
Chatbots in the Service Sector: A Successful Customer Experience

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ABSTRACT: The conversational approach adopted by chatbots reflects the current trend towards transparent, efficient communication. Users are more inclined to use a service that understands their language, reacts quickly and adapts to their conversational style. This can help build trust and loyalty among users, who perceive the service as friendlier and more accommodating. This article aims to deepen the understanding and importance of chatbots' conversational approach to service. A review of this research highlights the relevance of a conversational approach in this field, particularly when applied to customer service chatbots, improving user experience and motivation through the creation of more natural, responsive and personalized interactions.

KEYWORDS: Conversational approach, Chatbots, services, experiences, motivations, customers.

I. INTRODUCTION

The benefits of automation in the service sector are becoming increasingly apparent. Technological advances are enabling this sector to extend its reach and maintain a more powerful market share. Offering customers fast, reliable and easily accessible services (such as those found in financial services) is key to creating profits and achieving various business objectives (Ivanov and Webster, 2017).

Chatbot technology, is a form of artificial intelligence that can simulate human behaviour using tools such as machine learning, deep learning and NLP (Aslam, 2023). It can also process images, videos or audios according to customer requirements (Upchurch et al., 2017). They are widely used for customer service due to their ability to simulate a human conversation, enabling users to type requests and receive understandable responses (Sheehan, Jin and Gottlieb, 2020). Not only do they provide answers to typical queries that arise during these interactions (Suhaili and al., 2021), but they can also connect customers with a real person on the phone if required (Schanke and al., 2021). In recent years, the use and popularity of these bots for customer service and marketing in general has grown considerably (Zumstein and Hundertmark, 2017). According to a survey by Tidio¹, it is expected that by 2027, these agents will be primarily responsible for all customer interactions, including telephone conversations.

Despite the apprehension associated with adopting a system linked to this form of AI, there is still an atmosphere of anxiety, unease, psychological tension and disagreement that leads to a preference for Chatbots as a means of communication (de Cosmo, Piper and Di Vittorio, 2021). As a result, firms in the service sector find themselves obliged to familiarize themselves with bots as a privileged channel in their relations with customers (Gupta and al., 2021). The aim of our article is to show the importance of using chatbots in a sensitive field such as services. This research aims to determine the usefulness of integrating a conversational approach within the enterprise. Conversational marketing is a more recent approach that relies on real-time interactive conversations to engage customers (Steinhoff and al., 2019). It involves the use of Chatbots, messaging applications, live chats and other conversational tools to initiate and facilitate dialogue with customers.

Firstly, this study highlights the importance of encouraging a conversation-based approach in the service sector. Secondly, it highlights the fundamental principles of customer service and the crucial role of chatbots in this field. Finally, it concludes with an analysis of customer experience and motivation to use chatbots in this specific area.

II. THE RELEVANCE OF A CONVERSATIONAL APPROACH TO SERVICES

Recently, a few researchers have suggested that conversational marketing is the current trend in the services sector (Thomaz et al., 2020). This idea is not new, since conversational marketing has become an integral part of relationship marketing, which is significant in service marketing (Brandtzaeg & Følstad, 2017). Thus, the concept of conversational services has its roots in service

¹<https://www.tidio.com/blog/Chatbot-statistics/>, consulted on 5/12/2023

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and relationship marketing (Israfilzade, 2021). This explains why this approach has been adopted by the service industry. Gartner² predicts that by 2025, 75% of interactions in the services sector will be via conversational marketing. Researchers in the fields of artificial intelligence and marketing are both aware of this importance (Moguluwa and al., 2022). Thanks to the Internet, big data, computer science, robotics and programming, artificial intelligence has advanced rapidly and is now capable of solving complex tasks and problems (Israfilzade& Pilelien 2018; Israfilzade 2020; moguluwa 2022a).

New technologies have had a great impact on the production of and access to various types of content such as music, conversations, art, poetry, jokes, film or news scripts and problem-solving solutions (Akerkar, 2019). Customers are now inundated with data that can be obtained through these advances. This presents a challenge for companies in the service sector striving to retain and attract customers due to the fact that consumers have multiple options at their disposal (Hori and al., 2019). According to these researchers, to be successful and efficient, service organizations must be able to execute their operations effectively without any problems. What's more, the link between service organizations and their customers has become more sensitive due to the presence of numerous touch points. As a result, modern marketers face many difficulties when trying to organize and manage large amounts of data, as well as deliver personalized messages that have an effect on the customer journey. Research into conversational marketing in the service sector examines the extent to which it can improve customer experience and engagement. Some studies suggest that conversational marketing can lead to greater customer approval, a better brand relationship and higher sales (Maslowska and al., 2016). On the other hand, other studies indicate that if this type of marketing is not done properly, it can be perceived as intrusive and annoying (Cancel and Gerhardt, 2019).. Discussion persists regarding the best use of conversational marketing in a variety of service industries. In the finance sector, for example, experts point out that there should be sustainable technological integration, specifically with the use of artificial intelligence, in order to evolve customer experiences (Chaffey and Smith, 2022). According to these researchers, the benefits arising from this perspective can be broken down into:

- ❖ Process automation: AI can automate back-office mechanisms. Examples include account management, data verification and credit calculations;
- ❖ Improving accuracy: AI can help improve the accuracy of economic and financial forecasts by using algorithms to process large amounts of data;
- ❖ Fraud detection: AI can be used to detect financial fraud using data analysis algorithms;
- ❖ Personalization: AI can help personalize financial offers for customers using data analysis algorithms;
- ❖ Time and cost savings: automating financial processes with AI can optimize funds and time, as tasks are completed faster and more efficiently.

However, AI in services must be used responsibly and ethically in order to reduce potential threats to consumers and ensure the transparency and security of financial transactions (Israfilzade, 2021a). The service sector must adopt a conversational approach to achieve its profit and growth objectives, as this is the key to creating positive links with its customers. This need is further reinforced by the fact that services contain a certain level of danger (Zollinger & Lamarque, 1999). According to Gabriel et al.(2014), services generally have the following characteristics:

- ✓ Intangibility: Services cannot be touched, seen or tasted, and exist only in the customer's mind;
- ✓ Inseparability: it is impossible to separate the production process from the service itself;
- ✓ Perishability: services cannot be stored or saved for future use, meaning that unused capacity is lost forever;
- ✓ Heterogeneity: services can vary considerably in terms of quality and level of performance, even if they are marketed under the same name or brand;
- ✓ Customer involvement: Services often involve a high degree of customer participation and interaction, which can have an impact on the service experience.

In addition, the scientific community has been intrigued by the use of conversational marketing in the service industry. Crottet (2001) suggests that service composition is a powerful reason for using long-term marketing rather than transactional marketing. Moguluwa (2022) also endorses conversational marketing strategies for services, providing three main reasons:

- The essential nature of services requires a personal connection. Constant communication between service providers and the one receiving the information implies an exchange of dialogue ;
- Better understanding of the service provider soothes customer discomfort. Improving the link between service providers and the consumer through conversation reinforces their sense of importance ;
- The progress of NICTs has undeniably favored social connections such as instant messaging or online communities. ICTs have enabled a deeper understanding of customer buying behavior.

In conclusion, the research cited above clearly explains the importance of adopting a conversational approach in the service sector. On the other hand, this adoption is following radical changes, especially with the unprecedented development of Chatbots, the essential tool for conversational marketing.

²Gartner (2018) cited in *Building the AI-powered customer center of the future by Customer Think (June 2018)*

III. CHATBOTS FOR CUSTOMER SERVICE: USER EXPERIENCE AND MOTIVATION

Customer service providers are increasingly turning to Chatbots as the primary source of assistance for customers in need of help. Not only can this improve the performance of the service provider, but it is estimated that by 2025, a quarter of all customer service operations worldwide will make use of this technology. Technology giants such as GAFAMI estimate that 85% of brand-customer interactions will involve the use of this form of AI in the near future³. The widespread acceptance of conversational user interfaces could be greatly encouraged by the intensive use of bots for customer service, which is an essential part of many people's lives (Nicolescu & Tudorache, 2022). Nevertheless, the mass application of these bots for customer service will depend on customers' assessment of their value. As a result, Chatbots for customer services can only be useful if they lead to an evolving customer experience in which the customer engages with an act filled with a certain emotion and pleasure (Rossmann and al., 2020). Indeed, they are increasingly used in companies to improve the customer experience. They allow users to ask questions and receive answers in real time, without needing to speak to a human agent. They can also be used to automate certain tasks, such as booking a flight or ordering a product online (ling and al., 2021).

Technological advances, such as artificial intelligence and automatic natural language processing, have made it possible to create increasingly sophisticated bots. They can now understand the nuances of language and answer users' questions more accurately (ling and al., 2021a). There are also Chatbots designed to be used across multiple messaging platforms, such as WhatsApp, for an even smoother customer experience. They are seen as representatives of online firms, able to provide advice and useful information without queuing, a problem that is often overwhelmed in call centres, hence the frustration of most customers.

A. Customer service

Customer service can be defined as "the provision of information and assistance to the users of a service provider. Customer service can be designed to increase users' commitment, to the service provider and increase the company's revenues or simply to provide users with the help and information they need (Goldstein and al., 2002). This definition of customer service posits that it is about providing assistance and information to customers in order to meet their needs, create a positive shopping experience and retain as many customers as possible. McLean & Wilson (2016) suggest that the success of customer service operations depends on delivering a good user experience. If customer service is inadequate, users will be dissatisfied and less likely to return as customers (Haugeland and al., 2022).

Nevertheless, automation and self-service technologies provided by companies are becoming increasingly common. These technologies aim to create positive emotions with customers (Berry and al., 2002). A survey conducted by Microsoft⁴ revealed that 90% of consumers expect brands to offer self-service options. This demand favours the transition towards a more technological relationship between customers and the brand. As such, self-service technology offers several benefits (Boon-itt, 2015):

- Greater flexibility for customers, who can access products or services at any time, without having to wait for assistance from an employee;
- A better customer experience, as customers can take their time to browse products and services;
- Increased efficiency, so customers can quickly find what they need without having to ask for help;
- A reduction in costs for businesses, as there is less need for employees to assist customers.

However, several researchers (E. Collier and al., 2014; Blut and al., 2016) consider that self-service technology can have several negative effects. These include

- Increased frustration: Self-service technology can be difficult to use, particularly for elderly or disabled customers. This can lead to increased frustration and dissatisfaction.
- Technical problems: Self-service technology can malfunction or be unavailable, resulting in delays and inconvenience for customers;
- Privacy issues: self-service technology often requires customers to enter personal information, which can cause privacy issues if the technology is not properly secured.

Stone et al (2015) suggest that automation and self-service technologies can have a contradictory impact on customers, as they can be both helpful and confusing. Despite the growing number of digital self-service options, such as web pages and apps, there is still a need for many trained customer service agents. Despite advances in self-service solutions, call centres have seen a significant rise in recent times (Følstad and al., 2014). Customers frequently choose to use multiple channels to get help and data from companies, with surveys⁵ suggesting that almost 90% of those who phone customer service first consult the website. In this context, Chatbots for customer service can refer to anything between self-service on customer web pages and services involving trained staff.

³<https://www.bob-le-bot.fr/blog/statistics-Chatbots-customer-relations/>, consulted on 30/09/2023

⁴<https://www.liveagent.fr/role-of-customer-service-in-the-customer-experience/>, consulted on 12/12/2023

⁵<https://www.fevad.com/oney/>, consulted on 19/12/2023

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B. Chatbots at the service of customers

Chatbots have been studied as a potential method of improving customer service for the last twenty years. These bots are not new, but interest in their use in customer service has grown considerably over two periods. The first wave took place in the early 2000s and focused on the introduction of 'virtual agents' to answer common enquiries (M. Singh and al., 2018). From 2016, the second wave of development of this AI form was propelled by conversational technology from major tech companies such as Microsoft, Facebook and Google (Dihingia and al., 2021), alongside the growing success of Apple's Siri and Amazon's Alexa (H. Chen and al., 2017). Thanks to major advances in AI, this wave has seen significant improvements in the capabilities of virtual agents compared to the first wave. These revolutions in the technological domain represent a key potential for the modernisation of Chatbots in customer service (Bavaresco and al., 2020).

As already mentioned, the use of AI in digital services is becoming increasingly ubiquitous, which means that these agents are regularly present in customer services. These bots are typically used for sales (41%) or support (37%) purposes across a range of industries (Ashfaq and al., 2020a). Navigating an extensive website can be laborious and complex, and sometimes they are not even present at all. It is suggested that customers are constantly looking to improve and that businesses should improve their customer service in a sustainable way. This means relying on live agents, an unsustainable solution as it cannot provide faster and more efficient resolutions when the volume of enquiries is high (Thompson, 2018). As a result, the customer becomes frustrated, leading to dissatisfaction with the organisation (Zumstein & Hundertmark, 2017).

To improve conversion rates and attract potential customers, it is best to combine traditional customer service with the ease of online shopping. Chatbots are the ideal solution for this, as they offer a more cordial, interactive and individual alternative to typical customer service (Chung and al., 2020a). In fact, bots can be found offering ongoing assistance when people need to contact the company (Zumstein & Hundertmark, 2017). The Chatbot environment is not impacted by human weariness or anxiety, as a result the offer to customers is continuous consideration and thoughtfulness (X. Luo and al., 2019). Furthermore, when the customer needs an answer to a commonly asked question, facts about a product, a cost or contact information, the agent can respond quickly to any query or concern. The bot is able to perform decision processes with a very low error rate and provide solutions that align with the user's goals through its programmed directives. Schlicht (2018) suggests that customers are less likely to lose interest in the fact that they can get a quick answer to their questions without needing to connect with an employee. This created a similar atmosphere to when communicating with companions, and leads to interacting with customers in a spontaneous way. What's more, this process is able to identify words, expressions and sentence composition thanks to its pattern recognition method. They enable companies to react to customers in an organised way, anticipating their behaviour, understanding their feelings and identifying their preferences. This information is quickly recorded and reused for future conversations. What's more, a record of interactions is kept. Thanks to artificial intelligence, they can access it to provide more accurate and tailored feedback (Q. N. Nguyen & Sidorova, 2018). Companies benefit from being able to assess their customers' emotions. In addition, businesses can quickly share promotional offers. As an example, the Bot developed by the Dominos brand on Face Book Messenger informs customers 24/7 about promotional offers.

Collecting data from customers on a large scale using this form of AI leads to a better understanding of consumer reactions and thus to improved decision-making. This has two notable effects for businesses (Zumstein and Hundertmark, 2017b): Firstly, it changes the way they communicate and interact with their customers; secondly, it significantly affects communication between them. The objective of a bot is to help its user achieve greater satisfaction, which is considered a success factor in customer service (Nuruzzaman & Hussain, 2018).

C. Customer experience and motivation for Chatbots

The ongoing dialogue between academics, specialists and professionals on the meaning, evaluation and effect of the customer experience has always occupied the scientific arena. This debate encompasses many perspectives, such as marketing, psychology, sociology and design, and addresses issues such as the role of feelings, customer service and customer engagement (De Keyser and al., 2015). Researchers studying customer experience and behaviour attempt to understand the complex relationship between them while trying to create better techniques for developing and managing customer experience. As a result, a variety of approaches have been suggested by research scientists to create the customer experience. Here are some of the most widespread (Jain and al., 2017):

- ❖ The multidimensional approach, which assumes that the customer experience is composed of several elements such as service quality, satisfaction, emotions, attitudes, perceived value, etc ;
- ❖ The consumer-centric approach focuses on the customer's feelings and opinions when engaging with a brand, product or service;
- ❖ The stages approach considers the customer experience as a progression of stages such as anticipation, involvement, recognition and remembrance;
- ❖ The holistic experience approach considers the overall customer experience from all points of interaction with a company as well as other relevant factors.

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Our research focuses on the consumer-oriented perspective and its association with the customer service provided by Chatbots. Therefore, AI-based customer encounters allude to a buyer's overall impression of a brand based on their transactions with it (Oh and al., 2012). Previous surveys have identified five aspects of a customer experience: cognitive, emotional, physical and sensory as well as social (Ladhari and al., 2017). The American Psychological Association⁶ recognises perception, memory and others as cognitive elements. Keiningham and al. (2017) have shown that these cognitive aspects of customer experience correlate with service performance, speed and availability. In addition, Ladhari and al. (2017) found that the emotional components of customer service tend to be more complex. In addition, the physical and sensory components of a customer experience may differ between in-person and online experiences.

Offline experiences are characterised by elements such as physical artefacts, lighting, the way the space is laid out and signage (Lam, 2001), while online experiences focus on features such as an intuitive user interface and organised design (Keiningham and al, 2017). In addition, the social aspect of a customer's experience is influenced by external factors such as their family life, peers and wider social network (Verhoef and al, 2009).

Gartner⁷ (2020) has investigated the potential of AI-driven technologies, such as Chatbots, to provide a more comprehensive, accurate and faster analysis of customers than manual human-driven approaches. It is suggested that this could be a major technique used by customer services to continually improve the customer experience and therefore boost their competitive advantage. This artificial intelligence has the great advantage of being Omni-channel. In other words, it is capable of providing customers with a service when, where and how they need it, which these bots are particularly good at doing (Kamel & Kay, 2011). This means that these agents can be used across multiple digital platforms such as instant messaging services or social media platforms to leverage data collected from previous interactions (Thompson, 2018).

Chung and al (2020) found through a scientific study that user satisfaction with these bots for luxury brand marketing on messaging platforms is related to how accurate and trusted they are perceived to be. This research concerns customer service Chatbots, which are part of the overall user experience. Yin and al(2014) found that users' opinion of a brand after interacting with a machine depends on the bot's perceived value and usefulness. However, the context of use of marketing chatbots is different from that of customer service (Følstad & Skjuve, 2019). The former is used to provide information about services, while the latter is generally used to solve user problems. However, there is no clear consensus among scientific researchers on what characteristics these bots should have to provide a timely experience for customers. Indeed, researchers such as Zarouali and al. (2018); Sanny and al. 2020); Van den Broeck et al.(2019) have found that perceived usefulness is key to the quality of a bot. In addition, other factors such as the quality of information that affect the reliability and accuracy provided by these agents (Chung and al., 2018) are also important. In addition, trust can be increased through integrity and transparency to ensure a better customer experience with less apprehension towards AI (Przegalinska and al., 2019).

Waiting time is known to dampen negative emotions (Groulx-la voie, 2019). If the waiting period is short, customers can be satisfied with their experience. Chatbots are often entertaining and enjoyable, leading customers to feel satisfied with the interaction (Sanny and al., 2019). In addition, other studies have looked at the personalities of these agents, which can affect customer satisfaction. For example, Murgia and al. (2016) studied how users perceived a bot depending on whether it was presented as a human or a machine in a question-and-answer website. Similarly, Medhi Thies and al. (2017) found that individuals were more likely to be attracted to Chatbots with an engagement-focused attitude than those with a neutral or informative stance. Araujo (2018) found that anthropomorphic cues could help cultivate a stronger emotional connection between user and company. For their part, Brandtzæg and Følstad (2017) found that productivity was the main motivation for customers to use this form of AI, while emotional and social influences had some importance for some people. Similarly, Zamora (2017) observed that these agents were mainly perceived as useful for mundane administrative tasks such as organising appointments, sending notifications and keeping records.

IV. CONCLUSIONS

Certainly! The relevance of a conversational approach to services, particularly in the context of chatbots for customer service, is rooted in the desire to improve user experience and motivation. A conversational approach involves using natural language and interactive dialogues to engage with users. Applied to customer service chatbots, this approach aims to make interactions more human, improving the overall user experience.

Despite their capabilities, chatbots are not as good at handling complex questions and emotions as human customer service representatives (B. Luo and al., 2022). Companies need to assess the types of requests they receive and decide when a bot is an appropriate solution and when a live person should be called in.

⁶ American Psychological Association. (2016). Glossary of Psychological Terms. (Accessed on 10/11/2023).

⁷Gartner. (2020). Fostering growth in times of disruption. <https://www.gartner.com/>. (Consulted on 17/12/2023).

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To sum up, Chatbots can be beneficial in improving the customer service experience as a whole; however they should not completely take the place of human representatives. Using both together can give customers a more comprehensive and tailored support experience.

Furthermore, our study leads to significant conclusions in the context of the conversational approach. A number of studies have attempted to study customer relations in the virtual sphere, but few have tried to examine the conversational approach through chatbots in the service domain. However, the main limitation lies in its exclusive focus on theoretical aspects, which suggests an empirical approach might be beneficial to deepen the understanding of this strategic transition.

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