

Role of Chat-bots in Customer Engagement Valence

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ABSTRACT

Chat-bot an Artificial Intelligence Software, has brought in a two-way instant communication without much waiting time for Customers when they have a query or when they want to report their grievances or any other problem regarding the product or services. The chat-bots are designed to replicate human behaviour and takes the place of humans in a chat. Firms use chat-bots in various platforms to reach out to their customers especially in e-commerce. It is observed that chat bots are applied in various aspects and in several forms in the field of e-commerce which leverages customer engagement, that can be positive or negative according to its effectiveness and Customer satisfaction. Chat-bots have the capacity to learn continuously and with the help of already stored expressions, they are capable of giving the right answers to the customers and clients. This can be used in an effective manner by marketers to bring about the desired impact on customers and keep them engaged in a favourable mode. The application of chat-bots in various fields have been discussed and the factors leading to positive Customer Engagement while interacting with the chat-bots have been identified from previous research and factors not much researched earlier, such as Resolving Problems, Availability and Humans first have been arrived at. The factors identified can be used for further field research.

Keywords

Chat-bot, Customer Engagement valence, Interaction with chat-bots, Customer Satisfaction.

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Introduction

Chat-bot is a software of artificial Intelligence that has been developed for dialogues in the internet. Particularly in the E-commerce platforms this is used to address the customer complaints, answer customer queries, track products, reporting and collection of information. This is a form of virtual assistance that is done through texting or it can be voice based also. The chat-bots act as human beings and simulate human behaviour while responding to the customers. This is done instantaneously without the customer having to wait on the phone call for a long time. There are two types of Chat-bots one which uses Natural language processing and the other which uses already designed formula, which is more structured conversational sequence that is similar to a decision tree says Fran Conejos (2020) Application of chat-bots finds it place through a spectrum of platforms and types in e-commerce where it facilitates communication between customers and firm Wikipedia (2020). A favourable word of mouth can be spread using Chat-bots say Team Kore.ai (2019) Customer Engagement is augmented through Chat-bots due to its capability of maintaining the flow of conversation, imparting relevant and useful information and retains them for a longer time in a particular platform claims Apurv Verma (2019)

Customer Satisfaction is a measure of the happiness of Customers after they experience a service, purchase or usage of a product.(asq.org). This is a very good feedback to the firms and marketers as to how they can further improve their products and services. Only when the Customers are satisfied and happy they would indulge in Positive Engagement. According to Oliver R.L. (1997) unsatisfied Customers cause adverse effect on loyalty, retention and purchase intention.

Customer Engagement is the dialogue between the customers and a firm, which transcends into activities like

sharing, liking, loyalty, purchase with cognition, emotion and behavioural components. Hollebeek et al (2019) These communications engage the customers in a positive and negative manner. All this solely depends on the satisfaction of customers in the manner in which the communication was made, what kind of impression it had on the customers and customer's response to that. Customers interact with the content and the messages which reaches them through Chat-bots and when they are happy about that, that tends to have a positive engagement such as sharing it to others, loyalty, recommending to others, continue purchasing and repeat purchase.

Methodology

To reveal the role of chat-bots in determining the nature of customer engagement is the objective. The different forms of chat-bots available, the basic functioning and applications have been collated in this study to provide fundamental information. After establishing the fundamentals, the factors that would lead to positive responses have been determined. In order to unearth that, earlier research done, information from blogs, websites of firms and customer reaction and responses to these from already available literature has been discussed in this study.

Fig.1 Conceptual Model

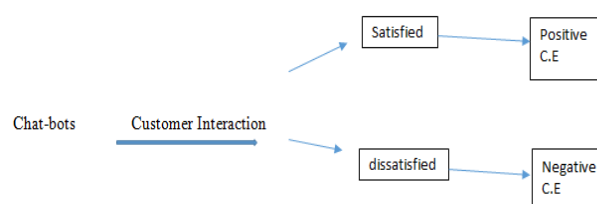


Fig.1 Conceptual Model

C.E – Customer Engagement

The interaction with chat-bots can lead to positive or negative customer engagement. Positive engagement happens if the customer is happy and satisfied with the interaction and negative engagement happens when the customer is irritated and discontented with the interaction. Positive Engagement results in repeat purchase, recommendation of products, services and spreading constructive image of the brand. Negative engagement leads to destructive outcomes and it may not ensure a good reputation for the firm. The objective is to identify the factors that lead to satisfaction and Positive Engagement and those which lead to negative Engagement using Secondary data which would pave way for future research. The model depicts that Customer satisfaction is important in their interaction with the chat-bots, enabling positive Customer Engagement. Failure on the part of Chat-bots to satisfy the customers will be taken as a failure of the firm.

Chat-bot Applications (Wikipedia 2020)

Messaging Platform

Sending messages in text form from Business to Customers. This is predominantly used in apps like Facebook and Whatsapp especially by banking and Insurance firms. Customer interaction takes place through Chat-bots as one of the contacts or a member of a group. These chat-bots answer simple questions from customers which has been quiet successful in engaging customers. In banking Chat-bots can act as financial advisors and can fill KYC forms. Team Kore.ai (2019)

Company websites

Companies like IBM Watson, Alaska Airlines have introduced chat-bots in their company apps give information about their products and services through this facility. Many companies have adopted chat-bots to reduce cost and they have found it effective. Calls made to Customer service executive take longer time and it is expensive when compared to the usage of chat-bots. 'Chat-bots magazine' states that cost reduces by 30 percent when chat-bots are used instead of humans. Thus the number of human can be reduced. The human resource can be used in critical areas and number of humans doing repetitive jobs can also be reduced.

Sequences

These are automatic responses that are triggered by customer input which already stored in the software. The already available response sequences would be used by the Chat-bot to give the correct response to users.

Internal Communication

In Companies chat-bots are used for internal as well as intelligent communications. Banks use it as contact point for Human beings. Intelligent chat-bots use deep learning,

Natural language generation, Natural language understanding and Machine learning.

Customer Relationship

Chat-bots are increasingly used to interact with clients and Customer, Juniper research has forecasted that sales in retail outlets would increase by 112 billion dollars in the year 2023 due to Chat-bot interaction with customers and Customer service conversations using AI will be 15% of the total interactions all over the world according to Gartner. Banks are places where Customer relationship is very important Chat-bots find application in banks also to service customers. Filling out forms, getting basic information from customers etc. So Customers need not stand in long queues at the banks. This automation helps the process to get done quickly.

Health Sector

In healthcare chat-bots are used for convenience like providing the location of health centres, for fixing doctor appointments and also to render medical advice. WHO and whatsapp have collaborated to introduce a chat-bot that assists and responds to queries by Public regarding COVID 19. The Indian Government has also introduced a chat-bot for the same. Health sector has gained prominence due to the pandemic. Using Chat-bots to resolve difficulties of people suffering from illness is a great consolation for them. Lesser waiting time for Doctor's appointment and locating health centres are a great boon and convenience to the public. Lots of hassles and hurdles can be avoided in life or death situations.

Political arena

Chat-bots are used to make conversations regarding the climatic conditions, Environment, Weather changes etc., their political views on these is shared. The country of Newzealand uses Chat-bot that is called Semantic Analysis Machine for this. In India queries regarding Public service management is answered through Chat-bots.

Kids segment

Toys and dolls incorporated with Chat-bots which recognise the child's words and language and respond according to that. Examples are "Hello Barbie" and "My friend Cayla" both dolls which recognise speech and respond. Educational chat-bots have also been introduced to keep kids occupied intellectually. Mehul Rajput (2020) mentions that chat-bots are capable of making education interesting and personalized. They can answer queries by students. When monotonous normal classes become boring chat-bot technology can be used to make it more interesting. Courses can be conducted online and several other uses are there in education by integrating the chat-bot to videos, virtual conferences, live chatting and much more.

Chat-bots now find their applications in several other areas apart from the ones mentioned above. They prompt customers, guide them, direct them to the right place and

destination and does several other interfaces for a good customer experience.

Factors that lead to Positive Customer Engagement

As the different applications have been mentioned above in multiple sectors, with that as base, the factors that make customers happy and satisfied when interacting with chat-bots have been elaborated here.

Resolving Problems

Chat-bots are able to resolve problems and queries instantaneously. They also patiently answer repeated queries. Customers are happy that their problems are solved with minimum complexity and optimum time. Robert Jordan (2019). Emotional queries have to be identified by the Chat-bots by its ability to segregate emotional and informational queries. Majority of the emotional queries are problems faced by the consumers and if this is solved at once, the customers show favourable attitude towards the firm. Anbang Zu et al(2018). Shane Barker (2019) claims that people prefer support with messaging applications rather than making call to Customer service, since they need quick resolutions. It is further stated that approximately 65% each of millennials, GenX and Baby boomers prefer messaging.

Personalisation

Chat-bots are able to identify gaps in the dialogues with customers and is able to fill the gap by identifying a pattern. Resolves the issue specific to the customer, thus providing a personalized experience to the Customer says Robert Jordan (2019) The company Fujitsu uses Chat-bot technology called "CHORDSHIP" to improve customer engagement where the Chat-bot is able to give automatic accurate answers to the queries using already stored dictionary. (Yoichi Kuraichi 2018). This has been discussed as "Empathy" by Anbang Zu et al(2018), where personalized responses are given by giving importance to the customer and the customer feels valued.

Availability

Chat-bots are available 24x7 and anytime anywhere customers can have access to that provided they are connected to the internet. Customers always want a response immediately whenever they have a query, Chat-bots help in effective contact with Customers claims Joe McKendrick (2018). This factor can also be considered as convenience. Fran Conejos (2020) states that customers dislike being on hold in a call and though the whole process of Chat-bot interaction may be a bit slow they prefer chat-bots since the uncertainty is avoided. Chat-bots identify the priority, send the queries to the right place, push the queries up in the queue and schedule calls to ensure this. Customer care executives will rest during night hours whereas Chat-bots do not need that.

Enjoyment

Majority of the Customers like to have a pleasant experience. They like to enjoy their chats with the Chat-bots. These hedonistic customers will have positive engagement when the Chat-bots provide an enjoyable experience. Joe McKendrick(2018). Directing Customers to the product page and guiding them to see product images and prompting to play videos makes the customer experience exhilarating says David Cancel (2020). Videos, music and colours appeal customers and that relaxes them and makes them glad. 'Data quest India magazine' (2019) states that Chat-Bots also use Augmented and virtual reality to give an enjoyable experience to the customers. The beauty products when purchased online cannot be tried out. Chat-bots fill this gap for customers who are far away. Selfie uploaded by the customer in the messaging interface can be superimposed on the product they want to buy and match lip colour, skin tone etc. This serves as an excellent technology for customers where sitting in their homes they are able to try the products and it gives them immense pleasure. Even education becomes interesting with chat-bots.

Transparency

Transparency is yet another important factor since customers would like to understand the process clearly first of all. Then they would like to know how the information collected from them is being used. The communication should happen in a manner in which it develops trust. Customers are contented when they know that the information will not be misused. A sense of security and safety should be established to satisfy the customer. Joe McKendrick (2018) This has been mentioned as credibility by Minjee Chung et al (2018) meaning honest communication that pacifies customers.

Human first

Chat-bots hybridised with a human touch would serve this purpose. Customers still need live chats to be more confident in their interactions. This hybrid technology has been developed by Fujitsu company called "CHORDSHIP" is capable of switching over to live operators when the situation is beyond the scope of automatic Chat-bots. (Yoichi Kuraichi 2018)

Helpful

The interaction with Chat-bots should be useful with proper information. The queries regarding information have to be answered appropriately. If the customers are satisfied with the information they get from the Chat-bots, it results in positive engagement. Information regarding products, websites, location etc will be helpful to customers and avoids despair. Anbang Zu et al (2018) When the product inventory is too large, the customers just have to type the products name and Chat-bots can be helpful in taking you straight to the destination of product availability states Himanshu Rauthan (2019)

Accuracy

This factor has been measured under communication quality by Minjee Chung et al (2018). Here the researchers state that the chat-bots should be able to listen to their queries, find out what their problem is accurately and give relevant precise information. The completeness and appropriateness of the communication is essential to retain a customer.

Trendy

Minjee Chung et al (2018) have discussed trendiness as a factor of customer satisfaction in Chat-bot conversations. This goes to explain further that customers would like to get information about new products or brands. Since they like to stay updated and trendy in the society. It is quite natural for customers to feel that they should not be left behind in discussions when it is about a new product or a new brand. They feel that they should know everything first-hand. Interacting with chat-bots itself is a novelty, which they would like to share with their friends if their experience was good.

Thus the major factors that lead to positive Customer Engagement as a result of a satisfactory interaction with chat-bots have been arrived at. Resolving Problems and Availability are two factors identified in this study which have not been researched earlier.

The conceptual model was modified to include the factors leading to Customer Engagement valence which is based on the reviews and discussions above

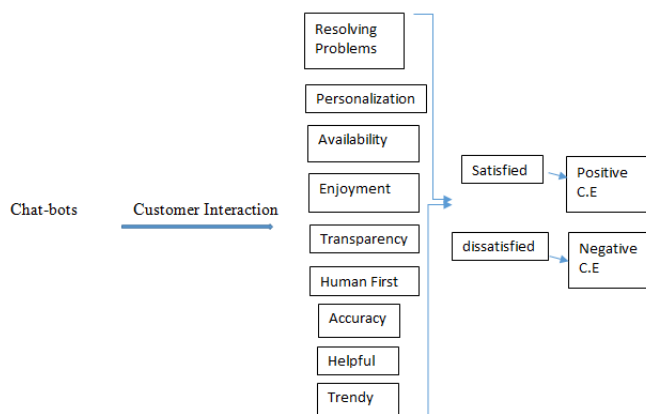


Fig 2 Modified Conceptual Model

Discussion on Negative Engagement

- All the above factors have been singled out for positive Engagement. If these factors are not followed successfully by the marketers, then it would lead to negative Engagement.
- Interactions without credibility, false information, vague answers without clarity will lead to dissatisfaction of customers. When there is no transparency and no clear information on how the customer's personal data is going to be used, customers would think twice before they use this facility. The fear that their privacy could be compromised leads to unfavourable responses. Leah (2020) says that if

Chat-bots do not clarify to the customers in an outright manner that they are not humans then it would be deceptive.

- Inaccurate responses will result in unhappy customers. This would mislead them and will cascade into adverse reactions.
- If the chat-bots are not available due to software error or internet connectivity issues, then customer expectation will not be fulfilled. The outcome is disappointed customers. If the chat-bot is not kept on then the Customers who are dependent on this will be frustrated Chris Christoff (2019).
- When problems are not resolved instantly, customers feel anxious and agitated. The firm's reputation will be at stake, Customers would share negative comments about the firm and the firm's response to complaints.
- Lack of human touch may result in negative engagement. Retaining customers will become increasingly difficult. Unique situations that cannot be handled by chat-bots have to be switched over to customer care executives. Quick establishment of contact is required if not a sense of uncertainty settles in the customers.
- If the responses are not relevant and customised, then customers do not get connected with the interaction. Irrelevant answers frustrate the customers when they are in dire need of something and this would end up in customers spreading negative comments on the firm's services. They would become indifferent and the impact would be inimical.
- If the conversation is too formal, without any kind of entertainment customers lose the interest in the interaction. When the conversation is boring, customers get detached.
- Negativity increases when the interaction is not helpful and useful. When the conversation does not contain any new information, updated messages or not in vogue it leads to a low morale in the customers, who would like to be trendy and fashionable in the society.

Limitations

The study uses only secondary data to identify the factors that lead to positive Customer Engagement and goes on to explain that if the factors are not as per the Customer's expectations, then it would lead to negative Customer Engagement. Primary data was not collected. The three factors Availability, Human first and resolution of problems, identified have not been subjected to Empirical analysis. The research was not done for a specific segment of Customers.

Future Research

Primary data can be collected from customers using the factors identified and further analysis can be carried out. Chat-bots used in a specific sector for example, banking, and Government can be researched using these factors. Product specific study can also be carried out using the factors identified to understand Customer's expectation. The research can be carried out for a specific geographical region, a particular segment of customers and Customers belonging to a specific culture. This would reveal further

factors that would contribute to enhanced positive Customer Engagement.

Managerial Implications

Business and trade are the backbone of the Indian Economy. Business has to be agile to the latest technology. Adopting Chat-bots to render good Customer experience is important since, Chat-bots are proven to be cost effective. Human beings can be utilised for better jobs and chat-bots can be used for monotonous, repetitive jobs. Chat-bots do not experience fatigue and they can be used anytime. It can be designed to suit different customer expectations. Ultimately customers have to be contented and satisfied, because there is no business without customers. Several studies and blogs have reiterated the significance of Chat-bots in keeping Customers engaged. Hence Marketers can make use of this intelligent technology to enhance customer contacts and to convert potential customers to permanent customers.

Conclusion

Chat-bots functioning with Artificial Intelligence Software have started occupying an important space in all sectors possible now. Around 85% of Business to Customer interactions in 2020 are going to take place through Chat-bots says Juniper Research Study Chris Christoff (2019). Increased use of Chat-bots at points where the job is repetitive replacing human beings is mentioned as a feature to improve Customer experience by the Genesys software company in their E-book (2020). This is done to engage human beings in more important, challenging and intellectual jobs. E-commerce is all prevalent now and number of users are increasing. Chat-bots are now used in e-commerce where interactions have to take place with millions of customers. If the Chat-bots are designed by the Marketers to carry out conversations as per the Customer's expectation and satisfaction, then this would lead to positive customer Engagement. This Positive engagement is extremely beneficial to the firms with respect to image and revenue. Strategies to make Customers happy through chat-bots is vital to ensure good popularity to the firm. Chat-bots can be used for cross promotion where they can ask the customers who visit the website to sign up through other Social media apps and thus retain potential customers and make them loyal says Chris Christoff (2019). Marketers and Businessmen should adopt novelty and win the prize.

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