made up the remaining 45%. The results imply that staff had worked there for a period long enough to be able to provide the data sought by the study. The use of responses from staff having varied service tenures helped the researcher eliminate the possibility of bias based on length of service. The results show that 34.5% of the respondents held degrees or above in their academic backgrounds. Another 27.6% of respondents held a master's degree, while 27.6%, 27.6%, and 2.60 % of respondents had academic credentials at the diploma and certificate levels, respectively. most of the participants were in the age bracket of 25 to 35 years. The results suggest that the researcher was able to collect data from respondents with varying levels of qualification, thus eliminating research partiality based on demographics.

Descriptive Statistics Results for the contribution of Product Innovation towards Crisis Management

The respondents were prompted to rate how much they agreed or disagreed with several statements on the benefits of product innovation for crisis management at Safaricom Kenya. Their responses were guided by a Likert scale of 1 – 5 was used, that is, (1) = Strongly Disagreeing; (2) = Disagreeing; (3) = Neutral; (4) = Agreeing; (5) = Strongly Agreeing. The results were as provided in Table 1.

Table 1's findings demonstrate that the claim that the organization's product innovation strategy focuses on enhancing product performance during crisis recorded a mean score of 3.44. The reported mean score when rounded off is 3.0, thus, equivalent to the 'neutral' response strength. This shows that according to most of the employees, the organization's product innovation strategy focuses on improving product performance during crises. The findings are in agreement with Reynolds, Ho, and Zach (2020) who established a product innovation strategy that focuses on improving product performance, which is useful for crisis management.

The findings revealed that the statement asserting that the organization's product innovation strategy focuses on enhancing product quality recorded a mean score of 3.759. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom's product innovation strategy focuses on enhancing product quality. The results concur with those of Ndesaulwa and Kikula (2017)'s investigation where it was established that a product innovation strategy that focuses on enhancing product quality contributed favorably toward effective crisis management.

The results show that the statement asserting that the organization has been keen on the introduction of new products during crisis recorded a mean score of 3.9655. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom has been keen on the introduction of new products during a crisis. The results are consistent with a research by Samra, Zhang, Lynn, and Reily (2019) who established that the development of new products or services was an effective way of managing crisis.

The findings revealed that the statement asserting that the organization's product innovation strategy focuses on improving existing products during crisis recorded a mean score of 3.966. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom's product innovation strategy focuses on improving existing products during a crisis. The findings are in agreement with those in a study by Reynolds, Ho, and Zach (2020) who established that a product innovation strategy that focuses on improving existing products during a crisis was effective.

Table 1: Descriptive Statistics Results for the contribution of Product Innovation towards Crisis Management

	N	Min	Max	Mean	Std. Deviation
Our product innovation strategy focuses on improving product performance during the crisis	29	1.00	5.00	3.4483	.90972
Our product innovation strategy focuses on enhancing product quality	29	1.00	5.00	3.7586	.91242
The organization has been keen on introducing new products during the crisis	29	3.00	5.00	3.9655	.73108
Our product innovation strategy focuses on improving existing products during the crisis	29	2.00	5.00	3.8276	.80485
Valid N (listwise)	29				

Source: Survey data (2022)

Descriptive Statistics Results for Effective Crisis Management

The participants were asked to mark the assertions about effective crisis management at Safaricom Kenya they agreed with. Their responses were guided by a Likert scale of 1 – 5 was used, that is, (1) = Strongly Disagreeing; (2) = Disagreeing; (3) = Neutral; (4) = Agreeing; (5) = Strongly Agreeing. The results were as provided in Table 2.

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

The findings show that the statement suggesting that the organization benefits from skillful planning during crisis recorded a mean score of 3.7586. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom company benefits from skillful planning during a crisis. The findings agree with a study by Marker (2020) who found that skillful planning during a crisis was a strong indicator of effective crisis management. The findings in Table 2 show that the statement suggesting that the company's organization can provide a proactive response during crisis recorded a mean score of 3.5862. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom Company can provide a proactive response during a crisis.

The results show that the statement suggesting that the company can uphold a customer-first mentality during crisis recorded a mean score of 3.7586. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom Company can uphold a customer-first mentality during a crisis.

The results in Table 2 show that the statement suggesting that organization supports a response coordination system in place that effectively tackles shortcomings after a crisis recorded a mean score of 3.897. The reported mean score when rounded off is 4.0, thus, equivalent to the 'agree' response strength. This shows that according to most of the employees, Safaricom Company supports a response coordination system in place that effectively tackles shortcomings after a crisis. The results concur with those of a Struckman and Yammarino investigation (2003) who found that a response coordination system in place that effectively tackles shortcomings after a crisis was an indicator of effective crisis management.

Table 2: Descriptive Statistics Results for Effective Crisis Management

	N	Min	Max	Mean	Std. Deviation
Our organization benefits from skillful planning during a crisis	29	2.00	5.00	3.7586	.78627
Our organization can provide a proactive response during a crisis	29	2.00	5.00	3.5862	.73277
Our organization can uphold a customer-first mentality during a crisis	29	1.00	5.00	3.7586	.83045
Our organization supports a response coordination system in place that effectively tackles shortcomings after a crisis	29	2.00	5.00	3.8966	.90019
Valid N (listwise)	29				

Source: Survey data (2022)

Correlations

Correlations between Organizational Innovations and Effective Crisis Management at Safaricom PLC, Kenya

Table 3 presents the correlation results between organizational innovations and effective crisis management at Safaricom PLC, Kenya. The findings show that product innovation and effective crisis management have a positive Pearson correlation as follows: ($r = 0.563$, $p = 0.001$). This demonstrates that there was a link between successful crisis management and product innovation. This association is statistically significant due to the p-value (0.005) being smaller than the test significance limit ($p < 0.05$). The results suggest that a unit increase in product innovation attracts a unit increase of 0.563 towards effective crisis management. It, therefore, means that product innovation contributed favourably towards effective crisis management.

Table 3: Correlations between Organizational Innovations and Effective Crisis Management at Safaricom PLC, Kenya

		Effective Crisis Management
Product Innovation	Pearson Correlation	.563
	Sig. (2-tailed)	.001
	N	29
Effective Crisis Management	Pearson Correlation	1
	Sig. (2-tailed)	
	N	29

*. Correlation is significant at the 0.05 level (2-tailed).

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

Regression Analysis

This section displays the results of the multiple regression analysis that was performed to establish the relationship between the independent and dependent variables. The variables that were investigated include the relationship between top management leadership and commitment, product innovation, process innovations and market innovations (Independent variables), and effective crisis management (dependent variable).

Model Summary

How much of the variance in the dependent variable can be explained by the independent variables is shown by the R Square value in the Model Summary table. At Safaricom PLC, the independent factors presented in Table 4 below explained 50.9 percent (R Square) of the variation in the contribution to successful crisis management. This implies that top management leadership and commitment, product innovation, process innovations, and market innovations collectively contribute toward effective crisis management at Safaricom PLC. Effective crisis management and all of the independent variables entered to have a multiple correlation coefficient 761 (R-value). As the number of variables rises, the Adjusted R Square corrects for a bias. The standard error of the estimate serves as a gauge for forecast precision. There is a need to carry out further research to identify other organizational stress management strategies that will account for the remaining 49.1% (that is, 100% – 57.9%) at Safaricom PLC.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761[a]	.579	.509	.35065

a. Predictors: (Constant), Market Innovations, Product Innovation, Top Management Leadership, and Commitment, Process Innovations

Analysis of Variances (ANOVA)

When Sig. (p-value) is $p < 0.05$, the predictors (the independent variables) in the research are significant. Table 4.11's data demonstrate that the p-value was 0.000. The relationship between the independent variables (market innovations, product innovations, top management leadership and commitment, and process innovations) and successful crisis management at Safaricom PLC is significant, as determined by the p values being less than 0.05 (test significance level). Our predictions are much more accurate than would be anticipated by chance because p 0.05. The following is a summary of the regression line that organizational innovations predicted: We may infer that the regression is statistically significant since $F(4, 24) = 8.259$; $p = 0.000$. These results suggest the combined contribution of organizational innovations toward effective crisis management is statistically significant.

Table 5: Analysis of Variances (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.062	4	1.015	8.259	.000[b]
	Residual	2.951	24	.123		
	Total	7.013	28			

a. Dependent Variable: Effective Crisis Management

b. Predictors: (Constant), Market Innovations, Product Innovation, Top Management Leadership and Commitment, Process Innovations

Beta Coefficients for Organizational Innovations

The Beta Coefficients concerning regression outputs are presented in Table 5. The estimated equation was as shown below:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mathcal{E}$

Effective Crisis Management = 1.796 Constant + 0.069 Top Management Leadership and Commitment + 0.668 Product Innovation - 0.624 Process Innovations + 0.633 Market Innovations + 0.504 Standard error.

The results show that all the predictors except top management leadership and commitment had p values less than 0.05, and thus were significant predictors. The p values were as follows: Top Management Leadership and Commitment (0.717), Product Innovation (0.001), Process Innovations (0.005), and Market Innovations (0.002). Since the constant value in the model is significant and

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

standardized coefficients beta scores rather than unstandardized B-coefficients are utilized, and all independent variables have identical (Likert) scales.

The multiple regression results show that top management leadership and commitment had a beta coefficient of ($\beta_1 = 0.069$; $p = 0.717$). This also means that an increase in top management leadership and commitment by one unit would increase effective crisis management by 0.069 units. Moreover, with a p-value greater than 0.05 test significance level, it means that top management leadership and commitment was not significant predictor of effective crisis management. The findings agree with

The multiple regression results show that product innovation had a beta coefficient of ($\beta_2 = 0.668$; $p = 0.001$). This means that a decrease in product innovation by one unit would result in a decrease in effective crisis management by 0.668 units. This implies that product innovation was a significant predictor of effective crisis management.

The multiple regression results show that process innovations had a beta coefficient of ($\beta_3 = -0.624$; $p = 0.005$). This means that an increase in Market Innovations by one unit would result in a decrease in effective crisis management by 0.624 units. This implies that process innovations were not significant predictors of effective crisis management.

The multiple regression results show that market innovations had a beta coefficient of ($\beta_4 = 0.633$; $p = 0.002$). This means that a decrease in product innovation by one unit would result in a decrease in effective crisis management by 0.633 units. This implies that market innovations were significant predictors of effective crisis management.

Table 4. 1: Beta Coefficients for Organizational Innovations

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.796	.504		3.56	.002
	Top Management Leadership and Commitment	.038	.104	.069	.367	.717
	Product Innovation	.514	.143	.668	3.59	.001
	Process Innovations	-.515	.167	-.624	-3.09	.005
	Market Innovations	.482	.136	.633	3.555	.002

a. Dependent Variable: Effective Crisis Management

CONCLUSIONS

The study concludes that product innovation was a significant predictor of effective crisis management. This is supported by the fact that the organization's product innovation strategy focuses on improving product performance during a crisis. Safaricom's product innovation strategy focuses on enhancing product quality. The study concluded that product innovation strategy though well focused was not adequate during a crisis.

RECOMMENDATIONS

The top management team at Safaricom PLC should consider carrying out research and development (R & D) so that appropriate product innovation strategies that focus on the improvement of product performance and product quality during a crisis are developed.

The management of Safaricom PLC should consider organizing update training for its employees engaged in process innovations to boost effective crisis management.

There is a need for the management to roll out a stringent policy. The company should consider engaging experts who can guide product offerings (services) alterations to better meet the demands of its customers. The company needs to improve its process to be able to offer higher-quality services as the latest automated service delivery solutions (such as computers and mobile phones).

REFERENCES

1. *Abu, R. S. (2016). The impact of transformational leadership on preparing for crisis management. The Jordan Journal of Business Administration, 12(3), 713-729*
2. *Abuya, K. (2022). Safaricom is Now Unmatched in Fixed Broadband Subscriptions. https://techweez.com/2022/04/06/fixed-broadband-subscriptions-in-kenya/*
3. *Adamu, A.A., Mohamad, B. (2019). A reliable and valid measurement scale for assessing internal crisis communication. Journal of Communication Management, 23(2), 90–108.*
4. *Alharbi, I., Jamil, R., Mahmood, N. and Shaharoun, A. (2019) Organizational Innovation: A Review Paper. Open Journal of Business and Management, 7, 1196-1206. doi: 10.4236/ojbm.2019.73084.*
5. *Baldassarre, B., Calabretta, G., Bocken, N. M. P., & Jaskiewicz, T. (2017). Bridging sustainable business model innovation and user-driven innovation: A process for sustainable value proposition design. Journal of Cleaner Production,*

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

https://doi.org/10.1016/j.jclepro.2017.01.081.

6. *Bessant, J., Rush, H., & Trifilova, A. (2015) Crisis-driven innovation: the case of humanitarian innovation. International Journal of Innovation Management, 19, 06, 1–17.*
7. *Burke, W.W. (2008), Organization Change: Theory and Practice, 2nd ed., Sage Publications, Thousand Oak, CA.*
8. *Chang, J. Bai, X. Li, J. J. (2015). The influence of leadership on product and process innovations in China: The contingent role of knowledge acquisition capability. Ind. Mark. Manag. 50, 18–29.*
9. *Cowling, M., Liu, W., & Ledger, A. (2012). Small business financing in the UK before and during the current financial crisis. International Small Business Journal, 30(7), 778–800. https://doi.org/10.1177/0266242611435516.*
10. *Dhochak, M., & Sharma, A. K. (2015). Impact of global financial crisis on Indian venture capital firms: An empirical evaluation. Journal for International Business and Entrepreneurship Development, 8(4), 330–345. https://doi.org/10.1504/JIBED.2015.072931.*
11. *Gai, W. M., Du, Y., & Deng, Y. F. (2018). Evacuation risk assessment of regional evacuation for major accidents and its application in emergency planning: A case study. Safety science, 106, 203-218.*
12. *Ho, H. W. C. Huang, Lin, C.Y. J. & Yen, F. (2016). CEO overconfidence and financial crisis: evidence from bank lending and leverage. J. Financ. Econ., 120, pp. 194-209*
13. *Husami, K. (2022). Top Telecom Innovations 2021. Retrieved on 10th June 2022 from https://www.insidetelecom.com/telecoms/top-telecom-innovations-2021*
14. *International Finance Corporation (2015). Powering Telecoms: East Africa Market Analysis Sizing the Potential for Green Telecoms in Kenya, Tanzania, and Uganda. Green Power for Mobile. Available at https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/10/GPM-Market-Analysis-East-Africa-v3.pdf*
15. *Kim, Y. H., & Park, S. W., & Sawng, Y. W. (2016). Improving the new product development (NPD) process by analyzing failure cases. Asia Pacific Journal of Innovation and Entrepreneurship. 2016;10(1):134-150*
16. *Krugman, P. (2013) End this Depression Now, New York: W. W. Norton & Company.*
17. *Lee, J. Y., & Welliver, M. C. (2018). The role of strategic leadership for learning about the relationship between training opportunities and salesperson job performance and commitment. European Journal of Training and Development, 42(9), 558-576.Available at: https://doi.org/10.1108/ejtd-08-2017-0068*
18. *Mansaray, H. (2019). The Role of Leadership Style in Organizational Change Management: A Literature Review. Journal of Human Resource Management 7(1), 18. DOI:10.11648/j.jhrm.20190701.13*
19. *Marker, A. (2020). The Most Useful Crisis Management Examples: The Good, Bad, and Ugly. https://www.smartsheet.com/content/crisis-management-examples*
20. *Mason, C. M., & Harrison, R. T. (2015). Business angel investment activity in the financial crisis: UK evidence and policy implications. Environment and Planning C: Government and Policy, 33(1), 43–60. https://doi.org/10.1068/c12324b.*
21. *Mbogo, R. (2020). Leadership Roles in Managing Education In Crises: The Case of Kenya During Covid-19 Pandemic. European Journal of Education Studies, 7(9), 207 - 227*
22. *Monson, G. (2017). Organizational Culture and Innovation. Available at https://courses.lumenlearning.com/boundless-management/chapter/adapting-and-innovating/*
23. *Neirotti, P., Raguseo, E. & Paolucci, E. (2016). Are customers' reviews creating value in the hospitality industry? Exploring the moderating effects of market positioning. International Journal of Information Management, 36(6), 11331143. https://doi.org/10.1016/j.ijinfomgt.2016.02.010.*
24. *Nguyen, V.T., Le, T.B.N. and Bryant, S. (2013), "Sub-national institutions, export strategy, and firm performance: a multilevel study of private manufacturing firms in Vietnam", Journal of World Business, Vol. 48 No. 1, pp. 68-76.*
25. *Nigerian Communication Commission (2017) Active telecoms subscribers slide by 2.11% in April. Nigerian Communication Commission*
26. *Pyramid, A. (2018). Current State of Chinese Telecom Industry. http://www.columbia.edu/itc/sipa/nelson/newmediadev/china.html.*
27. *Reynolds, N. Ho, C. & Zach, J. (2020). Product Development in Crisis Time -Extrapolating learnings from previous crisis to COVID-19 pandemic on Product Testing. The 3rd Asian Sensory Conference, Kuala Lumpur*
28. *Safaricom Company Limited, (2022). Innovation. Retrieved on 20th August 2022. Available at https://www.safaricom.co.ke/sustainabilityreport_2019/our-material-topics/innovation/*
29. *Safaricom Company Limited (2021). Company Profile and History. Available at https://www.ide.go.jp/English/Data/Africa_file/Company/kenya03.html*
30. *Samra, Y.M., Zhang, H., Lynn, G.S., & Reilly, R.R. Crisis management in new product development: A tale of two stories. Technovation, 88, DOI: 10.1016/j.technovation.2018.06.001*
31. *Soble, J. & Boudette, N. (2017). Kobe steel's falsified data is another blow to Japan's reputation https://www.nytimes.com/2017/10/10/business/kobe-steel-japan.html (2017), Accessed 10th April 2022 accessed*
32. *Sapprasert, K. & Clausen, T. (2012). Organizational innovation and its effects, Industrial and Corporate Change, 21(5), Pages 1283–1305,*
33. *Stiles, S., Ryan, B., & Golightly, D. (2018). Evaluating attitude to safety leadership within rail construction projects. Safety Science, 110, 134-144.*
34. *Welter, F. and Smallbone, D. (2011), "Institutional perspective on entrepreneurial behavior in changing environment", Small Business Management Journal, 49(1), pp. 107-125.*

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 10 | October 2022 - Peer Reviewed Journal

35. *Wenzel, M., Stanske, S., and Lieberman, M.B. (2020) Strategic responses to the crisis. Strategic Management Journal, Virtual Special Issue, 41, V7–V18.*
36. *Zaied, R. M. B. & Affes, H. (2016), "The relationship between the sources of knowledge management, organizational innovation and organizational performance", International Journal of Information, Business and Management, 8(3), pp. 185-206.*
37. *Zhu, J., Song, L. J., Zhu, L., & Johnson, R. E. (2019). Visualizing the landscape and evolution of leadership research. The Leadership Quarterly, 30(2), 215-232.*
38. *Zou, Y. and Fan, P. (2022) How Top Management Commitment on Diversity Leads to Organizational Innovation: The Evidence from China. Journal of Human Resource and Sustainability Studies, 10, 246-261. doi: 10.4236/jhrss.2022.102016.*