

## How consumers' attitude towards chatbots affects their experience and behavioural intentions: The case of South Africa



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### ABSTRACT

#### Article History

Received: 12 September 2023

Revised: 23 November 2023

Accepted: 20 December 2023

Published: 9 January 2024

#### Keywords

Attitude  
Behavioural intentions  
Chatbots  
Customer care  
Experience  
Technology concerns.

The purpose of this study is to determine how consumers' attitudes towards chatbots affect their experiences and behavioural intentions. In the contemporary business environment, a lot of enterprises and outstanding brands have resorted to using modern technology in their business operations, such as chatbots, to offer 24-hour customer care. The quantitative research approach was adopted for this study with a correlational survey model to collect and analyse numerical data to ascertain how consumers' attitudes towards chatbots affect their experiences and behavioural intentions. The population of this study comprises customers of renowned brands in South Africa. The sample size was 211 consumers with at least five years' experience of using chatbots in South Africa who were selected using a nonprobability convenience sampling method. The Statistical Package for Social Sciences (SPSS) and SmartPLS3 were used to analyse the data. The study's findings show a strong predictive correlation between customer contacts and behavioural intent towards chatbots and perceived usefulness, ease of use, enjoyment, and seeming risk. The significance of these aspects in influencing customer attitudes and behaviours while interacting with chatbot technologies is highlighted by these findings. Understanding and optimizing perceived usefulness, ease of use, fun, and apparent risk in chatbot design is crucial for shaping positive consumer interactions and influencing behavioural intent towards chatbots. Therefore, it is highly recommended that renowned brands and companies looking to optimise their chatbot systems endeavour to improve customer experiences and encourage long-term behavioural intentions among South African users.

**Contribution/ Originality:** Distinguishing itself from prior research predominantly conducted in developed regions, this study uniquely explores the impact of consumers' attitudes towards chatbots on their experiences and behavioural intentions within the South African context, addressing a notable gap in the existing literature focused on Europe, North America, and parts of Asia.

## 1. INTRODUCTION

The use of chatbots, whether they be basic or sophisticated artificially intelligent (AI) programmes, has increased since the internet and particularly social media websites have grown significantly. Businesses communicate with customers with chatbots during online sales promotion and buying, and they also use them to gather customer information and send out mixed messages to affect consumers' opinions (Zemčík, 2019). According to Sarbabidya and Saha (2020), chatbots robots used in live chats are a sophisticated, easily deployable technology

that is still in development. Instead of waiting for a salesperson or utilising other automated communication methods, chatbots enable customers to ask questions about their purchases and receive replies in natural language. Businesses frequently employ chatbots to reply to consumer inquiries and to grow and manage the relationship between the client and the organisation. Technology is an essential component of any modern business, and as it is always being produced to support organisations, customers need to try to stay current with the most recent technological advancements. Businesses like Amazon, Google, and Facebook make money from using chatbots to communicate with customers and enhance customer service.

The information and communication technology infrastructure in South Africa enables chatbot development and use for online businesses. To overcome the complex and varied methods required when creating a chatbot as a medium of communication between customers and businesses, organisations must concentrate primarily on the information technology (IT) substructure and ways to successfully use chatbots. However, there are some unique encounters that businesses must consider. Typically, South African clients cannot access international chatbots through available chatbot services. One of these restrictions is the interaction that the variety of South Africa's population has when such technology is implemented in an organisation (Van Heerden, 2020). Infrastructure with unique methods and protocols tailored to the envisioned trade industry and users is necessary for intelligent agents. Due to the virtually complete absence of references to the distinctiveness of South African corporate history, the execution process of intelligent agents is now unclear. There are still some lingering questions regarding chatbots, though, as some companies and customers choose not to use them because they are unsure of their value and efficacy.

When it comes to customer service and maintaining open lines of communication between consumers and organisations, chatbots are regarded as one of the biggest technical breakthroughs for business. Online businesses in South Africa must understand the value of incorporating chatbots into their operations as well as how customer attitudes about chatbots affect user experiences and behavioural intents. A deeper understanding of chatbots' quick and widespread usage is required since they have become more and more popular over the past few years and because most social networking sites have acknowledged their considerable potential for commercial uses. Understanding how consumer views about chatbots affect their experiences and behaviour intentions is essential, especially in South Africa. This study aims to close the information gap about the factors that affect consumers' trust in chatbots. The goal of this study is to ascertain how South African customers feel about chatbots.

## 2. LITERATURE REVIEW

When chatbots were integrated with social media platforms, their goal was to react to customer inquiries with pre-written messages, images, and links that directed customers to the company's website (Zarouali, Van den Broeck, Walrave, and Poels, 2018). In South Africa, consumers are accustomed to making in-person purchases, but as the COVID-19 pandemic spreads, more and more people are slowly beginning to change their shopping habits and start making more purchases online. Despite a rise in e-commerce consumers, South Africa's chatbot services are still restricted, and only a small number of businesses there are engaged in the chatbot development process. The business editor of IT Web highlighted that businesses like Discovery Health and Mercedes-Benz South Africa claimed to have conducted research and development initiatives first in their respective industries back in 2016. With developers like FinChatBot investing roughly 7 million rands to support their chatbot to be utilised by their clients, the number of chatbot developers has increased since that year, notably in the financial sector (Van Heerden, 2020).

Chatbots have certain advantages, but they also have some problems. Chatbots run the risk of deviating from the pre-programmed script, misinterpreting customer requests, and giving the wrong answers. Customers might feel irritated as a result. Security, privacy, and spam prevention may potentially be issues for companies employing chatbots for mobile marketing (Eeuwen, 2017). Users are more inclined to continue using chatbots if they think it is

better to do so, despite any potential drawbacks. Another concern with chatbots is that customers demand more from agents who represent themselves as human beings. Additionally, when chatbots mimic human behaviour but fall short of fulfilling consumers' expectations that a human person would otherwise fulfil, most customers become distrustful. In this case, brands and businesses should inform clients that they are conversing with a chatbot and not a live person (Gümüş and Çark, 2021). In other words, chatbots are still in their early stages and probably won't take over people's jobs anytime soon. Instead, hybrid human-machine chatbot technology is the key to increasing consumer satisfaction and experience. Consumers should be aware of and prepared for the fact that chatbots will become more commonplace in our lives in the future because of the advancement of AI technology. It is critical to understand how consumers feel about chatbots in terms of their apparent utility, usability, enjoyment, and risk, as well as their experiences and underlying motivations.

### 2.1. Apparent Usefulness

The advantage that chatbot user's gain from using chatbots is called seeming usefulness. The degree to which a person believes that utilising a specific system will enable them to accomplish a task more effectively is known as perceived usefulness (Herrero and San Martín, 2012). People are more inclined to use a system, device, or app again if they believe it will help them finish a task. Customers' perceptions towards chatbots are most significantly impacted by their seeming usefulness (Muslichah, 2018). As a result, how beneficial customers think chatbots are will determine their attitudes towards them. This suggests that the more inclined individuals are to adopt a technology, the more valuable they believe it to be. Given that perceived utility is a crucial component that favourably influences purchasing intention, The mindset that results from perceived usefulness has an equal impact on the intention to employ chatbots (Nurshafiqah and Izian, 2013). Because of this, companies that want their customers to use chatbots can adopt a persuasive approach to win their trust by detailing the benefits of doing so, such as easier, quicker operations and higher-priority service. In this situation, it is safe to presume that chatbots' perceived usefulness has a favourable impact on both consumer experience and behavioural intent.

Consumers' opinions towards chatbots are typically more favourable when they see them as practical tools. De Andrade and Tumelero (2022) subscribe that the adoption and acceptance of chatbots for a variety of jobs, including customer service, information retrieval, and online commerce, may expand as a result of a positive attitude towards them. When users feel that the Artificial Intelligence agents can quickly and effectively take care of their needs, saving them time and effort, they are more willing to interact with chatbots. As a result, companies that make an investment in developing extremely beneficial chatbot experiences may be able to increase client pleasure and loyalty. However, Iancu and Iancu (2023) argue that if customers believe chatbots are ineffective or useless, it may result in negative views and apprehension about using them. Users may become irritated by poorly made or useless chatbots, leave their interactions, or seek human assistance, which can raise operational expenses for enterprises. Therefore, the perceived utility of chatbots is essential for maintaining consumer engagement and happiness as well as influencing their initial impressions. Businesses must prioritise increasing the perceived usefulness of these virtual assistants through continual improvement and user-centered design in order to successfully integrate chatbots into their customer service and engagement strategies.

### 2.2. Apparent Ease of Use

People's perceptions of how easy it would be to utilise a given system are referred to as its apparent ease of use (Gümüş and Çark, 2021). This suggests that a system can increase work performance the more easily it is used. According to research, perceived usefulness is influenced by the apparent simplicity of use and is consequently both directly and indirectly related to intention. Users' attitudes towards technical equipment are influenced by their apparent simplicity of use, which affects their propensity to utilise those items (Aktaş, 2007). This means that chatbot developers should search for strategies to ensure that users find chatbots easy to use if they wish to reach a

large audience. On the other side, if chatbots are seen as challenging to use, customers may have a negative experience using them. The challenges of low knowledge and ageing that restrict some customers from adopting chatbots should be addressed by developers. Customers who encounter issues with chatbots are likely to voice their concerns to friends and family, which will prevent businesses from bringing in new clients. Users of all ages and educational levels may use chatbots easily, which could lead to a sharp increase in users (Trivedi, 2019). This suggests that the perceived ease of use has an impact on both the customer experience and the user's decision to keep using chatbots. This suggests that perceived chatbot usability has a favourable impact on customer experience and behavioural intention.

Customers may have a more favourable opinion of chatbots if they find them simple to use and navigate. People who may not be tech-savvy or who may have little familiarity with Artificial Intelligence technologies may benefit most from this ease of use. When chatbots are simple to use and intuitive, customers are more likely to adopt them and include them in their everyday routines because there is less of a learning curve. Businesses that put a high priority on the design and creation of user-friendly chatbots can foster a more engaging customer experience that can increase customer satisfaction and loyalty (Haque and Rubya, 2023). In contrast, consumers may develop unfavourable views and irritation if they find chatbots to be complicated or challenging to connect with. Users may be discouraged from using these virtual assistants by convoluted chatbot interfaces or perplexing conversational patterns, which may cause them to give up or look for alternate alternatives. To ensure that consumers find chatbots simple to use and streamlined, organisations must work to streamline and simplify the user experience. They may improve the public's view of chatbots in this way and realise all of their potential as useful resources for customer service, information retrieval, and other uses (Gümüş and Çark, 2021).

### *2.3. Apparent Enjoyment*

Customers may find a certain system enjoyable to use and new technologies entertaining. Apparent enjoyment is the degree to which using a system or gadget is regarded as delightful, independent of any performance repercussions (Gümüş and Çark, 2021). Consumers are fascinated by the conversational skills of chatbots and are attracted to fluid conversations that resemble human interactions. As the once-utilitarian transactions transform into interesting dialogues, this newfound attachment generates a sense of satisfaction. Customers develop a warm bond with these AI partners as they enjoy the effectiveness and personalised help, which leads to an amazing dance of happy feelings. As customers willingly travel the paths of loyalty, advocacy, and prolonged engagement, all orchestrated by the alluring influence of their ever-responsive digital confidants, this dance, in turn, creates a symphony of heightened behavioural intentions. High levels of perceived enjoyment influence behaviour in a good way. According to Wang and Scheepers (2012), users who find a system enjoyable are more inclined to use it again. Therefore, when building chatbots, businesses should consider the issue of client enjoyment. This is due to the likelihood that users who find a system uninteresting and unpleasant will have poor customer experiences and little desire to reuse it. Considering this, it is reasonable to draw the conclusion that chatbots' appearance of amusement has a beneficial impact on user experience and behavioural intention.

Customers may have a more favourable opinion of these virtual assistants if they love interacting with chatbots. Lubbe and Ngoma (2021) note that the conversational abilities, attitude, and overall experience of the chatbot can all have an impact on this satisfaction element. Customers are more inclined to actively seek out these interactions for tasks like purchasing recommendations or retrieving information when they find utilising chatbots enjoyable. This can ultimately result in improved customer engagement and loyalty. Defiantly, Magno and Dossena (2023) contend that if customers think that chatbot conversations are boring, repetitive, or unentertaining, it may lead to negative views and disengagement. Consumers may be less likely to use chatbots if they have a bad experience, which could reduce their usefulness as business tools. Therefore, businesses should work to construct chatbots that not only fulfil their intended functions but also give users engaging and memorable experiences. The perceived

enjoyment of using these artificial intelligence-powered virtual assistants can be greatly increased by incorporating elements of personalisation, creativity, and entertainment into chatbot encounters.

#### *2.4. Apparent Risk*

Consumers' views of the uncertainty and unfavourable effects of purchasing a good or service are referred to as seeming risks. Every transaction involves one or more of the five hazards that customers face: financial, time, psychological, social, and performance (Lai-Ming Tam, 2012). As their perspectives sway within the impersonal algorithms that govern these exchanges, consumers who had previously been hoping for effective assistance may unknowingly succumb to a sense of detachment and mistrust. Customers experience privacy violations when making purchases through chatbots because they worry that their personal information will end up in the wrong hands. As a result, consumers' intentions to engage and transact waver in the face of perceived risks, challenging the very foundation upon which these interactions stand (Eeuwens, 2017). Users' perceptions of technology and its real performance are never entirely consistent. Users are frequently not aware of the effects of that consistency, which can present several hazards. The consumer will perceive a significant risk and discontinue utilising the chatbot, preferring instead to wait for a very long period to simply speak to a human being (Lai-Ming Tam, 2012). People are less inclined to use the chatbot again because of this. Customers are more likely to have a bad experience with a good or service they have purchased if they consider the risk to be higher. According to this viewpoint, it is reasonable to believe that chatbot risk perception has a negative impact on customer experience and behavioural intention.

Consumers may have negative sentiments and be reluctant to engage with chatbots if they believe there is a significant amount of danger involved. Adam, Wessel, and Benlian (2021) note that perceived hazards can include worry about data security and privacy, apprehensions about getting the wrong information or help, or issues about a lack of human oversight in crucial circumstances. Consumers may decide to completely avoid chatbots if these dangers are not appropriately managed, undercutting any potential commercial advantages. In order to ensure that consumers have clear information about how their data is handled and that chatbots are dependable and accurate in their interactions, organisations must prioritise fostering trust and openness within their chatbot systems. On the other hand, Gümüş and Çark (2021) assert that consumers may have a more favourable attitude and be more inclined to interact with chatbots if they believe there is less danger involved. Perceived dangers can be reduced with the use of rigorous security measures, clear and transparent communication regarding data handling, and promises of chatbot dependability. Customers' attitudes towards chatbots can be improved, and their use for a variety of tasks, from customer service to information retrieval, can be encouraged by organisations proactively addressing and minimising perceived hazards.

#### *2.5. Customer Experience*

According to Gümüş and Çark (2021), the term "customer experience" refers to the whole and cumulative impression a consumer has after knowing about, procuring, utilising, upholding, and discarding a good or service. The sum of a customer's attitudes, perceptions, and emotions along the full decision-making and consuming chain, which entails a seamless succession of interactions with people, objects, processes, and the environment, is what makes up the customer experience. Cognitive, emotional, sensory, and behavioural reactions come from these exchanges (Jain, Aagja, and Bagdare, 2017). In this regard, it would not be incorrect to state that customers' experiences are a new way to view customer-brand relations, their increasing collaboration with all value chain participants and things offered by an organisation, and a way to leave them with a lasting impression (Trivedi, 2019). Businesses are reinventing client encounters, fidelity, and relationships that are more complicated than ever due to the market's high level of integration. Businesses that are interested in becoming consumers' preferred brands do more than just sell items; they integrate themselves into the lives of their clients and provide them with a

flexible and practical experience. Through real-time engagement, virtual service agents and e-service representatives can improve the client experience and meet their expectations. One such technological advancement is chatbots, which are essential for improving consumer experiences and partnerships with businesses (Ambawat and Wadera, 2019). To maximise the advantages of chatbots, it is crucial to understand how users see their usability, entertainment value, and hazards. The main thesis of this study is that customers' perceptions of chatbots' usability, utility, amusement value, and hazards affect their experiences with them and their propensity to use them again.

Customers that have a positive chatbot encounter are more likely to view them favourably and have more confidence in their abilities. Consumers are more likely to view chatbots as useful resources for meeting their needs if they deliver prompt and accurate responses, help with problem-solving, and offer a seamless and user-friendly interface. A well-designed chatbot can enhance the entire customer experience while also accelerating interactions and resulting in a more fruitful and satisfying encounter (Jenneboer, Herrando, and Constantinides, 2022). On the other hand, a poor chatbot customer service experience may have a negative impact on customers' opinions of and trust in chatbots. If chatbots frequently fail to grasp requests, provide false information, or deliver a horrible user experience, customers are likely to become annoyed and view them as a burden rather than a helpful tool. Negative encounters can damage consumer confidence and make them reluctant to use chatbots, possibly leading them to look for other options or human assistance. Businesses must invest in continual improvement, leveraging user input and Artificial Intelligence developments, to make sure that the customer experience remains a major priority in the development and deployment of chatbot technology in order to foster favourable attitudes towards chatbots (Javaid, Haleem, and Singh, 2023).

## 2.6. Behavioural Intention

The possibility that someone will use chatbots for mobile messaging is referred to as behavioural intention. Behavioural intention and attitudes towards chatbots are interconnected. In other words, by predicting how customers will feel about chatbots, one may forecast how likely they are to use them (Eeuwen, 2017). A client is more likely to have favourable behavioural intentions related to using chatbots if they perceive that there are adequate resources and infrastructure accessible. In other words, a client is more likely to utilise chatbots if they have faith in the efficiency of scientific tools like internet infrastructure and the similarity of the data, schemes, and innovation required for online access (Wong, Tan, Tan, and Ooi, 2015). In this regard, it may be hypothesised that consumers' perceived ease of use, utility, and enjoyment of chatbots have a positive impact on their desire to use customer care chatbots, while their perceived danger of using chatbots has a negative impact. Additionally, it can be argued that a great customer experience influences their decision to use chatbots again in the future. These presumptions suggest that there may be a link between customer satisfaction and a person's propensity to use chatbots again in the future.

Lubbe and Ngoma (2021) stipulate that customers are more likely to display a favourable behavioural intention and engage in more engaging and interactive behaviour when they have a positive attitude towards chatbots. A favourable outlook demonstrates their readiness to employ chatbots for a variety of tasks, such as researching, buying, or contacting customer service. The growing acceptance and incorporation of these virtual assistants into consumers' daily lives may result from their willingness to interact with chatbots, which will ultimately help businesses by enhancing productivity and client satisfaction. On the other hand, De Cosmo, Piper, and Di Vittorio (2021) claim that a bad opinion of chatbots can make people reluctant to interact with them, which lowers the behavioural intention to utilise these virtual assistants. Customers may intentionally avoid communicating with chatbots if they find them to be unhelpful, annoying, or obtrusive, opting to use different channels or seek out human support in their place. To impact consumers' views and raise their behavioural intention to accept chatbots as useful tools, businesses must invest in developing positive consumer experiences with chatbots, concentrating on

user-friendly design, accuracy, and transparency. By doing this, businesses may use chatbots to improve customer service, expedite processes, and develop closer bonds with their clients.

### 3. METHODOLOGY

This study uses a correlational survey model and a quantitative research methodology. For many years, quantitative research approaches have been crucial in revealing connections, patterns, and trends across a range of academic disciplines. This study uses a sophisticated quantitative method called a correlative survey model to examine the dynamics between the relevant variables. This methodology differs from earlier studies, which mainly used simpler survey designs, in that it offers a unique perspective on understanding these linkages. [Apuke \(2017\)](#) notes that the correlative survey approach goes further in exploring the relationships and correlations between numerous variables than standard surveys, which only attempt to describe one variable or evaluate opinions. [Tobi and Kampen \(2018\)](#) affirm that a correlational survey model and a quantitative research methodology enable researchers to find complicated relationships and linkages between variables rather than only identify independent elements, giving a more comprehensive perspective on complex events. The correlative survey methodology also places a strong emphasis on quantifying these interactions, allowing researchers to identify the direction and intensity of associations and, consequently, facilitate more accurate forecasts and focused interventions. With the help of this development in survey methodology, the study is able to go beyond simple descriptive analysis and provides a solid framework for examining complex relationships that might have gone unnoticed in earlier studies about how consumers' attitudes towards chatbots affect their experiences and behavioural intentions.

Using a quantitative research approach with a correlational survey model, numerical data is easily collected and analysed to provide statistical insights into how consumers' attitudes towards chatbots affect their observations and behavioural intentions. In view of the concerns about chatbots and how consumers' attitudes towards chatbots affect their experiences and behavioural intentions, the study proposes the following hypothesis:

*H<sub>1a</sub>: The use of chatbots exhibits an encouraging impact on the customer experience.*

*H<sub>1b</sub>: The use of chatbots has an encouraging impact on behavioural intention.*

*H<sub>2a</sub>: The ease of use of chatbots has an encouraging impact on the customer experience.*

*H<sub>2b</sub>: The ease of use of chatbots has an encouraging impact on behavioural intention.*

*H<sub>3a</sub>: The apparent enjoyment of chatbots has an encouraging impact on the customer experience.*

*H<sub>3b</sub>: The apparent enjoyment of chatbots has an encouraging impact on behavioural intention.*

*H<sub>4a</sub>: The perceived risk of chatbots has a negative impact on the customer experience.*

*H<sub>4b</sub>: The perceived risk of chatbots has a negative effect on behavioural intention.*

*H<sub>5</sub>: There is a positive correlation between consumer observation and behavioural intent to utilise chatbots.*

All customers in South Africa who have used chatbots for at least five years made up the study's target audience. It takes a lot of time and money to reach everyone in South Africa who has used chatbots for at least five years. The sample size of this study was 211 consumers with at least five years' experience of using chatbots in South Africa who were selected using a nonprobability convenience sampling method. As a quantitative research strategy was used in this study, administering questionnaires to participants was the main way of gathering data. Participants' perspectives of the research subject under inquiry and patterns between huge populations were revealed using questionnaires. The main technique in this study utilised a closed-ended questionnaire to get thorough information from participants. To interpret and analyse the data acquired, computer programmes such as the Statistical Package for the Social Sciences (SPSS) and SmartPLS3 were utilised. Partial least squares structural equation modelling (PLS-SEM) software is available under the name SmartPLS. It is a variance-based structural equation modelling that allows for the management of a small sample and does not necessitate a normal distribution ([Hair, Ringle, and Sarstedt, 2011](#)). Inferential statistics were used to do correlations to search for any relationships between the variables of the questionnaire.

#### 4. FINDINGS

The data collected from the participants was analysed and interpreted with the use of SPSS and SmartPLS3, which are the most convenient computer programmes for quantitative data analysis. The main aim of the analysis is to evaluate how consumers' attitudes towards chatbots affect their experiences and behavioural intentions. Apparent usefulness, apparent ease of use; apparent enjoyment and apparent risk are the exogenous variables. Consumer experience and behavioural intention elements are the endogenous variables. The purpose of the study was to determine how perceived usefulness, perceived ease of use, perceived enjoyment, and perceived risk affect consumers' experience and behavioural intentions. The research hypothesis comprises four exogenous variables [apparent usefulness (four items), apparent ease of use (five items), apparent enjoyment (three items), and apparent risk (three items)]. And two endogenous variables [consumer experience (three items) and behavioural intention (five items)]. Validity and reliability scales were established to calculate and portray item-factor loadings, Cronbach's alpha, composite reliability (CR) coefficients for reliability, and average variance extracted (AVE) coefficients for construct validity. The results of the reliability and validity tests conducted are depicted in [Table 1](#).

**Table 1.** Item-factor loadings and validity and reliability values.

Variables	Number of items	Item loadings	C $\alpha$	CR	AVE
Chatbot apparent usefulness (CBAU)	CBAU1	0.952	0.960	0.971	0.894
	CBAU2	0.929			
	CBAU3	0.946			
	CBAU4	0.955			
Chatbot apparent ease of use (CBAEU)	CBAEU1	0.956	0.977	0.982	0.917
	CBAEU2	0.953			
	CBAEU3	0.958			
	CBAEU4	0.965			
	CBAEU5	0.956			
Chatbot apparent enjoyment (CBAE)	CBAE1	0.977	0.979	0.986	0.960
	CBAE2	0.979			
	CBAE3	0.983			
Chatbot apparent risk (CBAR)	CBAR1	0.886	0.920	0.949	0.862
	CBPR2	0.948			
	CBAR3	0.949			
Behavioural intention (BI)	BI1	0.949	0.980	0.984	0.926
	BI2	0.968			
	BI3	0.976			
	BI4	0.971			
	BI5	0.949			
Customer experience (CE)	CE1	0.974	0.954	0.970	0.916
	CE2	0.931			
	CE3	0.966			

The results of the reliability and validity of the items indicate that factor loadings are greater than 0.7, which is the reference value, and represent the variables that are purported to be represented. The items had Cronbach's alpha (C $\alpha$ ) and composite reliability (CR) coefficients that were greater than 0.7, which is also the reference value, indicating reliability. The items equally have average variance extracted (AVE) coefficients that are greater than 0.5, which is the standard reference value, indicating construct validity.

SmartPLS encompasses self-reliance for testing hypotheses. [Hair et al. \(2011\)](#) stipulate that the significance levels of two-sided critical t values for 1.65, 1.96, and 2.58 are 10%, 5%, and 1% respectively. Bootstrapping is used to work out the mean, standard deviation (STDEV), t, and p values of the research hypothesis. [Table 2](#) portrays the test results of the research hypothesis.



Table 2. Results of research hypothesis.

Hypotheses	Mean	Sd.	$t$ ( $ O/STDEV $ )	P
H1a: Chatbot apparent usefulness - Customer experience	0.203	0.093	2.149	0.032
H1b: Chatbot apparent usefulness - Behavioural intention	0.166	0.083	2.070	0.039
H2a: Chatbot apparent ease of use - Customer experience	0.247	0.084	2.980	0.003
H2b: Chatbot apparent ease of use - Behavioural intention	0.247	0.082	2.948	0.003
H3a: Chatbot apparent enjoyment - Customer experience	0.520	0.075	6.964	0.000
H3b: Chatbot apparent enjoyment - Behavioural intention	0.156	0.081	1.912	0.056
H4a: Chatbot apparent risk - Customer experience	0.014	0.025	0.530	0.596
H4b: Chatbot apparent risk - Behavioural intention	0.002	0.019	0.121	0.904
H5: Customer experience - Behavioural intention	0.420	0.085	4.954	0.000

Nine hypotheses were tested; six were confirmed, while three others were rejected. Chatbot apparent fun or enjoyment, which is H3b, was rejected because there was no significant relationship between apparent fun and behavioural intention ( $t < 1.96$ ;  $p > 0.05$ ). Chatbot apparent risk which is hypothesis H4a, and chatbot apparent risk, which is hypothesis H4b, were equally rejected because there was no significant relationship between apparent risk, and consumer experience ( $t < 1.96$ ;  $p > 0.05$ ), and behavioural intention ( $t < 1.96$ ;  $p > 0.05$ ). However, the results indicate that there was a positive relationship between apparent usefulness and consumer experience ( $t > 1.96$ ;  $p < 0.05$ ) and behavioural intention ( $t > 1.96$ ;  $p < 0.05$ ). There is a positive relationship between apparent ease of use and consumer experience ( $t > 2.58$ ;  $p < 0.01$ ). There is a positive relationship between apparent enjoyment and customer experience ( $t > 2.58$ ;  $p < 0.01$ ). There is also a positive correlation involving consumer observation and behavioural intention ( $t > 2.58$ ;  $p < 0.01$ ). According to the results of this analysis, apparent usefulness, apparent ease of use, apparent fun, and apparent risk, which are the exogenous variables, significantly predict consumer experience and behavioural intention, which are the endogenous variables.

The results of the testing of the hypotheses offer important new understandings of the connections between different aspects of customer attitudes towards chatbots and their future experiences and behavioural intentions. The rejection of the chatbots' seeming enjoyment theory suggests that there is no meaningful connection between consumers' behaviour objectives and how much fun or enjoyment they consider utilising a chatbot to be. This implies that consumers' perceptions of enjoyment could not be a significant factor in determining how willing they are to interact with chatbots. Both chatbot apparent risk (H4a and b) hypotheses were rejected, indicating that consumers' perception of the risk associated with utilising a chatbot has little to no impact on their entire shopping experience or their underlying behavioural intentions. This would imply that customers' worries about dangers aren't a substantial obstacle to their adoption of chatbots. Consumers view chatbots as useful tools that improve their experience and encourage them to interact with technology more, according to the positive association between perceived usefulness and both consumer experience and behavioural intention. The positive correlation between apparent ease of use and customer satisfaction shows that customers favour chatbots that are simple to use and engaging. This simplicity of use probably results in a more satisfying overall experience. Customers that find utilising chatbots entertaining are more likely to have favourable experiences and intend to continue using them, according to the positive association between apparent enjoyment and both consumers observation and behavioural intent. It is widely accepted that consumer experience and behavioural intention have a beneficial link. When using chatbots successfully, users are more likely to be satisfied and use them again in the future.

The findings imply that aspects like perceived utility, usability, and enjoyment are important in determining how consumers feel about chatbots. Customers are more likely to have favourable experiences with chatbots and are more likely to want to use them in the future if they believe them to be useful, simple to use, and enjoyable. The results also highlight the fact that characteristics like usefulness, convenience of use, and enjoyment may be more important than worries about fun and risk. This suggests that customer attitudes toward chatbots are more influenced by practicality and usability than by pure entertainment value or concerns about potential risks. These

tips are helpful for companies and programmers building chatbot systems. Companies may be able to improve user experiences and encourage more positive user behaviour by concentrating on boosting chatbots' utility, use, and delight. The findings also suggest that by understanding and addressing consumers' concerns about dangers and fun, it is possible to increase chatbots adoption and user satisfaction. In conclusion, characteristics including perceived usefulness, simplicity of use, enjoyment, and, to a lesser extent, worries about risk and fun affect consumers' attitudes towards chatbots. By considering these elements, organisations may design chatbot interactions that are more efficient and user-friendly, improving both the consumer experience and behavioural intents.

The study's findings shed important light on the variables that have a substantial impact on South African consumers' behavioural intentions, especially when it comes to chatbots. These findings imply that the attitudes and perceptions of South African consumers towards chatbots are crucial in determining their entire experience and behavioural intentions. Customers are more likely to have pleasant experiences and display positive behavioural intents, such as continuous usage or recommending the business, if they believe chatbots to be helpful, simple to use, and enjoyable. On the other hand, worries about apparent danger, such as issues with privacy or data security, may negatively affect the entire experience and discourage planned behaviour. Additionally, it is interesting that these results concur with a related study carried out in Turkey in 2021 by Gümüş and Ark, which investigated the impact of consumers' perceptions towards chatbots on their experiences and behavioural intentions. The consistency of these results across numerous cultural and regional contexts, including South Africa and Turkey, emphasizes the strength of the association between consumer opinions of chatbots and their subsequent actions. This cross-cultural validation suggests that factors like perceived usefulness, usability, enjoyment, and risk are universal drivers in the context of chatbot adoption and usage, underscoring their relevance on a global scale and the necessity for businesses and policymakers to give priority to these dimensions when implementing chatbot technologies to improve customer experiences and encourage desired consumer behaviours.

## 5. CONCLUSIONS

This study examined the complex interactions between consumer attitudes about chatbots and their subsequent experiences and behavioural intentions in the context of South Africa. The results underlined how important perceptions of usefulness, usability, and enjoyment are as catalysts for productive encounters with chatbots. While it was discovered that customers' worries about enjoyment and risk had little bearing, the study emphasised the importance of utility and practicality in influencing attitudes. These findings are of the utmost significance for companies looking to optimise their chatbot systems since they show how to improve customer experiences and encourage long-term behavioural intentions among South African users. Organisations may promote deeper relationships with customers and a wider integration of chatbots into the South African digital landscape by adjusting chatbot functionalities to correspond with the identified factors. To do this, businesses that have an interest in using customer service chatbots ought to work to develop effective communication tactics that can enable their target customers to learn more about their demographic features and let their target customers understand that they are available to offer 7/24 customer service.

### 5.1. Implications

In South Africa, the effects of consumer attitudes towards chatbots on their experiences and behavioural intentions are complex and contain important policy consequences. Policymakers should give top priority to measures targeted at fostering trust and familiarity with chatbot technology through education and awareness campaigns in order to fully realise the promise of chatbots for greater behavioural intent and better consumer experiences. To address consumer concerns, legislative frameworks must also be implemented to protect data security and privacy. Additionally, encouraging the creation of chatbots with a variety of cultural and linguistic

backgrounds is necessary to guarantee that all residents, regardless of language or dialect, may access and benefit from these technologies. By fostering a supportive ecosystem for chatbots and addressing consumer concerns, South Africa can optimize the positive impact of chatbots on customer experiences and behavioral intentions, ultimately driving economic growth and innovation.

### 5.2. Study Limitations

Self-reported data were used in the study, which included biases in recollection and responses since participants may not have precisely remembered their encounters with chatbots or may have overstated or understated their genuine opinions and behaviours. The possibility of social desirability bias in responses, where individuals gave comments that matched perceived societal norms rather than their real views and behaviours towards chatbots, was another drawback. Finally, the study's conclusions were timely due to the quickly changing nature of technology and consumer preferences. Consumer views and behaviours changed over time as chatbot technology advanced; therefore, it is crucial to take into account the temporal relevance of the study's findings.

### 5.3. Suggestions for Future Research

Future studies should investigate a number of directions to deepen our understanding and fill knowledge gaps about how consumer attitudes towards chatbots affect their experiences and behavioural intentions in the setting of South Africa.

1. Examine how various South African demographic groups—including those that differ in age, education, income, and location—perceive and engage with chatbots. This can help build and implement chatbots to target particular consumer segments.
2. Carry out long-term studies to monitor alterations in customer views and behaviour about chatbots. This can give information about how consumer tastes have changed over time and how technical improvements have affected the use of chatbots.
3. Comparative Analysis: Evaluate how South African consumers feel about chatbots in comparison to those in other nations or areas. This comparative investigation can shed light on particular elements affecting chatbot preferences and adoption in South Africa.

**Funding:** This study received no specific financial support.

**Institutional Review Board Statement:** The Ethical Committee of the University of Johannesburg, South Africa has granted approval for this study on 16 June 2023 (Ref. No. UJ-HS-2023-0012).

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Data Availability Statement:** Upon a reasonable request, the supporting data of this study can be provided by the corresponding author.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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