

E-commerce customer service satisfaction survey and intelligent customer service development suggestion research

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Abstract: In recent years, with the rapid development of e-commerce technology, the scale and number of e-commerce platforms with online retail business as the core are increasing day by day. In the service system, because the content of customer requirements is inconsistent, the answer of customer service is also different, and the question service is easy to answer the question, thus reducing customer satisfaction. Therefore, the optimization of customer service system is worthy of our in-depth study, but also worthy of great attention. In this paper, through cluster sampling and convenient sampling survey method, questionnaire survey, combined with relevant secondary data, in various areas of the country to collect customer demand and evaluation of e-commerce platform intelligent customer service. To understand the development status of e-commerce intelligent customer service, and then through the analysis of the use of e-commerce platform intelligent customer service and influencing factors, for the development of e-commerce industry intelligent customer service to find the corresponding countermeasures.

Key words: e-commerce shopping guide, e-commerce customer service, intelligent shopping guide.

1. Introduction

Intelligent customer service is a large-scale knowledge processing technology development for application on the basis of a system, it is mainly based on natural language processing, large-scale machine learning and deep learning technology, etc., using a large amount of data about dialogue model, combine several rounds of dialogue and real-time feedback of autonomous learning, can more accurately identify the user's intentions, So as to realize semantic analysis and multi-form dialogue[1]. At first, the robot completes the keyword matching by inputting the question and answer information in the knowledge base. Then, the user obtains the matching answer by triggering the corresponding keyword [2]. The robots are widely used in finance and government affairs, as well as e-commerce.

In recent years, with the continuous development of e-commerce platforms, more and more consumers' shopping needs have been dispersed to Taobao, Pinduoduo, TikTok and so on. The media upgrade and scene shift of online shopping prompt many brands to carry out multi-platform layout quickly to adapt to the changes of The Times[3]. Changes in the e-commerce industry have triggered a chain reaction, and the plight of the customer service industry has become increasingly prominent[4]. According to industry insiders, most brands' customer service teams face a series of pain points during their development, including: In the face of traffic explosion or promotion activities at the operation end during talent live broadcast, the customer service cannot handle a large number of queries, resulting in traffic waste and reduced conversion rate. According to data from China Internet Network Information Center, as of June 2021, the number of live broadcast users in China has reached 638 million, with a year-on-year increase of 75.39 million. Accounting for 63.1% of the total number of Internet users[5]. Among them, 384 million were livestreaming users on e-commerce, an increase of 75.24 million year-on-year. Under the popular live broadcast mode, it is difficult for many enterprises to deal with short-term emergencies, so there will be problems such as late reply to queries and serious order loss, and the conversion rate is naturally not ideal[6]. Traditional customer service workers also reported 51% dissatisfaction with their jobs[7]. The main reasons for dissatisfaction included boring and repetitive work, taking up most of their time and energy to answer a large number of repeated standard questions, great psychological pressure, unclear promotion routes,

high work intensity, frequent night or shift work, and lack of systematic promotion mechanism. These factors directly lead to the high turnover rate of customer service staff, resulting in the recruitment of new employees, life efficiency and other costs[8]. "Customer service serves as a bridge between consumers and products, and every communication with consumers affects the sales of products to a large extent."

Based on the background of post-epidemic era, this paper studies the demand of intelligent customer service market in the e-commerce 5.0 era[9]. To understand the current customer evaluation and satisfaction of customer service platform, so as to provide suggestions and methods for the improvement of intelligent customer service in the era of e-commerce 5.0[10].

2. Research methods and implementation

Through the cluster sampling and convenient sampling survey method, in the way of questionnaire survey, combined with the relevant secondary data, in various areas of the country to collect customer demand and evaluation of e-commerce platform intelligent customer service. Then through the analysis of the use of e-commerce platform intelligent customer service and influencing factors, for the development of e-commerce industry intelligent customer service to find the corresponding countermeasures.

This study adopts the questionnaire survey method, and the main tool is Questionnaire star. We developed detailed questionnaires, collected questionnaires from interviewees, and then sorted out the data for analysis. The questionnaire is a set of questions related to research objectives. This is the questionnaire prepared for the survey. It is a common tool for people to collect data in social surveys and research activities. We use this tool to accurately and specifically measure the process of social activities, and use sociological statistical methods to describe and analyze the quantity, so as to obtain the required survey data. The survey object of this study is nationwide, mostly concentrated in Guangdong, including consumers of all ages who have online shopping behavior.

3. Sampling design method and process

3.1. Specific Design

Overall target: consumers of all ages in China who have online shopping behavior.

Sampling method: Cluster sampling and convenience sampling are used in survey sampling. Group the consumers who have online shopping behavior in the country, and then randomly select a whole group for convenient sampling. Survey accuracy: in the survey, 1017 questionnaires were actually sent out and 813 were effectively received, with an effective rate of 79.94%. Sample distribution: cluster sampling method was adopted to classify all consumers with online shopping behaviors, randomly select consumer groups with online shopping behaviors in Guangdong area for analysis, and then select one group sample for analysis through convenient sampling.

3.2. Survey sampling implementation method and implementation process

Questionnaires were sent to the whole country and collected through social networking platforms such as wechat, QQ, Weibo and Xiaohongshu. The validity analysis of 813 questionnaires was carried out and 712 questionnaires were effectively sorted out.

First of all, the method of cluster sampling is used to classify consumers who have online shopping behaviors, and the sneaker consumer groups in Guangdong are randomly selected for analysis, and then samples are selected through convenient sampling. Secondly, reliability analysis, validity analysis, correlation analysis, regression analysis and other methods were used to analyze the extracted groups.

4. Research conclusions

Intelligent customer service should be different according to the different products, with different professional

After the correlation analysis of the questionnaire data, it is found that the diversity of goods in the store requires the intelligent customer service to have different professionalism. We find that customer satisfaction is highly correlated with the accuracy of information provided by intelligent customer service, whether the information obtained by intelligent customer service is true and reliable, whether the information provided by intelligent customer service meets personal needs, and the degree of service quality provided by intelligent customer service.

Multi-way and diversified high-quality product recommendation, enlightening demand information expression and guidance, multi-dimensional reference information to assist users to make decisions, personalized services to improve the efficiency and effect of recommendation. Functional design mainly includes two categories: one is to solve the pain points of online shopping in GUI, and the other is to meet or exceed user expectations. The functional experience design strategy conforms to the user's perception of the usefulness of the system and reduces the user's perception of risk as much as possible.

(1) Intelligent customer service should be human, speak like a person, will not be detected

Through the correlation analysis of questionnaire data, we will perceive the humanization of the chat, feeling intelligent customer service real existence; Chat, feel intelligent customer service is a person; Chat, feel and customer service staff in the same communication; Correlation analysis was made for these three factors. All three are highly correlated in terms of communication. Therefore, it can be concluded that customer satisfaction is related to whether customer service is human.

(2) The speed of intelligent customer service response should be similar to that of human beings

Through correlation analysis, customer satisfaction is positively correlated with customer service response speed. Customer satisfaction is higher when customer service is responsive and able to answer questions and appeals. Customer satisfaction is lower when the customer service is slow to respond and can answer the wrong questions.

(3) Smart customer service should be professional enough when dealing with some general things

Through correlation analysis, it can be concluded that the expression of demand information guides the improvement of interaction efficiency, dialogue interaction gives users a sense of independent control, abnormal situation processing based on fault tolerance ability, and dialogue information presentation and traceability assist users to memorize. The proposed interactive experience design strategy refers to general usability design principles, conforms to user perception, attention, memory and other cognitive characteristics, and improves the usability of shopping guide chatbot in terms of dialogue interaction and interface interaction.

Make full use of customer demand information, used to solve the problem of return and exchange, promotion, free delivery, often greatly improve customer satisfaction.

(4) There should be language recommendation function

Through correlation analysis, it can be concluded that chatbot role positioning and personality setting, diversified and emotional dialogue design strategy, interesting and dynamic interaction design, sensory design strategy to stimulate consumption desire. The emotional experience design strategy aims to generate positive emotions and improve user satisfaction in the process of using shopping guide chatbot.

5. Relevant countermeasures and suggestions

5.1. B2C e-commerce shopping guide chatbot functional experience design strategy

There are many types of conversational interactive recommendations. Shopping bots can recommend products to users in a variety of ways. This paper introduces two classification methods, one is based on the initiative initiated by recommendation, the other is based on different recommendation objects.

According to the initiative of recommendation, shopping guide chatbots can be divided into active recommendation and passive recommendation.

A. Passive recommendation

Passive recommendation is a common way, that is, the shopping guide chatbot gives the robot corresponding recommendation after the user expresses the demand information, and the user can foresee the occurrence of such recommendation behavior. Passive recommendation is the most basic recommendation method of shopping guide chatbot. The purpose of the dialogue between the user and the robot is that the shopping guide chat robot will give corresponding product recommendations according to the user's demand information through the dialogue.

B. Offer recommendations

Unsolicited recommendations are recommendations initiated by chatbots. Users usually don't want to get this recommendation in advance. The chatbot's unsolicited recommendations are not unfounded. Typically, it makes recommendations based on the user's information and behavior. Shopping bots typically make unsolicited recommendations in two ways. One is to directly give the user product recommendation results. For example, after consultation and recommendation, consumers choose products, and the robot can actively and directly recommend related products according to the user's behavior. This kind of active recommendation is more direct and can increase product exposure, but users do not necessarily need; The other is to proactively ask users if they would like other types of product recommendations where appropriate, such as if they would like similar product recommendations. This approach provides users with more choices, reflecting the initiative of shopping guide chatbot services.

B2C e-commerce shopping guide chatbot can be divided into consulting product recommendation, related recommendation, similar recommendation and recommendation of the same style according to the recommended objects.

A. Consulting product recommendation

B. Recommendation information provided by robots refers to personalized recommendation information provided by users at the same time.

This recommendation is the core product recommendation type of shopping guide chatbot. B2C e-commerce shopping guide chatbot needs to conduct two-level screening of products recommended to users according to user demand information:

- a. Commodity filtering based on demand information and personal information;
- b. Ranking of goods based on weight of different dimensions.

On the one hand, consumer demand information and personal information collected by the system is an important basis for product recommendation.

Product matching and screening based on demand information and personal information is a personalized and accurate recommendation, which can help users find products that meet the requirements. On the other hand, a filtered set of goods may have many goods. The product recommendation of the system also needs to sort the calculated goods according to the weight of different dimensions, so as to ensure the orderly selection of goods recommended to consumers, so as to help users find high-quality goods and assist users in making decisions.

C. Similar recommendation

Similar recommendation refers to the recommendation of similar products for a certain product. In the GUI, users can independently click to view similar products of a product, but the recommendation mechanism for similar products varies from platform to platform.

Driven by discovery targets, users will consider looking at similar products. The author argues that it makes sense for users to make similar suggestions for non-standard products in a conversational USER interface. For example, select one of several clothes recommended to the robot by the user to view similar recommendations and you can find products with similar attributes (such as styles and styles). If a user buys a standard product such as sunscreen, there is no need to look at a similar product for a particular sunscreen because it is difficult to define a similar product for a standard product. Therefore, the system should determine whether to allow users to view similar goods based on the category of goods purchased by the user.

In most cases, similar recommendations in the session user interface are another round of recommendations based on the consulting product recommendations. Typically, users can independently select a product to view similar products. Similar product recommendations in Cui can partially meet the expressed needs of users. It is also necessary to consider the comprehensive evaluation of product similarity and other dimensions, and to present the recommendation results of selected similar products to users in terms of quality rather than quantity.

D. Recommend the same item

Driven by comparison goals, users may need to look at the same products and want to compare the best choice. The same product recommendation allows users to directly obtain the new round of recommendation results of the target product when they find the target product, without expressing the latest demand information. This is another round of recommendations based on the consultation project proposal. Typically, users can select an item to view the same item independently. It is important to note that if the system recommends the same product, you do not need to allow users to view the same product. The same recommendation in the session user interface not only meets most of the user's requirements for commodity attributes, but also needs to meet the user's other demand information, such as price, delivery location, etc. Finally, the product recommendation result with high multidimensional comprehensive evaluation is given.

E. Associated recommendation

Associated recommendation in session user interface refers to that the system initiatively recommends other related products after consulting product recommendation. For example, after the user uses the shopping guide chat bot to select and buy shampoo, the bot will actively recommend shampham-related products, such as conditioner and hair drying caps.

Related recommendation is usually the active recommendation of the system, which can give users intuitive stimulation of commodity demand.

Relevance recommendation can stimulate consumer demand, thus triggering a new round of dialogue with consumers and improving conversion rate; As a recommendation initiated by the system, associated recommendation reflects a certain level of service of the robot and can promote users' positive evaluation of the shopping guide's chatbot service.

5.2. Personalized service improves the efficiency and effect of recommendation

Shopping bots need to provide personalized services to millions of consumers. Guide specifically, bot for information collection strategy and recommendation mechanism may undertake unity for all consumers in the beginning, but as some consumer habits and preferences, shoppers bot demand information collection policy, will recommend mechanism according to the information consumer behavior habits and hobbies and adjustment. For example, in the demand information expression stage, when users choose a T-shirt for themselves every time, they will choose the smallest size, and the price range is medium price, which indicates that users have strict minimum size requirements for size attributes, are more sensitive to price, and tend to medium price. Based on the analysis of user information behavior, in the knowledge of the buying preferences of users is relatively stable, the system can be next time the user to buy such goods in priority inquired about the size and price, or directly to the user to confirm whether you need to recommend a minimum size and price range, when offered Suggestions, also consider buying preferences of users.

Similarly, in the product recommendation phase, it is assumed that the user has purchased sunscreen. Faced with several products recommended by the system, users often choose to view or buy products with large sales volume. When this trend is relatively stable, the system can determine that the user attaches great importance to the sale of goods when purchasing such goods. Based on this, the system can recommend sunscreen to users and appropriately increase the weight of sales dimension, so that the product recommendation results will be more in line with user preferences. Therefore, the shopping guide chatbot needs to constantly learn users' information behavior habits and preferences, and adopt flexible information collection and product recommendation strategies for each user, so as to improve the efficiency of interactive recommendation and customer satisfaction.

6. Conclusion

In view of the current electricity guest service service to customer satisfaction last year college entrance examination, this paper mainly studies the electricity business 5.0 era intelligent customer service demand of the market, through research and analysis to understand the current customer value and satisfaction of customer service platform, provide advice and methods for the improvement of intelligent customer service, in the understanding of e-commerce intelligent customer service development present situation, The conclusion of the research is concluded, and then through the analysis of the use of e-commerce platform intelligent customer service and influencing factors, the analysis and explanation of relevant countermeasures and suggestions are completed. The relevant theories in this paper can find corresponding countermeasures for the development of intelligent customer service in the e-commerce industry.

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