

SYSTEMATIC LITERATURE REVIEW: THE IMPACT OF CHATBOT USE AND SERVICE QUALITY ON CUSTOMER LOYALTY

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Abstract

This research examines existing literature to understand how chatbots, as an automation tool in customer service, influence customer perceptions of the quality of service received. Apart from that, this research also assesses how service quality influenced by the use of chatbots can increase or decrease customer loyalty. The methods used in this literature review include analysis of various empirical and theoretical studies that have been published in the fields of customer service technology and customer relationship management. The review results show that the effective use of chatbots can increase efficiency and customer satisfaction, which in turn contributes positively to customer loyalty. However, several challenges must be overcome to ensure chatbots can provide high-quality service.

Keywords: use of chatbots, service quality, customer loyalty.

I. INTRODUCTION

Customer Loyalty is the result of customer satisfaction, which is influenced by the quality of services and products. Although service quality influences customer satisfaction, it does not directly influence customer loyalty. Conversely, product quality has a direct influence on customer satisfaction and loyalty. Therefore, customer loyalty can be seen as a result of high customer satisfaction, which is influenced by good service and product quality (Putra, 2021). Customer loyalty, which has always been a concern in the business and academic world, reflects a positive attitude of customer loyalty towards a repurchase or retention behaviour for an organisation's services and products. Therefore, customer loyalty is an important factor in increasing organisational profits (Darmawan, 2020).

Artificial intelligence (AI) chatbot. It may be the first customer contact with an organisation; the perceived quality of an AI chatbot significantly influences a customer's impression of an organisation. Studies show that customer perceptions of high service quality lead to customer satisfaction, which in turn leads to loyalty (Tri, 2020.) The goal of chatbots is to use natural language processing (NLP) to broadcast intelligent conversations. Chatbots are a useful tool for businesses to interact with their customers; their capacity to convey relevant information makes them a popular communication tool, especially in large and international companies. Artificial intelligence (AI) is a computer program technology that can imitate the way people act and think logically, and this messaging engine uses AI (Nugraha et al., 2021).

Modelling the impact chain of service quality on customer loyalty is a challenge in the context of AI services. AI is increasingly changing the service sector with the influx of many AI-enabled service jobs (Christian,2021). Frontline AI chatbots are a great example. The frontline customer service landscape has changed with the rise of AI chatbots. AI chatbots are conversational systems powered by natural language understanding, machine learning, and big data analysis of AI technology (Agung & Yustine, 2020). Systems integrated with AI can help make operations more efficient (Putra, 2021).

II. LITERATURE REVIEW

The impact of using chatbots

A chatbot is a computer program designed to interact and communicate with humans via chat or text messages. Chatbots use artificial intelligence and natural language processing to understand and respond to users' questions or commands (Sudirjo,2023). Chatbots can be used in various platforms, such as mobile applications, websites, or instant messaging platforms. The main goal of a chatbot is to provide services or information to users in a fast, efficient and interactive way (Titoni., 2024).

Chatbot application is a virtual conversation application that is currently widely used in various fields, especially in the business sector. Likewise, in the education sector, chatbots can be used for learning. As stated by Kasthuri and Balaji, the use of chatbots can change learning styles during this pandemic as a comfortable learning tool without directly involving humans(Subawa & Sulistyawati, 2020). Chatbots are starting to be utilised in the business and industrial sectors to communicate with customers and offer customer support. In order to connect responsively and provide quick replies to messages from visitors, chatbots are also trusted to serve conversations with visitors (Khairyani,2024).

Chatbot indicators

According to (Aini et al., n.d.) chatbot indicators consist of:

- a) Completion Rate: The percentage of conversations completed successfully by a chatbot without human intervention.
- b) User Satisfaction Rate: A measure of how satisfied users are with the chatbot's responses and services.
- c) Response Time: The average time a chatbot takes to respond to a user's query.

Factors influencing chatbots

Factors that influence chatbots on customer loyalty, according to (Tri,2023.), can be found in several different studies. Following are some of the factors identified:

- a) Compatibility: The compatibility factor shows a positive relationship with the perception of chatbot usage. This suggests that the ease of use of a chatbot influences how much customers feel the chatbot is useful to them (Nugraha et al., 2021).
- b) Perceived ease of use has a positive impact on the perceived usability of chatbots. This suggests that how easy it is for customers to use a chatbot influences how much they feel the chatbot is useful to them(Christian,2022).

- c) Output Quality: Output quality has a significant positive effect on the perceived usefulness of the chatbot. This suggests that the quality of information provided by a chatbot influences how much customers feel the chatbot is useful to them (Putra, 2021)
- d) Consistency and Personalization: Chatbots that provide consistent responses and personalised interactions increase customer satisfaction. This shows that the chatbot's ability to provide relevant and differentiated responses according to customer needs influences their satisfaction.

Benefits of chatbots

The benefits of chatbots, according to (Khaiyanit,2020) that is:

- a) Fast, efficient and friendly service
- b) Responsive
- c) Increase customer loyalty satisfaction
- d) Reduce operational costs

Understanding service quality

As the quality of service adjusts, customers feel a sense of satisfaction, and this satisfaction even results in customers continuing to buy the products offered (Panjaitan et al., 2023). Services are a type of product that consists of activities, benefits or goods offered (Sudirjo et al., n.d.). On the other hand, quality describes the benefits received by the client, and services are difficult to evaluate because they are intangible. Five elements are service quality, responsiveness, assurance, responsiveness, and empathy (Subawa & Sulistyawati, 2020).

Service quality indicators

Service quality indicators, according to (Nugraha et al., 2021):

- a) Reliability
- b) Responsiveness
- c) Guarantee
- d) Physical evidence

Factors influencing service quality

Factors that influence service quality on customer loyalty, according to (Aini,2022.)

- a) Customer Satisfaction: Customer satisfaction mediates service quality variables that affect customer loyalty. Customers who are satisfied with their desires will increase customer loyalty.
- b) Physical Evidence: Service quality consists of customer loyalty, employee behaviour, responsiveness, and empathy. This shows that good service quality can increase customer loyalty through perceived satisfaction.
- c) Empathy: The company's attention and understanding towards customers, including providing services that suit customer needs and desires. This empathy can increase customer satisfaction and loyalty to the company.

With good service quality, customers will feel high satisfaction, which in turn will increase customer loyalty.

Benefits of service quality

Benefits of service quality according to (Agung & Yustine, 2020):

- a) Identify Customer Needs and Requirements
- b) Convey Customer Expectations
- c) Stay in Touch with Customers After the Sale
- d) Increase Customer Satisfaction

Customer loyalty

Customer loyalty: Because a company's main goal is to satisfy its clients, increasing client satisfaction can have a number of positive impacts. For example, it can foster a harmonious environment among clients, which can be a strong foundation for cultivating client loyalty and referrals. Originating from word of mouth (word of mouth), which is profitable for business, according to Tjiptono (Makanyeza, 2020)

Based on Tjiptono (Christian, 2022), customer loyalty refers to a customer's devotion to a supplier and brand based on highly favourable traits in repeat purchases. This can be interpreted in a way that suggests that the combination of satisfaction and satisfaction leads to brand satisfaction. Meanwhile, a number of business actions to reduce complaints resulting from repeat purchases by customers contribute to consumer happiness.

Customer loyalty indicators

Customer loyalty indicators, according to (Agung & Yustine, 2020) is:

- a) Repeat purchases are purchases made with a high level of intensity
- b) Retention is a type of loyalty based on consumer behaviour (behavioural loyalty), which is measured by the frequency of consumers' purchases of a particular product.
- c) Referrals are a means by which consumers communicate with each other by sharing personal experiences with a product or service.

Factors influencing customer loyalty

According to (Nugraha et al., 2021), Customer loyalty is influenced by several main factors, including:

- a) Product/Service Quality: Products or services that meet or exceed customer expectations will increase their satisfaction and loyalty.
- b) Customer Service: Friendly, responsive, and helpful service can build good relationships with customers and encourage them to return.
- c) Price and Value: Competitive prices and the value perceived by customers for the products or services offered are very important in forming loyalty.
- d) Trust: Trust in a brand, product or company goes a long way. Customers who feel safe and trust a company tend to be more loyal.

Benefits of customer loyalty

Customer loyalty has various significant benefits for businesses. Here are some of the main benefits of having loyal customers (Putra, 2021):

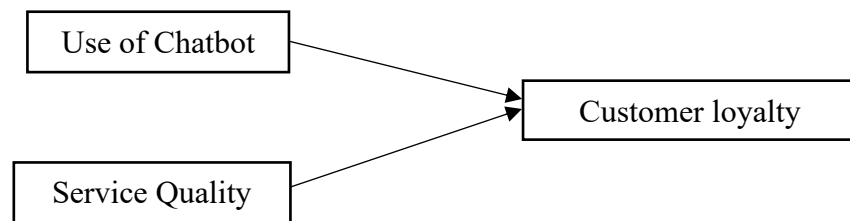
- a) Stable Revenue: Consistent purchases from loyal clients help your company build a more stable and reliable source of revenue over time.
- b) Reduce Customer Acquisition Costs: Acquiring new customers is often more profitable than retaining existing customers.

- c) Builds More Loyalty and Trust: Loyal customers tend to have more trust in your brand. They are more willing to accept minor infractions or flaws and stick with you in the face of fierce competition.
- d) Retaining Existing Customers: Retaining existing customers can strengthen existing businesses. Customers will stick with one company's product or service if they believe all their needs are met, sometimes even at the expense of others.

By building and maintaining customer loyalty, businesses can increase success and stability in the long term.

Conceptual Framework

Based on problem formulation, theoretical studies, and previous research then, this conceptual framework is as follows:



III. METHODOLOGY

This research was conducted using a systematic literature review (SLR) approach to find, evaluate, initiate, and interpret previous research.

Data Collection and Data Analysis

In this study, the researchers carried out a systematic review process and identified articles in a structured manner that discussed various topics (Sudirjo,2023.) are as follows. Research Questions (RQ) for First. The RQ is created by meeting identified topic needs. The RQs in this research include (RQ1). Has the use of chatbots had an impact on customer satisfaction from 2019 to 2024? (RQ2) Does quality in service have an effect on customer loyalty from 2019-2024? The second goal of the search procedure is to find relevant information to answer the research question. By using the keywords chatbot use, service quality, and customer loyalty, the Google Scholar database was searched for relevant literature. Third, reasons for inclusion and exclusion. The data obtained can or cannot be used for SLR research based on inclusion and exclusion criteria. Table 1 shows the inclusion and exclusion criteria.

Table of inclusion and exclusion criteria	
inclusion	exclusion
National and international articles that correspond to the subject matter and research methodology of the subject and research methodology.	International and national articles that are not relevant to the subject and field of study.
Articles published in 2019-2024.	Articles published before 2019.

Table of inclusion and exclusion criteria	
inclusion	exclusion
Articles indexed S1 to S6.	Articles that lack credibility.

Next, Quality Evaluation (QA). The data obtained were assessed using inclusion and exclusion criteria. Data collection is the fifth step. Primary data, namely, data collected through observation, surveys, interviews, or modification of needs collected for this study. Data analysis is in sixth place. After that, the collected data was examined based on the research questions. Moreover, finally, break the rules. Changes occur during the research, such as refinement of the database equivalent words for search phrases.

IV. RESULTS AND DISCUSSION

The Influence of Customer Satisfaction on Customer Loyalty

Customer satisfaction and loyalty are correlated, meaning that when a business increases customer satisfaction, customer loyalty will also increase, and vice versa. Customer loyalty and satisfaction are very important for a corporation or company because they can increase revenue. Therefore, companies must consistently maintain positive relationships with their customers (Panjaitan et al., 2023), arguing that customer satisfaction has a significant influence on customer loyalty.

The influence of chatbots on customer loyalty

seen from several main aspects, namely service efficiency, customer satisfaction, and personal interaction. The following is an explanation of these influences: Service Efficiency, Customer Satisfaction, Service Personalization, Availability and Accessibility. However, it is also important to consider some of the challenges that may arise, such as the chatbot's inability to handle highly complex or emotional situations and the risk of inaccurate responses. Therefore, chatbot integration must be carried out with a mature strategy and adequate technological support to maximise its benefits on customer loyalty.

Previous research

Code	Journal And Country Of Publication	Title	Author And Year	Results
A1	Balance sheet: Indonesian Economics and Accounting Journal	The Influence of Personalization and Artificial Intelligence (AI) on Customer Loyalty in Industry 6.0 on E-Commerce Platforms in Sukabumi	Pramudipta, 2022	Personalisation of content and product recommendations (X1) has a significant impact on customer loyalty (Y), and Product recommendations (X1) have a significant influence on

Code	Journal And Country Of Publication	Title	Author And Year	Results
				customer loyalty (Y). Effective personalisation can help customers feel valued and understood, which in turn increases their willingness and capacity to make a purchase. Willingness and capacity to make a purchase.
A2	BEE, business economics & entrepreneurship.	The Impact of Artificial Intelligence Service Quality on Customer Loyalty in E-commerce in Indonesia.	(Subawa & Sulistyawati, 2020)	Digital marketing strategies have a significant impact on increasing customer loyalty in the e-commerce industry.
A3	Tambusai Education Journal	Analysis of the Impact of Digital Marketing Strategies in Increasing Customer Loyalty: An E-commerce Industry Perspective.	(Sudirjo,2023.)	Strategies in digital marketing have a positive and significant impact on increasing customer loyalty.
A4	Journal of economics and banking.	Analysis of the adoption factors of Telkom SMB line chatbots using a modified technology acceptance model approach.	(Panjaitan et al., 2023)	Several factors influence online chatbot adoption positively and significantly.
A5	Journal of Education and Social Sciences.	Determination of customer satisfaction and customer loyalty.	(Putra, 2021)	Product satisfaction and customer loyalty simultaneously influence customer loyalty.

Code	Journal And Country Of Publication	Title	Author And Year	Results
A6	Business and accounting journal	The influence of service quality, company image and trust on consumer loyalty.	Septiana,2020	Service quality, company image, and trust all have a positive and significant influence.
A7	Technologia scientific journal.	The role of artificial intelligence chatbots in shaping customer satisfaction.	(Aini et al., n.d.)	The findings of this research show that chatbot responsiveness significantly impacts online convenience, both intrinsically and extrinsically.

V. Conclusion

The following are conclusions from a literature review regarding the use of chatbots and service quality on customer loyalty.

Research shows that AI-based chatbot service quality significantly influences customer loyalty. Good service qualities, such as quick responses, 24/7 operations, and personalisation of interactions, increase customer satisfaction and loyalty to the company. Chatbots can provide instant responses, maintain consistency, and analyse data, all of which contribute to customer satisfaction. Fast response times significantly increase customer satisfaction, which in turn influences their loyalty.

Thus, the use of chatbots can increase customer loyalty through good service quality, fast responses and personal interactions. However, there are still challenges that need to be overcome to meet user expectations and increase chatbot effectiveness.

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