

Consumers' Perception on Quality Service Delivery of Two Major Telecommunication Companies in Sierra Leone: A Comparative Study

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Abstract

Customers' perception of quality service delivery is beneficial in any competitive company to enhance its growth and expansiveness. This comparative study assesses and analyses customers' perceptions of customer satisfaction with quality service delivery. This study also analyses customer retention intentions for two major telecommunication companies, Africell and Orange Mobile Companies, in Sierra Leone, with intrinsic development and implementation of global business strategies. The concentrated competition and fluctuating reliability of any company pushes companies to focus on service quality for increased customer satisfaction, customer loyalty, and organizational profitability. The methodology implored in this study is the citizen's perception survey. The data was collected through the use of a smartphone with the KoBo Collect application for people within the research district and the sharing of Google Forms remotely via social media for citizens in other districts. This is to ensure the information is triangulated correctly in the analysis. Data analysis was done through Microsoft Excel as a simple tool that produces charts that depict comparisons of the quality of service delivery of the two selected telecommunication companies in Sierra Leone. To enhance quality service delivery, the results and conclusions of this paper could be used to develop lessons learned. Hence, the paper is a comparative study of two companies. With other subsequent research, an in-depth lens of examination will be placed on the results and conclusions to develop a strong rock of understanding of global business strategies. Recommendations are provided to ensure that other communication companies in the country improve their quality of service delivery to attract more customers or subscribers.

Keywords

Growth and expansiveness, Organizational profitability, Global business strategies, Service delivery, KoBo Collect

1. Introduction

In the 21st century, telecommunication has arisen as an effective service in all aspects. It has played a significant role in communication, which has made it almost impossible to conceptualize modern society without

telecommunication services. It has made a significant contribution to personal communication and even to the preservation of community identities (Ure, 2008).

Accordingly, as much as they need to subscribe to the voice and data services of telecommunications, customers' expectations for different telecom services, particularly mobile voice and data services, have been rising day by day in the past decade. The telecommunications business has seen tremendous changes and competition in the Middle East. The power of buyers and subscribers is increasing, and their decisions are becoming sensitive to factors such as price, value, and service quality (Rajasekar & Al Raei, 2013). Telecom companies are exerting significant efforts to satisfy customers and gain their loyalty by improving their service quality (Kotler and Keller, 2012; Lawfer, 2004; Russell and Taylor, 2011).

1.1 Problem Statement for a Comparative Study

In Sierra Leone, Africell Group is a mobile technology company providing voice, messaging, data, mobile money, and other integrated telecom services to over 12 million subscribers across Africa as a continent. The company has approximately 10,000 direct and outsourced employees and currently operates in four countries: The Gambia, Sierra Leone, the Democratic Republic of Congo, and Uganda. It launched its first commercial operations in The Gambia in 2001 before entering Sierra Leone in 2005 and building up a solid market leadership position in both West African countries. Since then, Africell Group has expanded south and east into the Democratic Republic of Congo (2012) and Uganda (2014).

Africell's strategy is limited to moving into markets to "make a positive difference" in terms of reducing prices, covering more territory, and improving internet speed and reliability. There has been significant subscriber growth in all four markets since 2010. The group is undergoing rapid expansion due to strong demographic trends in Africa (in terms of age, education, urbanisation and other factors), deepening telecom penetration in most African countries, and the increasing availability of affordable smartphones, which, in addition to helping individual customers, have a multiplier effect on wider economic growth in Africa ("Africell Group | Company Profiles"; Africa Outlook Magazine Retrieved on 2021-03-06).

On the other hand, Orange Sierra Leone now has 1.5 million customers. 6.4 million People live in Sierra Leone, a significant number of them in rural areas. Despite GDP growth of 4.3% in 2016, the country's economy (mainly based on diamond and gold mining) remains fragile and dependent on the US dollar.

Sierra Leone shows significant growth potential when substantial investments are underway to expand the 3G network. This network, which already offers good coverage in Freetown and the main cities, will eventually offer Internet access to customers living outside major cities. With a penetration rate of 50%, the outlook for the mobile market is promising. Similarly, the low banking rate opens up great opportunities for Orange Money, which could benefit nearly one customer in two (<https://intranetorangesonatel.wordpress.com/all-about/orange-sierra-leone/history>).

Other studies have shown the expansiveness of Orange and Africell companies and the services provided by these companies in the country, but have yet to show how these services affect the attitudinal loyalty of customers. Izogo (2017) suggests a need for further research in this area, for a broad consensus has yet to emerge on the effects of distinct components of quality, customer commitment, and loyalty. Customers' perceived quality of service is the key factor informing service loyalty (Caruana, 2002; Kotler and Keller, 2012). Customer evaluation of the services (quality) and their response to the service providers (loyalty) are vital for sustainable business relationships (Oliver, 2006). The extant literature reveals a causal link between service quality, customer satisfaction, and customer loyalty (Davis-Sramek et al., 2009; Gustafsson et al., 2005; Izogo, 2017, Ladhari and Leclerc, 2013).

The key focus of the study is to assess the customer's perception of quality service delivery, significantly impacting customers and subscribers by providing a comparative analysis study on two major telecommunication companies (Orange and Africell) mobile companies in Sierra Leone. Thus, this study aimed to achieve that.

2. A Comparative Study Approach

2.1 Global Business Strategy Concept

A global strategy is one that a company uses when it wants to compete and expand in the global market. In other words, a strategy is pursued when businesses wish to expand internationally. A global strategy refers to the plans an organization has developed to target growth beyond its borders. Specifically, it aims to increase the sales of

goods or services abroad. "Global strategy" is, in fact, a shortened term that covers three strategies: international, multinational, and global. Companies must pursue strategies in those three areas if they wish to expand internationally. When a company wants to pursue a global strategy, it needs to determine whether it is international, multinational, transnational, or global (<https://marketbusinessnews.com/financial-glossary/global-strategy/>). If the company's primary focus remains on its home markets, its approaches outside of those markets may be considered international (Lynch, 2006).

The alignment of worldwide computer-based information systems and integrated business strategies is critical to the success of multinational firms in a highly competitive global market. B. Ives, SL Jarvenpaa, RO Mason, IBM Systems Journal, 1993.

2.2 Strategic Management Concept

The core aspect of the strategic management concept is to create a competitive advantage and to guide the company through all the major changes that take place in the environment. Hence, the environment is dynamic and not stable. Strategic management thus focuses on the management process of developing a vision, setting objectives, crafting a strategy, implementing and executing the strategy, and taking corrective actions or controls whenever they are deemed appropriate.

Strategic management shifts its focus from meeting the budget to planning for the future, thinking abstractly and working to create the desired future over time. This is to enhance companies' orchestration and integration of their organizational resources, build flexibility into the organizational processes, and enhance a supportive, participative atmosphere within the company to gain a competitive advantage.

2.2.1 External Factors

The ability of a company to quickly identify and respond to changes in the external environment determines the company's stability and profitability. These changes could be in the economy, politics, competitors, customers, or even the weather. All these are uncontrollable factors that can influence an organization's performance. Change is certain, hence having the flexibility to deal with an unexpected market.

A shift in government policy deemed common could have a significant effect on a business. Proposed legislation at the federal and state levels might legally require a company to make changes to its operations and therefore become a critical success factor.

While external factors like government policy changes are sometimes unexpected, that doesn't mean you can't prepare for them. The most effective way for a business to prime itself to be flexible and adaptive is to develop a framework for conducting an environmental or external scan to collect relevant information about the outside world, your competitors, and your company itself. External factors that affect a business, Arah Kang (<https://www.clearpointstrategy.com/external-factors-that-affect-a-business/>, 12 Jun 2018).

Rajasekar J. (2014) proposed seven factors that affect implementation strategy. The results demonstrate that leadership is by far the most important factor influencing the successful implementation of strategy in enterprises.

2.2.2 Internal factors

The company's development in the market conditions depends on its quick response to changing consumer needs and its capacity to adapt to them. An important factor in the company's advancement is the strategic management of innovation processes, which constitutes a set of objectives and tasks focused on the implementation of new approaches, methods, and management systems by exploiting its internal resource capacities. (Oksana Shatilo, January 2020). Nowadays, the existing information systems offer company managers information with a focus on and detailed description of the internal environment parameters (technology, organization of production, and retrospective series on financial and economic performance). Hevko, O.B., Shveda, N.M. (2016).

2.3 Literature Review

The utmost focus of every telecommunication company is to ensure they provide quality service delivery for their customers. This will make the customer or subscriber feel special because they have received better service. To enhance a satisfying and sustainable relationship with customers, the delivery of quality service is considered a core determinant for competitive advantage. According to previous studies, service quality is an important indicator of customer satisfaction (Spreng and Machoy, 1996).

The definition of quality may vary from person to person and from situation to situation. The definitions of service quality vary only in wording but typically involve determining whether perceived service delivery meets, exceeds, or fails to meet customer expectations (Cronin and Taylor, 1992; Oliver, 1993; Zeithaml, Berry, and Parasuraman, 1993).

In the 1980s, service quality was initiated as a worldwide trend when marketers realised that only a quality product could guarantee and maintain competitive advantage (Boshoff and Gray 2004).

Service quality is defined as the degree and direction of discrepancy between the consumer's perceptions and expectations, or the extent to which a service meets or exceeds customer expectations. Parasuraman (1988). The quality of a service depends on that service's constantly conforming to customers' expectations (Mevvis and Janiszewski, 2002).

Parasuraman, Zeithaml, and Berry (1988, 1990) projected a service quality model that identified five dimensions of perceived service quality into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy.

- **Tangibles:** The appearance of physical facilities, including the equipment, personnel, and communication materials.
- **Reliability:** The ability to perform the promised service dependably and accurately.
- **Responsiveness:** The willingness to help customers.
- **Assurance:** The knowledge and courtesy of employees and their ability to convey trust. This assurance includes competence, courtesy, credibility and security.
- **Empathy:** The provision of caring, individualised attention to customers. This empathy includes access, communication, and understanding the customer.

Attention to service quality can make an organization different from other organizations and gain a lasting competitive advantage (Boshoff and Gray, 2004). In particular, consumers prefer service quality when the price and other cost elements are held constant (Turban, 2002). According to Brady and Robertson (2001), service quality helps to create the necessary competitive advantage by being an effective differentiating factor. According to Parasuraman et al. (1985), service quality can be defined as the consumer's comparison between service expectation and service performance.

To provide improved quality service, telecommunication companies need to investigate the degree of customers' sensitivity and expectations toward service quality. Armed with such information, telecommunication outfits are then able to strategically focus on service quality objectives and procedures to fit the Malaysian market (Loke, S. P., Taiwo, A. A., Salim, H. M., Downe, A. G., and PETRONAS, U. T., 2011). Pariseau and McDaniel (1997) argued that if there is an agreement that service quality exceeds, meets, or falls below expectations, there would be a common ground for continuation or improvement of the service quality level.

Companies that provide additional service benefits such as promotions or pay a small amount of money to get a better and more efficient service are more likely to succeed. These services are sometimes considered to meet customers' needs, so at a lower price, they give customers good services.

2.4 Framework Selection

This study conducted a comparative analysis of two major telecommunication companies on consumers' perceptions of quality service delivery between Africell Mobile Company and Orange Mobile Company in Sierra Leone. Strategic management concepts were used as a framework in the study to analyse the formulation of their various global business strategies. Therefore, in analysing the two companies, the following stages of approaches were used:

- Study the strength and weaknesses and resources of both companies
- Find out the companies' capabilities that enhance them to do better than their competitors.
- Find out the potential of both companies' resources and abilities to enhance a competitive advantages
- Positioned an attractive industry of both companies.
- Identified the best strategies selected by the companies to utilize their resources and capabilities relative to opportunities in the external environment.

- Formulation and implementation of companies’ key successes of companies to attain their above average return is due to the strategy.

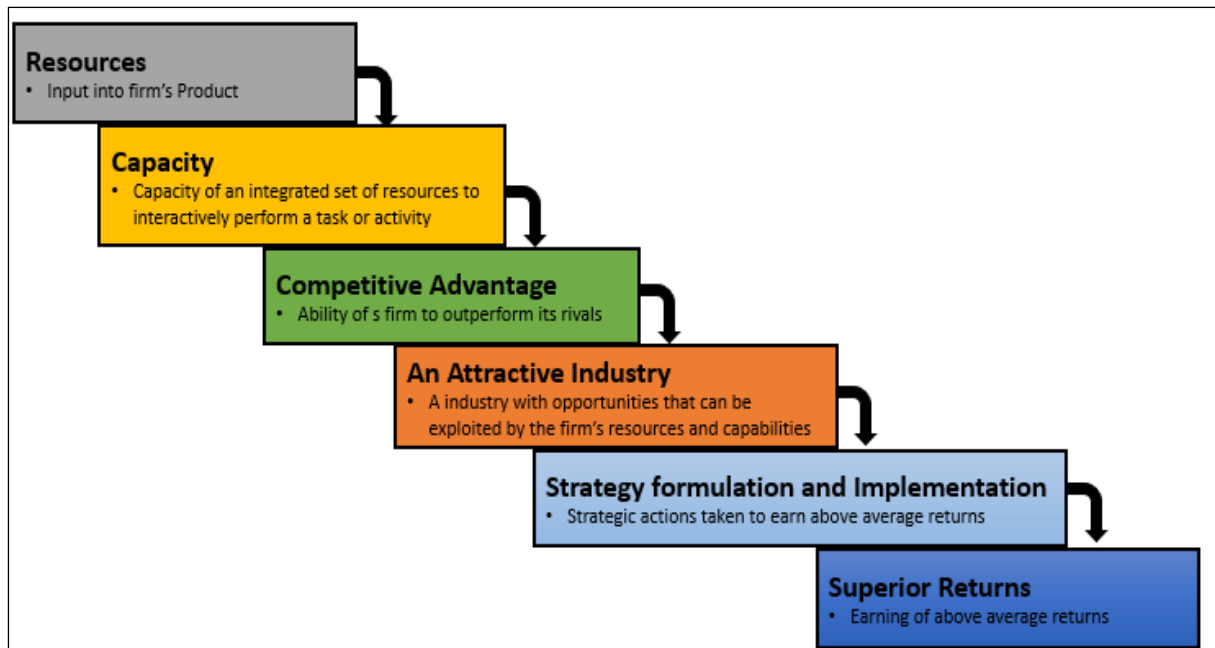


Figure 1: Framework employed in this study

Comparative Study

An open data source was employed to conduct the data collection exercise. Use the Google search engine (Google Scholar) to search for Africell and Orange key words and journals on the related study on customers’ perception of quality service delivery. Several options for the key words and journal search showed up, but the most relevant one that appropriately suited the study was selected.

3. Result and Analysis

The study identified six aspects, such as: resources, capabilities, competitive advantage, attractive industry, strategy formulation, and superior returns. Based on the frame work comparison of the two companies, the data collected was summarized and emphasised in a tabular form as shown in Table 1 below.

Table 1. Summary of both companies’ comparison

Aspect	Africell	Orange
Resources	<ul style="list-style-type: none"> • Voice, messaging, data, mobile money, and other integrated telecommunications services • It has over 12 million subscribers across Africa. • It has approximately 10,000 direct and outsourced employees. • There are only a limited number of outlet booths available throughout the country. 	<ul style="list-style-type: none"> • New switch to handle voice traffic changing all core equipment • Connected to well over 900 new localities with thousands of Sierra Leoneans now able to access data, voice and financial services • Has 1.5 million customers and ranks number two in the market • Established country wide outlet booths
Capabilities	<ul style="list-style-type: none"> • Undergoing rapid expansion due to strong demographic trends in Africa (in terms of age, education, urbanisation and other factors), • Increasing availability of affordable smartphones. • Promotions-Organised Christmas and Ramadan promos 	<ul style="list-style-type: none"> • Multitude of upgrades including the replacement of 180 generators and 282 DC power modernisation of 250 sites for single RAN mode • Sponsorship- provision of hygiene packs for girls, inter-secondary school competition, the open classroom, solar kits for school children and football tournaments

Aspect	Africell	Orange
Competitive advantage	<ul style="list-style-type: none"> • Currently operates in four countries (The Gambia, Sierra Leone, Democratic Republic of Congo, and Uganda.) • Will launch operations in a fifth country, Angola, in 2021. • An extensive portfolio of 3G and 4G services • Providing Africell money service • Expensive purchase of internet data bundle 	<ul style="list-style-type: none"> • Launch of a new data centre • Removal of the \$0.02 tax on local interconnect call and the coming reduction of the MTR to \$0.025 • Being the first to bring Orange mobile money to Sierra Leone- The ability to transfer funds, pay bills, save, borrow • High-speed broadband mobile internet • Launch of its 4G service in 2019 • Reasonable purchase of internet data bundle
An attractive industry	In terms of growth, innovation and disruption, telecom sector still remains to be at the epicentre. In the fabric of society nowadays, mobile device and associated broadband connectivity continue to be more entrenched thus driving the thrust around key trends like Internet of things (IoT) mobile payment and video streaming, etc <i>"2017 Telecommunications Industry Outlook - Deloitte US". Deloitte United States.</i>	
Strategy formulation and implementation	<ul style="list-style-type: none"> • strategy is only to move into markets in which it can "make a positive difference" in terms of reducing prices, covering more territory, and improving internet speed and reliability 	<ul style="list-style-type: none"> • Efforts to become a digital transformation partner of choice
Superior returns	<ul style="list-style-type: none"> • Secured a \$100m loan facility from the US Government's International Development Finance Corporation (DFC) • Africell's strategy involves developing fintech products and services such as micro-payments, micro-insurance and micro-finance to investing in mobile network operations and telecommunications infrastructure, • Holds approximately 60% market share of the telecoms sectors in the country 	<ul style="list-style-type: none"> • Invest in excess of \$55 million in a major network overhaul • Implementation of a new network platform for prepaid billing and management • Launched new mobile financial services such as micro loans.

The study identified the fundamental similarities between the two companies and how each of them implements the global business strategy design. Both companies have established a financial loan service and a mobile money transaction for their subscribers/customers. For Africell, the mobile money service is known as Afrimoney, and the Orange mobile money service is known as Orange money. The companies are both providing voice, messaging, and data for their subscribers to enhance service quality delivery. In spite of this backdrop, Africell has over 12 million subscribers across Africa and holds approximately 60% market share of the telecoms sector in the country. It appears that Africell has researched the market opportunity in order to expand its business and capitalize on it. Also, Africell's strategy involves developing fintech products and services such as micro-payments, micro-insurance, and micro-finance to invest in mobile network operations and telecommunications infrastructure, which would make a positive difference in terms of reducing prices, covering more territory, and improving internet speed and reliability.

Nonetheless, Orange Mobile Company was the first to introduce mobile money transactions, which are widely and easily used across Sierra Leone. Orange has established outlet booths across the country for easy encashment of mobile money transactions. Since it took over from Airtel mobile company, it has been conducting a multitude of upgrades, including the replacement of 180 generators and 282 DC power modernisation of 250 sites for single RAN mode, the removal of the \$0.02 tax on local interconnect calls, and the coming reduction of the MTR to \$0.025 to ensure communication is affordable to every subscriber. The Orange mobile company established the call roaming service by which your local number could be reached if you travelled outside of the country, Sierra Leone, to other parts of West Africa. Also, your number could be recharged with credit from home, even when roaming.

Moreover, in commercializing the telecommunication technology by the two companies, there had been weaknesses. The network coverage of Africell mobile company in Sierra Leone is not nationwide because the company focused on connecting larger towns when expanding their network, leaving other major villages in the interior where local businesses have a strong hold. The mobile money (Afrimoney) service introduced by

Africell still endures many challenges. The service is not widely used by subscribers; hence, the service is very difficult in terms of encashment or sending money to other partners due to the limited number of outlet booths for the transaction. People around the cities and bigger towns had to go to the various office centres in the bigger towns if they wanted to do mobile transactions with Africell, other than Orange Money, which is commonly and widely used by all subscribers in the country. In terms of purchasing a mobile data bundle, Africell is expensive, yet it is considered fair usage. The purchased data bundle doesn't last as long as you may require. This has resulted in a huge shift of customers to other networks for internet and data subscriptions.

Orange, on the other hand, says the mobile sim cards are costly to acquire as compared to other networks within the country, which is impeding the expansion of subscribers country wide. In spite of the wider connectivity in the interiors of Sierra Leone and the series of upgrades in the network infrastructure, the internet connectivity is slow.

4. Lessons Learned from the study

Many researchers who wish to write on similar topics can benefit from the findings of this study. In commercializing telecommunication business in the global market, other telecommunication companies already established and those trying to establish in the country Sierra Leone will as well learn from the strategies employed by Africell and Orange.

The comparative study shows that strategic entrepreneurship and business expansiveness both nationally and internationally are very key factors in the successive establishment of the two companies (Africell and Orange). Both companies (Africell and Orange) embraced the privilege for speedy growth and expansiveness with service deemed affordable in interconnecting major cities and towns in the country-Sierra Leone as their competitive advantage. The upgrades and promotions of other services to subscribers have enhanced the market place they attained nationally. Where by Africell is recorded to attain over 12 million subscribers and Orange about 1.5 million subscribers. As both are major competitors in the market, they both successfully created a valued innovation for quality service delivery in the country Sierra Leone.

5. Conclusions

A comparative study on citizens' perception of quality service delivery by two major telecommunication companies (Africell and Orange) has been conducted, by referring to the strategy management approach to determine the design of global business strategies to ensure above-average returns. Africell secured a \$100m loan facility from the US government's International Development Finance Corporation (DFC). Africell's strategy involves developing fintech products and services such as micro-payments, micro-insurance, and micro-finance to invest in mobile network operations and telecommunications infrastructure, as well as holding approximately 60% market share of the telecoms sector in the country to achieve an average return. Orange, on the other hand, has invested in excess of \$55 million in a major network overhaul, the implementation of a new network platform for prepaid billing and management, and the launch of new mobile financial services such as micro loans, in order to achieve average returns. Both companies have expanded internally and successfully, which attracts the world market with continued new business strategies and innovations.

References:

- Angelova, B., & Zekiri, J. (2011). *Measuring customer satisfaction with service quality using American Customer Satisfaction Model (ACSI Model)*.
- Aligning information technology to global business strategy," in *IBM Systems Journal*, vol. 32, no. 1, pp. 143-161, 1993, doi: 10.1147/sj.321.0143
- Arokiasamy, A. R. A., & Abdullah, A. G. (2013). *Service quality and customer satisfaction in the cellular telecommunication service provider in Malaysia. Researchers World*, 4(2), 1.
- Arah Kang. *How to identify external factors that may affect your strategic plan* <https://www.clearpointstrategy.com/external-factors-that-affect-a-business>. Accessed June 2021.
- Belwal, R., & Amireh, M. (2018). *Service quality and attitudinal loyalty: Consumers' perception of two major telecommunication companies in Oman*. Arab economic and business journal, 13(2), 197-208.
- Ives, S. L. Jarvenpaa and R. O. Mason, "Global business drivers. *International journal of academic research in business and social sciences*, 1(3), 232B
- Loke, S. P., Taiwo, A. A., Salim, H. M., Downe, A. G., & PETRONAS, U. T. (2011). *Service quality and customer satisfaction in a telecommunication service provider. In International conference on financial management and economics*, vol. 11, no. 2, pp. 23-29.

- Ojo, O. (2010). *The relationship between service quality and customer satisfaction in the telecommunication industry: Evidence from Nigeria*. *BRAND. Broad Research in Accounting, Negotiation, and Distribution*, 1(1), 88-100.
- Oksana Shatilo. January 2020. *The Impact of External and Internal Factors on Strategic Management of Innovation Processes at Company Level*. *Ekonomika* 98(2):85-96
- Rahman, M. S. (2012). Service quality, corporate image and customer's satisfaction towards customer's perception: an exploratory study on telecom customers in Bangladesh. *Business Intelligence Journal*, 5(1), 56-63.
- Pariseau, S.E. and McDaniel, J.R., Assessing service quality in school of business. *International Journal of Quality and Reliability Management*, 1997, 14(3): 204-218
- Van der Wal, R. W. E., Pampallis, A., & Bond, C. (2002). Service quality in a cellular telecommunications company: a South African experience. *Managing Service Quality: An International Journal*.

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