



# Investigating millennials' perception of Chatbots and their purchase intention in the fashion industry.

A quantitative study about the influence of Chatbots on purchase intention among millennials.

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Course: Master Thesis in Business Administration.  
Course code: FOA403

15 credits

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Date: 30 May 2023

## **ABSTRACT**

This research study aims to investigate the perceptions of millennials towards Chatbot and their purchase intentions in the fashion industry. The study explored how chatbots are perceived by millennials, and how these perceptions influence their purchase intentions. To achieve this, the study used a quantitative approach. The data was collected through an online survey, which was distributed to a sample size of 183 millennials. According to the findings, perceived trust is a strong predictor of purchase intention, on the contrary perceived enjoyment and perceived ease of use are not. The analysis revealed that customers' perceived trust in Chatbots plays a critical role in favorably affecting their purchase intention. Finally, we suggested that further research could explore the potential of chatbots as a marketing tool for fashion brands. This could involve investigating the impact of chatbots on customer engagement, satisfaction, and loyalty, as well as exploring the various design and functionality features that could be implemented to enhance the chatbot experience for consumers.

**Date:** 30 May 2023

**Level:** Master Thesis in Business Administration, 15 credits.

**Institution:** School of Business, Society and Engineering, Mälardalen University

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**Title:** Investigating millennials perception of chatbots and their purchase intention in the fashion industry

**Tutor:** Prof. Ulf Andersson

**Keywords:** Millennials, Artificial Intelligence Chatbots, Consumer purchase intention.

**Research question:** How do millennials perceive the use of Chatbots in influencing their purchase intentions and decision-making process?

**Purpose:** The purpose of this study is to understand the influence of Chatbots on millennials' purchase intentions.

**Method:** A quantitative research was applied to collect the data using an online survey in order to further analyze and describe the relationship between the different variables.

## Acknowledgments

We would like to sincerely thank our supervisor, Prof Ulf Andersson, for his assistance and insightful comments giving us invaluable advice during this entire endeavor. We respect your professionalism and subject-matter knowledge. We are grateful for the commitment, sympathy, and support we were given while we worked to finish our thesis.

Additionally, we would want to express our gratitude to each and every person who participated in our surveys since without you, none of this would have been possible.

Finally, we would want to express our thanks for having the chance to research a subject that is genuinely fascinating. Through the work, we've been motivated to learn more about the effects of this technological revolution.

Thank You All.

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# 1. Introduction

## 1.1 Background

Many parts of society have undergone changes as a result of technological improvements, making everyday tasks easier. Businesses have been offering customers with multiple digital touchpoints in recent years as part of their ongoing usage of digital technology in the purchasing process (Hagberg et al., 2016). Businesses of all sizes are trying to provide the best online customer experience possible, such as personalized recommendation systems, smooth online shopping experiences, virtual shopping assistants, and e-service agents, as customers continue to migrate online. Newer AI technologies, such as chatbot apps, are becoming increasingly vital, particularly for firms that rely heavily on customer support. Chatbots powered by AI are transforming service interfaces from human-driven to technology-dominant (Ashfaq et al., 2020). As consumers spend more time in digital settings, the function of e-service agents becomes increasingly important in business. E-service agents, often known as chatbots, have begun to take the position of human agents in interacting with and building relationships with consumers.

So, what exactly are chatbots? Chatbots, for example, are one method of automating consumer contact and interaction in a more accessible, easier, and quicker approach. Chatbots, as opposed to traditional websites, speak with users using natural language, either through voice or text. It has evolved into an intriguing instrument in the context of user experience (Hill et al., 2015).

Large corporations have developed chatbots to assist people in receiving comments, shopping on their websites, even purchasing things directly from runway shows. More generic chatbots have been developed to assist shoppers in learning about fashion trends, searching for items across several stores, and gathering information on outfit ideas (Chung et al., 2018). There have been few academic studies investigating millennials' perception of chatbot in fashion commerce. COVID-19 has swiftly expanded over the world, influencing not just cultures but also the marketing environment (Chen & Chi, 2021). Mobile applications, social media platforms, and e-commerce have all been developed and have become major marketing avenues to help customers throughout the epidemic (Zhang et al., 2018).

One of the most recent technical advances in the fashion business is the usage of chatbots to improve the shopping experience of customers. According to Business Insider (2020), from 2019 to 2026, the chatbot industry will be the fastest-growing, with a compound annual growth rate of 31.6% in the customer support area. Customers have been forced to rely on internet technologies such as chatbots to get information and make purchasing decisions, particularly during the COVID-19 epidemic, because individuals have been shut away at home and human agents have

been unavailable. Chatbots are gaining popularity in the fashion sector because they allow clients to receive tailored suggestions and make purchases without requiring human participation. A conversation between a person and a chatbot can be lengthy. People commonly use brief, limited-vocabulary language, if not overtly abusive language (Hill et al., 2015). Human-chatbot interactions change depending on whether or not the conversational party shares information. Chatbots outperform unskilled salesmen in terms of productivity, and their talents approach those of expert consumer purchasing staff (Luo et al., 2019).

Among the many businesses, the fashion industry is a fertile ground for boosting the use of chatbots for customer relationship management. Current research has highlighted the benefits that the fashion sector might reap by using chatbot technology, including the development of a good customer experience, cost effectiveness, increased conversion rate, and increased market reach for reaching current and prospective consumers (Morozova, 2017). Furthermore, in an online situation, digital service assistance technologies such as chatbots may aid in the development of favorable client connections (Chung et al., 2018). Several fashion and beauty firms have already used chatbot technology to create a more personalized purchasing experience.

This research gap poses a challenge for fashion companies looking to use chatbots to improve their consumers' purchasing experiences. As a result, the purpose of this study is to analyze millennials' perception of the use of fashion chatbots in influencing their purchase intentions and decision-making process.

## 1.2 Chat Bots vs Humans

Chatbots have recently made excellent use of artificial intelligence and machine learning methods, and have found applications in everyday life such as automatic telephone answering systems, help desk tools, and personal assistants. Commercially, chatbots are employed in business and e-commerce, interactive gaming, and information retrieval. Chatbots have grown in popularity in real-world applications due to their ability to closely mimic human representatives during conversations. Chatbots are accessible 24 hours a day, seven days a week, and cost less than humans (Mittal et al., 2016). Several firms are utilizing AI to replace human responsibilities, allowing for more effective connection with clients (Moriuchi et al., 2021). Chatbots, as a specialized use of AI, have become ubiquitous in the retail business for assisting with consumer services (Ashfaq et al., 2020).

AI based chatbots will have an impact on sales operations in a variety of businesses. Most salespeople still consider a phone call (or equivalent) to be an important aspect of the sales process. Salespeople will be aided in the future by an AI assistant that observes tele-conversations in real time. For example, an AI agent may be able to deduce from a customer's tone that an unmentioned issue remains a problem and offer real-time feedback to direct the (human) salesperson's next approach utilizing extensive voice analysis skills.

Furthermore, in the future, corporations may largely deploy AI bots (Miller, 2016), which can work as well as human salesmen in some circumstances.

AI chatbots can bring various distinct commercial advantages. They begin by automating customer service and facilitating firm-initiated conversations. Chatbots are outfitted with advanced voice recognition and natural language-processing technologies, allowing them to grasp complicated and sensitive dialogs and respond to customer demands with depth, compassion, and even comedy (Wilson et al., 2017). Furthermore, chatbots can speak with clients in a polite manner because they do not have bad days and never become frustrated or exhausted like people.

### 1.3 Definition of key terms

**AI based chatbots** refer to technologies that enable consumers or website visitors to communicate with a corporate chat service that responds to client enquiries using artificial intelligence bots (Wankhede et al., 2018), with no direct employee interaction.

**Purchase Intention** is the likelihood that a customer will buy a product or service based on the factors that motivate and encourage consumers to buy (Abou Ali et al., 2020).

**Millennials-** Millennials, also known as Generation Y or Gen Y, are the generation that comes after Generation X and before Generation Z. Researchers and the popular media consider the early 1980s as the starting birth year and the mid-1990s to the early 2000s as the ending birth year, with the generation commonly defined as persons born between 1981 and 1996.

**Consumer perception-** Consumer perception refers to the process by which a customer selects, organizes and interprets information / stimuli inputs to create a meaningful picture of the brand or the product. Three stage process that translates raw stimuli into meaningful information.

### 1.4 Problem Statement

Chatbots have emerged as a new trend in the fashion industry, owing to the rapid advancement of artificial intelligence (AI) technology, millennials are the primary chatbot users, it is vital to understand their perception of the use of fashion chatbots in their purchasing intentions. Because chatbots are becoming more common in online customer service and e-commerce, it is vital to understand young customers' psychological processes for human-like speaking chatbots, as well as their influence on consumers' intentions to purchase products via chatbots.

Conversational commerce with chatbots in messaging apps has grown in popularity in the e-commerce business. However, present conversational commerce interface design still falls short in a number of ways (Priscilla et al., 2018). Customers consider chatbots to be less knowledgeable and emotionally intelligent, which leads to irritation and decreased sales.

Many studies have focused on finding that delayed chatbot disclosure method was designed to solve this issue (Luo et al., 2019). Previous research has found that anthropomorphism, which means to instill human-like features, motivations, intents, or feelings into nonhuman beings' actual or imagined conduct (Epley et al., 2007), influences consumers' inclinations to purchase through chatbot commerce (Han, 2021). However, there is little research done on understanding the influence of chatbots on millennials' purchase intention and decision-making process.

As a result, the research problem for this study is to analyze millennials' perception while using chatbots, as well as how this affects their purchase intentions.

## 1.5 Purpose and Research question

This study aims to investigate how chatbots influence millennials' purchase intent. The goal of this study is to investigate the extent to which a discussion with a chatbot on an official website might impact millennials' purchase decisions, as well as their perception to use them in a certain industry, such as fashion. Following that, the study's purpose leads to the underlying research questions:

How do millennials perceive the use of fashion chatbots in influencing their purchase intentions and decision-making process?

## 1.6 Outline of the thesis

The rest of the study is organized as follows. The next section is a description of the theories and preceding research that comprise each topic. The conceptual framework, which offers the hypotheses and conceptual model. The next part discusses the technique, including the decision to use a quantitative approach, data collecting, and data analysis. The next part exhibits the empirical data, which includes survey findings such as correlations, regression, and hypothesis testing. The last part includes the study's conclusion and addition to current literature, as well as management implications, limits, and recommendations for further research.

## 2. Theoretical Foundation

This section discusses the concepts of AI chatbot, consumer perception of chatbots, millennials and fashion. It also expands on the purchase intention hypothesis.

The use of AI is rapidly expanding in modern culture. Marketers can influence customers' online desires for goods and services through adequate and practical procedures. Most industries, if not all, in modern society digitize and automate to improve efficiency. An increasing number of

organizations, like Sephora, MasterCard, Spotify, and Google, are utilizing AI-based systems to enhance their offerings and create new competitive advantages. "Chatbot" is an automated chat agent program with a user interface that allows humans to talk in natural language. The first chatbot was developed in the 1960s, marking an early stage in the development of text-based dialogue systems. In 1966, Joseph Weizenbaum developed ELIZA, a program that mimicked a psychotherapist and enabled text-based natural language communication between people and computers for the first time (Epstein et al., 2001). Because there is evidence that AI-based chatbots may help businesses save money and time, chat services have increasingly been the go-to choice for customer assistance (Reddy, 2017). The existing and anticipated influence of chatbots and AI-applications in customer care is an excellent illustration of the quickly developing shift that makes it crucial to learn about how people use and interpret chatbots.

## 2.1 AI Chatbot

Chatbots are service tools that use artificial intelligence to communicate with users via messaging apps, websites, mobile apps, or over the phone. A study by Hill et al. (2015) investigated the differences in communication patterns between humans and chatbots. The research revealed that while messages sent to chatbots contained fewer words per message compared to those sent to humans, people sent more than twice as many messages to chatbots compared to other people. This suggests that people who use chatbots feel comfortable and confident with the technology.

The idea of chatbots originated in the 1960s with the aim of creating systems that could fool users into believing they were communicating with real humans. Initially, developers created chatbots for entertainment purposes and used simple keyword matching techniques to find a match for user input. The first chatbot, "ELIZA," was developed in 1966 by Joseph Weizenbaum, a professor at MIT. ELIZA was designed to simulate a psychologist and engage in human-like dialogues. However, due to the lack of advanced natural language processing and machine learning technologies at that time, ELIZA was only able to respond through word matching.

In the 1990s, the "Turing Test" was developed, based on the work of Alan Turing, and gained a structure that was repeated annually with a cash prize. The test involves a person talking to both a person and a computer, with the goal of determining whether they are communicating with a person or a machine. AI-chatbots can currently answer at least 80% of regular consumer inquiries (Chklovski et al., 2021), and they are available 24 hours a day, seven days a week. Nevertheless, AI-chatbots are more than just inquiry agents. They can help with a variety of responsibilities during a customer's journey. The Tommy Hilfiger chatbot, for example, guides clients in selecting full ensembles, places these picks in a virtual shopping cart, and connects customers to the website for checkout.

Chatbot is a new concept in marketing, it is a marketing method that uses computer programs to automate conversations with prospects and consumers on your website or app in order to generate sales. Employing chatbots in marketing tactics enables businesses to qualify and engage with prospects at any time and in any capacity, regardless of whether your marketing and sales teams are online. Chatbots can be used to start interactions with website visitors, qualify leads, and even upsell customers, just like marketing chatbots can address support questions.

To expand on the concept of Chatbot marketing and its components, literature on chatbots' applicability across sectors by (Rabby et al., 2021) examines the five essential dimensions (i.e. interaction, information, accessibility, entertainment and customization).

The first factor is interaction - conversation in cyberspace between customers and brand chatbot agents. Chatbots, like real-world human discussions, have transformed one-way purchases from customers into two-way dialogue with virtual support agents, profoundly changing the nature of commercial communication (Chung et al., 2018). The second dimension, information, refers to one of the fundamental marketing efforts of chatbots, which gives clients information on products or services or the brand itself. When clients inquired about new movies, Fandango, for example, provided information via bots. Customers prefer digital AI technologies to other internet platforms for information (Brill et al., 2019). This is because digital Intelligence tools provide consumers with relevant and timely information, allowing them to make better decisions (Brill et al., 2019). Finally, accessibility refers to the ability to analyze and respond to client information in real time using AI technology. One of the most crucial media qualities that chatbots may provide to marketing communications is accessibility (Zarouali et al., 2018). Because chatbot marketing operations mostly rely on messaging applications, they can aid a large number of clients in gaining direct access to services at any time and from any location. Additionally, entertainment, as a significant marketing activity, refers to "a hedonic manner of introducing relevant and valid information, enhancing value perceptions, and intentions to embrace digital products" (Chung et al., 2018). People seek enjoyment and pleasure on chatbots in the same way that they do on other types of social media. Entertainment is an important component of marketing operations because it creates a positive brand image, promotes buy intent, and raises brand recognition (Rabby et al., 2021).

## 2.2 Consumer Perception of Chatbot

The use of AI Chatbot in the fashion industry has increased in recent years due to the growing demand for personalized and interactive shopping experiences. According to a report by Business Insider Intelligence, the use of Chatbot in retail is projected to grow between 2019 and 2024. (Business Insider 2019 report).

Millennials, who are digital natives, value convenience and efficiency in their shopping experience. They are also more likely to make purchases based on their experience with a brand rather than the product itself. AI Chatbot provides a personalized experience that resonates with

millennials, making them more likely to engage with the brand and ultimately make a purchase (Moore, 2012).

A study conducted by Gartner found that by 2020, 85% of customer interactions will be managed without human intervention. This shows that customers are becoming more comfortable with Chatbot and are starting to expect them as part of their shopping experience.

Furthermore, a survey conducted by Drift found that 64% of respondents said that 24-hour service was the best feature of Chatbot, and 55% said they would most likely make a purchase through a Chatbot. This suggests that the convenience and efficiency of Chatbots can positively influence purchase decisions.

Therefore, it can be argued that the perception of Chatbot in the fashion industry by millennials positively influences their purchase decisions, as they provide a personalized and interactive shopping experience that resonates with their values and expectations. Despite the increased use of AI technology in the service industry, service failures in human-computer interaction continue to remain prevalent (Lu et al., 2020). According to Sheeshan (2020) chatbots' application has shown that customers' demands and expectations are not always straightforward, and chatbots may fail to comprehend the conveyed information. Such differences in the quality and content of customer interactions with chatbots compared to human employees can lead to customers developing a negative attitude towards chatbots (Adam et al., 2021). If suitable recovery measures are not taken to enhance customers' satisfaction, these service failures can become significant obstacles for customers to continue using intelligent service applications.

As AI systems have recently become an area of intense research due to concerns over privacy and security. One particular concern is the disclosure of personal information when consumers interact with chatbots. This puts their privacy at risk and increases the likelihood of unauthorized third parties accessing their information. Furthermore, the lack of transparency and fairness in AI algorithms may exacerbate privacy concerns among consumers. If companies fail to prioritize privacy, this can negatively impact their reputation and undermine consumer trust in their products and services. Previous research has shown that perceived privacy risks can trigger negative emotions and damage consumer satisfaction with service recovery. In online contexts, perceived privacy risks have been linked to reduced purchasing intentions and technology acceptance (Oomen et al., 2008).

## 2.3 Chatbot in various industries

The emergence of AI-powered technology, particularly Chatbot systems, has created new opportunities across a wide range of businesses (Dsouza et al., 2019). Elaborating further on few of the industries like healthcare, education, retail and insurance sectors where chatbots are being used.

**Healthcare-** In recent years, many companies and institutions have collaborated with hospitals to provide support that can help doctors and medical staff deal with patients in a better way and reduce their efforts with the help of technology. Present case studies from the healthcare business

that employ Chatbot to improve patient monitoring and medical services shows that patients are increasingly utilizing technology (for example, wearables) and smartphone applications. The use of such data in improved health management is anticipated to grow in importance, and Chatbot can make it even easier to capture some patient data, such as symptoms or how a patient feels. Studies have also shown that Chatbot's can help to reshape the healthcare business by delivering predictive diagnosis or other services such as appointment scheduling (Prathamesh et al., 2020). Chatbots are still in their early stages of development, but due to their adaptability, they are set to play an increasingly important role in the healthcare industry. Previous studies have shown that a Chatbot may detect a patient's ailments, offer strategies for improving those conditions, and assist in the development of a link with a proper medical provider. Chatbot technology has attracted a lot of interest, particularly because it is capable of decreasing the need for medical staff and supporting patients regardless of time or distance (Fryer et al., 2017).

**Education-** Education is one important field where Chatbot's and virtual assistants are rapidly being used. According to a recent study, chatbots may solve the issue of insufficient student-instructor engagement (Clarizia et al., 2018). Chatbots can be effective for educational reasons since they are a more engaging mechanism than standard e-learning systems. Students can constantly interact with the bot by asking questions about a certain field (Kowalski et al., 2011). There are several approaches to Chatbots in the literature, particularly on e-learning systems. Chatbots for e-learning systems have recently increased in popularity to promote student learning (D'aniello et al., 2016). Chatbot technology is an essential invention for e-learning: in fact, it has shown to be the most inventive approach for bridging the gap between technology and education. There are various different scenarios where Chatbots may be used for e-learning, such as providing a system for a customized learning experience. One of these studies in which (Farhan M. et al., 2012) used a web bot in an e-learning platform to solve the availability of lack of real-time answers for the students. Identifying the benefits and challenges of utilizing Chatbots in education offers further light on the relevance of using Chatbots in education.

**Retail-** Previous research has demonstrated that chatbots significantly affect consumer purchase intention in the retail sector. Wang and Zhang (2021) claim that chatbots can improve the shopping experience by making personalized recommendations and promptly responding to client questions. Thus, there is a higher chance that customers will buy something. Additionally, a study by Lu et al. (2020) discovered that chatbots can increase consumer brand loyalty. Customers who engaged with chatbots claimed to feel more a part of the brand, which enhanced their desire to make a purchase. It's crucial to remember, though, that not all customers view chatbots favorably. Consumers who believe chatbots to be impersonal or unreliable are less likely to make purchases, according to a Lee and Kim (2020) study. It is important to note that not all consumers have a positive perception of chatbots. A study by Lee and Kim (2020) found that consumers who perceive chatbots as impersonal or unreliable are less likely to make a

purchase. Therefore, it is crucial for retailers to ensure that their chatbots are designed to meet consumers' needs and preferences.

Overall, the literature suggests that chatbots have the potential to positively impact consumer purchase intention in the retail industry.

**Insurance-** Chatbots have been proven to boost client satisfaction and sales in the insurance sector. According to Sugumar (2019), using chatbots in insurance firms could lessen the effort of customer care agents and result in cost savings for insurance firms. Similar findings were made by Brown and Lee (2018), who discovered that chatbots could increase the effectiveness of the claims process, resulting in quicker claim processing and more client satisfaction.

Overall, the body of research points to chatbots as a useful tool for optimizing customer experience and boosting purchase intent across a range of industries, including healthcare, retail, education, and insurance. To explicitly look at the connection between millennials' impression of chatbots and their desire to make a purchase, more research is required.

## 2.4 Purchase Intention

The term purchase intention evolved from the term intention. Behavioral science informs our understanding of intention. Intention is the subjective likelihood that a person will undertake a specific activity (Juster, 1966). Thus, Intention is a plan to urge a person to behave in a specific way, and it implies "I should do," "I am going to do," and "I will do". Purchase intention is also considered a component of a consumer's cognitive behavior, demonstrating how a person plans to acquire a specific brand (Henry, 2014). Purchasing intent can be used to forecast which products or brands individuals will purchase the next time they go shopping. According to Parasuraman and Grewal (2000) consumer loyalty to specific items and brands manifests itself in positive purchasing intentions. Many factors influence customer purchase interest, the degree of others' unfavorable feelings against the consumer's preferred alternative and the consumer's motivation to comply with other people's wishes influence the amount to which others' attitudes lower a person's preferred alternative (Shareef et al., 2015). Also, unexpected situational aspects will eventually be able to impact consumers' purchase attitudes. It is based on the consumer's own reasoning and confidence in deciding whether or not to purchase an item.

## 2.5 Chatbots and Purchase Intention

According to Singh et al. (2018), the function of a chatbot is analogous to that of a salesperson who skillfully responds to customer inquiries in a physical store and favorably impacts customers' buy intentions. Chen and Florence (2021) advise e-retailers to use virtual assistants like chatbots to minimize such lead loss when a consumer abandons the purchase owing to a lack of a quick response.

Customer purchase intent affects the customer's ultimate choice. Information sorting has become more in-controllable, quick, and customized because of the use of chatbots. Chatbots function as sales assistants in shopping by recommending services and products to help the decision making of consumers (Shawar & Atwell, 2007).

This has increased the possibilities for contact with brands and organizations. The practice of engaging in and selling goods or services based on conversations that are mediated by digital messaging systems is increasing. Chung et al (2020) examined consumers' perceptions of using chatbots with luxury brands and found that these services provide interactive and engaging experiences between brands and customers that support the perception of satisfaction even though the communication's quality has not yet been fully verified. Jiang et al. (2022) have emphasized the significant role that AI can play in creating several marketing innovations such as chatbot or live chat communication. This technology may help to strengthen the user's purchase intention. According to Sands et al. (2020), digital service delivery can be enhanced by personalizing interactions with chatbots through the use of specific narrative cues based on entertainment. By doing so, the emotional connection and rapport between the customer and the chatbot can be optimized, leading to increased customer purchase intent and satisfaction.

## 2.6 Millennials and Fashion

Millennials, often known as Generation Y, is the generation being defined with people born from 1981-1996 (Wikipedia). This generation is usually familiar with technology, whether it is a mobile phone, an application, or a new technological advancement, and they are more likely to spend money on fashion (Baykal, 2020). Millennials are as enthusiastic about fashion as they have always been, and they think about it discreetly. Traditionally, buyers had to wait months for the latest collections to arrive in stores (Bhardwaj & Fairhurst, 2010). The utilization of the fast-fashion idea has given the fashion industry a fresh perspective. Customers no longer have to wait for new arrivals; brands exclusively come up with recent trends and include extempore timeline highlights to customers such as limited editions, spontaneous collaborations, and so on. According to the research by Baykal (2020), Gen Y is the one who is adding a new twist to the fashion industry in numerous ways and has gone beyond their comfort zone with regard to fashion, displaying huge changes in the fashion sector. The rich information offered by channel integration is a key approach for businesses to please customers. Furthermore, consistency across channel integration may be able to match Millennials' aspirations for accessibility and an engaged shopping experience (Parment, 2013). Millennials are of particular interest to luxury brands (Timperio et al., 2016), as they have higher lifetime value and brand loyalty (Bian and Forsythe, 2012). Luxury businesses are cultivating this incredibly lucrative demographic as both present and future prospects. "We [at Burberry] began to adjust our marketing efforts from targeting everyone, everywhere, to focusing on the luxury clients of the future: millennials," said the CEO of the British luxury brand Burberry (Ahrendts, 2013, p. 42). Millennials have a lot of money (Martin and Turley, 2004; Wolburg and Pokrywczynski, 2001; Tsai et al., 2013).

## 3. Theoretical Framework

The aim of the paper is to understand the influence of chatbots on millennials' purchase intentions in the fashion industry. Chatbots are gradually being acknowledged as a significant technical trend in customer service. Some research has looked into chatbot adoption. According to the technological acceptance paradigm, consumers' adoption of chatbots may be decided by a variety of criteria, including the authenticity of the dialogue, perceived ease of use, and perceived enjoyment.

### 3.1 Hypothesis Development

This study investigates millennials' purchase intentions when interacting with chatbots. This study examines whether customers' perceptions of chatbots as human-like affect their sense of (i.e., being with an intelligent being), perceived ease of use, perceived enjoyment, and perceived trust, sufficiently to influence their purchase decisions.

#### 3.1.1 Perceived Enjoyment and purchase intent.

A person's inner drive to use a certain system is referred to as perceived enjoyment. According to (Rouibah et al., 2016), most consumers embrace new technologies and methods because they can bring about a variety of inadvertent advantages including entertainment and enjoyment.

Only a few earlier studies looked at the connection between behavior goals and perceived enjoyment. Han (2021) especially looked at how perceived happiness affects plans to shop online. Additionally, (Epley et al., 2017) outlined how elements of perceived enjoyment like excitement and fun have a big impact on people's intents to shop online.

Perceived enjoyment is an important experience feature in online buying, explaining how a person believes something to be enjoyable. (Hassanein and Head, 2005). It is primarily classified as an inherent motive for implementing a technology. (Davis et al., 1992). The chatbot customer's satisfaction level has a big influence on purchase intent. (Han, 2021). To achieve efficiency, it is necessary to investigate the perceived enjoyment aspect that greatly influences the buy intention of chatbot commerce users.

Customers may value the use of a certain system and feel that experimenting with new technology is pleasurable. Of course, the opposite is possible. A high degree of perceived enjoyment has a beneficial impact on purchase intention. Customers who like using a system are

more likely to use it again. (Kim et al.,2009). As a result, while developing chatbots, brands/companies must integrate the element of "enjoyment." A user who finds a system unpleasant, cold, or uninteresting is more likely to have a negative customer experience and a low desire to reuse it.

The following hypotheses is proposed:

H1: Higher perceived enjoyment of chatbots influences purchase intention positively.

### 3.1.2 Perceived ease of use and Purchase Intent

Perceived ease of use is defined as “the degree to which a person believes that using a particular system would be free from effort” (Davis,1989). What factors influence people's acceptance or rejection of information technology? If potential users feel that a specific program is beneficial, they may also believe that the system is too difficult to use and that the performance advantages of utilizing the application outweigh the effort of using the application. Furthermore, Davis contends that simplicity of use is a predictor of technological acceptance. Consumers are more likely to utilize technology if they can simply add a contact to their conventional applications, such as WhatsApp, Facebook, or Skype, and traverse interfaces without difficulty. These studies, for the most part, corroborate the importance and suitability of ease-of-use and usefulness in an online setting, as well as finding strong evidence for the intrinsic delight that many consumers have when surfing the web (Teo et al., 1999; Lederer et al., 2000; Moon & Kim, 2001). To summarize, TAM (Technology Acceptance Model) and other related models contribute by explaining why online transactions are undertaken from a technology standpoint. In doing so, they emphasize the significance of website utility and usability and how it affects purchase decisions.

Thus, we propose the following hypotheses:

H2. Perceived ease of use of chatbots influences purchase intentions positively.

### 3.1.3 Perceived Trust and Purchase Intent

According to a study by Statista, 58% of consumers cited trust as the most important factor when interacting with chatbots (Statista, 2020). This finding is consistent with previous research that highlights the importance of trust in online shopping environments (Kim et al., 2009).

According to Rempel, Holmes, and Zanna (1985), a person develops sentiments of security and confidence toward the other when they trust them. According to other research, when someone trusts someone else, they are assured and willing to place their trust in the other partner who is a part of the trade process (Kim et al., 2009). Because there is no face-to-face connection and credit cards are typically used as payment in online transactions, there is a higher chance that the

customer's financial information may be disclosed and misused. Moreover, the perceived trust of chatbots is closely related to their ability to provide accurate and helpful information. A study by Zamora (2017) found that consumers who perceived chatbots as more accurate and helpful were more likely to trust and use them. This suggests that fashion chatbots that can provide personalized and relevant recommendations to millennials are more likely to positively affect their purchase intentions.

In summary, the perceived trust of fashion chatbots is a crucial factor in shaping millennials' purchase intentions. By providing accurate and helpful information, fashion chatbots can enhance trust and positively influence millennial consumers' attitudes towards purchasing fashion products.

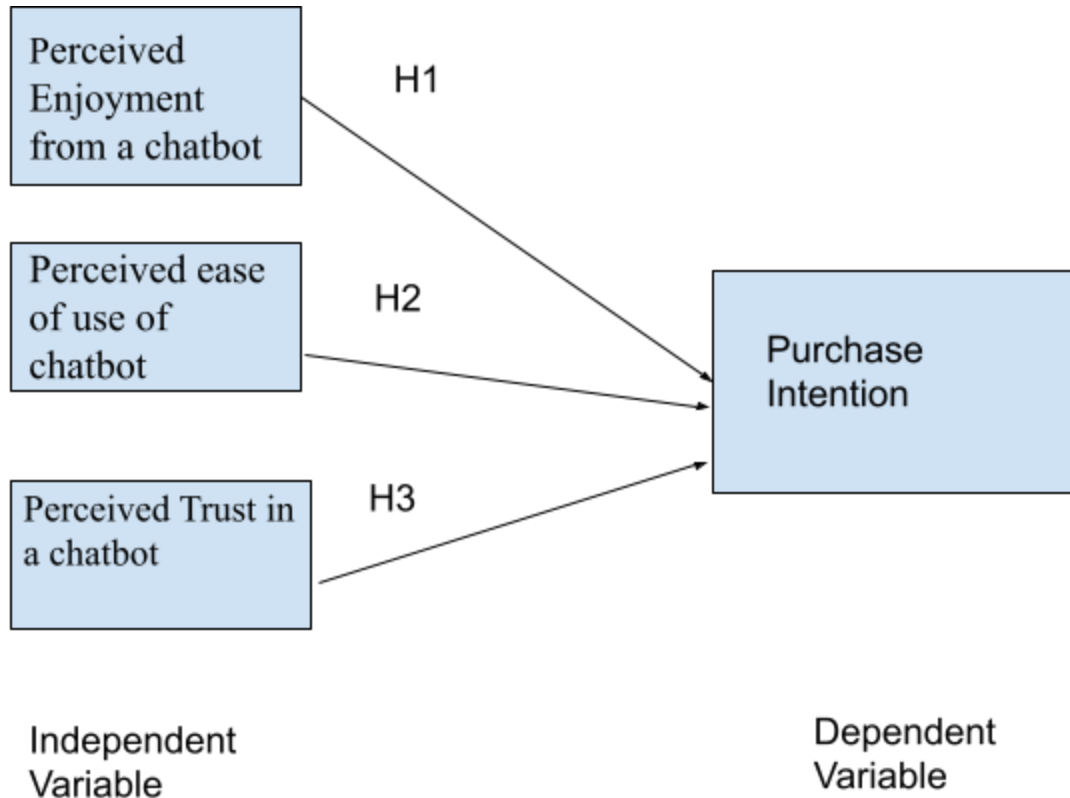
Thus, hypothesis three is proposed as;

H3: Higher perceived trust in chatbot positively influences millennials' purchase intentions.

## 3.2 Conceptual Model

### **Figure 1.**

Conceptual Model for hypothesis



## 4. Methodology

This chapter takes a look at the methods used to accomplish the goals of the study. It clarifies the research design, the base of information and the methods that were utilized as a part of the information collection for the study. It likewise identifies the target population for the study, the sample size, sampling technique and the analysis of information gathered.

### 4.1 Research approach

This study is quantitative and a survey approach was used as well as a convenience sampling technique. The importance of quantitative techniques is to have an objective "untouchable view" and a distance from information. It is thought to be particularistic, expository and giving the possibility to generalization by population membership (Bryman & Bell, 2021). One of the benefits of utilizing survey research is that it permits the gathering of a lot of information from a sizable population in a highly efficient manner. A questionnaire was produced drawing upon mostly existing research instruments and a reasonable inspecting outline in view of the

exploration question(s) or goals was identified. Effort was made to make the sample more illustrative of the number of populations in the study. Marketing research and its structures, as well as consumer purchase intent and its determinants, were investigated and used as a foundation for this study, from which the hypotheses were built. As a result, the study took a logical method (Saunders, Lewis & Thornhill, 2009). This study's data were acquired via online close ended survey (5 Likert's rating scale), with one question relating to age being open ended. The survey items were created by the researchers based on previously validated research.

## 4.2. Population and Sampling Technique

Convenience sampling is a non-probability sampling method in which the researcher chooses participants that are easily accessible and available. (Bryman & Bell, 2021). A convenience sample was utilized to collect the data since it is a typical quantitative research methodology for acquiring big data sets (Etikan, Abubakar et al., 2016). The snowball sampling technique was used, which involved requesting participants to find new participants for the research (Baltar & Brunet, 2012).

There are some theories that support the use of convenience sampling methods in research. One such theory is the Theory of Planned Behavior (TPB), which suggests that people's attitudes, subjective norms, and perceived behavioral control influence their intentions to engage in a behavior. In this case, convenience sampling may be appropriate as it allows the researcher to obtain the attitudes and behaviors of those who are accessible without necessarily representing the general population. In this case the study focuses on perception and purchase intention.

A suitable sample size is necessary to provide results that can be generalized to the population (Ghauri & Gronhaug, 2005; Hair et al., 2010). Additionally, according to Green (1991) and Pallant (2010), the sample size should start with 50 responders and then be multiplied by eight independent variables. Thus,  $N > 50 + 8 \times m$ , where  $m$  is the number of independent variables, is obtained. In this investigation, using this approach results in a sample size of at least 74 respondents. However, a greater sample size improves the study's quality (Pallant, 2010). There were 211 surveys after data collection, but twenty-eight (28) them were invalid as the ages did not fall into our age bracket, leaving 183 full questionnaires that were used in the analysis.

## 4.3 Data Sources

This study relies on primary data. It is feasible to acquire accurate and relevant information about the topic under investigation by employing primary data. Furthermore, when research within the topic is limited, collecting meaningful data from secondary sources may be challenging (Hox & Boeije, 2005). Because there has been little research on the perception of chatbots and their influence on millennial purchasing intentions, gathering primary data was a more accurate and

trustworthy way to obtain the information needed to address the study's aim (Bryman & Bell, 2011).

## 4.4 Data Collection

A survey was sent out from 22nd April 2023 to 12th May 2023. Each unit in the sample population was asked to answer the identical set of questions in a preset sequence. The use of surveys allowed them to be distributed successfully across the community, producing a sample from which general population generalizations could be drawn. Additionally, administering a survey is quicker and less expensive than, say, conducting an interview, and there is little chance that the answers will be influenced by the interviewer (Bryman & Bell, 2011). A self-completion survey does have certain drawbacks, though. For instance, if the respondents have queries about the survey, no one is available to respond to them (Bryman & Bell, 2011). A pre-test was conducted to reduce the likelihood that this issue would arise.

The survey was shared on Facebook, LinkedIn and Instagram where it was afterwards distributed by the writers to their personal networks. The authors also sent a reminder after a week to make sure the respondents have answered the survey. The response rate may rise by sending a reminder (Bryman & Bell, 2011), but it is still difficult to assess, making it impossible to know for sure. The survey comprised two major sections: section A focuses on basic information of respondents and section B on the variables under study. All items were based on a 5-point Likert scale ranging from strongly disagree to strongly agree (1= strongly disagree, 2= disagree, 3= sometimes, 4= agree, 5= strongly agree)

The statistical tool IBM SPSS version 28.0 was used to examine the data received from the survey. SPSS assisted in organizing the acquired data and subsequently testing the hypotheses in this investigation. According to Bryman and Bell (2011), SPSS is widely used by quantitative researchers because it produces correct findings when analyses are done. The raw data that is gathered through google forms was downloaded onto the authors laptop, which was then transferred to Excel for data cleaning, followed by SPSS for statistical analyses.

## 4.5 Operationalization and Survey instrument

The theoretical framework was applied to the collection and analysis of data. In order to be quantified, theoretical concepts must be operationalized (Ghauri & Gronhaug, 2005; Bryman & Bell, 2011). Perceived enjoyment, perceived ease of use, and perceived trust and purchase intention were the four dimensions used in the operationalization. Theoretical concepts cannot be measured in an easy way. It has to be operationalized into quantifiable components as a consequence (Bhattacharjee, 2012). "Operationalization" is the process of defining a perception as empirically measurable, and it serves as an empirical counterpart to the conceptualization

process. In contrast, when these concepts cannot be defined, indicators are used to quantify them. The indicator acts as an empirical measurement to enable a quantitative analysis of the results. It is the answer to a single question. According to Krippendorff (2004), the aforementioned indications cannot be quantified separately. They are thus assessed using a coded method, such as the Likert scale.

Table 1.

Operationalization of Research Variables

<b>Variables</b>	<b>Items</b>	<b>Sources</b>
Perceived Enjoyment	1-I find using chatbots enjoyable.  2-I find using chatbots entertaining.  3-I have fun when using chatbots.  4-I find using my chatbot pleasant	Mun and Hwang (2003).
Perceived ease of use	1-Learning to use Chatbot assistant is easy for me  2-My interactions with Chatbot assistants are clear and understandable.  3-I find Chatbot assistant easy to use  4-I find it is easy to become skillful at using Chatbot	Gefen et al. (2003)  from Ye et al. (2019)

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Perceived Trust	<p>1-I trust that Chatbot assistants can offer information and service that's best of my interest</p> <p>2-I trust that my personal data is protected from potential abuse when using Chatbot assistants</p> <p>3-I trust that my privacy is protected when using Chatbot assistants</p> <p>4-I trust that data shared with chatbots will not be shared with third parties.</p>	Mcknight et al., 2011)
<hr/>		
Purchase Intention	<p>1- Chatbot is helpful for shopping</p> <p>2- Chabot provides me with the information when shopping</p> <p>3- Chatbot can affect my purchase decisions</p> <p>4- Chatbot has changed the way I shop</p>	Bansal Voyer(2000), Gilly et al(1998)

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## 4.6 Control Variables

In our study, we included certain control factors known to influence purchasing intent. Many studies have been conducted to study the effect of gender, age, and educational level in affecting consumer perception. For example, Zhou et al. (2020) discovered that gender differences greatly influenced the buying behavior of AI chatbots. The researchers discovered that female customers preferred chatbots that were more sympathetic, attentive, and individualized, whereas male

consumers preferred chatbots that were more task-focused and efficient. As a result, it was vital to control gender.

Research done by Yoon (1994) indicated that elderly customers were less inclined to seek out information about new items and were more likely to depend on past experiences and trusted sources when making purchase decisions. In addition to gender, educational level has been discovered to be an important element in molding consumer behavior. Consumers with higher educational levels were more likely to engage in "active" information searching when making purchasing decisions, while those with lower educational levels tended to rely on more passive sources of information, such as advertising and word-of-mouth. This conclusion implies that educational level may influence how consumers interact with AI chat solutions, hence this was accounted for in this study.

## 4.7 Reliability

Reliability is an essential feature of research quality and measures the extent of consistency of the study's instrument. Additionally, it describes how a variable or set of variables consistently measures what it is intended to measure. The Cronbach Alpha values are the indicators used to understand the reliability coefficient. As illustrated in table 2 below, the value of the Cronbach for all constructs is greater than 0.60 so we assume the study measures are reliable and internally consistent (Bryman & Bell 2011).

As presented in table 5.1 The variable perceived enjoyment showed the highest alpha value (.912), followed by Table 2, perceived trust (.900), perceived ease of use (.893), and purchase intention (.710). Thus, all the variables showed an acceptable level of reliability and none of the items had to be removed.

**Table 2.**

Cronbach's alpha of Perceived enjoyment, perceived ease of use, perceived trust and purchase intention.

	<b>Cronbach's alpha</b>	<b>Mean</b>	<b>SD</b>	<b>Items</b>
Perceived Enjoyment	.912	3.46	4.008	4

Perceived Ease of Use	.893	3.62	4.482	5
Perceived Trust	.900	3.03	4.815	4
Purchase Intention	.710	2.95	3.363	4

## 4.8 Data analysis method

According to Yin (1994) data analysis involves examining, categorizing and tabulating the collected data. Data collected from the sample group was inputted and processed through the use of IBM Statistical Package for Social Sciences (SPSS) and Excel Statistical Package.

Firstly, the data entry form retrieved from the Google forms is transferred to SPSS and data is checked to ensure each variable is listed in a column and respondents answers in the rows. The data is then numerically coded. Subsequently, the data was analyzed, interpreted and results obtained on the study are presented in tables.

The IBM Statistical Package for Social Sciences (SPSS) was used for the descriptive statistics such as the mean, the frequency distributions and standard deviation as well as performed to find out the number of factors that affects variables and examine the variables that “go together. The multiple linear regression was run to test the hypothesis that a relationship between the observed variables and their underlying latent construct(s) exists which leads to accepting or rejecting the hypothesis.

## 4.9 Ethical Considerations

This study paid close attention to research ethics and made sure the design was ethically and methodologically sound, protecting the anonymity and confidentiality of every participant and the collection of their personal information. The researcher obtained participants' permission and emphasized that participation was voluntary.

## 5. Results

The chapter will begin with a description of the findings of the data collection. Age, gender, education, descriptive statistics are provided, followed by multiple linear regression and hypotheses testing results.

### 5.1 Descriptive Statistics

A component of the effort to comprehend the participants was the profile analysis of the respondents. Demographic variables comprise information that is easily accessible to the responder and is likely to be correct, providing the respondent is willing to divulge. These factors include details like age, gender, marital status, education level, job title, and income. They are employed to investigate how attitudes, beliefs, actions, and events vary, as well as to ensure that the data gathered is representative of the entire population. In our study, we focused on the demographics of gender, age and education. Additionally, these demographic parameters were employed as control variables in the multiple linear regression analysis. In order to determine if these extra factors may have an impact on the connection between the independent and dependent variables, control variables are utilized, according to Bryman and Bell (2011).

#### Gender

The Table 5.1 shows 53% of the respondents were male and 45.4% were females while 1.6% answered 'prefer not to say' this gives an indication and affirms that male to female proportion is high among millennials who responded to the survey.

**Table 3.**

Gender distribution from survey.

		<b>Gender</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	83	45.4	45.4	45.4
	Male	97	53.0	53.0	98.4
	Prefer not to say	3	1.6	1.6	100.0
	Total	183	100.0	100.0	

## Age

Regarding the age distribution of the 183 respondents, the researcher grouped them in the following category: 27–32 years, 33-38 years and 39-43 years. It is noticeable that a clear majority were in the age group of 27-32 (64.5%), along with the age group 33-38 (25.7%) while in the age group of 39-43 were only 9.8%.

**Table 4.**

Age distribution from survey

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	27-32	118	64.5	64.5	64.5
	33-38	47	25.7	25.7	90.2
	39-43	18	9.8	9.8	100.0
	Total	183	100.0	100.0	

## Educational Level

Regarding the level of education, a majority were masters (57.9%), then there were bachelors (27.9%), and PHD or higher (12.6%), while high school was a clear minority (1.6%). This shows the respondents who took the survey had a certain level of education to understand and take the survey.

**Table 5.**

Educational qualification Distribution from survey.

### Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	3	1.6	1.6	1.6
	Bachelor	51	27.9	27.9	29.5
	Master	106	57.9	57.9	87.4
	PHD or Higher	23	12.6	12.6	100.0
	Total	183	100.0	100.0	

### Consumer Knowledge of Chatbot

Based on Yes or No question format, the respondents were asked their interaction and recommendation level of chatbots.

A majority of respondents constituting 86.3% had prior interaction with chatbots, on the other hand 13.7% respondents had not interacted with chatbots. Aside from the interaction with chatbots, most respondents indicated that they would recommend using chatbot services while shopping. For instance, 49.2% said they will recommend using chatbots, whereas 38.8% were not sure about recommending using chatbots and answered ‘maybe’. In addition, 12% said they will not recommend using chatbot services while shopping.

**Table 6.**

Descriptive analysis of Respondent interaction of Chatbots

Response	Frequency	Percentage
Yes	158	86.3
No	25	13.7
Total	183	100

**Table 7.**

Descriptive analysis of Respondents recommendation of chatbots to others

Response	Frequency	Percentage
Yes	90	49.2

<b>No</b>	<b>22</b>	<b>12.0</b>
<b>Maybe</b>	<b>71</b>	<b>38.8</b>
<b>Total</b>	<b>183</b>	<b>100</b>

## Variables

The descriptive statistics which are the mean and standard deviations of all measures are depicted in table 8. A mean of 2.9508 was recorded for purchase Intention while its standard deviation was .84086. The mean of enjoyment was 3.4686 and the standard deviation was 1.00208 Also, the mean derived for ease of use making was 3.6219 with a standard deviation of .89637. In the case of trust 3.0369 and 1.20368 respectively as well as a mean and standard deviation.

**Table 8.**

Descriptive statistics of Measurements.

<b>Measure</b>	<b>Mean</b>	<b>Standard deviation</b>
<b>Purchase Intention</b>	<b>2.9508</b>	<b>.84086</b>
<b>Perceived Enjoyment</b>	<b>3.4686</b>	<b>1.00208</b>
<b>Perceived Ease of Use</b>	<b>3.6219</b>	<b>.89637</b>
<b>Perceived Trust</b>	<b>3.0369</b>	<b>1.20368</b>

## 5.2 Correlation

Table 9 presents Spearman's correlation coefficient analysis to determine the strength and direction of the relationship between the variables presented in the conceptual model. The results indicate that there is a positive relationship between perceived enjoyment and the purchase intention of millennials, with a correlation coefficient of 0.372\*\*.

Additionally, the study tested the relationship between perceived ease of use and purchase intention, resulting in a correlation coefficient of 0.409\*\*. This finding implies a positive connection between the variables.

Furthermore, a correlation coefficient of 0.658\*\* was observed between perceived trust and purchase intention among millennials. This result suggests a positive relationship between perceived trust and purchase intention.

All three correlations resulted in a p-value of 0.000, which suggests that the results are significant and valid.

**Table 9.**

Spearman correlation coefficient of Variables.

<i>Spearman's rho</i>	Correlation Coefficient	Sig (2-tailed)
Perceived Enjoyment-PI	.372**	.001
Perceived Ease of Use-PI	.409**	.001
Perceived Trust-PI	.658**	.001

**\*\*correlation is significant the 0.01 level (2-tailed)**

### 5.3 Multiple Linear Regression Analysis

In this study, multiple regression was used to test if purchase intention significantly affected the perceived enjoyment, ease of use and trust. Multiple linear regression is a statistical approach for modeling the connection between several independent variables and one dependent variable. It broadens the scope of basic linear regression, which models the connection between a single independent variable and a single dependent variable, to include many independent variables (Gujarati, 2009).

Based on the recorded results of the multiple linear regression test, we interpret the findings as follows:

R-squared value: The R-squared value of 0.442 indicates that the independent variables and control variables included in the regression model collectively explain 44.2% of the variance in the dependent variable, purchase intention. This suggests that the model provides a moderate fit to the data, and approximately 44.2% of the changes in purchase intention can be attributed to the included variables.

The significance levels provide information about the statistical significance of the individual independent variables and control variables in relation to the dependent variable, purchase intention.

The significance level of 0.832 for perceived enjoyment indicates that it is not statistically significant in predicting purchase intention. This means that perceived enjoyment does not have a significant impact on purchase intention, considering the other variables in the model. The significance level of 0.898 for perceived ease of use suggests that it is not statistically significant in predicting purchase intention. Thus, perceived ease of use does not have a significant influence on purchase intention when considering the other variables in the model. However, the significance level of  $<0.001$  for perceived trust indicates that it is highly statistically significant in predicting purchase intention. This suggests that perceived trust has a significant impact on purchase intention, even when considering the other variables in the model.

The significance level of 0.802 for gender suggests that it is not statistically significant in predicting purchase intention. Therefore, gender does not have a significant influence on purchase intention, considering the other variables in the model. The significance level of 0.314 for education indicates that it is not statistically significant in predicting purchase intention. This means that education level does not have a significant impact on purchase intention when considering the other variables in the model. The significance level of 0.045 for age suggests that it is statistically significant in predicting purchase intention. This implies that age has a significant influence on purchase intention, even when considering the other variables in the model.

The beta values associated with each independent variable represent the standardized regression coefficients, which indicate the strength and direction of the relationship between each independent variable and the dependent variable (purchase intention) when controlling for the other variables in the model.

The -0.018 beta score indicates an average negative relationship between perceived enjoyment and purchase intention. Nevertheless, since reported enjoyment is not statistically significant, this relationship may be unreliable in practice. The beta value of 0.012 suggests that there is a weak positive association between perceived ease of use and purchase intent. The beta value of 0.639 indicates that perceived trust and purchase intention have a strong positive association. This suggests that an increase in perceived trust is related with a considerable rise in purchase intention, even when the other factors in the model are considered.

Gender and purchase intent have a relatively low negative relationship, according to the beta value of -0.014. The beta value of 0.057 indicates that there is a weak positive relationship between education and purchase intention. Age and purchase intentions have a weak positive link, according to the beta value of 0.115.

The findings indicate that perceived trust and age are the most significant variables in determining purchase intent. In this model, reported enjoyment, perceived ease of use, gender, and education do not appear to have a substantial influence on purchase intent.

**Table 10.**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.664 <sup>a</sup>	.442	.432	.63361	.442	47.178	3	179	<.001

a. Predictors: (Constant), Trust, Enjoyment, EaseofUse

b. Dependent Variable: PurchaseIntention

$$\text{Equation 1 Model 1: } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

**Table 11.**

Anova results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.821	3	18.940	47.178	<.001 <sup>b</sup>
	Residual	71.862	179	.401		
	Total	128.682	182			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), Trust, Enjoyment, EaseofUse

**Table 12.**

Coefficients Results

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.229	.304		4.040	<.001		
	Enjoyment	-.015	.073	-.018	-.212	.832	.408	2.452
	EaseofUse	.011	.087	.012	.128	.898	.361	2.767
	Trust	.446	.052	.639	8.525	<.001	.549	1.822
	Gender	-.023	.090	-.014	-.251	.802	.962	1.040
	Education	.073	.072	.057	1.009	.314	.954	1.048
	Age	.145	.072	.115	2.021	.045	.950	1.053

a. Dependent Variable: PurchaseIntention

## 5.4 Hypotheses Testing Results

Hypothesis testing is a statistical method used to determine if there is a significant relationship between two variables. The table below presents the results of a hypothesis testing analysis for the dependent variable of purchase intention in relation to three independent variables: perceived enjoyment, perceived ease of use, and perceived trust. The beta value indicates the strength and direction of the relationship.

The results of the analysis revealed interesting findings. For H1, the relationship between perceived enjoyment of chatbots and purchase intention yielded a beta value of -0.018. However, this relationship was not statistically significant with a significance level of 0.832. Thus, we reject H1, suggesting that higher perceived enjoyment of chatbots does not significantly influence purchase intentions.

Similarly, for H2, the relationship between perceived ease of use of chatbots and purchase intention produced a beta value of 0.012. However, like H1, this relationship was not statistically significant with a significance level of 0.898. Consequently, we reject H2, indicating that perceived ease of use of chatbots does not significantly influence purchase intention.

In contrast, H3 demonstrated more promising results. The relationship between perceived trust in chatbots and millennials' purchase intentions exhibited a substantial beta value of 0.639. Moreover, this relationship was found to be statistically significant at a significance level of 0.001. Therefore, we accept H3, suggesting that higher perceived trust in chatbots significantly influences millennials' purchase intentions positively.

In summary, this study indicates that while perceived enjoyment and perceived ease of use of chatbots do not have a significant impact on purchase intentions, perceived trust in chatbots plays a crucial role in influencing millennials' purchase intentions. These findings highlight the importance of establishing trust in chatbot interactions to enhance consumer purchasing decisions.

These results suggest that out of three independent variables only one has a significant positive relationship with purchase intention. Specifically, perceived trust has the strongest relationship with purchase intention.

**Table 13.**

Hypothesis Testing Results

<b>Hypothesis</b>	<b>Path</b>	<b>Beta</b>	<b>Significance</b>	<b>Remarks</b>
H1	PE->PI	-.018	.832	Rejected
H2	PEOU->PI	.012	.898	Rejected
H3	PT->PI	.639	.001	Accepted

## 6. Discussion

The purpose of this study was to look at millennials' perceptions of chatbots and their influence on purchasing intentions in the fashion industry. The study topic sought to ascertain how millennials perceive chatbots in affecting their purchasing intentions. According to the findings

of this study, while perceived enjoyment and perceived ease of use do not play a major impact in determining millennials' purchase intentions in chatbot experiences, perceived trust does. The positive influence of trust on purchase intentions suggests that millennials are more likely to make purchases when they perceive chatbots as reliable and trustworthy.

We will discuss the findings for each variable in more detail below:

## 6.1 Perceived Enjoyment

The objective of the study was to measure higher perceived enjoyment of chatbots influencing purchase intentions positively among millennials. The results proved negative with beta value  $-.018$  and significance level  $.832$ , this contradicts with the earlier study, A high degree of perceived enjoyment has a beneficial impact on purchase intention. Perceived enjoyment is a crucial factor that influences the adoption and usage of new technologies, including chatbots. In this section, we will delve deeper into the relationship between perceived enjoyment and purchase intention in chatbot commerce based on the literature review and the proposed hypothesis.

The literature review reveals that consumers embrace new technologies and methods because they can bring about inadvertent advantages, such as entertainment and enjoyment (Rouibah et al., 2016). Furthermore, previous studies have shown that perceived enjoyment, which is primarily classified as an inherent motive for implementing a technology, has a significant impact on people's intent to shop online (Epley et al., 2017; Han, 2021).

In the context of chatbot commerce, the satisfaction level of customers with chatbots is essential as it has a significant influence on their purchase intent (Han, 2021). Customers who enjoy using chatbots are more likely to use them again, which means that a high degree of perceived enjoyment has a beneficial impact on purchase intention (Kim et al., 2009). Therefore, it is crucial for brands and companies to integrate the element of "enjoyment" while developing chatbots.

However, it is worth noting that customers may have varying degrees of perceived enjoyment when using chatbots. While some may find chatbots pleasurable and valuable, others may perceive them as unpleasant, cold, or uninteresting. Such a negative customer experience may lead to a low desire to reuse chatbots, resulting in a negative impact on purchase intention. Therefore, it is vital to investigate the perceived enjoyment aspect that significantly influences the buy intention of chatbot commerce users to achieve efficiency (Hassanein and Head, 2005).

The proposed hypothesis, H1: Higher perceived enjoyment of chatbots influences purchase intention positively, was rejected after the analysis of the research. This may be due to various reasons, such as the lack of personalization or inadequate understanding of customers' needs and

preferences. Therefore, further research is necessary to explore the factors that contribute to the perceived enjoyment of chatbots in the context of commerce.

In conclusion, perceived enjoyment is a crucial factor that influences the adoption and usage of chatbots in commerce. Brands and companies must integrate the element of "enjoyment" while developing chatbots to ensure a positive customer experience and increase purchase intention. However, the varying degrees of perceived enjoyment among customers highlight the need for further research to understand the factors that contribute to the perceived enjoyment of chatbots.

## 6.2 Perceived Ease of Use

Regarding the positive impact of perceived ease of use of chatbots (beta .012 and  $p < .898$ ) on purchase intention among millennials, in this study contradicts with the earlier literature by (Davis, 1989) simplicity of use is a predictor of technological acceptance. The adoption and acceptance of information technology by users have been a subject of interest to researchers for decades. The Technology Acceptance Model (TAM) posits that two factors, perceived usefulness and perceived ease of use, significantly influence a user's intention to use a system. Researchers have found that users are more likely to embrace technology if they perceive it as being useful and easy to use.

Perceived ease of use is defined as the degree to which a person believes that using a particular system would be free from effort. Davis (1989) contends that simplicity of use is an essential predictor of technological acceptance. If potential users feel that a specific program is beneficial, they may also believe that the system is too difficult to use, and the performance advantages of utilizing the application outweigh the effort of using the application.

Several studies have supported the importance and suitability of ease-of-use and usefulness in an online setting. Teo et al. (1999), Lederer et al. (2000), and Moon & Kim (2001) found strong evidence for the intrinsic delight that many consumers experience when surfing the web. Users are more likely to utilize technology if they can easily add a contact to their conventional applications, such as WhatsApp, Facebook, or Skype, and traverse interfaces without difficulty.

However, after analyzing the literature, hypothesis 2, which posited that higher perceived ease of use positively influences purchase intention, was rejected. This finding suggests that perceived ease of use may not always be a significant predictor of a user's intention to use a system. Other factors, such as perceived usefulness, personal innovativeness, and trust, may also influence acceptance or rejection of information technology.

In conclusion, TAM and related models contribute to our understanding of why online transactions are undertaken from a technology standpoint. These models emphasize the significance of website utility and usability and how they affect purchase decisions. However,

additional research is needed to gain a deeper understanding of the complex factors that influence user acceptance or rejection of information technology. The rejection of Hypothesis 2 can be seen as that most customers regard chatbots as user-friendly technologies that improve their entire buying experience but while chatbots can improve ease inside a single platform, they may have little influence on purchase intent as millennials may value individualized relationships, visual and sensory experiences, trust, and social impact. Because chatbots are unable to fully match these expectations, their increased perceived ease of use has no influence over millennials' purchasing decisions.

### 6.3 Perceived Trust

There are expanded studies when it comes to trust and purchase intention. One relevant study by (Przegalinska et al., 2019) examined the influence of trust in chatbots on purchase intentions in the context of online shopping. Their findings supported the positive relationship between trust and purchase intentions, indicating that consumers who trusted chatbots were more likely to engage in online purchases. The results of their study reinforce the notion that trust plays a crucial role in shaping consumers' intentions and behaviors.

Moreover, another study conducted by Morozova (2017) investigated the role of trust in chatbots within the fashion industry. They found that trust in chatbots positively affected consumers' purchase intentions, highlighting the importance of trust-building strategies when implementing chatbot technologies. Their findings provide further support for the notion that perceived trust in chatbots influences consumers' purchase intentions, specifically within the fashion industry. The findings of this study are consistent with prior research, suggesting that higher perceived trust in chatbots positively influences millennials' purchase intentions. These results are in line with studies focusing on the impact of trust in chatbots on purchase intentions within the context of online shopping and the fashion industry. Furthermore, acceptance of the hypothesis that higher perceived trust in chatbots influences positive purchasing decisions shows that millennials regard chatbots as reliable sources of information. Trust in chatbot advice, such as fashion style tips or product recommendations, might impact millennials' purchase decisions, altering their purchasing decisions in the fashion industry. According to the study, while perceived enjoyment and ease of use influenced millennials' opinions about chatbots, they had no meaningful impact on purchase intention among millennials. The study, on the other hand, discovered that higher perceived trust in chatbots had a favorable influence on purchase intent. This lends credence to the third hypothesis, which claims that increased perceived trust in chatbots influences purchase intention favorably. According to the study, trust is a crucial issue for millennials when it comes to the employment of chatbots in the fashion business.

## 7. Conclusion

This section concludes with a discussion of the study's findings and analysis, as well as final conclusions formed on the hypotheses to answer the research question. Following that, the conclusion chapter discusses practical ramifications, theoretical contributions, limits, and future research proposals.

### 7.1 Managerial Implication

According to the findings of this study, higher perceived enjoyment of chatbots does not substantially affect purchase intention among millennials. This shows that millennials' good experiences and satisfaction of engaging with chatbots may not convert into a higher chance of completing a purchase in the fashion business. While chatbots can be fun and engaging, other elements may play a larger influence in determining millennials' purchasing intentions.

Similarly, Hypothesis 2 was rejected, demonstrating that millennials' purchasing decisions are unaffected by chatbot perceived ease of use. Despite the fact that chatbots are supposed to simplify and expedite the shopping process, millennials' impression of ease of use does not appear to be a big driver of their purchase intentions in the fashion sector.

In contrast, Hypothesis 3 was supported by the findings, indicating that higher perceived trust in chatbots positively influences millennials' purchase intentions. Millennials who trust chatbots are more likely to consider them as reliable sources of information and assistance when making fashion-related purchase decisions. This finding suggests that establishing trust in chatbot interactions is crucial for fostering positive purchase intentions among millennials within the fashion industry.

Overall, this study gives insight on the relationship between millennials' perceptions of chatbots and their purchasing intentions. While perceived enjoyment and perceived ease of use are not important drivers of purchase intention, creating trust in chatbot conversations emerges as a critical component in favorably impacting millennial decision-making processes. Future study might go deeper into the particular characteristics that lead to trust-building in chatbot conversations, as well as look into other variables that may influence millennials' purchasing intentions in the fashion sector. Such insights will be useful for organizations looking to effectively engage millennials and use chatbot technology to improve their marketing and sales efforts in an ever-changing digital ecosystem.

In conclusion, the data reveals that customers' perceived trust in chatbots plays a critical role in favorably affecting their purchase intention. This conclusion shows that businesses or organizations deploying chatbot systems should prioritize the development and maintenance of high levels of trust in order to increase consumers' readiness to make purchases.

## 8. Limitations and Future Research

Despite having dealt with limitations from prior studies, it is essential to note that the constructs and variables used in this may not be conclusive and comprehensive enough. The sample may not necessarily represent the growing number of Millennials when it comes to Chatbots. It is essential to extend the variables to arrive at a more comprehensive finding. Even though we used a survey from millennials who are the consumers, we also acknowledge that the finding will have to be more conclusive if a mixed method of interviews and survey is used. We will like further studies to adopt experimental approaches to further explore this new aspect of AI based technologies.

While the study investigates the perceptions and purchase intentions towards chatbots in the fashion industry, it only focuses on the perspective of millennial consumers. This may limit the generalizability of the findings to other age groups who may have different perceptions and attitudes towards chatbots.

Future research could compare the perceptions and purchase intentions towards chatbots in the fashion industry across multiple age groups to better understand the potential impact of these technologies across different generations, such as Gen Z or Baby Boomers, to determine if they have similar or different perceptions towards chatbots in the fashion industry, the sample can comprise people from various geographical places, socioeconomic backgrounds, and fashion tastes. This would ensure that the findings are applicable to a larger group of millennials. Additionally, research could be conducted to investigate the effectiveness of chatbots in other industries beyond fashion. This could provide a more holistic understanding of the benefits and limitations of chatbots as a tool for enhancing customer engagement across different industries.

Additionally, further research could explore the potential of chatbots as a marketing tool for fashion brands. This could involve investigating the impact of chatbots on customer engagement, satisfaction, and loyalty, as well as exploring the various design and functionality features that could be implemented to enhance the chatbot experience for consumers.

Finally, income was not included as a control variable in this study, it is vital to recognize that income has a substantial influence on millennials' purchase intentions. To give a more thorough knowledge of the problem, future study can explore the influence of income to provide a more comprehensive understanding of the topic.

Lastly, the study was done in a short period of time, which may have reduced the opportunity to investigate specific issues or collect more data.

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## Appendices

### Appendix 1

Part 1

Dear Participants,

We are two master students at Mälardalen University, Västerås, Sweden, currently conducting our master thesis focusing on understanding how Millennials perceive use of chatbots in influencing their purchase intention.

The survey will take approximately 5 mins to complete and it is anonymous. All the collected data will be used for study purposes only and kept strictly confidential.

Note- The survey is targeted at individuals born from 1981-1996. Please do not fill the survey if you do not fall into this age range.

We truly appreciate you for taking out the time to fill the survey.

## Survey form

Gender \*

Female

Male

Prefer not to say

⋮

What is your Age? Please specify in the provided space below. \*

Short answer text

.....

⋮

Education \*

High school

Bachelor

Master

PHD or Higher

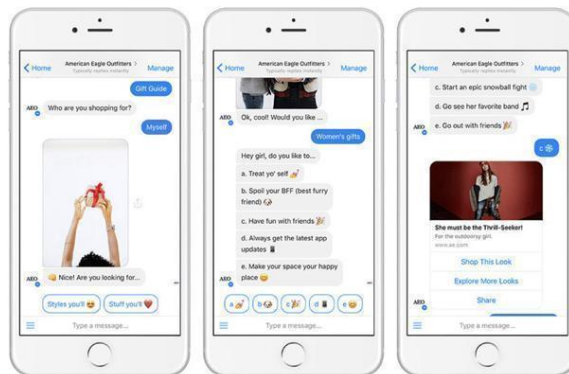
PART 2 Consumer Knowledge of Chatbot ✕ ⋮

Aren't we all looking for convenience while shopping?  
Do you think chatbots would be useful? Let us know your views.

A chatbot is software that simulates human-like conversations with users via chat. Its key task is to answer user questions with instant messages.

Please see the below image for better understanding of chatbots.

### Chatbot Conversation Example



Have you ever interacted with AI chatbot? \*

- Yes
- No

Would you recommend using Chatbot for shopping to others? \*

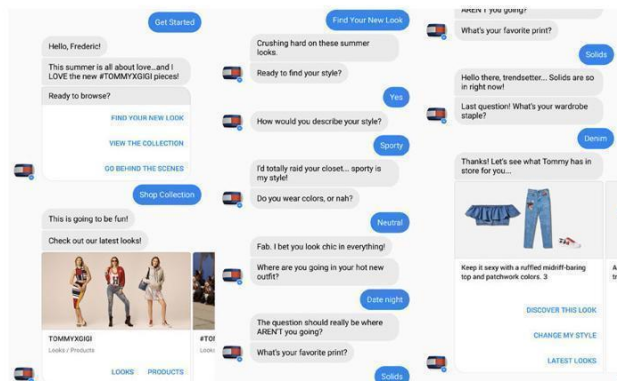
- Yes
- No
- Maybe

### Part 3- Enjoyment

On a scale of 1 to 5 with 1 Strongly Disagree, 2. Disagree, 3. Sometimes, 4. Agree, 5 Strongly Agree. Please select which best fits you.

### Tommy Hilfiger chatbot response interaction scenario

**B** *I* U  





I find using Chatbot enjoyable

Strongly Disagree

1

2

3

4

5

Strongly Agree



I find using Chatbot entertaining \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

Chatbot will make shopping interesting \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

⋮

Generally, it seems fun to use Chatbot \*

**B** *I* U  

Strongly Disagree

1

2

3

4

5

Strongly Agree

Part 4 - Ease of Use



On a scale of 1 to 5 with 1 Strongly Disagree, 2. Disagree, 3. Sometimes, 4. Agree, 5 Strongly Agree. Please select which best fits you



I feel using Chatbot will make shopping easier.

Strongly Disagree

1

2

3

4

5

Strongly Agree



My interactions with Chatbot are clear and understandable

Strongly Disagree

1

2

3

4

5

Strongly Agree

I feel it would be easy to interact with Chatbots \*

Strongly Disagree

1

2

3

4

5

Strongly Agree



I feel learning to interact with Chatbot would be easy \*

Strongly Disagree

1

2

3

4

5

Strongly Agree



The information provided by Chatbot is easy to follow \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

## Part 5- Trust



On a scale of 1 to 5 with 1 Strongly Disagree, 2. Disagree, 3. Sometimes, 4. Agree, 5 Strongly Agree. Please select which best fits you



I trust that Chatbot can provide relevant shopping recommendations. \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

I trust that my personal data is protected \*  
when using Chatbot

Strongly Disagree

1

2

3

4

5

Strongly Agree

...

I trust that my privacy is protected \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

⋮

I trust that data shared with Chatbot will not be shared with third party \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

⋮

Chatbot is helpful for shopping \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

## Part 6- Purchase Intent

On a scale of 1 to 5 with 1 Strongly Disagree, 2. Disagree, 3. Sometimes, 4. Agree, 5 Strongly Agree. Please select which best fits you.

Description (optional)



Chatbot is helpful for shopping \*

Strongly Disagree

1

2

3

4

5

Strongly Agree



Chatbot provides me with the information \*  
needed when shopping

Strongly Diasgree

1

2

3

4

5

Strongly Agree



Chatbot can affect my purchase decision \*

Strongly Disagree

1

2

3

4

5

Strongly Agree



Chatbot has changed the way I shop \*

Strongly Disagree

1

2

3

4

5

Strongly Agree

## Appendix 2

### Multiple Linear Regression

#### Descriptive Statistics

	Mean	Std. Deviation	N
PurchaseIntention	2.9508	.84086	183
Enjoyment	3.4686	1.00208	183
EaseofUse	3.6219	.89637	183
Trust	3.0369	1.20368	183

