

Artificial Intelligence and Customer Experience: Key Takeouts From Telecoms Sector in Zimbabwe

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Abstract

The purpose of this study was to glean key learnings from the use of artificial intelligence on customer experience with emphasis on Zimbabwean telecoms companies. The study employed qualitative research design, using semi structured interviews with customers, staff, and management of the telecoms companies in Zimbabwe. To unearth the key themes and trends and insights between artificial intelligence and customer experience thematic analysis was applied. The research evaluated the models employed by the Zimbabwean telecoms companies in transforming the customer experience landscape and hurdles they face in moving customers to the new channels. The challenges experienced in the new trajectory were explicitly highlighted. Case studies of other telecoms companies who explored the same avenue were chronicled. The various merits and skepticism of artificial intelligence on customer experience were clearly evacuated paving way for future research areas to completely harness the potential in the discipline of customer experience and its contribution to competitiveness.

Keywords: *Artificial Intelligence, Customer Experience, Machine Learning.*

Introduction

Technology has evolved over the years and is transforming the way businesses interact with their customers from time to time in the quest to simplify customer journeys. Customers of today have also evolved in their preferences and average waiting time to enjoying a product they require. Customers have become more demanding requiring their services in real time or they move to alternative service providers. This has motivated and pressured various companies especially in the telecoms industry to be kept on their feet as most customers are on packages where they do not have exit barriers. This means the customers can easily exit without costs. It is on this premise that there is need for businesses to comprehend the relationship between artificial intelligence use and customer experience. This research, therefore, looks at the Zimbabwean telecoms sector and how they are leveraging on artificial intelligence to drive customer experience.

Through analyzing the various initiatives employed in artificial intelligence the study clarifies the impact that the technology can have on customer experience.

Through a deep dive into variations of artificial intelligence, the study strives to share insights and sentiments for other corporations that would want to take key learnings and implement the same strategies for the going concern of their business models. The research strives to demonstrate clear cut merits and benefits that companies can derive from implementing artificial intelligence to improve customer experience. Through the lessons learnt from the Zimbabwean telecoms sector, the research showcases the impact that artificial intelligence has on customer retention, customer churn, net promoter score, return on investment as well as average revenue per user. The study will ignite interest from other sectors who were skeptical in taking courage to leapfrog the technology space and become pioneers and pace setters. The lessons from this

study will foster other companies to take a strategic cue from the telecoms sector and push for strategic revision which incorporates the need to digitalize operations for sustainability and going concern of the business models. The telecoms sector in Zimbabwe has managed to ring fence its customers through the benefits accruing from artificial intelligence implementation while creating more value in the way customers interact with their service providers from time to time. The study cements the importance of companies taking part in implementing strategies and technologies that simplifies the journeys of their customers as they interact and exchange ideas.

Literature Review

Artificial intelligence has become a buzz word in the years 2022 and 2023 meaning companies that need to set themselves ahead on customer experience have started exploring options powered by artificial intelligence. The merits that will be brought by artificial intelligence to the area of customer experience will transform the way various companies' interaction with customers, [1]. This study reviews the key takeouts from the journey the Zimbabwean telecoms companies have taken since the eruption of the Covid 19 pandemic. Various studies carried out have clearly indicated the merits and demerits associated with the implementation of artificial intelligence especially when artificial intelligence coincides with customer data. [2] believe that execution of artificial intelligence applications though requiring huge initial capital outlay and continuous development has far reaching positives which can relate to customer retention, customer loyalty, incremental revenue generation. As customers are becoming the dictators of how companies should respond to their needs, artificial intelligence has been seen as a technology that quickly assists telecoms in understanding the ever-changing behavior of customers with the intention of quickly creating products and services [3]. This

study of the Zimbabwe telecoms sector's readiness to artificial intelligence implementation is a testimony of agility in a bid to provide exceptional customer experience. The implementation of platforms such as self-help, chatbots and social and digital platforms for query resolution during and after the Covid pandemic was a clear testament by the telecoms companies in Zimbabwe to prioritise their customer experience as there was a complete lockdown which forced people to stay at home for close to two years. The implementation of the above platforms made company and customer interactions easier and provided a backbone of making sure both business going concern is not completely threatened while upholding the need for customers to receive service throughout the lockdown. The interventions by the telecoms companies to keep a symbiotic relationship with their customers fostered customer lifetime value and loyalty being witnessed now. The rural based customers were not left in the open as most of the applications catered for customers using smart phones. The customers using feature phones got capacity to interact with artificial intelligence through voice-based interactions that were developed mainly to give in product information while a USSD application was developed were customers would access various services from support issues to product information. This created greater convenience to the millions of customers who use feature phones and have no access to stable data connections.

Lessons picked from the implementation of the various platforms showed that at first it took long for telecoms companies to fully have working systems. There was back and forth movement to creating a minimum viable product that would at least avail convenience. Econet was the first to introduce a platform that would allow customers the chance to share in their challenges creating ticketing which would be used for updates. Customers also took time to fully appreciate that the economy is closed,

and they had to work with the new models as compared to visiting the shops physically as they had gotten used to. Due to limited options of communication between the service providers and the customers, any options created during the lockdown that would make life easier for customers were more than welcome. Customer journeys to both purchase of new products and after sales support got distorted disrupting customer experience to such an extent that customers would go for days without support during the lockdown. Employees for all mobile network operators except for technical staff who would travel to base stations to refuel or fix faults were the only once allowed passage while the work from home model surfaced. Telecoms companies as they form the foundation of economic communication could not fail to come up with initiatives to keep their companies operating despite the pandemic.

Customer experience had been characterized with very long queues, unresolved queries, lack of responsiveness and unfriendly welcome by the service agents for all the telecoms companies. Willingness to recommend for customers was significantly eroded with over 30% of the customers owning multiple simcards from all the service providers. Experience from the network side of operations also contributed immensely to the poor customer experience endured by Zimbabwean customers. Call drops, slow data connections, silent connections and billing anomalies topped the myriad of challenges customers experienced. As a result, the overall Net Promoter Score for telecoms companies in Zimbabwe averaged -18% which is way low compared to other countries in the region and companies in the same industry such as MTN which had scored a net promoter score of 75%. The negative net promoter score was a clear indication of how customers were dissatisfied with the services they were getting. The improvement of customer experience resurfaced after the implementation of artificial

intelligence which then created omni channels to customer experience. This gave rise to the speedy resolution of issues raised by the customers because customers started naming and shaming brands which were not responsive on social and digital media platforms. Telecom companies' reputation and brand image deteriorated motivating customers to be connected to multiple companies owing to the inconveniences they have been experiencing. With artificial intelligence coming into the picture analysis of customer sentiments and social listening tools were put into play to make sure that they pick any information concerning the telecoms companies and this gave rise to swift resolutions of customer challenges [4]. The applications embedded in artificial intelligence gave rise to a new era in customer experience fostering collaboration between customers and the telecoms companies in a motive to build a service all would be happy with.

Journey mapping for customers had long been reviewed in Zimbabwe telecoms companies competing more on offering new products without simplifying customer journeys. Companies would fight to onboard customers for new products and yet the support for the products was weak. The survival of most innovations from 2015 to 2022 was recorded to be below 20% and this was driven by weak customer support systems. Current customers now have in-depth knowledge of the services they require and how they should work, failure of those products and services pushes customers to churn and discontinue the services with immediate effect [5]. With unemployment in Zimbabwe hovering around 85% customers are committed to other critical issues of life compared to spending hours waiting in queues at their telecoms service providers.

Studies from other telecoms companies that have implemented artificial intelligence fully indicated that segmentation of one is possible. Given the diversity of customer needs, wants, and desires segmentation becomes of critical

importance in creating customer stickiness [3]. Platforms as a service have enabled customers to build their own products giving them autonomy to create their own service bouquets. Telecoms companies in Zimbabwe have preprogrammed bundles such as if a customer wants data bundle its combined with Pinterest, voice minutes and twitter bundle and yet the bulk of customers may not be using Pinterest hence because of the formulation of the bundle customers lose out. Telecoms companies have been winning on unused bundles and yet customers would have preferred other use cases than the once precast for them.

With artificial intelligence coming into the picture telecom companies such as MTN, Airtel, Verizon have immensely benefited on their marketing promotions as there has been an improvement in their customer targeting. Owing to the customer preferences artificial intelligence algorithms assist in pushing advertising of products and services that customers have been searching, [6]. This has seen a significant return on marketing investment, increase in revenues, customer loyalty and customer lifetime value. Communication to customers is now more direct with capability of two-way communication between the customer and the company yielding more confidence on the customer side that the companies will deliver on their promises hence customers spending more with such companies, [7]. Acknowledgement of customers on their special events such as birthdays and wedding anniversaries have become a darling of many customers with other telecoms on such a day giving their customers free airtime.

[7] further explains that using of machine learning and predictive analytics telecoms are in a much better space to understand customer preferences and tailor making products and services. Applications have changed the landscape of customer experience availing real time support to routine issues giving telecoms companies opportunities to perfect other

product offerings. Development of new products is becoming more easier with the use of technology which quickly gives inferences to customer requirements. Handling of customer queries have been gradually migrated to chatbots, which avail 24/7 support capability. Despite the Zimbabwean bots not yet fully programmed to handle all the routine traffic, progress has been with customer pin resets and product information having been fully integrated and working.

[8]. Customer data has become the new competitive currency for companies and use of artificial intelligence has emphasized the collection of high volume, variety, and value data to derive various customer sentiments that drives companies to then improve their services. With Zimbabwe only hosting an average of 8% of hosted information in Africa it is still in its infancy stage in collecting data that will be good enough to drive product development and customer journey maps, [9]. Development of digital journey maps have taken time in Zimbabwe with only Econet and Netone playing in that space while other players are still finding their way. While development work is still in progress telecoms companies have not been communicating with their customers on the development. In some circles customers have been skeptical to use the platforms owing to rampant fraudulent cases especially on mobile money platforms, [10]. There is sensitive information which customers feel should not be disclosed without their consent hence once they come across such information on applications without prior communication, they become hesitant to use the platforms. Customer education is of major importance in product or service adoption hence the Zimbabwean telecoms companies still have a long way in educating their customers to understand the new technologies and the merits the technologies will avail to the customer experience they receive from time to time. It has been proven in various studies that applications that give value and simplify

customer experience tend to get easy buy in by customers compared to sophisticated applications that take customers too much time to learn noted [11]. It is therefore imperative for the companies to fully understand their customers and create products and services with the customer in their minds and this will win them dollar votes of customers as compared to creating sophisticated applications that may have great technology and yet they fail to deliver what the customer requires, [12].

Merits of Exceptional Customer Experience

Due to lack of exit barriers on prepaid platforms customer movement is a topical issue and with artificial intelligence platforms and algorithms working fully customer experience is enhanced, [13]. Customer churn will significantly be managed owing to exceptional offering from the service providers. Revenue generation is hinged on longer customer lifetime value hence implementing exceptional customer experience models through artificial intelligence and machine learning ringfences the company customers. It turns out to be more expensive to recruit new customers compared to managing existing customers as new customers need to be nurtured through a kindergarten stage with a lot of discounts stimulus conditioning them explains [14]. Therefore, existing customers are easy to excite through channeling minimum resources, frequent calls, customer appreciation events and email updates hence this greatly improve both customer and employee engagement.

Exceptional customer experience end game speaks to high customer retention which fosters brand equity and reduced churn. Loyalty to brand is voluntarily pivoted by the experience one gets, while high customer retention is correlated to customer loyalty [15]. Therefore, companies should constantly keep updated customer records and actively engage from time to time. Retention is a result of efficiency and effectiveness on query resolution. Engaging

customers, rewarding loyalty, and thanking customers will strengthen the positive perception of customers towards the company. Increased sales, high lifetime value, and quick return on investment are all results of good customer retention backed through exceptional customer experience, [16].

With customer experience models working well, crisis management is greatly improved in the event of bad public relations, product recalls, and inability to attend to a customer challenge on time [17]. Companies that own up to setbacks, mistakes and challenges for some time gain more trust from their customers than companies that are quite and do not actively engage their customers alluded [18]. With diversity on channels to use for customer engagement, companies should adopt omni channel platforms to give customers autonomy on which platforms to use for their interaction with the company. Proactive approach to customer issues resolves challenges much faster. For example, through implementation of artificial intelligence, fault detection capability and preventative maintenance is carried out before customers even know, or communication is sent before company platforms are flooded with complains, [19]. Companies should follow platforms their customers frequent and create two-way communication to understand the needs, wants and desires of customers in a bid to tailor make the experience required by customers alludes [18].

[5] indicate that banks and telecoms companies are better placed to implementing artificial intelligence given the number of repetitive tasks that are involved in their service provision. In that scope telecoms companies such as AT&T recorded 7% reduction in miles traveled per dispatch while an increase of 5% in productivity was recorded in network management significantly improving customer experience. AT&T and Sentio COLT have implemented machine learning that detects network issues in real time before customers notice any service degradation enabling them to

fix 15 million alarms a day. Deutsche Telecom has developed a chatbot Tinka which has managed to handle 80% of its customer queries with only 20% now being escalated to human intervention. Studies by [20] indicate that companies that are intentional about customer experience can increase their sales between 2 to 7% in a year as customers tend to spend more with brands, they feel valued from. On the same note [20] noted that shareholder returns in companies that understand their customers increases averagely by 7 to 10% per year.

Research Methods

The research made use of the qualitative research design, with the application of a case study approach to comprehend and synthesize the artificial intelligence strategies employed by the telecom's companies in Zimbabwe. Data was done using semi structured interviews were undertaken with customers, employees, and managers of the telecom's companies. Besides primary data collected through customers, employees and management industry reports from the regulator, and company reports formed the basis of secondary reports. Gaps in the existing research were unearthed through a comprehensive literature review that informed the research question from the onset.

A combination of primary data sources which were done through interviews and secondary data sources conducted through industry reports were both employed in data collection. Data analysis was done employing both qualitative and quantitative techniques, quantitative method employing statistical techniques on survey data and qualitative analysis using thematic analysis of interview sheets [15]

Results were informed from both qualitative and quantitative standpoint interpreting results and drawing conclusions on the relationship between artificial intelligence and customer experience in the telecoms sector in Zimbabwe [17]. The results were interpreted through

inference from the existing literature review and the specified research question. The need to fully adopt artificial intelligence was recommended with the motive to improve customer experience in the telecoms sector in Zimbabwe. The analysis done informed the results which were interpreted in the confines of the available literature and the defined research question. The recommendations were drawn to enhance customer experience using artificial intelligence in the telecoms sector in Zimbabwe. The recommendations were based on research findings and specific to the three major network operators which are Econet, Netone and Telecel.

The results have impact on the telecoms industry and will avail a roadmap for other players that are still lagging on implementing artificial intelligence as a way of improving customer experience [17]. Key takeouts will be gleaned from the milestones covered by the telecoms companies and can be replicated across industries to enhance customer experience. The study contributes to the body of knowledge on artificial intelligence and customer experience given that some telecoms companies are still far from employing artificial intelligence. Using various platforms such as conferences, publications, industry forums, and seminars the results of the research will be made known to the various stakeholders.

Results and Data Analysis

The tables below portray the outcome of the study on artificial intelligence and customer experience on telecoms companies in Zimbabwe. The results emanate from the semi structured interviews and analysis done with customers, employees, and managers of the various telecoms companies in Zimbabwe. This reviewed the various initiatives being undertaken by telecoms companies using artificial intelligence in enhancing customer experience.

Table 1. Summary of results on Artificial intelligence and customer experience by employees and Management

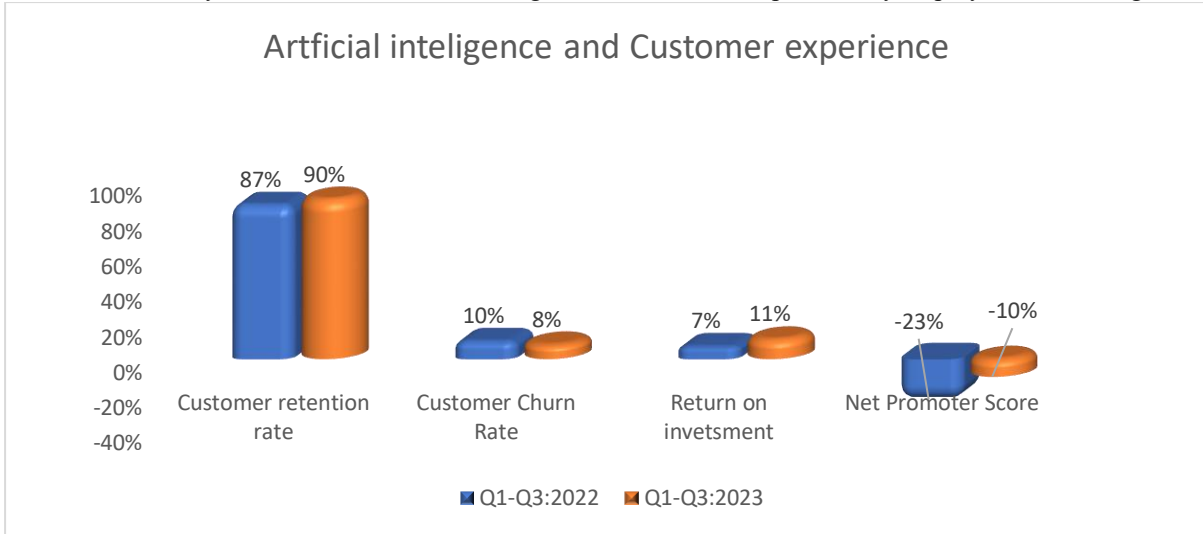


Table 1 above gives the summary of findings from management and staff of the telecom’s companies on the progress and outcome on key metrics that they measure on the initiatives they implemented on artificial intelligence. These results examined the impact of various artificial intelligence initiatives aimed at improving customer experience and were depicted through various metrics that measure customer experience. Customer retention has improved from 87% in the previous period of 2022 to 90% in 2023 which depict positive impact of the initiatives employed from artificial intelligence in enhancing customer experience. The key indicators that have been outstanding on gaining customer retention hinged on convenience and easy of use of the availed platforms. Churn rate also improved by 2% signifying customers are now sticking to their service provider impacting positively customer experience backed initiatives because of implementation of artificial intelligence applications. Return on investments improved signifying that moving with trends and investing in technology that simplify customer journeys improves return on investment and becomes beneficial to both the company and its shareholders. Net Promoter score improved

significantly from the prior quota implying the impact of artificial intelligence applications have had a positive impact to customers willing to spread positive word of mouth.

With the implementation of artificial intelligence, it should be noted though that it is not an overnight process hence a journey that fosters both stakeholders to work closely in shaping up the service they all would want to enjoy. There are other various factors that may determine the success of artificial intelligence on customer experience such as ease of use, usefulness, and devices which companies that need to implement the same technology should take note of. This should also be noted that its not all that makes customer experience exceptional, other industries should take note of their needs, wants and desires based on their activities, doing cost benefit analysis, and customizing to their specifications may give them a better result to copying and pasting what other industries have done.

The table below showcases the sentiments of customers on the various artificial intelligence initiatives and platforms that have been implemented by the telecom’s players in Zimbabwe.

Table 2. Customers Outcome

	Artificial Intelligence Platforms	Outcome from Customers
1	Easy access to platforms	Positive
2	Ease of use	Positive
3	Customer convenience	Positive
4	Chat bots resolving issues end to end	Neutral

Table 2 above demonstrates the feeling and sentiments of customers towards the use of artificial intelligence in telecoms industry. Easy access to platforms has been scored positively depicting that the applications are easier to get access to which customers consider as an important factor to customer experience. The ability of the applications to show clear and simple steps in using them motivated customers to score it positively impacting customer experience in a good way. Customer convenience has also been rated positively as customers no longer need to physically visit the brick-and-mortar channels all the time but can use various digital channels to access and resolve their own challenges. Omni channel access to customers avails autonomy and control of what the customer would want without being limited to use physical channels. Chatbots ability to resolve issues end to end has been rated as neutral indicating that customers still have issues which may be going unresolved through the channel. Companies therefore do not need to relax in improving the experience of their customers, but it becomes a continuous process to delight customers through technology that simplifies customer journeys.

Discussion

The analysis from table 1 shows that the implementation of artificial intelligence has improved the key performance indicators of the industry at large. This then calls for individual companies to capitalize on the technology to enhance their own competitiveness and revenue generation. Customers are retained when the

company offering is addressing the pain points of the customers, and this leads to a longer customer lifetime value and average revenue per user. Competitiveness is a game of ring-fencing customers with the offerings that simplify the way they interact with the company. Return on investment has shown a positive improvement from the prior quota showing positive impact emanating from the experience customers are receiving from the telecom’s companies. Net promoter score also improved significantly from prior quota performance showing that the initiative of implementing artificial intelligence is bearing fruit to customer experience measures.

In table 2 customers rated accessibility of the artificial intelligence application positively clearly asserting that their customer journeys have been made easier, but this should always be noted that continuous improvement is key as customer needs continuously evolve. Chatbots scored a neutral and yet this is the next big-ticket item for transforming customer experience in the telecoms industry. Optimization of this key performance indicator will drive customer stickiness and competitiveness of a company that successfully delivers an end-to-end platform. Development of the algorithms therefore do not need to be fully resident with system developers, but customer sentiments should lead the development. The buy in of customers has a bigger bearing on the success of the applications companies bring on board hence customer satisfaction is a prerequisite to

winning deployments of artificial intelligence applications.

Conclusion

Technology transformation cuts across industries and for telecoms companies given the amount of customer data they harvest are better placed to analyse and use insights to developing appealing customer experience initiatives. Artificial intelligence though it may take time to program the relevant and value adding algorithms has far reaching positive implications to productivity and efficiency. Customer experience should be linked to value it brings to the company. Customer experience embedded in technology cuts across all departments as customers do not care about the processes, but they are more concerned with the successful resolution of their issues.

Future Research

According to [20] 75% of customers changed their behavior while 40% of customers changed retailer brands, this therefore speaks volumes on the transformation that is happening which calls for deeper insights analysis. Future research should therefore focus more on understanding the behavioral changes noticed for companies to then draw initiatives that address the shift. Research should also be tilted towards creating an experience compared to the current customer surveys on customer experience which are solely looking for feedback without addressing the root and fundamental challenges to exceptional customer experience. Transformation in the way companies collect information from its customers also need to improve. In as much as surveys cannot be immediately removed, customers feedback should be collected at all customer touch points at any given time and used to create the envisaged experience. Despite companies sending various communication such as emails, texts, and use of various applications the customer experience has rarely changed, and hence further research

need to look at new ways of transforming the customer experience landscape. Artificial intelligence with the skepticism that has gripped customers, there is need for further research into methods that can be employed to regulate it giving customers confidence of how safe their data is. With the continuous changes in customer behavior, simple algorithms for artificial intelligence will need to be developed to quickly track the changes and recommend new ways of addressing the changes. Further research into how companies should link customer experience to value is of paramount importance in completing the competitive advantage value chain.

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hoping the study opens a new window of perspective into the initiatives of artificial intelligence and how they can be optimized for greater results across industries.

Conflict of Interest

In avoiding the conflict of interest, the author clearly defined the research question. The research question emphasized on the relationship between artificial intelligence and customer experience.

The literature review was wide, comprehensive, and varied collecting insights from journals, industry reports, books, and company publications. The literature review was also made to be independent and not influenced by the telecom's companies or their key stakeholders. Data was collected through

analysis of platforms telecoms companies developed, interviews, and surveys with customers, employees, and management of various telecoms companies to ensure reliability and validity of the findings.

In collecting sentiments and ideas, the author engaged with various participants such as customers, employees, and managers of the telecoms companies without being too close to them to influence the outcome of the study as a way of avoiding conflict of interest. Through following the above mechanics, the author made sure conflict of interest was avoided as far as the subject of artificial intelligence and customer experience is concerned. This to a greater extent ensured transparency and accountability to the research subject.

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