Research Article

An Empirical Study On Factors Influencing Adoption Of Voice Assistant For Among Generation Z

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ARTICLE INFO	ABSTRACT
	The development of computer-generated reality invention in media outlets has make use of the capacity for familiar organisation in recent times. This emphasis observationally examines how consumers' intent to use AI based voice assistant is inclined by the way informal community traits are presented as a dispersion system. This research examined the amicability of computer-generated reality using 362 respondents from Gujarat. The behaviour outlines of clients at treatment were closely examined. The findings of this study validate that consumers do prefer to use voice assistants if it easy to operate, which have an additional noteworthy bear upon on intention to use. These findings have specific implications for the most effective ways to showcase voice assistant devices, as well as speculative implications for how customers behave while receiving items.

Keywords: Adoption, Voice Assistant, Generation Z, Consumer Behaviour |

1.0 Introduction

The contemporary world is presently experiencing a technological revolution, which has resulted in a notable surge in the incorporation of state-of-the-art equipment with the objective of augmenting client contentment and therefore elevating consumer standards. The relationship between customers and service providers is significantly impacted by this explosion of technical innovation, which offers marketers both opportunities and challenges. Artificial intelligence is becoming more and more integrated into consumer activities, especially with the emergence of AI technology such as chatbots, voice-activated assistants, and automated service agents. According to a recent Juniper Research report, users are expected to interact with conversational agents on more than 8.4 billion devices globally by 2024, outpacing the world's population.

Voice assistants powered by artificial intelligence have completely changed how people use the internet, consume information, complete activities, make everyday transactions, and enjoy a number of enjoyable features. Consequently, service providers have started incorporating voice technology into their services and offerings. This integration highlights voice technology as an essential component of smart household appliances, cutting-edge electronics, and high-end automobiles. As a result, voice assistants with artificial intelligence (henceforth referred to as "VA") provide users a wider range of applications in addition to transactional functions. Owing to the many benefits and profound modifications in service delivery that VAs bring about, a great deal of academic study is being done in this area.

These days, artificial intelligence is frequently used in a variety of corporate settings. AI, according to experts and academics, is what our society will look like in the future. The world is becoming more interconnected because of technology breakthroughs, which has spurred investment in artificial intelligence (AI) for big data analytics. Applications of AI for big data analytics go beyond marketing to include industries like manufacturing, e-commerce, healthcare, education, and law. Artificial Intelligence and other emerging technologies are evolving at the same time as organisations move towards Industry 4.0.

Recently, there are more options for improving the customer experience due to the quick development of information technology and the rise in conversational commerce users. However, prior research has mostly ignored significant external elements connected to customer responsiveness in favour of examining virtual assistants as a form of artificial intelligence technology. Since virtual assistants depend on particular commands to work, they behave differently, thus it's important to uncover elements that can help marketers understand consumer inclinations towards them. However, very few research have successfully tackled the factors influencing consumers' attitudes and perceptions in developing nations like India.

AI adoption will quicken on the forefront of digital technology, expanding the divide between early adopters and those falling behind across a range of fields, industries, and geographical areas. Throughout the value chain, artificial intelligence is being deployed, with major investments concentrated on key areas of business processes. Marketing and innovation are a corporate enterprise's two core functions, according to Peter Drucker. Therefore, important data sources like sales and marketing are crucial parts of the value chain where AI has been widely adopted.

Consumers are increasingly using the internet for shopping, business, and social interaction. Studies show that users prefer applications that provide easy-to-use interfaces and smooth task completion. The previous literature review's hypotheses relied on the supposition that customers value simplicity of use above all else.

1.1 Objectives of the study

The aim of this study is to investigate how AI-powered voice assistant might enhance customer experience, hence increasing sales. Three sections comprise the research objectives:

• Analyzing how AI powered voice assistants can improve personalized marketing and help businesses move away from mass marketing strategies.

• Looking into how AI powered voice assistants can improve customer convenience, which can boost sales and market share for businesses.

• Determining the extent to which businesses in diverse industries are currently utilizing AI powered voice assistants.

2.0 Review of Literature

Unlike human intelligence, artificial intelligence is the capacity exhibited by machines. It involves an intelligent agent machine system that senses its surroundings and strives to accomplish its objectives. AI, in the words of Russell and Norvig, is the study of machines—especially computers—that mimic the emotional and cognitive capacities of human minds. The last several decades have seen a spectacular advancement in the field of artificial intelligence, with specialists constantly striving to advance AI notions. Significant advances like big data analytics and machine learning applications in a variety of industries and situations are the outcome of this work.

The phrase "artificial intelligence" frequently conjures up images of mechanized robots assisting people, a notion popularized by popular culture. Nonetheless, artificial intelligence (AI) refers to any device created to replicate human cognitive processes via ongoing learning and problem-solving. AI is defined by these unique features. Machines can do laborious or repetitive jobs that people may find tedious, therefore people are not forced to perform such boring work. Such monotonous jobs are effectively handled by artificially intelligent systems in place of humans.

For the purposes of this study, a voice assistant is defined as an intelligent program that can carry out activities for the user by interacting with natural language or by combining natural language with a touch-based interface. Additionally, it can respond to the user in natural language, which can be created by combining recorded lines with text-to-speech. Voice assistants can also be voice activated from a locked state, depending on the device's capabilities and the user's settings.

They can do things like browse the internet and operate apps that include chat, weather, calendars, and photo albums (Apple, 2017). Intelligent, personal, and virtual assistants are other terms used to describe some of the voice assistants that are now on the market (Apple, 2017; Google, 2017; Microsoft, 2017a).

The possibility of a favorable influence on consumers increases with the ease of use or learning curve of shopping interfaces. Over the course of its lengthy existence in the world of technology, the technology acceptance model has attracted a great deal of study attention. According to this approach, technology needs to show that it is simple to use to be accepted. According to research, people are more likely to have a good experience with an app if they believe it to be simpler to use and requires less work than conventional shopping techniques. It follows that app adoption is anticipated to be favorably impacted by these feelings. In a similar vein, consumers are more inclined to embrace apps if they think that voice assistant improves task success.

As a result, this research suggests:

H₁: Consumers do prefer ease of use of the voice assistants while shopping online.

According to Zuckers (1986), personality congruence increases trust, enjoyment of encounters, and the choice of future interactions in addition to increasing attraction. Personality similarity is expected to positively influence participants' trust levels and overall happiness with the encounter for shopping assistants.

As consumers are nowadays very conscious about how they are protected and whether the application is trustworthy or not. Based on that hypothesis 2 is formulated.

H₂: Trust has a positive and direct relationship with intention to adopt voice assistants while shopping online.

Furthermore, risk is one of the crucial factors while using voice assistants through internet. Based on that hypothesis 3 is formulated.

H₃: Risk has a positive relationship with intention to use voice assistants while shopping online.

Personal image and social image are most affecting factors while using voice assistants. Hence, below hypothesis is formulated.

H_4: Social influence is positively associated with intention to use voice assistants while shopping online.

3.0 Research Method

Finding out what element's clients appreciate and how these things affect their behavior is the primary objective of this study. It is to explore how numerous elements affect people's decision-making processes and to provide a comprehensive analysis using various criteria for improved task performance. The work is both descriptive and analytical in nature.

Gujarat State and several Indian regions are considered for the research study's population. The sampling units will be the sub-geographical urban regions of Gujarat State, including cities like Ahmedabad, Baroda, Surat, and Rajkot.

3.1 Research design
The samples were from Gujarat State's cities, which were selected at random. Therefore, to find possible research study participants, an area sampling technique was used.

3.2 Sources of data
A total of 362 participants were enrolled in this study to determine how likely they were to use voice assistants. The respondents were questioned about demographics including age, gender, occupation, education level, and monthly income. Although some secondary data was included, primary data constituted much of the research. Using area sampling methods to identify the participants in the research analysis, all samples were randomly selected from urban regions in Gujarat State.

An extensive investigation of the influential elements identified in the body of existing research was followed by the creation of a meticulously structured survey to collect primary data. Numerous sources, including online theses, research articles, journals, books, magazines, and websites, provided the secondary data for the study. Responses on the Likert scale, which went from 1 (strongly disagree) to 5 (strongly agree), were utilised in the poll. The acquired data was subjected to a reliability test to evaluate its credibility. To investigate every hypothesis, the data was further subjected to a Chi-Square test at a significance threshold of 5% using the statistical programme SPSS.

Cronbach's alpha	N of items
0.825	18

4.0 Result & Evaluation

H₁: Consumers do prefer ease of use of voice assistants while shopping online.
Findings support hypothesis 1. According to respondents to the survey, users think voice assistants are easy to use and seamless. Outputs displayed in Table 1.

Table 1: Test results for ease of use

	Measure	Degree of freedom	A.S. (two sided)
P – value	494.861[a]	11	.000
L – ratio	267.571	11	.010
Asso.	71.256	1	.000
Count	362		

H₂: Trust has a positive and direct relationship with intention to adopt voice assistants while shopping online. voice assistants are considered as one of the most dependable forms of technology, according to respondents. Table 2 presents these results in more detail.

Table 2: Test results for trustworthiness

	Measure	Degree of freedom	A.S. (two sided)
P – value	476.635[a]	11	.000
L – ratio	252.886	11	.043
Asso.	84.579	1	.000
Count	362		

H₃: Risk has a positive relationship with intention to use voice assistants while shopping online.
Participants have overwhelmingly approved of hypothesis 3. They have acknowledged that while using voice assistants for any kind of activity, they consider the associated dangers.

Table 3: Test results for risk association

	Measure	Df	A.S. (two sided)
P – value	435.440[a]	11	.000
L – ratio	257.754	11	.001
Asso.	40.325	1	.000
Count	362		

H_4: Social influence is positively associated with intention to use voice assistants while shopping online. Respondents enthusiastically supported hypothesis 4, suggesting that using voice assistants will raise their social status.

Table 4: Test results for societal impression

	Measure	Degree of freedom	A.S. (two sided)
P – value	499.048[a]	11	.000
L – ratio	262.179	11	.001
Asso.	59.943	1	.000
Count	362		

5.0 Limitations, Future directions, and Conclusion

5.1 Limitations
 The quantity of survey replies that were left blank is one of the study's limitations. This led to fewer full responses that could be utilised in the survey, resulting in a smaller sample size and perhaps less accurate results. Subsequent studies must consider the decrease in quit rates during survey completion.
This study contains significant limitations that should be considered in future research, even though it offers insightful information concerning the acceptance and uptake of voice assistants. Firstly, the adoption of voice assistants in online shopping be idea in the work has a broad reach; it encompasses the whole AI sector, not only AI applied to certain domains.
As such, our results are unable to differentiate between different voice assistants. Second, the poll explored in this one was based on how consumers generally perceived voice assistants; it did not directly represent user experience. Most survey participants had no prior AI experience. Thus, it appears that indirect media exposures from platforms like TV, YouTube, and social media have influenced the study's findings. Thus, direct user experiences with apps accessible via social networks should be the focus of future study.
Thirdly, the only outside factors included in this study were social contacts and the strength of social ties. To assess the effects of social network service features more fully within the framework, other components such as data confidentiality, openness to innovation, peer influence, and self-worth should be included in future studies.
According to this study, voice shopping is still in its infancy and is not widely used. Therefore, because it might be difficult to envision how something would function in real life, variables and related statements may seem ambiguous to people. Subsequent studies ought to concentrate on inventive approaches that facilitate participants' comprehension of the research's topic, so enabling them to provide more precise responses. For example, develop a prototype that participants can test out once to complete an online purchase.

5.2 Future directions
Subsequent studies ought to focus more on the level of comprehensibility that occurs without the researcher having to be explained. This can be accomplished by doing a longer pre-test. This makes it possible to test and refine the questions with multiple respondents so that they are simple and understandable for each respondent. Additionally, research by Beldad and Hegner (2017) demonstrates the lack of significance of the variable trust. Like this study, developer trust was employed rather than technology trust. Additionally, the original items used to measure these assertions were also used. This teaches us that trust in the developer might not be the best way to operationalize trust. Subsequent studies could define trust differently by.
Using an enhanced tactic, the work explored how consumers adopted voice assistants, adjusting for user demographics such as gender, age, and monthly income. The objective was to experimentally investigate this work reported enjoyment and social network engagement on voice assistants' adoption.

5.3 Conclusion
This study has significant ramifications for academia, especially considering its examination of social network-related characteristics, which are a common trend in the AI sector, and how these characteristics affect consumers' propensity to adopt voice assistants. This study's findings are consistent with earlier research on social networking sites and new media, showing that users' intentions to utilise voice assistants are significantly influenced by their perceived enjoyment. As a result, the study's findings on satisfaction can help shed light on how customers use voice assistants and offer important information on the spread of the same.

The research offers producers of voice assistants' useful information. Voice assistants can make feel user pleasure is increased by social connections, and the good attitude these interactions generate greatly boosts the desire to utilise voice assistants. As a result, incorporating social network services might increase voice assistants' acceptance among consumers and highlights the fact that social connections are crucial to the entertainment industry—not optional. As a result, companies ought to give top priority to marketing plans that promote user engagement and integrate SNS functionalities with voice assistants. Marketing campaigns could also focus on customers who have previously used voice assistants by setting up a forum where they can talk about their experiences in-depth and spread the word about the platform.

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