



SILVER BULLET IMPLEMENTATION AND CORPORATE PERFORMANCE IN NIGERIAN TELECOMMUNICATION FIRMS

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Abstract

The Nigerian telecommunication sector has experienced a booming effect and has become a leading player in the telecommunication market of Africa. Nevertheless, companies operating in this industry are challenged with a myriad of problems such as network overload, lack of reliability of services, customer turnover and stiff competition among companies in the market. As a counter, telecommunication firms, especially the smaller companies such as T2 Mobile (formally 9mobile) have resorted to technological solutions as one of the possible solutions. Silver bullet implementation-the idea of having one technological solution to solve several organizational issues-has become a trend in the industry. New technologies like Artificial Intelligence (AI), Cloud Computing and 5G technologies are perceived to have the potential to transform the game to improve service delivery, operational efficiency and customer satisfaction. The paper is a critical analysis of how innovations in silver bullets can affect the corporate performance of the Nigerian telecommunication firms and specifically T2 Mobile. The study evaluates the effectiveness of these individual technologies in enhancing market share and customer experience and operational performance using a combination of conceptual, theoretical and empirical reviews. Although such innovations present a great potential, the paper has pointed out the dangers of excessive dependence on one technological solution without a strategic orientation and organizational preparation. The paper uses a critical discussion of the Resource-Based View (RBV), Innovation Diffusion Theory and Dynamic Capabilities Theory to provide a comprehensive strategy in the adoption of technology within the Nigerian telecom industry. The results propose that to achieve long-term corporate performance, telecommunication companies need to implement multi-dimensional innovation practices that are capable of merging technological solutions and organizational change. The paper ends with a conclusion stating that the Nigerian telecom companies (and, in particular, T2 Mobile) should strategically coordinate technological innovations with long-term objectives, invest in the training and management of changes, and refer to a customer-centric approach to the successful deployment of AI, cloud, and 5G technologies.

Keywords:

Corporate Performance, Technological Innovation, Silver Bullet, Nigerian Telecommunication, T2 Mobile, AI, Cloud Computing.

Introduction

The telecommunications industry in Nigeria has undergone an impressive development during the last twenty years, and it has passed the stage of the monopoly of NITEL to the stage of a competitive market where tens of players provide various types of services. Deregulation, the rise in use of technology, and the rise in the demand of mobile and internet services have fuelled this trend (Adebayo and Onuoha, 2022). Nigeria currently has a telecommunications market that has more than 200 million mobile subscribers and an increasing broadband penetration making it one of the largest telecom markets in Africa (NCC, 2023).

Although this is an impressive growth, the sector is having major challenges that endanger its capacity to maintain and expand its success. These issues are network overload, high operation costs, loss of customers and quality of service. Telecommunication companies have responded by investing more in technological innovation as a solution to these problems and to enhance performance within the company. This incorporates the implementation of single, frequently high-impact technologies or what is commonly known as the silver bullets.

Silver bullet implementation is the process of implementing one miraculous technological solution, which is thought to fix several organizational problems. Silver bullets are commonly new technologies such as artificial intelligence (AI), cloud computing, or 5G networks, which in the telecommunications sector are claimed to transform the customer service, network performance, and operational efficiency. Although it is true that such technologies can immensely transform the performance of corporations, their application has been subject to debate especially when used on an individual basis or without appropriate alignment with the overall strategic and operational objectives of the company.

The increasing competition pressure in the Nigerian setting and the emergence of new players, such as T2 mobile (previously 9mobile), makes the necessity to find and effectively introduce solutions that will not only help to cope with the issue of service delivery but also increase its market share and customer satisfaction. Nonetheless, the overemphasis on technological solutions, and specifically on a single innovation, can risk being overly blind to holistic approaches where organizational change, market research, and strategic investments are involved.

Since the Nigerian telecom industry is still in the development stage, the question remains to be whether a one-size-fits-all technological solution (i.e., a silver bullet) can solve the challenges experienced by these companies or will a multi-faceted, multi-layered approach in innovations be needed to achieve long-term success. This paper, thus, aims to examine the role played by silver bullet implementation on corporate performance of Nigerian telecom companies with special interest on T2 Mobile, which has been experiencing a major rebranding and restructuring process.

Statement of the Problem

Despite massive expansion of telecommunication industry in Nigeria, there are a number of challenges that bedevil telecommunication companies. The competition is still very strong with major market players like MTN, Airtel, and Globacom having their large market shares. Smaller companies such as T2 Mobile (previously 9mobile) have not been able to keep a competitive

advantage, as the companies have encountered issues with service outages, substandard customer service, and brand loyalty (Okoye & Obi, 2021).

The complexity of the Nigerian market is what makes these problems even more complicated as they have a variety of customer needs, unstable regulatory environment, and insufficient infrastructure. With these problems, most telecom companies are resorting more to technology-based solutions. They consider the innovations such as AI, cloud computing, and 5G to be like silver bullets: innovative and game-changing solutions that can help solve several organizational issues at the same time.

Nevertheless, such a single-focus on technological innovations as silver bullets can be a problem in a number of ways. To start with, it may cause over-simplification of problems telecom companies have since it presupposes that technology can solve such problems as brand loyalty, organizational culture, and consumer behavior. Second, even though AI, cloud infrastructure, and 5G can enhance the quality of services, customer satisfaction, and operational efficiency, the inability to develop the technological integration with the rest of the organizational setup could result in the sub-optimality of outcomes (Ibrahim and Olorunfemi, 2023).

This research will fill such gaps in the literature by critically analyzing the effects of implementation of silver bullet on corporate performance of the telecom firms in Nigeria. In particular, it will aim at examining how technologies, such as AI, cloud computing, and 5G can be used to enhance the competitive positions, service delivery, and operational performance of companies, such as T2 Mobile, that tried to use these innovations to regain their place in the market. The question that the study will also venture into is whether these technologies would, when used alone, be able to offer a sustainable competitive advantage in the market which is highly dynamic and competitive.

Objectives of the Study

The objective of this study is to explore the role of silver bullet innovations in enhancing corporate performance in Nigerian telecommunication firms, with a focus on T2 Mobile (formerly 9mobile). The specific objectives are as follows:

1. To assess the impact of technological innovations such as Artificial Intelligence (AI), Cloud Computing, and 5G technologies on corporate performance in Nigerian telecom firms.
2. To investigate the role of silver bullet strategies in improving key performance indicators, such as market share, customer satisfaction, operational efficiency, and profitability.
3. To analyze the risks and challenges associated with overreliance on singular technological solutions in Nigerian telecom firms, particularly with regard to organizational readiness, market dynamics, and customer loyalty.
4. To explore alternative strategies for enhancing corporate performance in the Nigerian telecom sector, including multi-dimensional innovation approaches that integrate technology, customer-centric policies, and organizational transformation.

Significance of the Study

This study provides valuable insights into how technological innovations (often perceived as silver bullets) can contribute to corporate performance in Nigerian telecommunication firms. It is significant in several ways:

1. **Theoretical Contribution:** The study contributes to the literature on innovation management and corporate performance in developing economies, particularly in the telecommunications sector. It expands the theoretical understanding of silver bullet strategies and their limitations, providing a critical evaluation of their effectiveness in Nigerian telecom firms.
2. **Practical Implications:** For managers and executives in the telecommunications industry, the study offers practical insights into how to effectively implement technological innovations while ensuring that these innovations are aligned with the company's broader strategic goals. The study also provides a roadmap for integrating technologies like AI, Cloud, and 5G into existing business models.
3. **Policy Implications:** The findings of this study will inform policymakers, regulatory bodies, and industry stakeholders about the challenges and opportunities that arise from adopting innovative technologies in Nigeria's telecommunications sector. This information can guide policy development, regulation, and industry strategies aimed at improving service delivery, customer satisfaction, and operational efficiency.

Literature Review

Conceptual Review

Silver Bullet Implementation

The following section is aimed at elaborating the implementation process of the Silver Bullet system in the clinic to be used to improve the efficiency of communication and reduce the rate of physician turnover.

When applied to the business strategy, the term silver bullet implementation can be described as the implementation of a high-impact solution that will supposedly address a broad spectrum of organizational issues (Kumar and Rao, 2021). These solutions are frequently linked with such technological innovations as AI, Cloud computing, and 5G that are likely to provide solutions to several pain points like service failures, network overload, and customer dissatisfaction.

Nevertheless, the dangers of silver bullet implementation are the excessive use of technology and failure to consider the general organizational requirements like readiness to culture, training of employees, and strategic alignment (Ibrahim and Oli, 2024). Silver bullets can result in short term profits but will not provide long term success unless they are part of a larger strategy that would fit the objectives of the firm and market forces.

Corporate Performance in Telecommunications

Corporate performance is simply defined as the capacity of a given organization to attain its financial and operational objectives. Onyali and Okerekeoti (2020) state that the corporate performance of telecommunications is measured through a collective of both financial-based (e.g., profitability, ROI, market share) and non-financial measures (e.g., customer satisfaction, service reliability, brand loyalty). In the case of the telecom companies of Nigeria, the performance indicators play a significant role in determining the financial health of the company as well as retaining and satisfying customers, which is very important in the context of a highly competitive environment.

Theoretical Review

Resource-Based View (RBV): According to the Resource-Based View (RBV) of the firm, competitive advantage is based on valuable, rare, and inimitable resources (Barney, 2020). Technological progress and advancements like AI and cloud computing can help telecom firms, such as T2 Mobile, to create a competitive advantage. Nonetheless, another object of focus of RBV is that such technologies should be consistent with the resources and capabilities of the firm, such as infrastructure, client base, and organizational culture (Okoye & Obi, 2021). Silver bullets can work only when they are well amalgamated with the existing resources and strategy of the company.

Innovation Diffusion Theory: This theory describes the steps an innovative product generally goes through before it gets accepted. The Innovation Diffusion Theory can help to understand the process of spreading technologies within organizations. It determines the stages of adoption whereby the first to adopt are the innovators, and the last to adopt are the laggards. Nigeria Telecom companies that embrace the latest technology such as 5G as one of the first would be in the position to be at a competitive advantage. Nonetheless, companies that rush too fast or do not prepare their infrastructure sufficiently can have difficulties with implementation (Adebayo and Onuoha, 2022).

Dynamic Capabilities Theory: The Dynamic Capabilities Theory (Teece, 2020) is concerned with the capacity of a firm to change and reorganize its resources to respond to the needs of an unstable environment. In the case of the Nigerian telecom companies, the application of the silver bullet innovation will need dynamic capabilities in applications like network, customer relationship management and operational efficiency. Telecom companies not only need to embrace new technologies but constantly need to modify them in the current customer need and market environment.

Empirical Review

Artificial Intelligence (AI) in Telecommunications

Research on the use of AI in telecommunications underscores the application of AI in enhancing operational efficiency and customer service. As an example, Busayo et al. (2023) discovered that customer support systems powered by AI decreased their waiting time and also enhanced their

personalization of services in the African telecom companies. In a similar manner, Akpan et al. (2024) have shown that the AI-based network management systems assisted the Nigerian telecom companies in optimizing resource distribution, minimizing service disruptions.

Cloud Computing and Market Share.

Cloud computing is one of the most important technologies among Nigerian telecom companies that are in need of enhancing their scalability and service delivery. Adebisi and Olorunfemi (2022) explained that cloud-based solutions helped companies save money on operations and deliver services faster and more effectively, as well as to expand the services due to the needs of more customers. Nonetheless, their paper also observed that initial capital investment needed to deploy cloud infrastructure may act as a tie-down when it comes to smaller companies such as T2 Mobile.

5G Technology and Customer Experiences.

The 5G technology will offer high-speed internet and increase internet reliability, which will provide better customer experience and service delivery. Ogunleye and Idowu (2022) studied how 5G can be used to enhance the capacity and speed of the networks among telecommunication companies in Nigeria. Whereas major players in the market such as MTN and Airtel have started to roll out 5G, smaller players like T2 Mobile have financial and technical limitations to compete with the market giants.

Risk of Overreliance on Silver Bullets.

Silver bullet strategies are prone to over the top simplification, which is highlighted in the empirical studies of the topic. Ibrahim & Oli (2024) concluded that companies that implemented AI and other silver bullet technologies without adapting them to the wider organizational objectives were extremely challenged. Such companies tended to ignore such important issues like employee training, cultural preparedness and change management that are required to implement technological innovations successfully.

Methodology

The research design adopted in this study is a qualitative research design, which is dependent on the secondary data obtained through academic journals, industry reports, and case studies of telecommunication firms. T2 Mobile (previously 9mobile) and its efforts to deploy AI, cloud computing, and 5G technologies as solutions of silver bulbs are analyzed using a case study approach. The current scholarly literature and industry reports are used to gather data about recent years 2020-2023 to guarantee that this information is relevant and appropriate. The content analysis will be applied to determine the patterns in the literature and determine the efficacy of the silver bullet implementations on corporate performance measures.

Discussion

The adoption of silver bullet solutions like Artificial Intelligence (AI), Cloud Computing and 5G has emerged as an appealing strategic intervention among the Nigerian telecommunication companies to enhance corporate performance. These technologies are promising in a great way but the focus of this discussion is to concentrate on the complex interaction of their adoption, the problems which companies experience and the key factors which are critical in ensuring that they achieve sustainable performances.

Technological Innovations as a Catalyst for Corporate Performance.

The technological advances, especially artificial intelligence, cloud computing, and 5G are commonly said to be game-changers in the telecommunications industry. These technologies have the potential to improve operations greatly, such as reducing costs, increasing service quality, and the customer experience (Akpan et al., 2024). As an illustration, telecom networks that use AI-driven predictive maintenance systems would greatly minimize the network downtimes, which directly affect customer satisfaction. Equally, cloud computing makes telecom companies scale their activities and be able to control the network traffic in a more economical manner, reducing the operating costs in the process (Adebayo & Onuoha, 2022).

The implementation of AI and cloud technology in the case of T2 Mobile can be a possible source of salvaging and repositioning in the market. Implementing AI in customer services may help the company to ease call wait times, increase customers self-service, and offer personalized customer experiences. This might eventually result into greater customer loyalty and better brand image- which is highly crucial when a firm is struggling to win the trust of consumers once more after a disastrous relationship with its former brand persona, 9mobile.

Moreover, cloud computing will give T2 Mobile a chance to optimize infrastructure without necessarily having to invest heavily on the physical hardware. This will assist the company to resolve the challenge of network overload and service failures, which have been a thorn in the flesh of most telecom companies in Nigeria (Akinyemi & Ogunleye, 2022).

Lastly, the emergence of 5G technology is providing the potential unmatched by the telecom companies of Nigeria. The 5G is capable of enhancing user experience due to the faster internet speed and reduced latency, and enables more users to use the technologies that are being developed, including Internet of Things (IoT), smart cities, and autonomous vehicles. In the case of T2 Mobile, the implementation of 5G has the potential to make the company stand out in the market dominated by the presence of the MTN and Airtel, as well as appeal to high-value customers who would require more reliable and high-speed mobile services.

Overreliance on Singular Technological Solutions: Risk and Challenges.

Regardless of the bright benefits, there exist significant risks related to the excessive use of silver bullet solutions, such as AI, cloud computing, and 5G. Possible simplification of the complicated organizational issues is one of the fundamental issues. Silver bullet solutions are seen as the fast solution to the deeply rooted problems like customer trust, network management, and employee

engagement. Although these technologies can certainly improve some aspects of the performance of the firm, they are not likely to fix some internal strategic and operational issues on their own.

Nigerian telecom companies have been experiencing empirical studies on the adoption of AI and cloud computing and have identified some barriers to its implementation. Ibrahim and Oli (2024) state that organizations such as T2 Mobile encounter high barriers to the implementation of AI and cloud technologies because of infrastructure constraints, inadequate human and regulatory barriers. Also, preliminary expenses of implementing such technologies are prohibitory to firms with small financial means. To take an example, although AI can also improve customer service, it will only succeed once an integrated data architecture is present, accurate, and scalable. Unless T2 Mobile has the underlying systems to manage and process data appropriately, the entire benefits of AI are not likely to be realized.

In addition, excessive focus on single technological solutions can overlook other important elements that drive corporate performance which include leadership capacity, organizational culture, and strategic alignment. Failure to have them may result in implementation failure, where new technologies are implemented without becoming part of the larger strategic system of the firm (Ibrahim and Olorunfemi, 2023). Indicatively, the leadership at T2 Mobile should not just invest in the new technologies, but also create a culture that would encourage learning, innovation and flexibility, as an ongoing process. This involves the maintenance of a balance between organizational change and the use of technology.

Strategies Alignment and Organizational Readiness: Key to Successful Implementation.

Although silver bullet technologies have the potential, their successful implementation should be based on the strategic alignment of the firm and the readiness of the organization. According to the Resource-Based View (RBV), the achievement of technological innovation depends on how compatible it is with the already existing resources and capabilities of the firm (Barney, 2020). In the case of T2 Mobile, it is about making sure that the AI, cloud infrastructure, and 5G technologies are incorporated into its current network, customer support platforms, and brand strategy.

The dynamic capabilities framework focuses on the value of organizational flexibility to deal with technological changes (Teece, 2020). Companies that are capable of retuning their internal strengths in response to new technologies are in a better position to get competitive advantage. In the case of T2 Mobile, this would include the training of employees on the effective use of AI-based tools, smooth integration of cloud services into its current network environment, and readiness to operate in the 5G environment in the future.

In addition, companies should formulate an effective change management plan that will help them overcome the issues that come about with the emergence of new technologies. Ibrahim and Olorunfemi (2023) report that technology introduction among the Nigerian telecom companies is largely opposed by the fear of being displaced by those systems and also the perceived complexity of new systems by the employees. That is why to initiate its technological innovations

successfully, T2 Mobile will need to invest in training, concentrate on employee involvement, and establish the organizational culture that should be open to the digital transformation.

Customer-Centered Approach: Integrating Technological Solutions with Consumer Needs

Another significant factor to consider by the T2 Mobile and other telecom companies in Nigeria is the customer-focused nature of the technological solution to the issues. Although AI, cloud computing and 5G are capable of improving service delivery, the end result of these innovations with regard to customer satisfaction relies on how they achieve their expectations. The quality of the AI-based customer service systems, such as success, is determined by how well they respond to customer queries fast, accurately and with a personalized response.

Another instance of a silver bullet innovation that should be in close touch with customer needs is the implementation of 5G technology. Unless 5G is able to provide physical enhancements in the quality of its services, including higher internet speed, lower latency, and a more reliable system, customers will not be very impressed by them. T2 Mobile should make sure that the installation of 5G is supported with sufficient customer education, clear communications, and affordable prices to make it usable and appealing to its target audience.

The Role of Multidimensional Innovation Strategies.

Although silver bullets can lead to short-term performance boost, the Nigerian telecom market needs multidimensional aspects of innovation strategies to ensure long run success. The companies should have to strike a balance between technological innovation and organization, market research, and interaction with customers. In the case of T2 Mobile, this may entail the diversification of its technology use, the application of AI in customer service, cloud computing to optimize the infrastructure, and the use of 5G to enhance service delivery, as well as the need to focus on brand differentiation, customer loyalty and market penetration practices.

There is also multi-dimensional innovation that considers the use of organizational change, strategic partnerships, and leadership development other than technology. T2 Mobile might consider partnering with investors and technology providers to share the financial cost of innovation with ensuring that the new technologies are appropriately integrated into the business model of such company.

Recommendations

Based on the findings from this study, the following recommendations are made for T2 Mobile and other Nigerian telecom firms seeking to leverage technological innovations for corporate performance:

1. Integrate Silver Bullet Innovations into a Holistic Strategy: Firms should ensure that technological innovations like AI, Cloud Computing, and 5G are not treated as standalone solutions but are integrated into a broader strategic framework that addresses operational challenges and aligns with the firm's long-term goals.

2. Invest in Organizational Readiness: Firms must ensure that they have the necessary resources, including skilled labor, infrastructure, and organizational culture, to support the implementation of new technologies. Training programs, change management, and leadership development are key to ensuring successful technology adoption.
3. Leverage Customer-Centric Innovation: Technological solutions must be tailored to meet customer needs. For T2 Mobile, this means ensuring that AI and 5G technologies deliver tangible improvements in service delivery, customer engagement, and satisfaction.
4. Adopt a Multi-Dimensional Innovation Approach: Telecom firms should diversify their innovation strategies to include both technological solutions and organizational transformation. This can include partnerships with tech providers, expanding the service portfolio, and enhancing customer relationships.
5. Monitor and Evaluate the Impact: Finally, telecom firms must continuously monitor and evaluate the impact of technological innovations on their performance metrics. This includes tracking customer satisfaction, market share, and operational efficiency to ensure that silver bullet solutions are driving sustainable improvements.

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