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HEY VOICE ASSISTANT HOW DOES GEN Z PERCEIVE YOU? - A STUDY OF MALE AND FEMALE PERSPECTIVE

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ABSTRACT

This study investigates potential perception differences between Gen Z males and females regarding voice assistant technology. Voice assistants, like Alexa or Siri, are increasingly integrated into daily life, and understanding user preferences is crucial for their development. The research explores whether Gen Z men and women exhibit varying acceptance, trust, or usage patterns for these voice-controlled interfaces. A sample of 248 respondents wastakenfrom primary data sources.We used the descriptive statistics and independent sample t-test to identify the significant points of differences in the perception of both male and female gen Z users of voice assistants. The results find both gender agrees thatsome features of voice assistantare significant but their degree of significance on the perception of both gender does vary with respect to respective factors. For example certain factors like informative, entertaining, convenient to use will hold more significance for male users rather than females ones whereas features like realistic, human accent hold more significance in the perception of female users than male. Such findings will provide companies with a lens to see fine fabrications of tech solutions from Gen Z's male and female perspective.

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INTRODUCTION

Imagine a world where you can control your environment, access information, and even get entertained with just the power of your voice. This is the reality that voice assistants have brought about. These digital companions, powered by artificial intelligence (AI) and speech recognition, are rapidly transforming the way we interact with technology. Voice assistants, like the familiar Siri, Alexa, and Google Assistant, are software programs that can understand and respond to spoken commands. They can be found embedded in smartphones, smart speakers, wearables, and even cars, offering a hands-free and intuitive way to navigate our digital lives. This introduction paves the way for a deeper dive into the world of voice assistants, exploring their functionalities, the technology behind them, and the impact they're having on our daily routines. Generation Z, those born between the mid-1990s and the early 2010s, has grown up alongside the rise of voice assistants like Siri and Alexa. The first generation that has embraced technology with open arms.These virtual companions offering convenience, entertainment, and an ever-expanding range of functionalities to Generation Z but still within this comfort level, there might be interesting perceptual differences between Gen Z males and females. This introduction will explore how Gen Z as a whole views voice assistants, then delve into the potential variations in perception based on gender. So this study find gap to explore how exactly Gen Z males and females perceive these helpful AI voices?

LITERATURE REVIEW

Following of studies has been reviewed to lay foundation for this study. Chung and Lee (2018) aims to the impact of big data storage of users' information on their perception about use of voice assistant. The study found users are concerned of their big data misuse as it can reveal their confidential information. So the privacy aspect of voice assistants could significantly impact users' perception of its use. Mclean and Osei-Frimpong (2019) studied that factors that motivating individuals to adopt the voice assistant technology. The study found utilitarian benefits; symbolic benefits and social benefits as the main motivations and privacy risk as impediment in the adoption of in home voice assistants. Pal et al. (2021) aims to understandfactors that shapeattitude impacting continue usage of voice assistants rather than variables affecting its initial adoption. They found additional constructs like privacy, trust and satisfaction as significant contributors beyond hedonic and utilitarian variables as it will augment the degree of their response among users. Patrizi et al. (2021) examined the perception of users in adoption of voice assistant in their daily life. This study clubbed four factors solution like hedonic factors, utilitarian factors, human like voice and human like presence to understand millennial perception of voice assistants. Al Shamsi et al. (2022) studied the key drivers affecting students' use of artificial intelligence based voice assistants. The results found that any subjective norm, privacy issues, facilitating conditions would not affect the perceived usefulness of voice assistants among student base

as they using it for information purposes. Ashrafi &Easmin (2023) analysed the determinants that impact behavioral intention of users' in adoption of voice assistants. The findings have shown impact of functional attributes social cognition, electronic word of mouth shaping users' attitude and trust respectively. Kautish et al. (2023) examined consumer motivations facilitating use of voice assistant in fashion shopping. The study finds that function, hedonic, cognitive and social motivations trigger consumer to use voice assistant that affects their purchase intention and emotional responses like awe experience. Menon & Shilpa (2023) studied teengers' interaction and engagement with voice assistants. The study concluded seven variables like performance expectancy, social influence, expected efforts, facilitating conditions, habit, privacy and hedonic motivations as significant driving factors impacting the usage. Oktavia et al. (2023) aims to study the factors affecting attitude and behavioral intention of citizens of Jakarta toward Smartphone voice assistants. They concluded that attitude of user is affected by mainly three variables like perceived usefulness, perceived ease of use and privacy concern while the behavioral intention are positively correlated with and affected by users' attitude.

laying foundation for social attachment whereas technical features like connectivity, personalization, connectivity builds up attachments that are affects consumer evaluation of voice assistants.

RESEARCH METHODOLOGY

Thedata collection has been done from primary data sources. Web intercept technique was used to collect data from generation Z through Google administered form. Non probability technique of convenient sampling was used to gather responses from male and female respondents. In total 228 respondents qualified as sample size among 241 respondents, rest was excluded as they identified themselves as non users of voice assistant. The questionnaire was comprised of three sections namely, general statements, subjective statements & demographic statements. Five pointlikert scales used to identify the perception subjective difference between male and female of generation Z cohort.

Table 1. Demographic profiling of respondents

Variable	Count	%	Variable	Count	%
Gender			Qualification		
Male	77	33.8	Secondary (10th)	4	1.8
Female	151	66.2	Higher education (12th)	49	21.5
Occupation			Graduation	76	33.3
Government employee	6	2.6	Post Graduation	93	40.8
home maker	3	1.3	Doctorate	6	2.6
Private sector employee	22	9.6	Age (years)		
Professional	23	10.1	Below 19	59	25.9
Student	165	72.4	20 - 29	151	66.2
other	9	3.9	30 - 39	10	4.4
			40 - 49	4	1.8
			Above 50	4	1.8

Table 2. Descriptive statistics

Descriptives	N	Range	Min	Max	Mean		Std. Deviation	Mode	Var	Skewness		Kurtosis	
	Stat	Stat	Stat	Stat	Stat	Std. Error	Stat	stat	Stat	Stat	Std. Error	Stat	Std. Error
Sounds like human	228	4	1	5	3.24	.060	.908	3	.825	-.487	.161	-.021	.321
Human accent	228	4	1	5	3.24	.059	.893	4	.798	-.410	.161	-.296	.321
Status symbol	228	4	1	5	2.68	.071	1.065	2	1.135	.073	.161	-.885	.321
Makes me feel prestigious	228	4	1	5	2.75	.076	1.144	4	1.309	-.129	.161	-1.184	.321
Useful	228	4	1	5	3.91	.047	.712	4	.507	-.973	.161	2.417	.321
Realistic	228	4	1	5	3.32	.057	.858	4	.737	-.363	.161	-.067	.321
Informative	228	4	1	5	3.94	.048	.718	4	.516	-1.131	.161	3.214	.321
Convenient to use	228	4	1	5	3.96	.044	.669	4	.448	-.849	.161	2.844	.321
Lovablefemininevoice	228	4	1	5	3.45	.059	.886	4	.786	-.471	.161	.042	.321
Boringsometimes	228	4	1	5	3.17	.061	.914	3	.836	-.023	.161	-.638	.321
Roboticsometimes	228	4	1	5	3.72	.054	.812	4	.659	-.650	.161	.571	.321
Fakeemotions	228	4	1	5	3.30	.061	.929	3[a]	.862	-.129	.161	-.525	.321
Indianaccent	228	4	1	5	3.65	.062	.942	4	.888	-.626	.161	.131	.321
Concernedofmyidentitydisclosures	228	4	1	5	3.47	.063	.945	3	.893	-.085	.161	-.636	.321
Concernedofpersonaldatatheft	228	4	1	5	3.65	.062	.934	4	.872	-.326	.161	-.586	.321

Patrizi et al. (2023) analyzed effect of perceived risk and anthropomorphic features on the perception of generation z users' towards their engagement with voice assistants. The study revealed brand trust can be significantly strengthened by brand anthropomorphism when the degree of perceive risk is high. Choudhary *et al*. (2024) analyzed factors affecting the customer adoption of voice assistant. The study finds reasons (against /for) that build up customer attitude toward voice assistants. Reasons like performance expectancy, hedonic motivations working as enablers to form positive attitude whereas image barrier and value barrier found significant inhibitors in the adoption of voice assistants. Faruk et al. (2024) through systematic literature review studied twenty one different types of scales that measure user experience with respect to voice assistants. The study concluded that anthropomorphism and machine personality like novel aspects are extending the scale development boundaries beyond its traditional principle parameters of value, desirability, adoptability and usability. Kang et al. (2024) studied the customer evaluations of voice assistants and the driving forces backing the evaluation process. The study found that social aspects like interactivity, design aesthetics and human like voice

DATA ANALYSIS & RESULTS

General characteristics of respondents: As table 1 shows in total of 248 respondents majority are female by 151 in number & reflecting 60.9% share of sample size, while rest are male. Majority of respondents claimed to be post graduate. Majority of respondents are between the age of 20 to 29 years and hails from student class section of social groups.

Descriptive statistical test: Such statistical test is used to simply describe or analyze the result of research. The results in descriptive analysis presented in the form of charts, diagrams and tables to read up the frequency, mean, median and mode of the data. It helps us to gain insights of most dominant feature of data spread by reading mean values of the respective variables. Here likert scale is used to assess statements so 1 stands for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for strongly agree.

Two independent sample T test: The coefficient table's sig (significance) column displays the results of the t test. It can be concluded that there is a partial influence of the independent variable

Table 3. T-test for equality of means

Descriptive statements		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Sounds like human	Equal variances assumed	1.117	226	.265	.142	.127	-.109	.392
	Equal variances not assumed	1.104	148.637	.271	.142	.128	-.112	.396
Got human accent	Equal variances assumed	3.405	226	.001**	.416	.122	.175	.657
	Equal variances not assumed	3.421	155.028	.001	.416	.122	.176	.657
Status symbol	Equal variances assumed	-.348	226	.728	-.052	.149	-.347	.243
	Equal variances not assumed	-.343	147.284	.732	-.052	.152	-.352	.248
Makes me feel prestigious	Equal variances assumed	-2.550	226	.011	-.404	.158	-.716	-.092
	Equal variances not assumed	-2.551	153.287	.012	-.404	.158	-.716	-.091
Useful	Equal variances assumed	.375	226	.708	.037	.100	-.159	.234
	Equal variances not assumed	.367	144.908	.714	.037	.102	-.164	.239
Realistic	Equal variances assumed	1.856	226	.065*	.222	.120	-.014	.457
	Equal variances not assumed	1.829	147.075	.069	.222	.121	-.018	.462
Informative	Equal variances assumed	-1.314	226	.190	-.132	.100	-.330	.066
	Equal variances not assumed	-1.275	141.398	.204	-.132	.103	-.336	.073
Convenient to use	Equal variances assumed	-2.044	226	.042	-.190	.093	-.374	-.007
	Equal variances not assumed	-2.062	156.904	.041	-.190	.092	-.372	-.008
Entertaining	Equal variances assumed	-1.772	226	.078*	-.180	.101	-.380	.020
	Equal variances not assumed	-1.731	143.773	.086*	-.180	.104	-.385	.025
Lovablefemininevoice	Equal variances assumed	1.818	226	.070*	.224	.124	-.019	.468
	Equal variances not assumed	1.767	141.883	.079*	.224	.127	-.027	.476
Boringsometimes	Equal variances assumed	-1.874	226	.062*	-.239	.127	-.489	.012
	Equal variances not assumed	-1.888	156.288	.061*	-.239	.126	-.488	.011
Roboticsometimes	Equal variances assumed	-.737	226	.462	-.084	.114	-.308	.140
	Equal variances not assumed	-.706	136.686	.481	-.084	.119	-.319	.151
Fakeemotions	Equal variances assumed	-3.077	226	.002**	-.393	.128	-.644	-.141
	Equal variances not assumed	-2.966	138.745	.004**	-.393	.132	-.655	-.131
Concernedofmyidentitydisclosures	Equal variances assumed	-1.017	226	.310	-.135	.132	-.395	.126
	Equal variances not assumed	-.999	145.787	.320	-.135	.135	-.401	.132
Personaldatatheft concern	Equal variances assumed	-.302	226	.763	-.040	.131	-.298	.219
	Equal variances not assumed	-.293	141.284	.770	-.040	.135	-.306	.227

*** representing p value less than 0.01 at 1% level of significance
** represents p value less than 0.05 at 5% level of significance
*represents p value less than 0.10 at 10% level of significance

Table 4. Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
My voice assistant sounds like human	Female	151	3.28	.897	.073
	Male	77	3.14	.928	.106
My voice assistant has got human accent	Female	151	3.38	.877	.071
	Male	77	2.96	.865	.099
Using My Voice assistant is symbol of status for me	Female	151	2.66	1.051	.086
	Male	77	2.71	1.099	.125
Using My Voice Assistant makes me feel prestigious than those who don't	Female	151	2.61	1.131	.092
	Male	77	3.01	1.130	.129
I feel my voice assistant useful	Female	151	3.92	.698	.057
	Male	77	3.88	.743	.085
I feel my voice assistant realistic	Female	151	3.39	.840	.068
	Male	77	3.17	.880	.100
I feel my voice assistant is informative	Female	151	3.89	.694	.057
	Male	77	4.03	.760	.087
My voice assistant is convenient to use	Female	151	3.90	.671	.055
	Male	77	4.09	.653	.074
I find using my voice assistant entertaining	Female	151	3.77	.707	.058
	Male	77	3.95	.759	.087
My voice assistant has lovable feminine voice	Female	151	3.52	.855	.070
	Male	77	3.30	.933	.106
I find my voice assistant boring sometimes	Female	151	3.09	.916	.075
	Male	77	3.32	.895	.102
I feel my voice assistant robotic sometimes	Female	151	3.70	.775	.063
	Male	77	3.78	.883	.101
My voice assistant does fake emotions	Female	151	3.17	.875	.071
	Male	77	3.56	.980	.112
I am concerned of my identity disclosures over my voice assistant	Female	151	3.42	.927	.075
	Male	77	3.56	.980	.112
I am concerned of my personal data theft stored with my voice assistant	Female	151	3.64	.905	.074
	Male	77	3.68	.993	.113

on the dependent variable or rejecting null hypothesis if the likelihood of the t value is significant < 0.05 (equal or lower than 0.05). Still, if the likelihood of given t value is more than 0.05, and then we accept null hypothesis that there is no difference or the associated factors only slightly affect the independent variables (Ghozali, 2016). Here two independent sample t tests are framed to understand the perceptual difference between female and male groups of generation Z users of voice assistants.

DISCUSSION

In this paper table 2 is reflecting descriptive analysis. The descriptive defined by the values of mean, mode, standard deviation, skewness and kurtosis. We are using mode to describe the perceptions of both male and female toward voice assistant among generation Z. As Table describing that both male and female feels neutral about certain features of voice assistant like it sounds like human, boring sometimes, emotionless, identity stealer etc.

While both agrees that their voice assistant got human accent & lovable feminine voice. They agrees to find voice assistant useful, realistic, informative, convenient to use in positive sense while both gender agrees that voice assistant has got some negative traits like robotic in functionality, fails to understand Indian accent with possibility of data theft etc. Both genderhave common agreeable thought that voice assistant makes them feel prestigious than those who don't use it. It is worth noted that both men and women disagrees to find voice assistantas status symbol. Here table 3 is describing significant difference of two means of male and female perspective about voice assistant.At 1 % degree of confidence both male and female have different perspective about the human accent of voice assistant as table 4 describing under same head female are more on agree side that voice assistant has got human voice whereas the male are mostly neutral about this context. At 5% degree of confidence it is men more than women agrees that using voice assistant make them feel prestigious than those who don't. Men leans more on positive sidethan females to find voice assistant more convenient to use, informative and entertaining but in negative context they also agrees voice assistant to exhibit fake emotions. Female agrees to find voice assistant more realistic than men. They agree that their voice assistant got lovable feminine voice but behaves robotic sometimes.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

This paper elucidated that both male and female perceive technology of voice assistant differently in the generation of Zoomers. Marketers need to understand voice assistant development and must focus upon the features that appealing more to males (e.g., tech-related commands) and must not miss opportunities to cater to female needs (e.g., health or emotional well-being related tasks).theRegardless of gender, designing voice assistants that are user-friendly, unbiased, and address privacy concerns is key for wider adoption. These study corporate limitations of primary data collection. Majority of respondents have been female so we can say the sample was gender biased. This study will offer valuable insights about perception of voice assistants from the perspective of both men and women.However the biasness of sample can be solved with further research. More cultural aspects with respect to male and female perspective toward voice assistant technology can be studied. The use of uses and gratification theory can be applied to discover the factors motivating the use of voice assistant technology among other generations likes millennial. Future studies could explore if factors like privacy concerns (potentially higher for females) or task-oriented preferences (technology comfort for males) influence usage.

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