



Research Proposal

Topic: “*Evaluating the Impact of AI-Powered Customer Service Chatbots on Customer Satisfaction in the UK Supermarket Sector: Tesco as a Case Study*”

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1. Introduction

1.1 Background of the Study

AI is now a key element of digital transformation in retail customer service. AI chatbots are digital tools powered by natural language processing, AI responses, and conversational interfaces that answer consumers' questions automatically. They are employed to enable rapid reply, to resolve typical issues, to assist customers in locating valid information, and to place much less strain on human customer care staff (Adam, Wessel and Benlian, 2021).

In supermarkets, chatbots can help customers who make online shopping orders, handle delays and refunds, make product substitutions, provide store information, and ask questions about introducing the loyalty card. These services are crucial as they drive customers' expectations for quick, accurate and convenient support. By cutting down on waiting times and providing service options at all hours, Chatbots can enhance customer experience (Tesco UK, 2026; Tesco PLC, 2026). However, they can decrease satisfaction when they provide blanket responses or are not able to comprehend complex complaints or when they are not able to direct customers to people-to-human customer service at the appropriate times.

The supermarket market is very competitive in the UK, and customer satisfaction is related to convenience, trust, service quality and loyalty (Slack, Singh and Sharma, 2020). The choice of Tesco is due to the fact that it is one of the biggest supermarket chains in the UK, and has a high digital service channel penetration and a large customer base. It offers online customer support that caters for orders, delivery, refunds and Clubcard enquiries, which could be a good case study for the impact of chatbot customer service upon the satisfaction of users in the UK supermarket sector.

1.2 Research Problem

While the use of AI-driven chatbots for enhancing customer service in UK supermarkets is gaining traction, there is still a lack of research examining their effects on customer satisfaction. The research work has mainly concentrated on the banking, telecommunication, service, hospitality

and e-commerce sectors, with little work conducted on supermarket retailing (Adam, Wessel and Benlian, 2021).

Residents of the supermarket are accustomed to rapid, accurate, and dependable commenting enabled for any sort of shipping issue, refunds, and substitutions, as well as any queries relating to their loyalty card. For Tesco, the chatbots might help the users not have to wait as long, and access be more convenient, but expectations may be lowered if the responses are generic, impersonal or if they are unable to answer and address more complex problems (Zeithaml, Bitner and Gremler, 2020).

1.3 Motivation for the Study

The need for this is because of the rise of customer service AI and the attitudes of those who are interested in whether AI is improving the customer experience or not. The use of digital platforms by supermarket customers should have an impact on satisfaction, trust and loyalty if only the interaction with automated support is of good quality.

1.4 Significance of the Study

The study is relevant because it demonstrates how the UK supermarket industry can use AI-powered customer service chatbots to boost customer satisfaction in its case study of Tesco. It will help to light up the question, whether the chatbots improve customer service: Speeds, convenience and access, or turn the users into dissatisfied customers: Limited problem-solving capacity, lack of empathy and answer quality (Slack, Singh and Sharma, 2020).

The research conducted might help provide Tesco with valuable knowledge about the customer experience of automated support. It may also be able to detect useful chatbot capabilities, such as response speed, information correctness, handling of navigation and updating to human advisors. It could also point out the weakness which Tesco should develop to boost customer satisfaction and trust.

Overall, the study could be valuable for the broader supermarket sector because it outlines the potential of AI chatbots to enhance the customer service experience without compromising the integrity of the service. Supermarkets could apply the results to enhance the creation of the chatbots, lessen customer frustration, tackle repetitive inquiries more efficiently, and boost digital customer experience.

1.4.1 Justification for Choosing Tesco and Contribution of the Study

Tesco has been selected because it is one of the biggest supermarket retailers in the UK with both physical and digital retail operations. This marks its extensive customer base to be used in the supermarket environment to study customer service experiences. Tesco's online presence also helps customers with online order-related queries, delivery matters, refunds, and loyalty matters. Hence, Tesco's utilisation of AI-driven chatbot services becomes a germane case study to study the effect of such chatbot services on customer satisfaction.

Academic contribution: This study will provide an additional academic contribution using AI-powered chatbots applied to the UK supermarket industry. Supermarket retailing has not been written about as much as other sectors, for example, chatbots in banking, hospitality, e-commerce and general customer service. This study will contribute to knowledge by relating the dimensions of chatbot service quality, usefulness, ease of use, trust and customer satisfaction in the context of Tesco.

Industry contribution: This would see a greater understanding of how chain retailers in the UK, for example, Tesco, could increase customers' experience using a chatbot, and which features would serve to irritate customers. The results can help in creating an effective chatbot design, improving response speed, information accuracy, and providing human first responders a seamless way to handle complicated issues.

Policy relevance: This study can be applicable to customer service and digital service policy. Supermarkets are increasingly adopting automated systems and are seeking to know how to apply them in a responsible manner in line with the principles of privacy, transparency and fairness. The research can contribute to illustrating the practicality of customer orientation and preservation in digital services using the application of chatbot services.

1.5 Research Aim

This study aims to investigate how AI-driven customer service chatbots can affect customer satisfaction for UK supermarket Tesco.

1.6 Research Objectives

- To explore the implementation of AI Chatbots in customer service for UK supermarkets.

- To evaluate the impact of AI chatbots on customer satisfaction (speed, convenience, service quality).
- To identify the pros and cons of using AI Chatbots to enhance customer experience within a UK Supermarket store.

1.7 Research Questions

- 1) What are the implementation methods of AI-powered chatbots in UK supermarkets?
- 2) What impact do AI chatbots have on the speed, convenience and quality of customer service?
- 3) What are the pros and cons of using AI chatbots to enhance the customer experience in UK supermarkets?

1.8 Structure of the Proposal

This proposal contains an introduction, literature review, methodology, literature review on ethics, research timeline, conclusion and references. The structure is according to the proposal pattern and cites the background, the research gap, the methods and the planned research process.

2. Literature Review

2.1 AI-Powered Chatbots in Customer Service

AI chatbots are chatbots that rely on AI capabilities to engage customers' questions through natural language processing and conversational interfaces, and programmed knowledge. They are utilised in customer service to respond to a wide array of frequently asked questions, lead consumers to helpful information, and fix simple customer service problems or questions on customer service (Adam, Wessel and Benlian, 2021).

AI chatbots have already demonstrated their ability to enhance service efficiency by minimising waiting time and providing immediate access to information for customers. According to Uzoka, Cadet and Ojukwu (2024), chatbots that leverage AI can enhance response times and minimise the need for human agents to tackle repetitive inquiries. In this context, for instance, Tesco is a supermarket where consumers engage with your brand at your stores, online, via a mobile app and through online food delivery.

But the effectiveness of the chatbot relies on the quality of the interaction. Based on their findings, Adam, Wessel and Benlian (2021) suggest that the effectiveness of automated systems is reflected in the responses of customers. Hence, the ability to operate efficiently shouldn't be the only indicator while determining the implementation of chatbots; their effect on customer perception and satisfaction ought to be a deciding factor as well.

2.2 Customer Satisfaction and Supermarket Service Quality

Customer satisfaction is the extent to which the service experience falls short or exceeds the customer's expectations. At the supermarket level, satisfaction is also determined by convenience, reliability, problem resolution, speed and trust, particularly in cases of time-sensitive problems like the lack of products, delay in deliveries or refunds (Slack, Singh and Sharma, 2020).

Rita, Vong and Correia (2026) concluded that the service quality of supermarkets has a significant impact on customer satisfaction and loyalty. For Tesco, this applies to how satisfied they are with the service they receive from the chatbot, which could affect the probability of their using digital channels of communication following the initial engagement. A quick and correct answer provided by the chatbot can help to increase user satisfaction, and any waiting times or tricky journeys to service can have a negative impact.

Shahbandi (2025) said that satisfaction is the outcome of the services' outcomes in comparison to the expectations. Customers may be satisfied by prompt, helpful and reliable support, but automated, limited, repetitive or less helpful support lessens the satisfaction.

2.3 Theoretical Frameworks: SERVQUAL and TAM

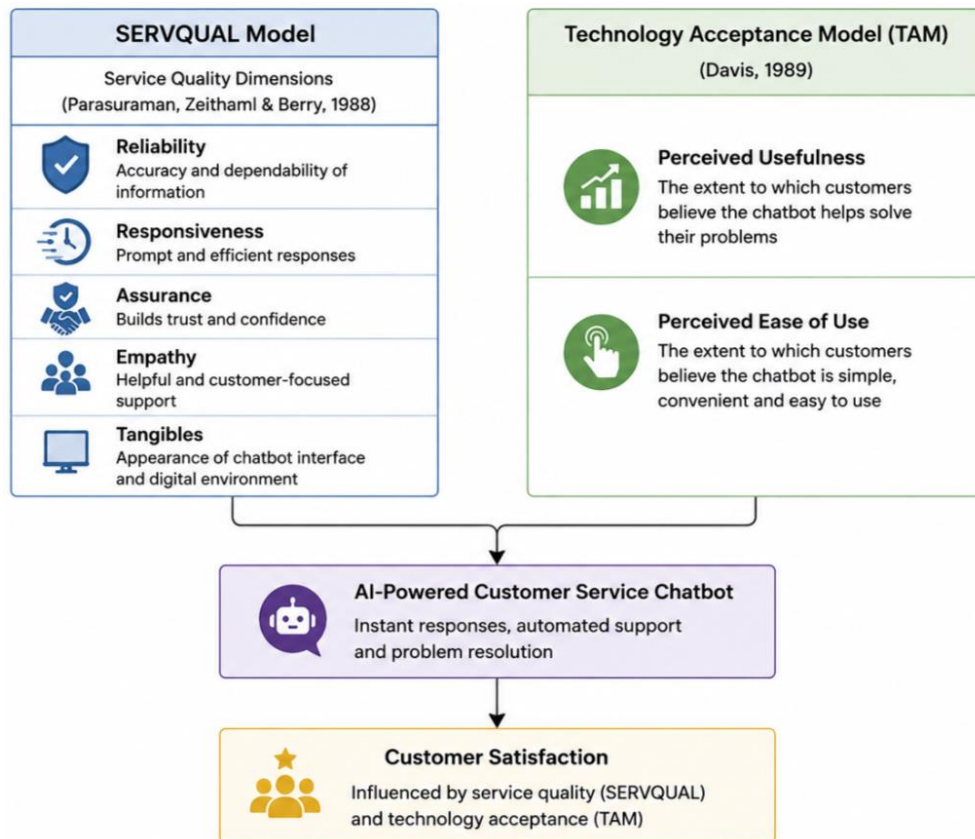


Figure 1: Theoretical Framework Linking SERVQUAL and TAM (Self-made)

SERVQUAL is a helpful tool for measuring the quality of a chatbot service. According to Parasuraman, Zeithaml and Berry (1988), there are five dimensions of service quality: reliability, responsiveness, assurance, empathy and tangibles. For chatbots, responsiveness is about prompt and efficient responses, reliability is about the accuracy of their information, assurance is about how well they build trust with customers, and empathy is about their helpfulness and customer focus.

AI chatbots can be very effective in terms of responsiveness due to their instant responses. But they may lack empathy, as automated systems do not necessarily understand frustrations, complex complaints, etc. This is a problem for Tesco as customers might require them to respond quickly and let them know they're wrong, but give them the benefit of the doubt and confirm that they will give them their money back (Dale, Bamford and Der, 2016).

The Technology Acceptance Model also applies, as it helps in understanding the use of technology in terms of perceived usefulness and ease of use of the technology (Davis, 1989). The usefulness of the chatbot for the customer means it helps solve the issues or problems; whereas ease of use means that the chatbot is simple and convenient. Customers are more likely to approve useful and easy-to-use chatbots than frustrating ones; they are more likely to opt for human support if they find it frustrating.

2.4 Current Debates and Research Gaps

Opinions on the use of AI-driven Chatbots in customer service are divided. There are conflicting views in the literature regarding algorithms in customer service. According to some studies, chatbots enhance the effectiveness of services by providing instant responses, which helps to cut down waiting time and assist businesses in handling repetitive customers' questions (Adam, Wessel and Benlian, 2021; Uzoka, Cadet and Ojukwu, 2024). Supermarkets benefit from these as customers need immediate assistance in cases where there is a delivery issue, want a refund or have enquiries about products and loyalty cards.

There are other studies indicating that the inability to solve complex problems by chatbots, the inability to offer personalised support or responding with empathy leads to dissatisfaction (Chopra, Ranjani and Narsipur, 2023). This sparks a discussion or discussion board between business efficiency and customer experience. In addition to cost and time savings, a chatbot can boost customer satisfaction by ensuring reliability, usefulness, ease of use, trust, accuracy and problem resolution.

One of the identified research gaps is that a large portion of the literature has been based on banks, hotels, telecom, e-commerce and/or general online service environments. There is less research that has focused on the impact of AI-powered chatbots on customer satisfaction in the UK supermarket market. This gap is significant as there are lots of issues that are time sensitive that frequently occur in the supermarket, such as food delivery, missing products, substitution, refund, etc., and supervisor assistance.

However, this study will take only one case study, Tesco, as it will allow the gap to be catered for. It will explore the ways in which factors related to chatbots like responsiveness, reliability, convenience, usefulness, ease of use and customer trust can impact customer satisfaction. The study will involve the use of the SERVQUAL along with the Technology Acceptance Model to

link service quality and technology acceptance. This will improve the understanding of the quality of the chatbot services, specifically in the supermarket retail industry in the UK.

3. Methodology

3.1 Research Design

This study will take the qualitative secondary research design. This is appropriate because it looks at the current evidence on the use of AI in the instant messaging industry and presents evidence about customer satisfaction and the service quality of supermarkets. It will rely on academic sources, industry reports, Tesco information and customer feedback data made available on the internet (Babin et al., 2024).

3.2 Research Philosophy

The research philosophy that will be used is interpretivism. This is well-suited since the study relates to customer perceptions as well as meanings associated with chatbot service. Customers' trust, convenience, confidence and perceived service quality help to contribute to customer satisfaction (Saunders, Lewis and Thornhill, 2019).

3.3 Research Approach

An inductive research approach will be adopted. A hypothesis test is not used to generate themes but is rather based on information already provided. Some of the key themes might be response time, quality of service, trust, convenience, problem-solving and limitations of chatbots.

3.4 Research Strategy

The research method that will be used is “Case Study”, which will be conducted by focusing on Tesco. A case study is appropriate because the study will be analysing one of the large retail stores within the general retail category in the UK (Bell, Bryman and Harley, 2019). Tesco is relevant due to the size of its business, the way that customers can interact with it, and their development.

3.5 Data Collection Method

Academic journals, textbooks and industry reports will be used to gather data along with Tesco corporate information, retail technology magazines, and publicly released customer reviews. These will enable the academic theory to be compared with the academic evidence within the retail store (Babin et al., 2024).

3.6 Data Analysis Technique

An analysis based on themes will be conducted, and the patterns across the sources will be identified (Bell, Bryman and Harley, 2019). Themes include response time, ease of use, service, increased trust, reliability, frustrations and need for human support.

3.7 Justification of Methodology

The choice of a qualitative secondary method is appropriate since the study does not attempt to measure the statistical relationships, but focuses on understanding the customer experience and the customer service quality. A quantitative survey could be considered; however, this would involve primary data and wider ethical approval (Babin et al., 2024). The time frame for the proposal is more manageable, and Secondary research is easier to conduct as a detailed analysis of existing research and evidence of Tesco is undertaken.

3.8 Methodological Limitations

There are limitations, as there is only secondary data that might not give access to Tesco customers' detailed personal views. Public customer reviews may also be biased towards very positive or very negative experiences. In order to minimise these restrictions, a variety of credible, up-to-date, and relevant sources will be used.

4. Ethical Considerations

Ethical risk is minimal as all the data, which is secondary only, will be used in the study. Interviews, surveys or focus groups will not be used. There will be no vulnerable participants, and no private personal information will be involved.

Public customer reviews are only allowed to be used when they may see the light of day. The names will be omitted, as will specifics that could identify users. Evidence will be researched and paraphrased as well as anonymised. Academic integrity will be adhered to accurately (in terms of Harvard referencing) and responsibly (Saunders, Lewis and Thornhill, 2019) as per study principles.

5. Research Timeline (GANTT Chart)

Task	Activity	Timeframe (Weeks)													
		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14
1	Finalise research topic, aim, question and objectives														
2	Collect academic and industry sources														
3	Write literature review														
4	Develop methodology and ethics section														
5	Organise Tesco and chatbot-related data														
6	Conduct thematic analysis														
7	Write findings and discussion														
8	Write conclusion and recommendations														
9	Proofread, format and finalise dissertation														

6. Conclusion

This paper explores how AI-driven customer service chatbots affect customers' satisfaction within the UK supermarket industry, focusing on Tesco. Sets the research setting, problem, motivation, significance, aim, question and objectives.

Speed, convenience and efficiency benefits of chatbots were observed in literature; in addition, customer satisfaction heavily relies on the quality of the service, trust, usefulness and ease of use of the chatbot. There is an identified gap, as limited research has focused entirely on the UK's larger grocery stores and Tesco, rather than others.

The study will use a qualitative secondary case study, interpretivism, an inductive approach and thematic analysis. This is appropriate if using the available academic and industry evidence to learn about customer satisfaction. The timeline gives a clear sequence for doing the research.

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