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The Chatbot Experience: Investigating Response Times and Their Impact on Consumer Loyalty

Dr. Abhijeet Thakur
Sr. Assistant Professor,
Balaji Institute of Modern Management (BIMM),
Sri Balaji University, Pune
Email: abhijeet.thakur@bimmpune.edu.in

Nishant Shrivastava
Student Manager,
MBA – Marketing, BIMM

Abstract

Companies consider the use of AI technology as a way to improve their customer service and expand their market. Organizational output, originality, and efficiency may all rise thanks to the possibility of automating formerly manual tasks. However, it is crucial to focus on the customer experience while implementing these innovations, not only because various individuals have varied reactions to technology, but also to protect the integrity of the brand as a whole. This research seeks to perform a perceptual qualitative analysis of the users' experiences with the chatbots in the context of the telecommunication business through the examination of the connections between the factors of customer happiness and the 'human like' design cues of chatbots and was accomplished through the acquisition of data through the methodology of a cross sectional online survey. The findings open the way for future study to expand our understanding of the relationship between usability, perceived trust, and empathy and consumer happiness. Managers, chatbot developers, and customer care departments may all benefit from the study's actionable recommendations for raising chatbot quality and customer happiness. The rare absence of sufficient replies does not inevitably result in a negative experience, as shown by our findings, provided that the chatbots do provide with the users, a simple mechanism for connecting with a human customer support representative, to escalate the matter, so unresolved by the chatbots. Participants in this research showed more realistic expectations of the chatbots' capabilities than is indicated by the previous literature on consumers' views of conversational agents.

Keywords: AI, Chatbot, HCI, CHATBOTSA, FITD

Introduction

The proliferation of online stores and the ease of making purchases in this way have contributed to the meteoric rise of e-commerce. The issue that emerged was how to meet the requirements of the clients. Running a service center is a difficult and time-consuming business. As a result, even for their most devoted customers, many businesses fall short of satisfying their patrons. AI or Artificial Intelligence is a technology, powerful enough to cause paradigm shifting changes in the customer service industry as through AI, chatbots can interact with clients like human customer service representatives and provide legitimate answers. Mero (2018) explains how the AI chatbot may have a direct and substantial effect on the quality of customer service provided. It allows for two-way contact, which boosts client retention, devotion, and contentment. However, Gnewuch et al. (2018) argue that AI chatbots are now a necessary component of consumer happiness. It is to be noted that AI technology is not completely perfect, as a few incidents of discontent have been noted between the 'human like' conversations had by the chatbots and the users during the latter's interactions with the former (Orlowski, 2017). In addition to this, a few instances have been identified wherein the

customer's behavior with the chatbots had changed in a radical way due to the nature of their interaction which could have consequences for the customers' perception about the companies, w.r.t the quality of the customer service provided to them through the chatbots, which brings up the concerns expressed by the experts in the field about such unexpected or non-programmed ways in which the chatbots were interacting with the customers, as it could affect the brand image of the companies, if such issues were not resolved in time.

There are two halves to the customer satisfaction pie chart: 1) Satisfaction with a particular transaction had by the customers with the service providers and 2) Satisfaction with the actual service provided as a whole. The first form of customer satisfaction is the confirmation of the whole customer experience, as described by Johnson and Fornell (1991). The term "loyalty of behavioral intention" was formerly often used to describe people of this sort. In contrast, second form of consumer pleasure runs counter to the first. According to Oliver (1993), this category describes the feelings that occur in the course of a customer's experience as a result of the services delivered to them. Measurement of the extent to which the customer is happy with the services rendered to him is of critical value for businesses as this one factor value can cover several facets ranging from business tractions to several aspects associated with the nature of the human behavior. Due to the complex nature of this variable, several hypotheses have been proposed through which the researchers sought to account for the impact of technology on the quality of the customer's service experiences and their reactions to it. McLean & Osei-Frimpong (2017) research has been noted to be the 'most recent', in the year in which they published their findings, with the objective for the determination of the elements of significant note which played an influence onto the factor of customer satisfaction with regards to their interactions with the factor of customer service. Personalized assistance, prompt chat responses, short wait times, user-friendliness, and overall convenience were found to be the most important aspects of a positive customer service experience.

The research indicates that the factor of customer satisfaction is a complex whole of several elements such as – the nature of the language used by the company's representatives in the service chats, the level of empathy shown by them and the level to which the information was dependable and clear and the extent to which it was of the desired level of quality, as per the customers' expectations. The companies who deal with consumers through the means of faceless chat can benefit from prioritizing these factors as it can improve the end quality of their interactions with their customers, which makes it further necessary to perform an investigation into understanding the factors which influence the consumer's happiness.

Businesses utilize them in customer relations, customer support, order processing, and individual consulting to create a two-way dialogue with clients and keep them entertained. You may find chatbots in a variety of IM programs, and they often have human-like traits. Scholars and the media alike see chatbots as the next technology revolution. Chatbots' commercial potential was tied to the widespread use of instant messaging programs. Businesses need to be present where their consumers are, and nowadays that's via messaging apps rather than social networks. According to research (Vincze 2017), One kind of chatbots makes use of machine learning, while another operates according to a set of rules that have already been established. The latter isn't as perceptive as the former; it can only follow very precise orders, thus any typos will be ignored. The level of intelligence implemented in this chatbot is limited. The other chatbot makes advantage of AI and machine learning. The chatbot may learn from context rather than just following orders. A chatbot that uses machine learning to learn from past interactions may become more helpful over time. For more on this topic, see: (Schlicht, 2016) The rise of messaging apps and developments in AI have contributed to the current success of chatbots. These days, messaging apps provide more than just a simple means of communication. The chatbot may be used for things like making payments, placing orders, and reserving a room. A chatbot has made it possible for customers to do things like reserve a seat at a restaurant. Research into the realm of Artificial Intelligence is showing promising results, through the great strides made by AI, in the domains of Machine Learning (ML) and Deep Learning (DL) which use the data and information gained from repeted iterations and interactions with the customers and users for training the ML models and algorithms and large databases of recorded data and information for the development of useful insights, for training the DL models and algorithms so as to increase the levels of quality and end-usefulness of the services provided by the Machine and Deep Learning algorithms and models for the benefit of the customers.

The experts recommend that the chatbots be designed in an 'anthropomorphic' (human like) design as such a design could create feelings of familiarity and comfort amidst the users, creating a feeling of social presence (Rafaeli & Noy, 2005, Zhang et al., 2012) in a way which will seem human through mimicking of the nature of human interactions in such a way, which will create feelings of social presence during the interactions with the users. Adam et al ., 2019, Hess et al., 2009 and Qiu & Benbasat, 2009 are but a few of the studies which have performed a research into the effects of the anthropomorphic design cues on the perception of the users regarding such non-human interactors and the level to which the users adopted to such means of communication with companies.

While this work has contributed significantly to the fields of study and practice, the majority of it has focused its efforts on 'embodied Chatbots' or chatbots who include a anthropomorphic human like body or face or are designed for using anthropomorphic body language cues and design signals (physical appearance, hand gestures, facial emotions and cues, etc.) Chatbots are entities which are virtually physical conversational assistants and agents who rely heavily on language and linguistic signals while conversing and interacting with humans (Araujo, 2018, Feine et al., 2019). There are existing research studies on the vocal anthropomorphic design cues and signals such as apology, empathy, self-disclosure and gratitude but the research has been stated to be a bit static and non-sensitive to the inputs by the users due to the restricted capabilities of the prior generation of the Chatbots. Therefore, people may become averse to such a technology due to its inability to adequately simulate human-human interaction.

Contemporary conversational computing systems (such as IBM Watson) have made it possible for limited AI-based chatbot solutions to be intelligent enough to carefully grasp human input, for delivering empathetic and more useful responses, which can be stated to be better than the prior generation of chatbots built on 'rule based systems', as they have 'near-human' level of understanding, enabling the chatbots built on such systems to develop a better understanding of human needs, enabling the generation of more compassionate, empathetic and nuanced responses to the user's inputs (Reeves & Nass, 1996). As a result, these technologies provide room for novel anthropomorphic design signals including the ability to engage in small talk in the chat and demonstrate empathy with the users. There have not been much studies who have studied the ramifications of the current generation of the advanced anthropomorphic design cues in the conversations of the chatbots with the users (Araujo 2018, Derrick et al., 2011) and with the increasing proliferation of chatbots, the issue arises as to whether or not the compliance and persuasion strategies traditionally used to get people to do what you want them to do also work in the context of self- service environments driven by technology. “Not only is the continued-question process widely used in practice, but its efficacy has been proven to be very requester-specific (Burger, 1999), making it a particularly pertinent example of the foot-in-the-door compliance strategy.” So, it's possible that “Chatbots won't have the same level of success with this compliance strategy as humans would.” To yet, “research on compliance and persuasion strategies has paid little attention to Chatbots despite the fact that they may be used as artificial social actors or agents.

Chatbots have recently been integrated into human-to-human contact across several service sectors, and their efficacy is being studied by academics (Gnewuch et al., 2018). They arrived at this conclusion after discovering the significant impact anthropomorphism had on user retention and pleasure. Human engagement, knowledge base systems, and chatbots are only some of the approaches that have been utilized to boost customer satisfaction in the service sector (Adam et al., 2020).

Being that chatbots are computer programs, designed to conduct conversations and discussions with users and clients for the purpose of resolution of the queries, complaints and issues, in a way which will satisfy the users and customers, the need for more sophisticated chatbots as their use becomes more common among organizations and consumers. “It is crucial to understand how customers' impressions of businesses that use chatbots are affected by the decision to provide conversational agents with anthropomorphic designing cues.” Anthropomorphism has been used in empirical studies of chatbot design to examine the potential for humanlike and non-humanlike chatbot design to elicit contrasting responses from users. Sheehan et al. (2020), Go & Sundar (2017), Rietz et al. (2019), and Araujo (2018), among others, have conducted studies on the effect of anthropomorphism on chatbot adoption, developing signals that affect customer acceptability, and use intention. However, there is a dearth of studies that examine how anthropomorphism influences chatbots and how the perceived utility of chatbots mediates this relationship. This research tries to find out whether customers are more or less satisfied and loyal after communicating with a chatbot or a person. It also looks at if the service provider has made an effort to humanize their chatbot and whether this makes a difference.

Only if chatbots for customer service provide a positive user experience and genuine value propositions that inspire people to interact with them repeatedly will they remain relevant and interesting. As a result, “it stands to reason that studies of chatbots for customer service would focus heavily on their users' interactions with them.” However, there is a critical lack of research that offers in-depth insight into the user experience and user motivation for such chatbots. This is a challenge since such knowledge is crucial to the creation and launch of effective chatbots for customer support. Given the rise of chatbots in customer service, this knowledge would be invaluable to the larger study of conversational user interfaces. Chatbot technology is still in its infancy, thus there isn't a lot of relevant study yet (Roy and Naidoo, 2021). “Few studies have looked at how identity cues (such as a human name), visual cues (such as a human figure), genders, and conversational cues (such as conversation skill) affect consumer attitudes and behaviors, and they all point to the need for brand managers to increase the humanness of chatbots (Araujo, 2018).” This current research will contribute to the body of the literature, filling in the gap in the research by performing an investigation which could study the impact

of the conversational style of a chatbot onto the level of quality of the services provided to the clients, and can be of use to the business owners and the stakeholders in developing new or improving on the existing generations of chatbots in a way which will increase the quality of the user – bot interactions.

2. Literature Review

A. Social response theory and anthropomorphic design cues

Being that the 'Social response theory propounded by Nass et al., 1994 has been around for quite some time now, researchers have been able to perform studies for understanding "the ways in which the customers and users interact with anthropomorphic computers and programs and come to a conclusion, regarding their interaction" so as to add to the body of literature of how users and customers interact with non-human entities such as chatbots. In congruence with the earlier research studies in the digital settings, we can define 'anthropomorphism' as the "imposition of human traits and emotions on inanimate objects (Epley et al. 2007)". "This trend may be explained as people's inherent inclination to use their own anthropocentric knowledge to better grasp the motivations of mysterious others (e.g., Epley et al. 2007; Pfeuffer et al. 2019a)."

"Human-computer interactions (HCIs) are inherently social, per social response theory (Nass and Moon 2000; Nass et al)". "Despite knowing that computers do not have emotions or goals, people have a tendency towards immediately and subconsciously seeing them as social agents". The main reason for humans to display social behaviors toward computer-mediated technology, described earlier by the social response theory (SRT) and the related computers-are-social-actors (CASA) paradigm (Moon, 2000; Reeves & Nass, 1996), is believed to be a "mindless" application of social heuristics (e.g., stereotyping, politeness, reciprocity) to computers that exhibit "social" cues (e.g., interactivity and use of human language) (Nass & Moon, 2000).

The skewed nature of the homo sapiens sapiens's evolutionary social orientation could be based on the psychological hard-programming to experience a sense of social presence in the presence of social heuristics for example politeness, reciprocity, etc. to computers and online interactors who exhibit such cues in congruence with responses coded in human language which has been supported by research by Reeves & Nass, 1996 and Moon, 2000 into the 'Computers-are-social-actors' paradigm, which can create a sense of familiarity with anthropomorphized chatbots or computers who display such behavior leading to higher quality interactions with such devices. This concept was originally developed to evaluate users' impressions of human contact (i.e., warmth, empathy, sociability) in their technologically-mediated exchanges with one another (Qiu and Benbasat 2009). Of late the word 'agent' is being employed for referring to anthropomorphized computer interfaces, changing its prior meaning from a person who guides others to computer based entities who communicate with people (Benlian et al., 2019, Qiu & Benbasat, 2009).

Research studies and observations have indicated that people will attribute human like traits to technologies and devices, if they exhibit or display characteristics often associated with human beings such as polite language, turn-taking, interaction (Epley et al. 2007; Moon and Nass 1996; Nass et al. 1995) resulting in the display of social behavior with such devices, sometimes extending to exhibition of behaviors emulating levels of respect, usually accorded with other human beings. The user's social orientation, socially acceptable conduct and behaviour and other related actions can be activated, in case the device or the chatbot he/she is interacting with has been designed to emulate human like design cues in an anthropomorphic way, which could support in a conclusive way the statement that the social dynamics, norms, rules and regulations which govern interactions between human beings can also apply to Human Computer Interactions (HCI).

B. Compliance and commitment-consistency theory

One of the definitions of the word 'compliance' states it to be 'a specific form of a reaction to a certain kind of a message, usually accorded as a response for a request to do or refraining from doing the requested action' (Cialdini & Goldstein, 2004). The request may be direct (as in case of a door to door solicitation campaign) or indirect (as in case of a publicity or campaign poster, endorsing a candidate in an election), but in case of an interaction with chatbots, the users are aware that they are speaking with chatbots who are encouraging them to act or respond in a certain way or manner. There have been several research studies into different techniques of compliance by researchers in compliance studies, which can be utilized in the studies on chatbots. Being that chatbot engagements tend to be sequencial in nature due to the nature of their designing, we can identify the 'FITD' or the 'Foot in the Door' strategy, a strategy which is extremely popular with the researchers in this field, who have made it their most studied and utilized strategies in order to understand the nature of the interactions between chatbots and human beings. The FITD compliance method (e.g., Burger 1999; Freedman and Fraser 1966) relies on the power of incremental changes to persuade people to behave as intended".

One of the first pioneering efforts in understanding the FTTD compliance method was conducted by Freedman & Fraser (1996), wherein they contacted several

housewives residing in the Palo Alto region in a study and enquired them about the products they used for cleaning and dusting in their homes. Further contact with the samples were done by researchers from the psychological department of the Stanford University three days after the calls by Freedman & Fraser, wherein they were requested by the researchers to permit them to physically inspect their cleaning product cabinets as part of their studies. It was found that, when compared to a control group of housewives who were merely asked the huge request, these women were shown to be twice as likely to comply with the request. These studies have been referred by several small, medium to large corporations as part of their internet sales and marketing strategies as part of their compliance tactics for convincing their potential customers for agreeing to extensive contracts.

Wizenbaum (1966)'s work on the ELIZA, one of the first pioneering attempts in natural language computer processing laid the foundation for the concept of automated conversation systems in the realm of informatics. The surge in the popularity for chatbots could be explained in form of two recent events, which catalyzed the speed of their growth in the world today. 1) The first event or reason could be stated as the improvements in natural language processing and improved capabilities in understanding and comprehending the intentions and sentiments of the users have led to the innovation of chatbots as entities who are now easier to train and deploy due to the combination of the improvements in this realm along with advancements in the realms of Machine and Deep Learning algorithms, programs and models (Brandtzaeg & Flstad, 2017).

2) The second event or reason could be explained as the rise in the interest in text based engagement due to the proliferation of social media portals and apps such as WhatsApp, Facebook Messenger, Telegram, Slack, etc. which is encouraging the users to become comfortable with text based interactions with chatbots, causing for the large businesses and corporations to utilize chatbots for services such as digital assistance, customer interaction, etc. and their popularity has found themselves being made a ubiquitous presence in the digital world today fulfilling several use cases and purposes in the e-commerce, news media, delivery service industries and many more industries are rapidly adopting the convenience of the chatbots for their marketing efforts, customer service interactions and information disbursal efforts, etc. which can explain their explosive growth today (Accenture, 2016, Zumstein & Hundertmark, 2017).

Chatbots designed for facilitation of interactions and information exchange with users and customers can be built on different systems such as IBM Watson, Google Dialogflow, etc. and other such systems and engines are being developed by other corporations for improving the ways customers interact with companies and corporations and research into the effectiveness of Artificial Intelligence driven chatbots is already in its pioneering stage, trailblazing new routes ahead for future research studies into this topic (Xu et al., 2017). However, not much research has happened which could explain how consumers place their faith in chatbots, making this topic of study a hot topic, for future studies into this subject. In addition, several factors unique to the chatbots as well as the service contexts were shown to have an effect on users' confidence in customer support chatbots by Folstad, Nordheim, and Bjrkli (2018).

Studies have indicated that the physical face (human like appearance), the way the chatbot presented itself and whether the chatbot is capable of interactions with the users/customers in a professional way or not, etc. can be considered as the important design features of the chatbots, in addition with their capacity for accurately understanding the requests received by the chatbots in order to offer helpful responses and replies.

The other service specific factors include the impressions the user have of the corporate brand that is running the chatbot, the systems created by the corporation (brand owner) for ensuring data privacy and safety regarding the data shared by the users. In spite of the fact that there is a scarcity in the literature, specifically investigating the levels of confidence the consumers have with the chatbots, there are a few studies which have investigated how people make use of the chatbots and their feeling regarding the chatbots. Research has been conducted for understanding the interaction between human users and chatbots, for comparision of the difference the former has with interactions human users have with each other online.

Researchers Hill, Ford & Farreras (2015) in their study on the usage of chatbots in the financial sector have indicated that the sector was one of the pioneering users of this technology and have made use of chatbots for assistance in improving the satisfaction levels of their clients through swift interaction in a human like way, while providing responses to a large variety of questions and queries. Prominent banks in India such as the State Bank of India (SBI) are using chatbot technology for interactions with its clients. The Chatbot (SBI Intelligent Assistant) used by SBI is powered by Artificial Intelligence (AI) and makes use of the models and algorithms used for training in generation of prompt responses to the queries, questions and issues raised by its clients along with providing assistance for their routine banking activities. Another example can be cited in form of 'PAYJO' a powerful AI based intelligent banking platform's chatbot which is designed for handling more than 800 million user queries and questions in a day and it is expected that such powerful chatbots will be introduced by the prominent banks and financial service

providers in the days ahead.

Ngyuen & Tung (2019) in their study on the evaluation of the possible impact of chatbots on the way customer care operations work have suggested that organizations should use chatbots as a complement to their existing human customer service executives and that the chatbots should not be used for handling queries and questions of complex nature as such matters can be settled by the human customer service executives. They also stated that for chatbots to remain effective, organizations should use them in a strategic way by careful planning regarding allocation and utilization of resources for the chatbots along with the provision of a constant level of technical support and analysis of the way the responses were generated in order to enable the chatbots to be kept in the desired levels of quality, in order to ensure smooth and productive interactions with their customers and users, through the chatbots.

Petter Bae Brandtzaeg and Asbjorn Folstad (2017) have provided a deeper insights into the reasons why chatbots appeal to the users by describing the ways through which the chatbots have proven their usefulness to the users interacting with them, through the provision of prompt and effective support for understanding their questions, queries and concerns, enabling their object solution through AI or via human intervention, revealing that customer assistance is the essence, as it is the catalyst, which enables the customers to be satisfied.

As a technology, chatbots are extremely useful and cost effective as they are capable of learning from each iteration of the conversations with the users (Machine Learning) and can make use of a very large data base of information for further refinement in the ways, it responds to the customers and users (Deep Learning), which can explain the proliferation of chatbots around us these days. Through the usage of AI, chatbots are improving in the ways they provide customer service, which has freed up the human staff to focus on more critical and knowledge oriented work. The research into chatbots is by no means a static one as new topics and avenues will be identified in the future regarding human beings and chatbots and can lead to several interesting research studies in the days ahead.

3. Research Gap And Objectives

This research seeks to add to the body of literature through the performance of an investigation which can understand the impact which can be had through the style in which the chatbots converse with the users in congruence with the levels of quality of services provided to the clients and can be of use to the policymakers, senior decision makers and stakeholders for designing better and more useful generations of chatbots in the future. Following are the objectives of this study -

1. To perform an analysis, through which the relationship between customer satisfaction and the chatbot's response time can be studied.

2. To evaluate the impact of chatbot response times on consumer loyalty.

3. To assess the role of chatbot efficiency in enhancing customer retention.

4. Research Methodology

A. Research Design

Prior to the survey, a short explanation about chatbots was included on the form. To validate the model's validity and reliability, we used preexisting scales that we borrowed and modified from the existing literature to assess all components. Quantitative methods were utilized to analyze how AI chatbots affected consumers' overall satisfaction. Using this approach will aid in determining what variables should be included in the equation and which ones should be controlled for. The regulated setting also makes data collecting easier in this approach. Besides that, this method may be used to glean information and derive statistics from a massive data set. In addition, it offers definitive outcomes that aid in pinpointing the precise causes that might be held accountable for a certain event. Positivism is the guiding theoretical framework for this study. This is so because it deals with observable facts, and empirical evidence is generally seen as credible. The guiding principle encourages reaching out to a wide variety of people and using original sources to get information. Our study approach, which requires quantitative data to be extracted outcomes, is also consistent with this research philosophy. The technique was further subdivided using deductive reasoning. This is true because most alternative methods can only be used to develop abstract ideas and theories that have nothing to do with people.

B. Data collection and sampling

Research utilizes both secondary data and primary data. The term "secondary data" is used to describe research that makes use of information that has already been gathered and presented by another researcher. When talking about an empirical study, the information gathered by the researcher during the investigation itself is called primary data. Interviews, observations, surveys, and even simple logging may all be used to compile primary data. (Sachdeva 2008, 116)

In order to test the study's assumptions, a survey was made in Google Form. A small number of instructors and students previewed the survey instrument. To recruit people to take part, we resorted to convenience sampling and snowball sampling. There are 117 people's answers in this sample. Participants were required to either have

completed a higher education program at a respectable institution or be currently enrolled in such a program, and they also needed to have shopped online before being considered for participation in the study. In contrast, those who didn't make the cut had to either be above or under the age range that was specified, and they couldn't have ever shopped for anything online before

Hypothesis

- H1: "The usability of a chatbot positively affects customer satisfaction in e-commerce."
- H2: "The perceived trust of a chatbot positively affects customer satisfaction in e-commerce."
- H3: "The responsiveness of a chatbot positively affects customer satisfaction in e-commerce."
- H4: "The customer's perception of accessibility positively affects customer satisfaction in the use of a chatbot in e-commerce."
- H5: "The perceived empathy of a chatbot positively affects customer satisfaction in e-commerce."

Gender	%	Age	%
Male	15.1	Younger than 20	7.6
Female	47.9	20-29	68.5
Other	0.9	30-39	15.5
		40-49	6.6
		50 or older	1.9
Total	100	Total	100

Table 1: Demographics

C. Conceptual Framework and Hypothesis Development

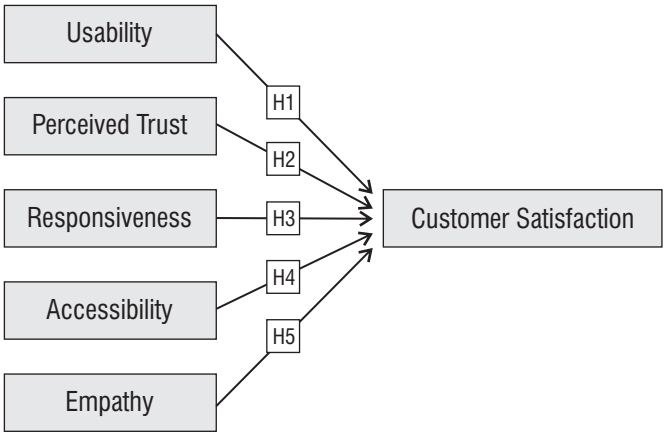

Figure: Theoretical Framework

5. Findings and Results

To test our assumptions and look into the constructs' dependability, we employed SPSS Statistics. Cronbach's Alpha (α) was calculated to examine the consistency of the scales. According to the criteria set out by Nunnally and Bernstein (See Table 2), the Cronbach's Alpha value for each construct (range 0.807-0.910) was more than 0.7. This suggests that there is a high level of internal consistency.

Linear regression analysis was used to examine the hypotheses. The results indicate a favorable and statistically significant correlation between usability and client approval (β = 0.292, p 0.001). This lends credence to H1, the null hypothesis. Customer satisfaction is not significantly affected by responsiveness (β = 0.064, > 0.05). Therefore, H2 cannot be accepted. H3 is supported by data showing a positive and substantial correlation between customers' perceptions of trust and their overall pleasure (β = 0.338, p 0.001). H4 is not supported since the relationship between accessibility and customer satisfaction is weak (β = 0.018, > 0.05). Lastly, the results support H5 (β = 0.286, 0.001) since there is a positive and substantial correlation between empathy and customer satisfaction. In conclusion, the data in Table 4 support hypothesis H1, H3, and H5.

Scale	No of Items	Cronbach's Alpha (a)
Usability	5	0.845
Responsiveness	4	0.806
Perceived Trust	4	0.861
Accessibility	4	0.846
Empathy	7	0.911
Customer Satisfaction	4	0.886

Table 2: Cronbach's Alpha (α) of the scales

To begin, chatbots' ease of use significantly improved

Coefficients[a]						
Model		Unstandardized B	Coefficients Std. Error	Standardized coefficients Beta	t	Sig.
1	(Constant)	-0.133	0.149		-0.9	0.376
	Usability	0.321	0.051	0.292	6.443	<.001
	Responsiveness	0.072	0.052	0.064	1.398	0.164
	Perceived trust	0.352	0.048	0.338	7.207	<.001
	Accessibility	0.018	0.048	0.018	0.373	0.711
	Empathy	0.277	0.043	0.286	6.551	<.001

Notes: (1) CS = Customer Satisfaction; (2)***p < 0.001

Table 3: "Linear regression result of hypothesis H1, H2, H3, H4, H5"

Hypothesis	Standardized coefficient beta	Sig.	Results
H1	0.292	<.001	Supported
H2	0.064	0.164	Not-Supported
H3	0.338	<.001	Supported
H4	0.018	0.711	Not-Supported
H5	0.286	<.001	Supported

Table 4: Hypothesis testing result

customers' contentment. Users that interact with chatbots deemed highly usable have a more positive overall buying experience and are more likely to suggest the brand to friends and family. The tone and wording of the chatbot's responses will affect how the user interprets them. "For instance, past studies have shown that when a CA uses first person singular pronouns to express an identity, the CA is more likely to be liked (Pickard et al., 2014)." We propose that "when a chatbot shows an identity via the use of first-person singular pronouns and even a name, it boosts its likeability and anthropomorphic perceptions by the user," since this is a quality unique to humans. The proliferation of chatbots has increased in the recent days, owing to the rise in use of the chatbots by large corporation in their customer service functions, prompting academics to investigate the impact that chatbots' perceived usefulness has on customer attitude and adoption, often via the lens of the Technology Acceptance Model (TAM) (Davis, 1989)." The degree to which an invention is seen to be beneficial by its target audience is a significant determinant of how quickly that innovation is adopted (Amin et al., 2014). At the same time, "consumers' willingness to employ chatbots is influenced favorably by their perceived utility (Selamat & Windasari, 2021)." A positive outlook about chatbots is correlated with the ease with which people may interact with them (Brachten et al., 2021). "Perceived usefulness has been studied extensively for its effects on user performance in information systems, as well as its direct effects in a number of other fields." Perceived usefulness is a crucial mediator between satisfaction and technology adoption, such as chatbots (Blut et al., 2020).

However, the correlation between chatbot response and happy customers is weak. One cause is that instantaneous responses are now expected from the services they provide. When interacting with a service technology, customers often expect a rapid response time. "The level of user satisfaction was shown to be a significant indicator of how satisfied the user would be with the whole communication experience." Its primary use is in the business world, "where it's used to gauge how well products or services live up to expectations (Chung et al., 2018)." There have been some studies which have sought to understand the ways in which the user's satisfaction has an affect in the HRI research (Blut et al., 2020). Users' happiness may be affected by a variety of factors, "including utilitarian and hedonic pleasures as well as technical and societal benefits (Cheng and Jiang, 2020)." Clients value it when chatbots for luxury brands can provide them with accurate and authoritative product information, as reported by Chung, Ko, Joung, and Kim (2018). Customers felt more connected, happier, and more satisfied with their purchases as a result of using digital services like chatbots. Furthermore, "client confidence in chatbots is affected by service quality, which in turn affects user happiness (Kim & Chang, 2020)." As Amin et al. (2014) point out, "organizations have to make sure their target customers are happy by providing them with high-value- added services no matter where they are or what they do."

Third, the outcome demonstrates that customers are more satisfied when they feel trusted. "Customers have to have faith in the service or the firm before they'll use it, and that holds true especially for online services. Building and retaining trust is crucial to achieving and keeping customer happiness." Our research has indicated that the availability of a chatbot did not cause changes into the levels of pleasure felt by the customers and users who had interacted with the chatbots. One possible explanation is that most of the participants are young people (76%) who were born in the digital age and grew up with smart gadgets. As a consequence, they find it easy to start utilizing chatbots right away, and accessibility in general becomes more of a focus in their interactions with technology. We also found that the ability to empathize with a consumer is a strong indicator of their contentment. Customers are wowed by chatbots' kind demeanor, which makes their interaction with the technology more satisfying overall. Because AI can respond quickly and accurately to many requests from different users around the clock with accurate personalized interactions, it has been connected to increased levels of satisfaction among both employees and end users. As a result, the service accurately represents the success of chatbots in achieving high customer satisfaction, which could lead to an increase in the quantity of the users who are dedicated clients, making it clear that AI has a significant role in improving customer happiness by establishing trust in the brand and increasing user participation (Prentice & Nguyen, 2020). When it comes to customer loyalty, which is mostly influenced by the rapport established between sales and service representatives and their customers, a chatbot service may do wonders. (Youn & Jin, 2021).

Consumers regard chatbots as though they are human, applying unintentional social norms to their replies while interacting with them. "If the chatbot has social signals like dialogue, engagement, and social roles, then the two essential components of social cognition become more important in this service interaction." A chatbot's human-sounding name, as shown by Araujo (2018), is one way to make it more approachable. Also, Hildebrand and

Bergner (2021) discover that "when a chatbot takes turns with the user during the early onboarding process, the user develops more emotional trust in the chatbot." In addition, "prior research shows that people use Casual conversation when interacting with close friends and family; thus, a social-oriented communication style, characterized by the use of Casual conversation, can cognitively ignite the perception of warmth related to close friends and family." But since both social and task-oriented chatbots send the same amount of information to users, their perceived competence may be identical. As a consequence, "there will be no distinction in how others evaluate one's ability between the two modes of expression." According to the literature, "warmth is more important than skill in eliciting positive emotional reactions (Fiske et al., 2007)." In turn, a kind impression might boost happy customers. Warmth, on the one hand, is seen via the assumption of benevolence (Gelbrich et al., 2021). "The more trustworthy the business seems to have been with good intentions, the happier the consumer will be." However, warmth perception is linked to caring for the welfare of others as the customers, who feel that the company with whom they are interacting with, actually cares for them, have a greater chance to be satisfied with their interactions, which could be beneficial for the company in the long run (Packard et al., 2018). "The feeling of warmth may also make up for the fact that a chatbot's service delivery is chilly and impersonal since it is uniform and robotic (Sands et al., 2020)." Warmth perception is also linked to customer satisfaction, according to studies in marketing and service (van Doorn et al., 2017;). For instance, "Li et al. (2019) found that customers rated service agents who used emoticons higher because they felt they were treating them more personally." "People are happier with humanoid service robots than with non-humanoids because they are seen to be warmer," as shown by research by Choi et al. (2020).

The chatbot's most valuable attributes are those that set it apart from other communication channels, such as its accessibility 24/7 via the user's preferred method of contact (a mobile device), its ability to send and receive messages automatically, to accept payments, to be personalized, and to have its messages shared with friends via the Messenger app. These results are consistent with what current consumers demand, according to Frawley & Frawley (2014, 3, 6), who say that they want individualized and instantaneous service delivered to their mobile devices. Smith & Zook (2016, pp. 17-18)'s research study has been referred to by the firms in increases the chances of success in the way they engage with the customers. The 'Ladder of Engagement' model created by the researchers was identified as the key as once an engaged customer is discovered, the level of amplification of the customer's involvement with the brand can be increased in a way similar to climbing a ladder, through encouragement to the customer for provision of feedback onto the quality of the services offered to him through various means such as ratings and reviews along with suggestions from his side, through which the level of quality expected by the customer, could be achieved by the brand. Another method could be designed to include consumers as equal partners in developing a brand is via contests. Smith and Zook (2016, pp. 17-18)

Social signals meant to describe a company representative during an online commercial encounter have been suggested to elicit a favorable response from customers (Wang et al., 2007). Basic social signals have been demonstrated to affect consumer happiness, pleasure, and buy intent in studies of online agents in marketing (Köhler et al., 2011). Araujo (2018) argues that it is not necessary for an agent to be embodied for it to be viewed as human-like since human-like signals are still significant, even if the agents do not have physical bodies (Holtgraves, Ross, Weywadt, & Han, 2007). Nowak and Rauh (2008) warn that humanistic virtual agents might raise expectations that are hard to satisfy because of the complicated technical characteristics they need. Customers' opinions and judgments (of a company's legitimacy and likeability, for example) tend to decrease when such expectations aren't realized. This emphasizes the significance of striking a balance in the chatbot's design. (Burgoon et al., 2000) analyzed the effectiveness of human-like signals and found that users felt better understood and got more out of the website when it had more anthropomorphic elements Our research revealed that there is a lack of literature, studying the impact of the chatbot landscape on the correlation between the factors of customer satisfaction and the technology adopted by the chatbots.

There are two distinct ways to explore the idea of contentment: general satisfaction and pleasure with a particular transaction. The first way has a connection with 'loyalty' as a factor of the behavioral intentions (such as the probability of re-purchasing/are-availing of the products and services or recommendation of the company to the customer's circle of friends and associates, etc.) which is defined by Johnson & Fornell as the total judgment of the customer, regarding the performance of an item till date. The second way of customer satisfaction is known as "transaction-specific" and is defined as "the emotional response of the customer to the most recent transactional experience with the organization" (Oliver, 1993) and demand the attention of the researchers in the arena of research in the retail industry (Srivastava & Kaul, 2014), but this article will focus on customer satisfaction with the chatbot so that we can better understand the role of the independent variable. Bitner, Brown, and Meuter (2000) and Evans, Kleine, Landry, and Crosby (2000) both agree that customer satisfaction is an essential indicator of the quality of face-to-face, self-service, and online interactions. With the goal of

understanding the characteristics impacting the customer service encounter, several studies have assessed satisfaction. Most recently, McLean and Osei-Frimpong (2017) evaluated satisfaction with the experience inside a live chat operator of a mobile phone network provider in the UK. It was discovered that when consumers were asking for search help, the most critical factors were the agent's response, the perceived wait time, the perceived simplicity of use, and the considered usefulness. However, in the Chatbotse of decision support, the assurance, dependability, and empathy of the service agent, in addition to the quality of the information provided, are the factors that most significantly affect customer satisfaction. Chung et al. (2018) analyzed the impact of e-service agents on the communication quality and overall satisfaction of customers of high-end SPAs and luxury fashion brands that employ chatbots for e-service. van Dolen et al. (2007) looked into the impact of technology and group characteristics on customer satisfaction with online group chat. The value of measuring customer happiness at a single touchpoint, in this instance the chat session, is shown by the results of both trials. Therefore, customer happiness is a function of how well each touchpoint is received over time.

Increasing customer happiness has been shown to promote user loyalty (Yu, 2021). Customers are more likely to be happy with a product or service and to be loyal to a brand over the long run if the product or service performs better than expected (Cheng & Jiang, 2020). According to research by Chang and Zhu (2012), chatbot users who are happy with the service are more likely to recommend it to their friends and keep using it. Similarly, the Chatbot services educate the customer about the products and services the company offers, which makes the customer happy since their issue was answered promptly. As a result, users felt rewarded as they used the chatbot, which bodes well for the chatbot's ability to retain users over time. If a chatbot can meet customers' immediate needs, it will encourage them to stick with the company for the long haul and increase retention rates. Researchers have shown that the user's impression and attitude is a key component of the relevant quality dependability that promotes user loyalty towards AI (Sprott, Czellar, & Spangenberg, 2009).

6. Conclusion And Implications

Most respondents said they didn't have the time or patience to hunt for answers on a website's self- service area. A sizable percentage of those surveyed also said they did not like learning from internet sources. Thus, it may be assumed that customers who utilize chatbots for support are not always early adopters of IT or self-service solutions. Users of customer service chatbots, on the other hand, seem to be more likely to initiate contact with human agents and to have less interest in self-help tools. If this is the Chatbotse, then the target audience for customer care chatbots and the material they give shouldn't be tech-savvy people. Instead, it may be more helpful to develop customer care chatbots with an eye on people who aren't particularly interested in cutting-edge tech but who value speed and convenience when it comes to finding answers to their questions and concerns.

The purpose of this study was to determine what aspects of deploying AI chatbots affect customer happiness the most. Customer satisfaction may be affected by a number of factors, but service quality and reaction time were shown to be the most important ones. The vast majority of customers who contact a customer service hotline expect an immediate response to their inquiries. Customers need this, but they also need a good answer to their concerns. It follows that the introduction of AI chatbots in the nation would not have a detrimental effect on consumer happiness. The AI Chatbot has the two most requested features. But it was also established that going ahead. AI Chatbots are unacceptable in today's culture. Several factors may be at play here. The most important factor is the disparity in language skills. The bulk of the population does not speak English at a proficient level, which bodes well for their resistance to AI chatbots. The country's extensive and effective use of technology is further hampered by a lack of technical breakthroughs and engagement with the people. Practitioners in the service sector who are interested in the impact of chatbot anthropomorphism on customer satisfaction and loyalty may find this study useful. Anthropomorphism, perceived utility, user happiness, and user loyalty are the only factors considered, which is a limitation of the research. Research going forward is encouraged to probe not just repurchase intent but also brand preference among consumers. The study advances knowledge by providing essential information for researchers who want to analyze consumer experience in relation to chatbot installation. In addition, management may choose which aspects of chatbots are most essential and apply them in a manner that complements the company's operational framework. When designing the chatbot, it's possible to use pleasurable language and phrases that will result in a warm and friendly interaction. This research also helps company leaders develop an IT strategy that will improve chatbots and their effects on customers, ultimately leading to greater customer happiness. This paper's empirical data was collected quickly using a combination of convenience and snowball sampling. As a result, it is not an attempt to draw broad generalizations regarding the impact of chatbots on customer happiness. More studies with a wider range of demographics would be a great addition to this kind of study. Findings may help managers, e-marketers, and chatbot architectural designers understand the link between chatbot aspects and customer happiness, which might be used to create and improve successful chatbots

in e- commerce.

The findings of this study have a number of theoretical ramifications that might spur on more inquiry. The following are the implications that we find most intriguing:

- Users may have reasonable expectations of customer service chatbots. Users may have realistic expectations of what a chatbot can do in terms of customer care, in contrast to earlier work on voice-based conversational agents. They anticipate that these chatbots will be able to answer their basic questions, but they are aware that more complicated difficulties will need human intervention.
- The weight that a chatbot's persona should carry while providing support to customers. Our results imply that the relative value of the persona in chatbots for customer service is less than stated in earlier studies, even while a chatbot's persona as represented via textual content may be significant to the user experience. This may be because prior research on chatbot personalities was done in a controlled environment, rather than in real-world circumstances where consumers engage with the chatbot to get answers to questions that are personally meaningful to them.
- A fresh take on the people who interact with customer support bots through chat. Users of conversational agents may be considered tech pioneers, but customers who interact with chatbots for support seem to be driven by a preference for human assistance rather than online self-service. This conclusion points to the necessity for more study into the demographics of people who interact with customer support chatbots.

The findings of this research have applications in the creation of real-world chatbots for use in customer support. We think the following is really important:

- Promote a tiered strategy for using chatbots in customer care. Users may not be negatively affected by a chatbot for customer service failing to offer a satisfactory response to their inquiry if they are given a simple way to escalate their question to a real person. Based on these results, it's clear that chatbots should only be used as the first line of help.
- Concerns must be addressed quickly and effectively. The ability to reliably answer customer questions is far more important than developing the chatbot's character and look, which is emphasized in contemporary textbooks on chatbots.
- Visual appeal is less crucial to user experience than the presentation of information in textual form. The textual content seems to be more essential to users than the aesthetic look when establishing a chatbot's identity and appearance. Therefore, the creation of textual content is an important part of the design process.

We believe that we have a large enough sample size to achieve saturation, although it is likely that the research setting influenced our results. More research is required to confirm and expand upon these results in other areas and with other types of chatbots used for customer care. Our study's strength is that it focuses on user experience and user motivation in the context of actual chatbot usage; our study's weakness is that, unlike in a traditional experiment, we couldn't systematically change the experience of the participants. Therefore, there is a lack of robust causal insight provided by this research. It would be fascinating to see more research exploring causal ideas based on our results in classical experiments. As we consider these three theoretical implications as viable hypotheses in need of additional examination and confirmation, we anticipate future research that uses them as its starting point. Therefore, we consider the provided research to be a first step in acquiring the required understanding of user experience and user motivation in regards to chatbots for customer support.

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