

A NEW CUSTOMER CHANNEL IN THE DIGITAL TRANSFORMATION:

SHOULD CONVERSATIONAL COMMERCE BE INCLUDED IN RETAILING BUSINESSES IN INDIA?

Research Paper

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Abstract

The purpose of the article is to examine the determinants of consumer behavioural intention (BI) to use conversational agents (WhatsApp, Alexa, etc.) in the retail market in India and develop an extended UTAUT2 model. The outcomes are based on open-ended exploratory questions posted on Linked-In Profile and Upgrade SSBM Students WhatsApp group. This study finds that convenience, efficiency, and anthropomorphism strongly influence BI to use conversational agents (CAs) in purchase and customer service. However, the perceived risks of conversational commerce are significantly high due to the low diffusion of technology in India, with the negative beliefs toward CAs being transparency, lack of trust, security and privacy, limited control, and technical limitation. Overall, integrating the latest security, intelligent QnA, privacy, better control, and removing AI bias will build trust in CAs shopping and service. This paper contributes the necessary knowledge on conversational AI agents for B2X digital transformation strategies in the Indian retail business.

1 Introduction

According to Gartner Report, by 2023, 5% of digital consumer purchases will induct a voice-enabled interface, including voice devices (e.g., Siri, Amazon Alexa, OK Google), and 80% of businesses will be using AI to improve customer satisfaction, revenue or cost reduction and operation agility (Gillespie et al., 2019). Sun et al. (2021) affirmed that data-driven AI digital assistants have significantly impacted the present e-commerce scenario. The rapid succession of Artificial Intelligence technologies has enabled the new era of conversational commerce (Balakrishnan & Dwivedi, 2021). The enactment of Conversational AI and messenger app in the digital commerce platform simplifies customers' interaction during online ordering, information searching, and customer service (Solis-Quispe et al., 2021). Fueled with conversational AI Technologies, conversational commerce is forcing brands to reinvent sales and augmenting support via chat channels everywhere and conversational AI (Piyush et al., 2017). The main objective of the research is to find out how conversational AI platforms feature messaging apps can contribute to business marketing strategies and how businesses should develop to meet the customer service demand of instant gratification.

Moreover, since technology adoption differs across countries, it becomes novel to understand the impact of conversational agents in purchasing in Indian retail digital businesses. In addition, this research will offer valuable contributions to research associated with IS, analytics, retail operations, and marketing. Finally, the research outcome can help in business to design innovative data-driven conversational AI.

2 Theoretical background

2.1 Digital Transformation is everywhere.

Digital transformation is a journey of organisational cultural, technological and operational changes to improve customer experience and increase business process agility by digitalisation. Digitalization integrates social, mobile, data analytics and cloud technologies to add customer value and operational excellence (Bumann & Peter, 2019). In other words, Digital transformation is abandoning or upgrading the physical processes in favour of integrating digital business processes. For example, set aside pen-paper and start using an app for keynotes is a digital transformation. Thus, It is needless to say digital transformation is ubiquitous.

Without any qualms, there are numerous growth drivers of digital transformation. Let's discuss the top keys factors.

- 1 **Instant gratification:** Customers are connected 24/7 through social media and mobile in the internet age. Connected customers demand businesses to be accessible anytime, anywhere and on any device. Consequently, these evolving customer expectations drive brands to develop digital stores (Aruna & Santhi, 2015).
- 2 **Omnichannel:** Nowadays, the customer wants to involve a multi-platform basket that can switch across channels, devices, social media and apps during purchase. Thus, customers blended platform needs are compelling brands to create an omnichannel for quick product search, more product variety, low price, home delivery, offers switching multi-brand from a single touchpoint and convenience buying (Piotrowicz & Cuthbertson, 2014).
- 3 **Death of a salesman:** Brands are reshaping business models to communicate directly to consumers and cut the intermediates and wholesalers in the supply chain. By doing so, Brands can collect customer data on shopping habits and product preferences. Moreover, brands leverage customer data to offer personalised and customised sales with the recommendation (Singh et al., 2019).
- 4 **Intelligent supply chain:** At the onset, B2B customers employing digital solutions such as business analytics and machine learning to forecast trends and make predictive purchases. At best, businesses are continuously investing in advanced connected IT systems in shipping, in-store, customer pickup, inventory visibility, network speed, agility, and order capture across all channels for a positive customer experience (Ben-Daya et al., 2019).

In conclusion, Digital thinking in consumerism and operations shifts the whole digital business landscape and leads the economy digitally. Business models are intertwined between physical and digital channels. Almost all industries are taking the initiative in business process digitalization. In fact, Banking has already achieved a digital maturity level. Thus, there are no doubts over the ubiquitous digital transformation in the present digital economy.

2.2 Conversational Commerce

Messina, inventor of the hashtag #ConvComm, ex-Uber, ex-Google, coined the conversational commerce term (Balakrishnan & Dwivedi, 2021; Chris Messina, 2016). (Eeuwen, 2017) defined c-commerce or conversational commerce, an extension of m-commerce, the ability of e-commerce to sell and service customers through messaging apps and voice digital assistance apps like WhatsApp, Facebook messenger, telegram, slack, WeChat, SIRI, ALEXA, and other digital assistance apps. Since 2016, conversational commerce continues being widely discussed and steadily gaining attention in articles and industry reports.

Growth Drivers of C-Commerce: (R. Sengupta & S. Lakshman, 2017) explained the drivers for the surprising market interest in c-commerce. The topmost c-commerce's driver is messenger apps such as Facebook Messenger, Telegram, Slack, Kik, and Viber have become the preferred means of communication on mobile devices. Moreover, these are a significant shift in apps market usage towards messaging apps confirmed by global rankings of most-used apps in which 6 of the top 10 are messaging

apps(Corporation, 2017). Therefore, this market shift provides immense opportunity for brands to offer products and services through messaging apps. The second most c-commerce's driver is fulfilling the promise that mobile apps do not, which is app fatigue. (R. Sengupta & S. Lakshman, 2017) described App fatigue as users' tiredness of installing, updating, and learning mobile (iOS and Android) apps usage and business tiredness of investing heavily in mobile app maintenance and development and marketing to customer accessibility and reachability. Finally, the third most c-commerce's driver is technology push from big giants such as Amazon, Google, Facebook and LinkedIn inaugurated capitalization on the conversation as a Service.

(Laura LaBerge et al., 2020) reported that COVID-19 had speeded the adoption of Digital technologies such as conversational AI by several years. This evidence agrees with LivePerson CEO Rob Locascio discussed in the interview that how c-commerce help buyers to shop safely by using their mobile devices in the era of social distancing. In addition, he stated that retailers are adopting cloud messaging programs to help deliver customer service in Covid-19, which fueled the company's third-quarter sales by 26% (CNBC Television, 2020).

According to the survey on conversational AI adoption by Capgemini shows that almost 50% of banking, financial services and insurance leaders are already adopting intelligent conversational assistants. A report by Salesforce on Conversational AI shows the leading industry in conversational AI adoption is Media & Communication. An interesting fact in the report held Indian firms are leading to incorporate AI conversational in their customer interaction (Barbora Jassova, 2020). According to Oracle report prediction conversational agents could save \$174 Billion across Insurance, Financial Services, Sales, and Customer Service. Hence, Customer engagement through messaging app is ROI positive and reduce cost (Corporation, 2017).

(Rzepka et al., 2020) detailed how companies initiate new strategies by employing technology advantages. Furthermore, how market forces exploring c-commerce opportunities such as increasing pressure on the contact centres, rising demand for self-service, technological advances in AI and NLP and chatbot platforms maturing.

Technology Enablers of C-Commerce: (Eric Michiels, 2017) outlined leading technology enablers for conversational commerce platforms: ML, Data analytics, Broad-based messaging applications, cloud, AI, NLP Conversational AI as a service, smartphone, and supported by e-commerce, CRM, ERP CMS, and social media backend tools. Chatbot AI is one of the components of conversational commerce platforms. Chatbots offer an experience using artificial intelligence and natural language processing to mimic conversations with real people.

Benefits to Customer: (Rzepka et al., 2020) noted that the Conversational user interface offers a shopping experience that saves time and costs besides can help retail customers in Product Discovery, Informing Offers, Promotions, Product Recommendations, Ordering, Order Payment, Tracking, Enrolling for Loyalty Programs, Locating Near-by Stores and Service Feedback.

A study report by (Yalo, 2021) delineates that c-commerce in retail strategies has two product varieties; one is the automation of highly standardized products where users can complete the whole process without leaving the messaging apps, such as ordering food delivery and insurance. In comparison, others require management of highly customized /complex products, for example, the sale of jewellery which needs a bit of handholding or conversation. C-commerce works both varieties of product give an advantage over the traditional website. (Barbora Jassova, 2020) remarked that standardized consumer products are the earliest adopters of conversational AI.

(Ikumoro & Jawad, 2019) described the benefits of the customer that conversational agent provides 24-hour availability, instant answers, consistent answers, recorded responses, endless patience, instant transactions, programmability, and personalization. Whereas (Soni et al., 2019) examine that Indian Millennials perceived chatbots as helpful, but at the same time, they are pretty concerned about the security and privacy concerns. A study conducted by (Rodríguez Cardona et al., 2021) finds low trust factor in conversational technology to process important or complex insurance decisions without the support of a human being and suggested customers prefer a hybrid customer interface.

Business Implications: Ikumoro and Jawad (2019) explained business implications that c-commerce brings value to the business in improving customer acquisition, increasing revenue per user, reducing churn, minimizing cost to serve, higher revenue CSAT, and lasting loyalty.

A study by Yalo (2021) reported c-commerce is the e-commerce of emerging markets, like India; First, c-commerce adapts to the user and their habits. In other words, it is customer centric. Second, it provides an omnichannel experience. Third, it works on any smartphone and requires very little data since most pre-paid plans include messaging apps. Fourth, c-commerce connects the physical world with the digital environment merges the benefits of offline sales in terms of personalization and proximity with the online sales of variety and immediacy. To sum up, c-commerce has advantages atop all m-commerce without app fatigue friction. India has the potential to adopt c-commerce.

According to Sengupta and Lakshman (2017), enterprises see multiple fields healthcare, banking, insurance, education, travel, hospitality, airlines, internal to employee assistance and B2B to deploy conversational agents. As a result, c-commerce will cause broad disruption in many areas of the economy. However, the biggest challenge of c-commerce in the Indian ecosystem is multilingual dialects culture and limiting effective communication with diverse customers. A research finding from (Gunawan et al., 2020) support arguments and further note that regional communication acceptance is prominent for conversational AI. This research study aims to close the gap of human-like and other factors effecting conversational AI agents in acceptance of conversational agents in c-commerce in India.

2.3 IT Adoption Models in Literature

(Fishbein et al., 1980) postulated the Theory of Reasoned Action (TRA) to predict, explain, and influence human behaviour with constructs “attitude toward behaviour” and “subjective norm”. In 1991, (Icek Ajzen, 1991) further enhanced TRA theory by adding “Perceived Behavioural Control” construct for the understanding of personal acceptance and usage of many different technologies named it Theory of Planned Behaviour (TPB). The most popular Technology Acceptance Model (TAM) researched model by (Davis, 1989), another extension of TRA, developed a model which determine Perceived Usefulness and Perceived Ease of Use to predict individual adoption and the use of new Information Technology (IT). TAM2 by (Venkatesh & Davis, 2000) enhanced TAM by including subjective norm. TAM3, the extension of TAM2, by (Venkatesh & Bala, 2008), included social influence to TAM2.

The Unified Theory of Acceptance and Use of Technology (UTAUT) by (Venkatesh et al., 2003) is a more recent instrument, synthesizing eight existing technology acceptance models — including TAM. UTAUT, Theory of Reasoned Action, Motivational Model, Theory of Planned Behaviour (TPB), a combined TAM and TPB model, Model of PC Utilization, Innovation Diffusion Theory, and Social Cognition Theory. The combination of these models contributes to UTAUT with eight constructs: Performance expectancy, Effort expectancy, Attitude towards using technology, Social influence, Facilitating conditions, Self-efficacy, Anxiety and Behavioural intention to use the system.

This study aims to extend UTAUT model with explores the antecedents of adoption intention which influencing shopping by conversational agents in Indian context.

2.3.1 Prior related research on conversational commerce

Extant research on conversational commerce inadequately explains conversational commerce’s benefits and risks. Literature on the use of CAs suggests that voice and text interaction through messaging apps provide a connected customer experience and convenience buying. Furthermore, CAs are helping buyers in requesting delivery status, customer service, product information, and they also facilitate convenient, efficient, enjoyable, personalized, advisory shopping and perceived anthropomorphism. In contrast, CAs interaction also incurs speech recognition errors, text sentiment errors, privacy and security issues. However, most studies of CA focus on simple tasks and the buying journey involves multiple stages and

characterizes as high complexity task. Therefore, there is a lack of understanding of customers' benefits, risks, and perceptions of conversational commerce in the Indian context.

Author	Topic	Result
(Kuberkar et al., 2020)	The research employed the extended UTAUT model to measure the citizen intention to use AI-powered Chatbot in delivering anytime, anywhere, and automated public transport information services in India.	This study suggested that performance expectancy, effort expectancy, social influence, facilitating conditions, anthropomorphism, and trust directly affect the adoption intention of the chatbot.
(Vimalkumar et al., 2021)	The study celebrated the UTAUT2 model with perceived privacy concerns, perceived privacy risk, and perceived trust for analysis of Users' privacy perceptions and acceptance of voice-based digital assistants (VBDA) such as Alexa, Siri and Google Assistants.	The result shows that trust in technology and the service provider plays an essential role in adopting VBDA. The study noticed a trade-off between privacy risks and benefits associated with VBDA in consumer behaviour. VBDA adoption had mediated through perceived privacy concerns and consumers' trust, contrasting with the existing literature studies.
(Pillai & Sivathanu, 2020)	This study extended the technology adoption model (TAM) to investigate the customers intention and actual usage of artificial intelligence (AI)-powered chatbots for hospitality and tourism in India.	As per the results, Perceived ease of use, usefulness, trust, intelligence, and anthropomorphism are significant influencers of chatbot adoption. Interestingly, technological anxiety has no impact, but preference over traditional human travel agents at the moment of truth show negatively moderates travel planning services using AI-based chatbots.
(Moussawi et al., 2020)	The research considered perceived enjoyment, initial trust, perceived usefulness, perceived ease of use, perceived anthropomorphism as mediating variables to investigate intelligent personal agents such as Siri and Alexa.	According to study result, intelligent personal agent users confirmed that perceived intelligence and anthropomorphism are significant antecedents of adoption.
(Laumer et al., 2019)	Research use UTAUT2 as a theoretical lens to study intention usage potential users of a Conversational Agent (CA) for disease diagnosis. The model contains antecedents of performance and effort expectancy, facilitating conditions, social influence, price value, habit, privacy risk expectancy, trust in provider and system, compatibility, experience in e-diagnosis, access to the health system.	The study could not find the relevance of hedonic motivation for CA adoption.
(Kasilingam, 2020)	The study aimed to determine the association of perceived usefulness, perceived ease of use, perceived enjoyment, price consciousness, perceived risk, trust, and personal	Results indicated that trust, personal innovativeness, and attitude directly influenced an intention to use a chatbot in mobile shopping but age, gender, and prior experience moderate user adoption.

	innovativeness with attitude and intention to use Facebook e-commerce chatbots for shopping.	
(Chopra & Chivukula, 2017)	The research was studied through guided interviews and situational observations and added socio-cultural dimensions to the adoption of conversational AI agents in Indian society.	The research identified user profile building as a critical determinant in adopting conversational AI agents in the Indian context.
(Chen et al., 2021)	This study explores the role of AI chatbots in influencing the online customer experience and customer satisfaction in e-retailing	The finding of research explains that the usability of the chatbot had a positive impact on extrinsic values of customer experience. In contrast, the responsiveness of the chatbot had a positive influence on the intrinsic values of customer experience.

Table 1. Literature Review.

3 Research Questions

- 1 What is the attitude of Indian customers towards making a purchase through Conversational Agents (WhatsApp, Alexa and voice-assisted device etc.)?

3.1 Research Objectives

- 1 To determine the awareness in customer’s about purchasing through Conversational agents (WhatsApp and Alexa).
- 2 To develop a model of the influencer factors of conversational agents (CA)’ acceptance based on the unified hypothesis of acceptance and use of technology.

4 Methodology

This study has adopted qualitative research approaches. Therefore, the investigation considers various kinds of literature available on websites with topic titles: Conversational commerce, Conversational agents, voice commerce, chatbot AI, and technology adoption theories for conversational commerce. In addition, the study reviews below listed online academic databases of different research papers, journals, books and other published media.

- Google Scholars
- SSRN
- Academia
- Microsoft Academic

This research was designed as exploratory. The below open-ended questions have been posted on Linked in Profile and Upgrade SSBM WhatsApp group of (100 Users)

What benefits and risks do you see in shopping through messaging apps (WhatsApp, Facebook messenger) and voice assisted devices (Alexa, Siri, ok google, echo, nest)?

To familiarize non-adopters with the WhatsApp, voice purchasing process and prevent potential biases because of their lack of experience, we posted the link Walmart video demonstrated the order of groceries with voice commands.

<https://www.youtube.com/watch?v=SUKGxQHSkJI> (Walmart customers can now order groceries with voice commands.)

4.1 Data Collection

We had received 20 responses from the SSBM student group, and three replies obtained from LinkedIn the post. As prior research had found that inexperienced consumers were indifferent primarily to Conversation agents AI applications, our approach would capture the future potential and requirements of more innovative users familiar with the capabilities of CAs. We limited our sample to WhatsApp users as it is the most popular messaging app and has the highest market share in India. However, not a single participant claimed to be an adopter of purchasing through messaging app.

5 Finding

The literature review found that performance efficiency, ease of use, and enjoyment are perceived benefits of CAs usage in purchasing. Further, research on CA characteristics suggests that human-likeness interaction is the most prominent interaction feature, which strikes anthropomorphism on consumers' trust in conversational commerce.

In contrast, privacy and security issues are the negative beliefs in individuals' adoption intentions of CAs and impact consumers' evaluations of conversational commerce. In addition, the study found that the Low Technical maturity of the system, like sentiment recognition errors, negatively affect users' experience with the system. Overall, the extant literature helps us to provide most of the positive and negative beliefs from conversational commerce adoption. We had validated reviewed literature constructs with open-ended questions response. Our exploratory search also found some new variables that contribute to constructing a model in the Indian context. The literature review and research finding factors describe as follows.

5.1 Perceived Benefits

Efficiency: The purchasing by messaging app and voice-enabled device improved process to a simple and effective way to add to cart for a repetitive product and obtain product information than traditional website journey. Expected efficiency of CA usage in buying is supported by participant in below open-ended question's reply

"Benefits would be easy way to get product Info and adding to cart. Some cons like we get less options to view/browse a list of products or if it has it results time-consuming, I think this can impact cross-selling/up-selling options."

Convenience: Most respondents anticipate ease of use, convenience in retail purchasing. They expect messaging apps to help retail businesses thrive in rural areas where voice-enabled devices seem easy to use and an effective medium for low-educated buyers. In addition, they encourage the conversational interface to be easy to learn, require low mental effort, and assist older people with internet buying.

"...for me 100% and we are looking forward to it. Even for my town I am looking for quick auto rickshaw booking etc"

Anthropomorphism: Some of the replies yearn more human-likeness and a personalized shopping experience. In addition, conversation agents extended the omnichannel experience in the retail world. Respondents have mixed opinions about consumers' preference for a human-like experience in terms of high responsiveness and fitness but refrain from human imitations as authentic shopper advisors.

"Omni channel gives better experience and convenience to customer. Biggest advantage is the personalisation."

5.2 Perceived risks

Transparency: It refers to how the user perceives the system internal working, its underlying purposes and the components that encourage its behaviour. As a negative opinion, participants mostly worry that

they are uncertain of wrong delivery. In addition, the governance and ethnicity of AI technologies are notable concerns among the participants.

"Biggest risks items are governance, fraud, model bias etc .. new factor ethical issue of AI."

Lack of Trust: The participants have trust issues towards purchasing the product through the messaging app and intelligent voice devices. Consequently, per the definition of trust, consumers are reluctant to be opened to a usage of CAs in buying and customer service journey. In addition, participants are not sure about the reliability and trust ability factors in underlying technologies while doing retail ordering. Therefore, brand reputation is one of the factors to be considered before purchasing. Continuing vulnerability, lack of trust is the topmost barrier to adopting the technology in the survey finding.

"Hi I prefer to shop via reputed sites & feel info sec risks while shipping from WhatsApp etc. Paying offline is also a risk. I've not used voice devices for shopping but can use on trusted sites"

Lack of Control: The respondent reported a perceived loss of control in purchasing. Firstly, they feared that tracking of items and delivery would be difficult through conversation buying channels. Secondly, CA users apprehend the uncertainty of misunderstandings, heading to faulty product purchases. Thirdly, the risk of kids accidentally ordering items, especially on Alexa, Siri, and other voice interfaces. Finally, the Uneasy in shopping experience when there are many choices in buying.

"Certainly this is a high concern for me, although I get benefit of getting the ordered placed easily and and via multiple channel. But these spot PoS brings a fear of getting the wrong item. Delivered."

Security and Privacy: In the survey response, privacy and security are the participants' uppermost concerns after trust. The participants perceived risk on sharing personal information to obtain the product- or service-related recommendations. They believe messaging apps are more vulnerable to attack and breach data privacy. The Participants have negative feelings about the secure transactions in the purchase. Thus, security and privacy are needed matters of concern in adopting technologies in retail businesses.

"Would prefer official website.. there is always security concern and first timer risk in customer's mind"

Technical Limitation: As expected, the respondents wrote the limitation of messaging app and voice agent's interfaces to provide a visual representation, comparison shopping, and product reviews. Furthermore, most of the participants do not attribute any human-likeness to their CA interaction during purchase. On the contrary, they sound uneasy and intelligence doubts about text and speech buying mode, where machines mimic human interaction.

"Info on what's app are unauthentic and unreliable"

In summary, based on our data, the outcomes confirmed three positive beliefs: convenience, efficiency, and anthropomorphism. However, the perceived risks of conversational commerce are significantly high due to low diffusion of technology usage in the retail world in India, with the negative beliefs toward conversational agents being lack of transparency, lack of trust, security and privacy, limited control, and technical limitation.

6 Conclusions and Limitations of the study

Our study discovers essential factors influencing the intention to use conversational agents in shopping in the Indian context. It is noticed that protecting one's personal information through conversational agents' transaction, confidentiality, integrity, and reputation of the provider are some critical issues that influence shopping intention by CAs. For any purchase, there must be a balanced trade-off between benefits and risks. The present study objective is to construct a model by extending UTAUT with

benefits such as convenience, efficiency, and anthropomorphism. The perceived risks include transparency, lack of trust, security and privacy, limited control, and technical limitation.

The following tables depicted all the dependent variables with their construct’s measures identified from the literature review and pilot survey finding.

6.1.1 Constructs and its operational definition

Constructs	Definition	Measures
Performance Expectancy	“the degree to which using a technology will provide benefits to consumers in performing certain activities”(Venkatesh et al., 2012)	<i>Perceived usefulness, Inability to handle complex product, advantage of personalization,</i>
Effort Expectancy	“degree of ease associated with the use of the system”(Venkatesh et al., 2003)	<i>Ease of use, No mental effort on text/voice input, self-efficacy</i>
Social Influence	“the extent to which consumers perceive that important others (e.g. family and friends) believe they should use a particular technology”(Venkatesh et al., 2012)	<i>Benefits/experiences reported by family or friends</i>
Facilitating Conditions	“consumers’ perceptions of the resources and support available to perform a behavior”(Venkatesh et al., 2012)	<i>Resources, skills</i>
Anthropomorphism	humanization of the conversational agent(Moussawi et al., 2020)	<i>Human-like interaction, engaging/interactive, natural, AI biasness</i>
Trust	It is perceived credibility and benevolence of the other party.	<i>Trustworthy, reliable, dependable</i>
Technical Limitation	Limitations and concerns of conversational agents usage in purchasing	<i>No visual representation, No comparison function, Limited product information, No independent reviews</i>
Vendor/Brand Credibility	The belief that service provider apps is honest and concerned about the customers(Koufaris & Hampton-Sosa, 2004)	<i>Good reputation, Potential misuse by strangers</i>
Security	Customer trust in the control mechanism of the company to use application to enable and secure with its customers(Koufaris & Hampton-Sosa, 2004)	<i>Transaction security, alternate modes</i>
Privacy	It is the customer belief that the information supplied to the online company is safe and shall not be misused.	<i>Personal information security, Monetary information protection, Ask for relevant information only</i>
Payment Option	customer belief on integrated payment method safe and security.	<i>Reliability, functionality, Technology reliability</i>
Low technical maturity	Perceived maturity of technology	<i>Limited interactivity, Speech recognition errors, risk of misunderstanding</i>
Purchase Intention	It is the person’s intent to engage in messaging app shopping.	<i>intend to use, recommend others to use, Compared to the website or physical,</i>

Table 2. Constructs definition.

After analysis all the variables from our data. We extended UTAUT model with our explored constructs. Finally, we conclude to develop following concept model depicted the conceptual relationship of antecedents of intention to use conversational agents in shopping and customer service.

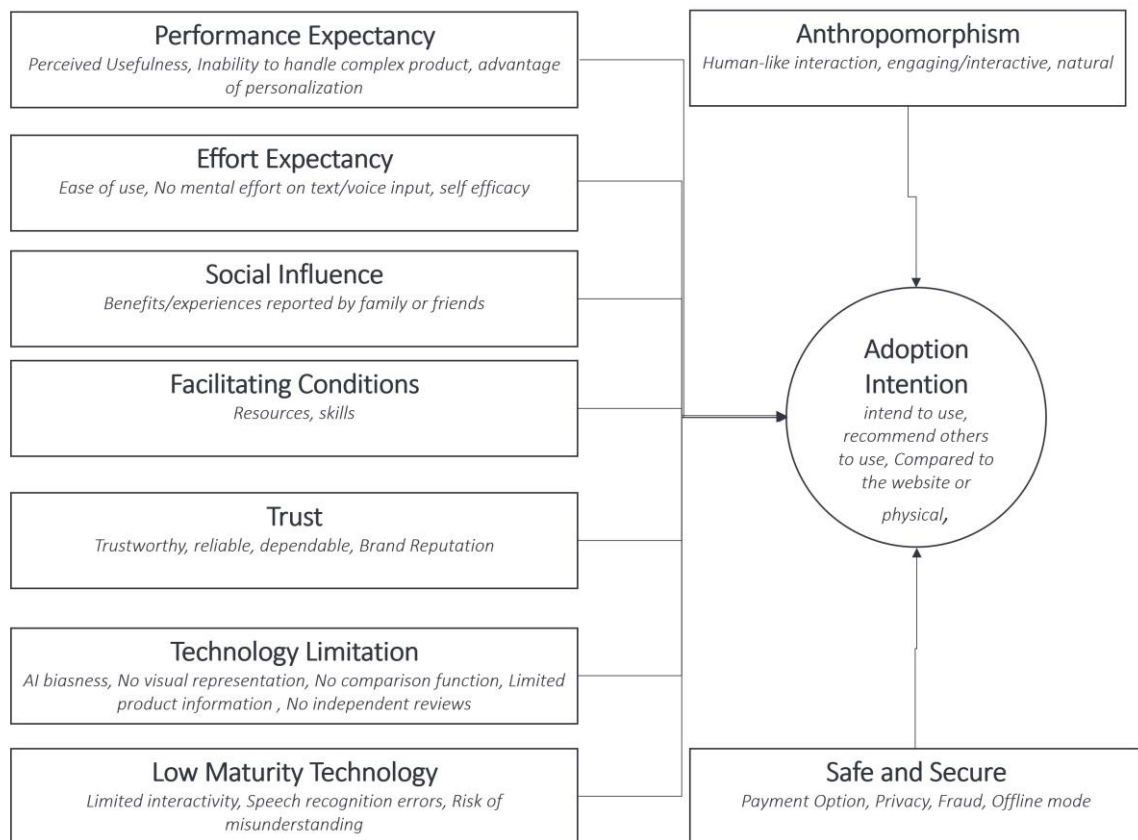


Figure 1. Extended UTAUT2 model.

The study outcomes supported the effect of consumer perceived privacy, security and vendor repudiation of the brand on purchase intention has a solid practical implication for conversational agents' usage in the Indian context. Conversational commerce in India is in a nascent stage when compared with western countries. It coupled with laws, regulations, technical maturity, lack of control could be significant reasons for the customers giving more stress to the privacy and security of the conversational agents. Adopting the latest secure method for better security perception, asking relevant questions, intelligent response, better privacy, providing better control, and removing AI bias will create more trust in CAs shopping and service.

7 Discussion

This study discusses and offers company managers and decision-maker, technical consultants, and executives a better understanding of the design and development of conversational AI in customer supports, data analytics, retail, marketing, and social media in conversational commerce. Furthermore, this study suggests key manipulating factors; convenience, efficiency, and anthropomorphism and potential barriers; lack of transparency, lack of trust, security and privacy, limited control, and technical limitation, that influence the behavior of potential conversational AI service users in developing

countries. These key factors can be utilized to achieve efficient and effective use of technologies in Indian cultures. In this study, we proposed a model developed by based on our open-ended question pilot survey with UPGRAD SSBM students WhatsApp group, Linked-in post and literature review. Then, the next step is to test the proposed model by collecting data from 100 students from UPGRAD SSBM WhatsApp students group by using a self-administrated questionnaire.

- Test and validate presented concept model of the influencer factors of conversational agents (CA)' acceptance with the quantitative method.
- Enhanced model with the T-O-E framework, which assesses separate attributes as a lone factor in the organizational context.

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