

# CUSTOMER SKEPTICISM AND ACCEPTANCE OF CONVERSATIONAL COMMERCE IN ONLINE SHOPPING

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## Abstract

*Online retailers want to provide ease of online shopping to their customers. Online customers are providing personalized services to their customers to increase the effectiveness of online shopping and increase customer satisfaction. Digital assistants like text medium (Facebook, WhatsApp and Instagram etc.) and verbal medium (Alexa, Siri, Google Assistant, Windows Cortana etc.) are helping customers and providing them convenience than ever before. On the other hand, customers are still skeptical about online shopping through these digital assistants. In this research paper the researcher will discuss the elements that cause customer skepticism and the determinants of customer satisfaction in regard to Artificial Intelligence-powered Digital assistants. This would assist online retailers in providing a better online shopping experience by removing customer dissatisfaction and privacy concerns associated with conversational commerce. This will help online retailers to provide a better online shopping experience by eliminating the overall customer dissatisfaction and privacy concerns regarding conversational commerce.*

## Keywords:

*Digital Assistants, Customer Satisfaction, Customer Skepticism, Conversational Commerce, Privacy Concerns*

## 1. INTRODUCTION

E-commerce is no longer an unknown concept. Customers may shop online from anywhere in the world thanks to e-commerce. Even though Ecommerce offers clients convenience, ease, 24x7 availability, online payments, and query resolution through digital assistants, customers still have privacy concerns [4]. Information privacy has become a big worry for everyone in today's digital world. Compliance with rules and regulations, as well as gaining and maintaining the trust of customers, partners, and stakeholders, necessitates the security of e-commerce platforms [5]. Various organizations have produced a number of security standards to aid with the protection of small business servers; however, many of these standards or guidelines are too costly or time-consuming to implement. Gaining, maintaining, and building connections with partners, consumers, clients, and suppliers can be difficult. A security compromise can quickly ruin relationships and trust that have taken a long time to build [10].

Covid-19 presented an opportunity for Ecommerce to grow the digital commercial enterprise, to strengthen existing online business processes, and to introduce new online activities [14]. Nowadays, one may simply establish direct contact with online shops via Conversational Commerce, and develop a long-term relationship with the company [15]. Both the company and the customer benefit from CC. Clients no longer need to use traditional methods to contact sellers, and businesses may reach out to their target customers via their chosen method of communication [16].

## 1.1 CHATBOT

A Chatbot is AI-assisted software that sends automated messages and can imitate human conversation. Users can engage with a chatbot. Chatbots, which are based on the instant messaging system, are the most common chat trading strategies. Chatbots can send and receive messages, as well as do voice analysis and integration [17]-[20]. Brands shouldn't be restricted; they should be able to communicate with you via any of their platforms or preferences, such as iMessage, Facebook, Alexa, Slack, WhatsApp, Instagram, and so on. Chatbots can be based on interactions with a real person, a personal assistant, or a computer bot that responds based on taught reading abilities [21]-[23].

## 1.2 VOICE ASSISTANTS

A number of individuals now use Siri, Alexa, and Google Assistants in their daily lives, and this number is anticipated to rise dramatically. Voice commands and enquiries, ranging from weekly or off-order orders in the store to requesting an Uber car, are recorded and responded to by these devices [24]. Integrating a gadget like Alexa with all of the market information provided by Amazon allows the device to swiftly scan the catalogue and provide personalised recommendations. Naturally, not every company will be able to establish its own virtual or voice assistant. However, they can begin to adapt their products content to make it easier to perceive and understand by voice assistants and other comparable devices [25].

E-commerce threats are arising because of utilizing the web for unjustifiable implies with the purpose of stealing information/money, extortion and security breach [26]. There are different sorts of e-commerce dangers. A few are inadvertent, a few are intentional, and a few of them are due to human blunder [27]. For example, Phishing, Sniffing, Denial of Service Attacks, Fraudulent use of Credit Cards, Trojan Horses, Worms, Viruses, Bots and so on [28].

## 1.3 REQUIREMENTS FOR SECURE E-PAYMENTS AND TRANSACTIONS

Any transaction that takes place over the internet must have security. If the security of an e-business is breached, customers will lose trust in it. The following are the most important requirements for secure e-payments and transactions:

- **Availability:** Information should be accessible whenever and whenever it is needed within a specific time frame.
- **Authentication:** There should be a system in place to verify a user's identity before granting them access to the required data.
- **Confidentiality:** Information should not be available to anyone who is not authorised to have access to it. During transmission, it should not be intercepted.

- **Integrity:** Information should not be tampered with while being transmitted over the internet.
- **Encryption:** Only an authorised user should be able to decrypt and encrypt information.
- **Auditability:** Data should be documented in a way that allows it to be audited for integrity.
- **Non-Repudiability:** It is the protection against order or payment denial. A sender should not be able to deny sending a message once it has been sent. Similarly, the message receiver should not be allowed to refuse to accept it.

## 2. REVIEW OF LITERATURE

Factors influencing consumer behavioural intention to use AI-powered webshops and apps are trust, perceived usefulness, perceived ease of use and attitudes. User-friendliness and flawless operation of an artificial intelligence-powered website are the prerequisites for market success [1]. Privacy concern impacts the attitude of persons such as acceptance, willingness, and preferences. It depends upon the individual perceptions to evaluate the correspondence of privacy concern by taking different dimensional factors [3]. Security? Information quality? Payment mode? Customer support? Quality and multifariousness have a significant positive effect on consumer satisfaction. Online retailers should develop a pitfall-free and secure online interface? Hand quality information about products and services offered and enhance the capability of customer support staff for immediate query oversight [9]. Chatbots allow humans to pose shopping-related questions and receive answers in natural language without waiting for a salesperson or using other automated communication forms. Whereas privacy concerns and the immaturity of the technology had a negative effect on usage intention and frequency [2]. Policy related to data privacy requires balancing two competing priorities. Too little protection means that customers may not adopt AI-related applications; too much regulation may strangle innovation [6]. E-Commerce security is the protection of e-commerce assets from unauthorized access, use alteration, or destruction []. Chatbots still suffer from problems linked to their toddlerhood, working in high failure rates and doer scepticism when it comes to the operation of AI-hung chatbots [12]. Chatbots are more accessible than calling, because sometimes people speak with an indistinguishable accentuation and the account service isnt capable to help them. Security is important for consummate addicts especially when the chatbot handles financial data. Attainability has to be taken into account when administering chatbots [11]. Conversational agents which are more human-like may have higher trust resilience than less human-like agents; that is, these more human-like agents may be more trusted by users in situations characterised by deteriorating reliability in the information provided by the agent [8]. Smartphone users are increasing day by day in the world. Users are getting addicted to Smartphone and can't spend much time without them. So, users are having a growing concern in conversational commerce [7]. Acceptance of accessible chatbots is less considerable than expected as most available chatbots fail to fill users' requirements due to uncertain purposes, senseless responses, or unsatisfactory usability [13]. Security has been observed as the most significant part in layout of the online customer experience, online retailers need to work in making

secure web predicated shopping experience for buyers. Strategies matching as high stage of encryption along with digital hand can be employed to achieve secured sales [].

## 3. RESEARCH METHODOLOGY

“The practical “how” of any given piece of research is referred to as research technique” []. It is a well-planned study that verifies the validity and dependability of the findings in order to meet the research objectives.

### 3.1 NEED AND SCOPE OF THE STUDY

Voice-driven interfaces and chatbots give one-to-one tailored services to customers. This study will aid online enterprises in acquiring a deeper understanding of the elements that provide customer satisfaction and the rate at which customers accept Digital Assistants. This research will help online retailers understand the variables that lead to customer skepticism, allowing them to create a better online purchasing experience by removing general customer dissatisfaction and privacy concerns about conversational commerce.

### 3.2 OBJECTIVES

- To study the electronic device widely used by customers for conversational commerce.
- To study the acceptance level of digital assistants among customers.
- To study the impact of Digital Assistants on Customer Satisfaction.
- To study the impact of customer skepticism on conversational commerce.

### 3.3 DATA COLLECTION

The information was gathered from both primary and secondary sources. A google quiz was used to acquire the primary data. A total of 200 questionnaires were issued, but only 170 people completed the entire questionnaire. Secondary data was gathered from reputable journals, publications, research papers, theses, articles, magazines and websites, among other sources.

Table.1. Data Collection

Primary Resource	Filling of questionnaire via google forms
Research Instrument	Online Questionnaire
Secondary Resources	Research Papers, Articles, Websites, etc.
Research Type	Exploratory Research
Sampling Area	Baddi, Solan, Himachal Pradesh
Sampling Type	Purposive Sampling
Sample Size	170
Target Population	Generation Z

## 4. DATA ANALYSIS

The findings of the research study show that 61.8% of the respondents belong to the age of 15-22, 21.8% to the age of 23-

30, and 16.5 to the age of 31-40. Out of 170 respondents, 51.8 % were female and 48.2% were male. 62.9% of the respondents were students, 27.6% were employed and 9.5% work part-time. 41.2% of the respondents were 12th pass, 35.9% were graduated, 18.8% were post-graduate and rest of the respondents were doctorate as per their qualification. 93.5% of the respondents were having mobile as their electronic device and 5.9% were having a laptop. 4.8% of respondents spent less than an hour on their electronic device, 27.6% of respondents spent 1-2 hours, 33.5% respondents spent 3-4 hours and 34.1% spent more than 4 hours on their electronic device on daily basis. 77.1% of the respondents used chatbots for online shopping and 22.9 used voice-driven interfaces for online shopping. 52.4% of respondents didn't encounter any form of fraud, delivery delays with regards to buying online before. 47.6% of respondents encountered fraud, delivery delays with regards to buying online before. 55.9% of respondents rarely entered their personal details online. 22.9%

often entered their personal details and 21.2% were unwilling to enter their personal detail online.

#### 4.1 CRONBACH ALPHA SCORE FOR RELIABILITY MEASUREMENT

Cronbachs Alpha was used to measure the reliability of the questionnaire. The questionnaire was tested for its reliability and overall reliability score as depicted by Cronbachs alpha which was 0.968.

Table.2. Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.968	15

Table.3. Descriptive Statistics

Variables	Mean	Std. Deviation
Chatbots/ Voice assistants provides me a detailed explanation of all level of products	3.37	1.130
Chatbots/Voice assistants makes shopping easier	3.34	1.141
It helps me to get quick answer in emergency	3.42	1.200
Payment of bills are easy	3.35	1.188
It helps me to communicate with different brands through one program	3.38	1.141
It provides me variety of alternatives with search filters	3.45	1.192
It also facilitates customer support services	3.39	1.168
It facilitates quick decision making	3.35	1.193
Advertisements through chatbots influence decision to purchase	3.19	1.161
I can avail various cash benefits and discounts through chatbots/voice assistants	3.15	1.134
I prefer online shopping through chatbots/voice assistant medium in comparison of traditional shopping	3.16	1.208
I'm apprehensive that the information I provide to chatbots will be misappropriated.	3.06	1.155
I am apprehensive because of what others might do with the information I submit via chatbots,	3.05	1.095
I am concerned about my bank account would be hacked	3.05	1.124
In terms of data security and privacy, I believe that utilising chatbots is problematic.	2.91	1.010
I think that using chatbots is risky because of the general global risks associated with artificial intelligence in future.	3.06	1.134
I think that the chatbots contain malicious viruses with it	3.05	1.025
Personalizing online interactions raises privacy concerns among customers	3.02	1.063
Voice assistant can be used by malicious users to facilitate unauthorized access to the private information of the owner	3.06	1.072
Voice assistants can open a new way for a new kind of attack where the attacker can pass ultrasonic commands through broadcast media to easily activate the user's device	3.07	1.091
A privacy concern for many users is that voice assistants are always recording audio	3.11	1.088
I am concerned that the attacker can use ultrasonic commands to easily activate the user's device.	3.16	1.168
The seller might send me more misleading information about the products.	3.12	1.157
I don't feel myself safe while sharing my card details	3.11	1.141
Not being able to touch products	3.00	1.109
Lack of worthiness of the vendors	3.01	1.088
Valid N (listwise)		

**4.2 DESCRIPTIVE STATISTICS**

Descriptive statistics show the mean and standard deviation of the items. The item “It provides me variety of alternatives with search filters” got the highest mean, emphasizing the importance of conversational commerce providing customers with the ability to search with filters.

**4.3 FACTOR ANALYSIS**

On 26 items, factor analysis was used to organise comparable variables into dimensions. The KMO value of sample adequacy for the solution was 0.952. The result of Bartlett's sphericity test is 4192.954 (df: 325), which is significant at .000 percent, suggesting that the multivariate normality assumption was met (Table.4). All of the items were subjected to factor analysis in order to determine their relative relevance, and these components were categorised as Customer Acceptance and Customer Skepticism. These two factors explained 69.257% of the total

variance. Customer Acceptance emerged as a major factor and explained 39.671% of the total variance. It facilitates quick decision making emerged as an important item (.834) followed by Chatbots/Voice Assistant makes shopping easier (.827) Customer Skepticism emerged as a major factor and explained 29.586% of the total variance. I think that the chatbots contain malicious viruses with it (.853) followed by Voice assistant can be used by malicious users to facilitate unauthorized access to the private information of the owner (.847).

Table.4. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.952
Bartlett's Test of Sphericity	Approx. Chi-Square	4192.954
	df	325
	Sig.	.000

Table.5. Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.426	51.638	51.638	13.426	51.638	51.638	10.314	39.671	39.671
2	4.581	17.619	69.257	4.581	17.619	69.257	7.692	29.586	69.257
3	.907	3.487	72.744						
4	.727	2.796	75.540						
5	.635	2.442	77.981						
6	.597	2.296	80.277						
7	.476	1.832	82.109						
8	.424	1.631	83.740						
9	.408	1.568	85.308						
10	.376	1.446	86.754						
11	.357	1.374	88.128						
12	.348	1.339	89.467						
13	.305	1.174	90.641						
14	.276	1.061	91.702						
15	.258	.994	92.697						
16	.231	.890	93.587						
17	.226	.869	94.456						
18	.219	.842	95.297						
19	.200	.769	96.066						
20	.182	.700	96.766						
21	.167	.643	97.409						
22	.167	.641	98.050						
23	.137	.525	98.575						
24	.130	.499	99.075						
25	.123	.471	99.546						
26	.118	.454	100.000						

Table.6. Rotated Component Matrix

Factors	Component	
	Customer Skepticism	Customer Acceptance
Chatbots/ Voice assistants provides me a detailed explanation of all level of products		.808
Chatbots/Voice assistants makes shopping easier		.827
It helps me to get quick answer in emergency		.752
Payment of bills are easy		.779
It helps me to communicate with different brands through one program		.825
It provides me variety of alternatives with search filters		.811
It also facilitates customer support services		.814
It facilitates quick decision making		.834
Advertisements through chatbots influence decision to purchase		.822
I can avail various cash benefits and discounts through chatbots/voice assistants		.769
I prefer online shopping through chatbots/voice assistant medium in comparison of traditional shopping		.749
I'm apprehensive that the information I provide to chatbots will be misappropriated.	.748	
I am apprehensive because of what others might do with the information I submit via chatbots,	.784	
I am concerned about my bank account would be hacked	.779	
In terms of data security and privacy, I believe that utilising chatbots is problematic.	.829	
I think that using chatbots is risky because of the general global risks associated with artificial intelligence in future.	.811	
I think that the chatbots contain malicious viruses with it	.853	
Personalizing online interactions raises privacy concerns among customers	.754	
Voice assistant can be used by malicious users to facilitate unauthorized access to the private information of the owner	.847	
Voice assistants can open a new way for a new kind of attack where the attacker can pass ultrasonic commands through broadcast media to easily activate the user's device	.800	
A privacy concern for many users is that voice assistants are always recording audio	.819	
I am concerned that the attacker can use ultrasonic commands to easily activate the user's device.	.835	
The seller might send me more misleading information about the products.	.841	
I don't feel myself safe while sharing my card details	.830	
Not being able to touch products	.811	
Lack of worthiness of the vendors	.807	

## 5. CONCLUSION

According to the findings, the majority of respondents utilised chatbots for online buying, while the majority of respondents used their mobile device for conversational commerce. All of the items were subjected to factor analysis in order to determine their relative relevance, and these components were categorised as Customer Acceptance and Customer Skepticism. Query handling, ease of payment, variety of product options, customer support service, quick decision making, advertising influence, cash benefits, and discounts through the use of digital assistants were some of the reasons for consumer acceptance of digital assistants, which led to customer satisfaction, whereas hacking, misuse of personal information, global risks associated with artificial intelligence, security threats, unauthorised access, and recency were some of the reasons for consumer rejection of digital assistants, which led to customer dissatisfaction.

## 6. LIMITATIONS OF THE STUDY

Every research has some limitations. This research too has some limitations. Respondents can be biased. The respondents might not have complete knowledge of Digital Assistants. Further, there is scope for other researchers to cover other aspects of Conversational Commerce from the Banking, Finance, and Telecommunications, etc. side.

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