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Effect of consumer prior knowledge on attitude, behavioural intention and adoption of artificial intelligence enabled products: A study among generation Y and Z

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***Abstract*---**Rapid growth in artificial Intelligence technology has propelled the rise of AI enabled intelligent products. The study analysing the impact of consumer prior knowledge on the attitude, behavioural intention and thus leading to the adoption and acceptance of AI enabled products is evaluated. The study is grounded on the basis of Technological Acceptance Model. The data is collected from a sample of 376 respondents belonging to various generation. The Structural Equation Modelling is used to validate the conceptual Model .Findings of the study indicates that, it is the usefulness of the technology , attributes of the product and accuracy in completing the task leads to the purchase of AI enabled products among Generation Y and Z.

***Keywords*---**consumer, knowledge, behavioural intention, products.

Introduction

Technology and Innovation are the key factors that drives most customers in purchasing decisions. Some machines, human equipment's and products can have human thinking abilities-like self- programming, self- learning and automatic mental labour due to the application of AI technology that helps in the expansion, stimulation of human intelligence.(Sterne,2019).During this industrialization Stage , AI has made a volatile development in the world with the application of Big data after 2000. Artificial Intelligence aims to replicate human intelligence in machines. Its main objective is to understand the phenomenon of human intelligence. Intelligent products are physical objects with the intelligence to take autonomous

action and make decisions based on interactions with the environment. AI technologies such as natural language processing, voice recognition, and machine learning. Unsurprisingly, interest in intelligent products based on AI technologies is also increasing. (González García et al., 2017). Intelligent product is also known as innovative products, so there is a need to generate an understanding of the components affecting the purchase and behavioural Intention of AI enabled products. Here comes the importance of prior knowledge, as far as AI is concerned, it's considered a new phenomenon, prior knowledge is defined as all the knowledge one has before learning about a particular topic. As Dochy et al (l999) points out, it facilitates learning new information. Individual's prior knowledge base can be enhanced by accumulating information collected from Word of Mouth, advertising, narrating the experience of an old buyer.

There are two factors which influence consumer choice environment are: (1) Consumers often have prior experience with the product (2) and the pile of information available about the product. There are so many conceptual and empirical researches were happened in the area of prior experience (Hansen 1972; Howard 1977; Howard and Sheth 1969), Consumer memory processes (Bettman 1979; Olson 1978), how prior choices affect the present choices, but a very few researches were happened and analysed the effect of knowledge and experience on choice processes (Olson and Muderrisoglu 1979;Edell and Mitchell 1978;; Park 1976; Russo and Johnson 1980).

The current study is organized as follows(1)Literature dealing Generation Y and Generation Z, (2)Explanation of the main concepts (3)Theoretical Background explaining the Technological Acceptance Model(4) Defining the Conceptual Model(5)Research Methodology,(6)Analysis of Results (7)Limitations of the study and (8)Conclusion.

The main objective of the study is to explore the characteristics of Generation Y and Z towards AI enabled products, to analyze the Effect of prior Knowledge on attitude, behavioural Intention and leading to the actual usage of AI products, Validation of the Conceptual Model, The analyse the effect of Demographic control variables on Technological Acceptance factors.

Research Questions

1. Does prior knowledge helps in developing a behavioural Intention and leading to the purchase of AI products?
2. Effect of prior knowledge in the formation of an attitude of the product?
3. What are the major factors which act as a hindrance to the purchase of the AI product?
4. Does AI products should Change the world?

Literature Background

It is very difficult to put an end to the groups of each generation clearly, but the time lanes in the border shows some similar characteristics. Professionals use different names for portraying different categories of generation and the time span

between different categories of generation will also be differently defined, but that does not influence their basic characteristics.

Table: 1- Time line of generation. Source: authors' construction (on the basis of Zemke et al., 2000)

	Veteran generation(1925-1946)
	Baby boom generation(1946-1960)
	X generation(1960-1980)
	Y generation(1980-1995)
	Z generation(1995-2010)
	Alfa generation(2010+)

There is a need to pose a question, why it is necessary to deal with the topic. What's the point of examining the behaviour of generations and their characteristics? If we able to observe the behaviour of generation belonging to various categories, we can identify they are different in terms of attitudes, thinking, purchasing pattern and by studying their behaviour we can design products and services catering to their interest and we can design advertising campaigns and can develop marketing strategies on the basis. Younger generation is more prone to technology related products as compared to the generation belonging to Baby Boomers and Generation X.As age is known to be strongly associated with reduced access to many information technology resources and technology as well as with limited willingness to engage with new technologies and services (Lee, 2009).

Characteristics of Y and Z Generation

The paper focusing the most important characteristics of Generation Y and Generation Z.

Generation Y: Generation Y is also called the Millennia's (Schaffer, 2012). The "Y" is derived from the English word "Youth". Millennials were considered as the generation, which born at the first wave of the digital technology. It is easy for them to quickly acquire the use of new tools and devices in IT because they are highly qualified in digital knowledge. The size of Generation Y is three times that of Generation X (palmer, 2008). Generation Y is considered as the most powerful consumer group, because they are having more disposable income than any previous generations (Frank and Chong, 2002). This type of demographic segmentation helps in identifying consumer lifestyle variables. Generation Y consumers are price sensitive, brand consciousness and prefer credible brands that fit their lifestyle. This generation is characterized with influence on household purchases and enjoy a great deal of financial independence.

Generation Z: Generation Z consist of young adults who born in between in 1995 or later.(Bassiouni, and Hackley,2014,Fister Gale,2015).The main characteristics of the generation Z are technologically savvy, innovative, educated and creative. Generation Z is regarded as the first generation born to the digital world, these people fully lives in online and engaging virtually and verify each brands and buy brands online on the basis of consumer review.(Bernstein,2015).They were also

known as,, digital natives" ,Switchers", Facebook generation" or sometimes,, iGeneration".(Tari,2011). For developing a marketing strategy, we should consider two major factors generational mind set and feelings that determines what and how consumers buy. (Fishman, 1998, p.1).Research suggest that this group has a strong purchasing power and generation members do not take decision by their own. As compared to previous generation, they are more attached to their parents. There exist close relationship between parents and children suggest that members make their decisions together with their parents. (Grail research, 2011)

By taking a look into the consumer behaviour of Generation Z, expose an important aspect, that the members of the group rather chose experienced base promotion rather than traditional social media campaigns. Here comes the importance of prior knowledge and the consumers depends on the prior knowledge that he or she gained from word of mouth, through advertising and the experience shared by fellow friends. They also like the situation, where it is possible to taste and experience the product and can participate in promotional sporting events. (Businessonmain.msn.com).

Marketing Implications of Generation Z

According to the observation made by Grail Research Company (2011), the characteristics of Generation Z are:

1. Struggle to obtain the attention-Younger users of electronic devices are characterised with increased comfort and addiction leads to the increased demand for such products. Marketing specialist should develop online marketing strategies, because this generation members spend considerable time on online. Marketing Strategies include interactive online media portals, virtual world based marketing, detailed product information and ensure ease of online shopping.
2. Design-Generation Z are famous with their spinning and information rich life style so design easy to use, simple but multifunctional products and they are willing to pay high price for this added features.
3. Social Responsibility: Generation Z is highly socially responsible and environmentally conscious people, they are oriented towards green products, and it is necessary to add these items in their product portfolio, community and product awareness campaign should influence the purchase of the product.
4. Continuous Net Connection: Generation Z is easily accessible with different marketing channels due to their constant online presence.

Behaviours Related to Technology and Media Attitudes

Research found out that age is the strongest variable that depicts the computer and internet usage. Studies also concluded that, as the age increases, the level of competence of digital literacy, computer and internet usage shows a declining trend. Four characteristics of Generation Z consumers according to Wood (2013) are 1.An interest in new technologies, 2.An insistence on ease of use, 3. A desire to feel safe, and 4).A desire to temporarily escape the realities they face. Generation Z are multitasking consumers, they want a device that will allow them to be able to do more things at once, they are willing to pay more money to reach products which are broad-featured, more suitable for multitasking. (Business, Asia,

2011).Generation Z are affected by social, political, economic and technological changes.(Ernst and Young,2015).Consumers are characterised with diminished brand loyalty, they expect retailers to get the product to them, as a consequence retailers feel pressure to find new ways to grab and hold consumers' attention (www.ey.com).They have no brand loyalty, higher expectations and care more about the experience.

Prior Consumer Knowledge

Observation by Alba and Hutchinson 2000; Bettman and Sujan 1987 suggest that correspondence between consumer prior knowledge and the information related to the product with an appeal enhances the purchase of the product. Evidence shows that, consumers evaluate a product not only based on the content but also the subjective experience that results from their reflection on how they process that information to make a judgment (e.g., Higgins 2000; Schwarz 2004). Literature also says that, the effects of prior knowledge indicate that consumers with extensive knowledge in a domain exhibit a sense of urgency about achieving their goals (Lewandowsky and Kirsner 2000). Brucks (1985) describes three categories of consumer knowledge-subjective knowledge, what the consumer thinks he or she knows; objective knowledge, an actual knowledge construct as measured by some sort of test; and prior experience with the product category.

Consumer behaviour models have portrayed knowledge as an individual difference variable influencing all phases of the decision process, most notably, information search (Engel, Blackwell, and Miniard, 1990; Raju, Lonial, and Mangold, 1995).Research has shown that knowledge, in general, is directly related to many consumer behaviours. Consumers with extensive prior knowledge exhibit a greater tendency to make quick decisions (Thunholm, 2005). Prior knowledge should affect consumer's behaviour and attitude, and leading to the acceptance or rejection of the product.(Li,2019)

The economics perspective argues that prior product knowledge influences the cost and benefits of search whereas the psychological perspective argues that prior product knowledge influences individual specific variables like self-efficacy. The information processing perspective argues that prior product knowledge is a part of memory which influences the cognitive capacity of consumers. Thus, many researchers have closely examined the relationship of prior product knowledge to consumer pre-purchase information search behaviour, both conceptually and empirically (Basu, 1993; Bettman and Park, 1980; Chandler and Crown, 1991; Chao and Gupta, 1995; Coleman and Warren,1995; Duncan and Olshavsky, 1982; Moorthy et al., 1997; Richford, 2001).

Theoretical Development

In the field of Management Information System, there exist several theories that shed light on the acceptance and adoption of intelligent product and services. Among these the most widely used models are TAM (Technological Acceptance Model), TPB (Theory of Planned Behaviour), UTAUT (Unified Theory of Acceptance and Use of Technology) and VA M(Value-based Adoption Model. Present study is based on the Technological Acceptance Model, originated from the Theory of

Reasoned Action to study the user acceptance of Information Systems. (David, 1985, 1989). TAM is widely used in the studies pertaining to the acceptance of Information technology related goods (Subramanian, 1994;Karahanna and Straub,1999;Adams et al,1992; Kim and Shin,2015). For Example. TAM is used to explain the acceptance of intelligent health monitoring system ((Tseng et al., 2013), the smartphone credit card (Ooi and Tan, 2016), acceptance of wearable devices (e.g., the smart watch) (Chuah et al., 2016; Yang et al., 2016; Kim and Shin, 2015), Smart in –store Technology. Kim et al.,2017, Business Intelligence System(Wang,2016),Intelligent Tourism(Venkatesh and Davis,2000) , and many other studies.

1970s witnessed the greatest advancement in technology, and increasing failures of system adoption in organization, result in the prediction of the acceptance of the newly launched technology. But, most of the prior studies were failed to produce reliable measures to explain the acceptance and rejection of Technology (Davis, 1985). Fred Davis proposed the Technological Acceptance Model (TAM) in 1985, in his doctoral thesis, submitted to MIT Sloan School of Management (Davis, 1985). The model undergone several revision, in the earlier stage, he states that system use is a response that can be demonstrated or foretell by user motivation which in turn is directly affected by an external stimulus composed of the actual system's capabilities and features.

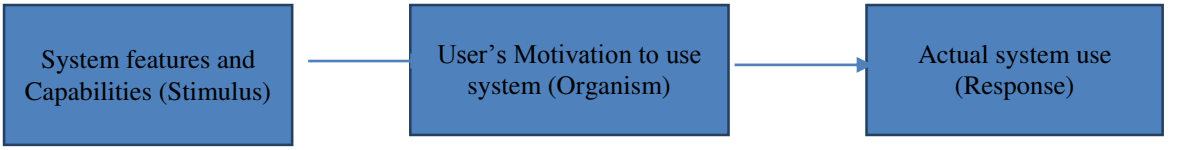


Figure 1: Conceptual Model for Technology Acceptance (Davis, 1985, P.10)

Davis further refined the Technological Acceptance Model on the basis of Theory of Reasoned Action, proposed by Fishbein and Ajzen(1975).In the model Davis advocates that, Users motivation can be expounded in terms of three factors: Attitude towards using the system, Perceived Ease of Use, Perceived Usefulness. He speculate that, whether the user will actually accept or reject the system will solely determined by the attitude of the user towards the system. The attitude of the user will be affected by two factors Perceived Ease of use and Perceived Usefulness, with perceived Ease of Use has a direct impact on perceived Usefulness. All these factors were directly influenced by system design characters represented by X1, x2, X3 in figure 2.

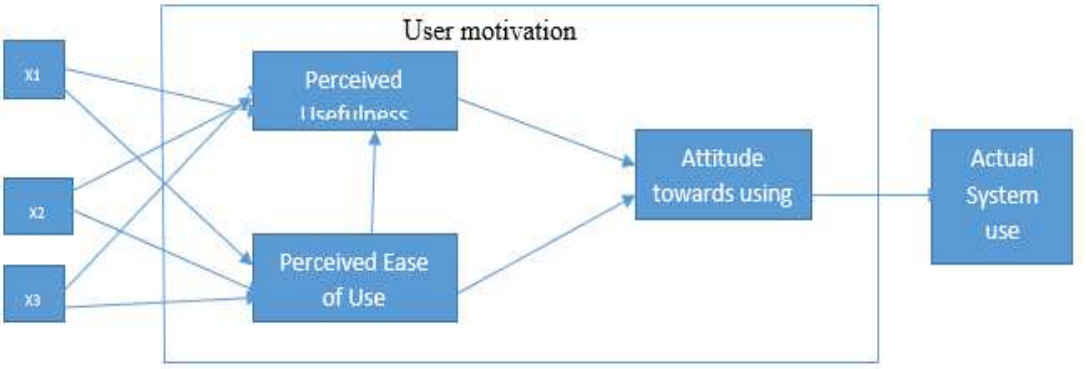


Figure 2: Original TAM Model By Fred Davis (Davis.1986, P.24)

The Model undergoes several revision, Davis (1985) refined his model by adding different variables and formulating relationship between them. Davis (1993) propose that, perceived usefulness could have a direct effect on actual system use. He established that, without the need to form an actual belief about the system, the attitude of a person could be directly influenced by system characteristics.

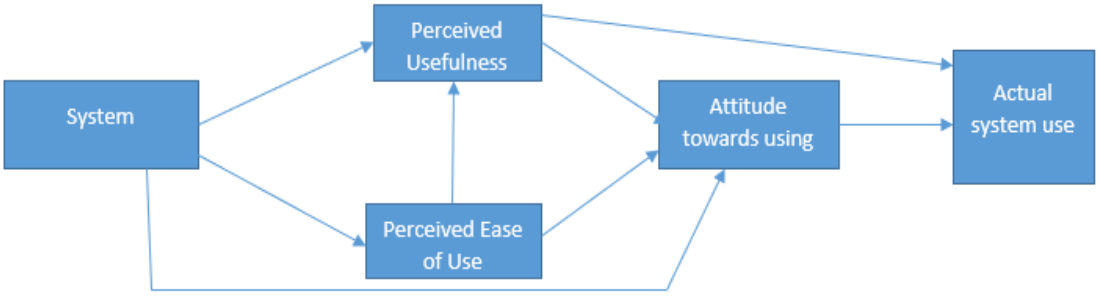


Figure 3: New Relationship Formulation in TAM (Davis, 1993, P.481)

TAM Evolving

Later by the work of (Davis, Bargozzi and Warshaw1989), introduced a new variable behavioural Intention, that would be directly influenced by the perceived usefulness of the system. Davis et al (1989) proposed that, when a product which was perceived to be useful, a person might form strong behavioural intention to purchase the product.

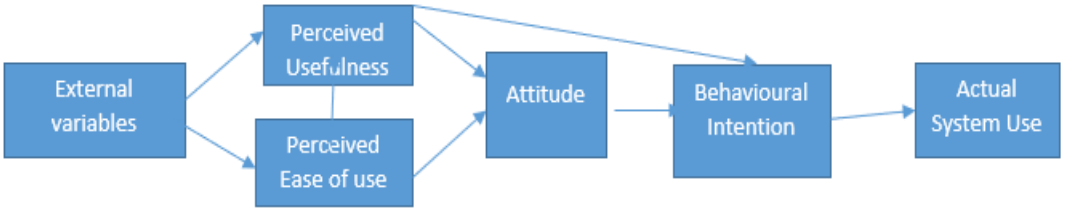


Figure 4: Final Version of TAM (Davis, Bagozzi and Warshaw,1989, P.985)

Conceptual Model

The conceptual model is developed from the TAM Model by Davis, 1993. The study analyses the effect of prior consumer knowledge,that influences pre-purchase Information search, leading to positive or negative attitude towards the product, leads to behavioural intention to purchase the product thus result in actual usage of the product. People can have some positive or negative emotional connection with and influence from the power brought by artificial intelligence, even if they know that this power is not a real emotional interaction between people. Pre- Purchase information search shapes the prior consumer knowledge base. So whenever a consumer decides to buy a product, she faces a dilemma, there were so many similar products in the market to fulfil her need. The choice of product is influenced by her personal need criteria, her prior product knowledge (if any) and the information she gets during the search process (Punj and Brookes, 2001).This prior product knowledge combines with pre-purchase information search leads to attitude to purchase the product. People's general attitudes towards AI are likely to play a large role in their acceptance of AI (Schepman, Rodway, 2020). Technology Acceptance (Davis, 1989) is a construct that focuses primarily on the user's willingness to adopt technology through a consumer choice. Davis (1989) also suggest that a person's intention to use a technology is affected by his or her attitude towards that technology. Attitude is shaped by a person's belief or perception in how useful the technology is and how easy it is to use. In this context, attitude is measured by how much one likes or dislikes the technology.

In the context of TAM, attitude toward the act refers to the evaluative judgment of adopting a piece of technology. It is viewed as the result of a set of cognitions as well as a set of affective responses to the behaviour (Cohen & Areni, 1991; Triandis, 1971). The effect of attitude toward adoption in TAM is unclear because the empirical support for its effect on behavioural intention has been inconsistent. In contrast, a meta-analysis of attitudinal research related to the theory of reasoned action found strong support for using attitude to predict intentions (Sheppard, Hartwick, & Warshaw 1988). Attitude toward adoption has been found to play a key role in technology acceptance within the consumer context. Attitudes have for a long time been theorized to be influenced both by cognition and affect, and, in turn, directly influence behavioural intentions (Ajzen, 2001). However, studies of technology acceptance in the MIS and IT literatures usually predict attitude solely in terms of cognition.

All these evidences lead to the formation of hypothesis:

H_1: Attitude towards AI product is influenced by Consumer prior knowledge to purchase the product
H_2: Behavioural Intention to purchase the product is influenced by attitude towards AI product.
H_3: Actual User behaviour to purchase the product is influenced by behavioural Intention.

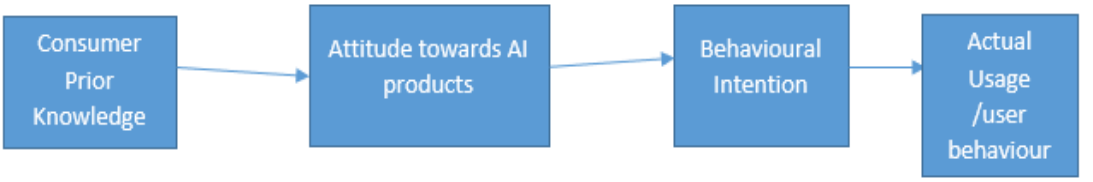


Fig: 5 Conceptual Model

Data Collection

Before the survey , experts from respective field checked the questionnaire for content validity, the items for the construct ,attitude toward AI product, Behavioural Intention, Actual user behaviour is adapted from Sohn, Kwon, 2019, and the item for the construct consumer prior knowledge was adapted from Bettmann and Park (1980).All the items were measured on seven-point Likert scale. &-The survey was conducted using Google forms. Before testing the model the validity and reliability of items were checked. The reliability of the questionnaire is evaluated using Cronbach's alpha. The items, prior knowledge-0.8284, attitude-0.901, behavioural intention-0.824 and actual usage-0.861, perceived ease of use. Result shows that all the constructs has reliability greater than 0.6. So the questionnaire was highly reliable. Before testing the model there exist a need to check the validity, for validating Behavioural Intention, we targeted products such as the smart speaker and voice assistant services, smart watches, and AI-based home appliances. These three products were selected for three reasons: because they all involve voice recognition; according to the report published in June 2017 by the Indian Consumer Agency, they were all already commercialized as of the second half of 2017; and they represent a distinct distribution pattern representative of AI-based products. Out of 783 responses, only 376 found useful for analysis. Tools used for data analysis are descriptive Statistics, One Sample Z test, One Way ANOVA and multiple Regression Analysis.

Results and Discussion

AI Products used by Generation Y and Z

Among generation Y, 16.4% using AI in home appliances, 43.6%percent using AI in smart watch and 56% are using AI enabled voice assistants. Among Generation Z 18.6% are using AI in home appliances, 59.3% using AI in smart watches, 22% are using AI enabled voice assistants.

Table:2

			Which type of AI product you are using			
			AI in home appliances	AI in smart watch,	AI enabled voice assistants	Total
Generation	Generation Y	Count	23	61	56	140
		% within Generation	16.4%	43.6%	40.0%	100.0%
	Generation Z	Count	44	140	52	236
		% within Generation	18.6%	59.3%	22.0%	100.0%
Total		Count	67	201	108	376
		% within Generation	17.8%	53.5%	28.7%	100.0%

Factors prompted the purchase of AI enabled Products (Table: 3)

			Which factor prompted you to purchase AI enabled products							Total
			Curiosity	Class /status	Price	Usefulness	attributes /features	Accuracy in completing task	Reduce time consumption to complete a task	
Generation	Generation Y	Count	20	0	12	45	23	24	16	140
		% within Generation	14.3%	0.0%	8.6%	32.1%	16.4%	17.1%	11.4%	100.0%
	Generation Z	Count	15	4	7	92	45	39	34	236
		% within Generation	6.4%	1.7%	3.0%	39.0%	19.1%	16.5%	14.4%	100.0%
Total		Count	35	4	19	137	68	63	50	376
		% within Generation	9.3%	1.1%	5.1%	36.4%	18.1%	16.8%	13.3%	100.0%

Table:3 indicates that for generation Y, 32% believes in usefulness of the AI product while going for purchasing,17% believes in accuracy in completing the task,

14.3%believes in curiosity, prompting the purchase of the AI product. For Generation Z, 39% believes in usefulness of the AI product while going for purchase,19.1% believes in attributes of the product,16% believes accuracy in completing the task , act as the main factors prompting the purchase of the AI enabled product.

Analysing the Demographic Control Variables

This section analyses the influence of demographic control variables- gender, and generation, on Attitude, Behavioural Intention, Prior Knowledge, perceived usefulness, perceived ease of use and actual usage. The analyses were conducted using independent sample Z test or one way ANOVA.

Comparison between factors on the basis of Gender

Table: 4 Means, Standard deviation and Z value for Gender

Variables	***Gender***	***N***	***Mean***	***Standard Deviation***	***z***	***p value***
Perceived ease of use	Male	146	21.27	2.51	-0.516	0.606
	Female	230	21.42	2.82		
Perceived usefulness	Male	146	24.62	2.10	3.876	<0.001*
	Female	230	23.58	2.77		
Attitude	Male	146	40.29	5.57	2.605	0.010*
	Female	230	38.78	5.45		
Behavioural Intention	Male	146	23.88	2.24	3.893	<0.001*
	Female	230	22.77	2.92		
Purchase Intention	Male	146	22.95	2.39	2.279	0.023*
	Female	230	22.22	3.33		
Prior Knowledge	Male	146	22.95	3.31	0.820	0.413
	Female	230	22.68	3.06		
Actual usage	Male	146	24.39	3.98	-3.102	0.002*
	Female	230	25.65	3.75		

***Significant**

An independent sample Z test are often used to compare the mean scores of variables of the two different groups, that is, males and females. Hence Z test was conducted, and the results are shown in Table 4. The result shows that no significant difference exists between males and females for the variables Perceived ease of use, and Prior Knowledge as the p value in this case is more than 0.05. But for Perceived usefulness, Attitude, Behavioural Intention, and actual usage since the p value is less than 0.05, significant difference is seen between the males and females.

Comparison on the basis of Generation

An independent sample Z test are often used to compare the mean scores of variables of the two different groups, that is, Generation X and Generation Y. Hence a Z test was conducted, and the results are shown in Table 5. The result shows that, no significant difference exists between Generation X and Generation Y for the variables Attitude, Behavioural Intention, and actual usage as the p value in this case is more than 0.05. But for Perceived ease of use, Perceived usefulness, and prior knowledge since the p value is less than 0.05, significant difference is seen between the Generation X and Generation Y.

Table: 5 Mean, Standard Deviation and Z value for Generation

Variables	***Generation***	***N***	***Mean***	***Standard Deviation***	***z***	***p value***
Perceived ease of use	Generation Y	140	21.86	2.85	2.745	0.006*
	Generation Z	236	21.07	2.58		
Perceived usefulness	Generation Y	140	24.36	2.23	2.230	0.026*
	Generation Z	236	23.75	2.74		
Attitude	Generation Y	140	39.43	6.93	0.166	0.869
	Generation Z	236	39.33	4.54		
Behavioural Intention	Generation Y	140	23.21	2.54	0.027	0.978
	Generation Z	236	23.20	2.84		
Prior Knowledge	Generation Y	140	23.51	2.85	3.472	0.001*
	Generation Z	236	22.36	3.25		
Actual usage	Generation Y	140	25.51	4.21	1.354	0.177
	Generation Z	236	24.95	3.68		

***Significant**

Validation of the Conceptual Model

Pearson Correlation was seen as appropriate to analyse the relationship between the two variables which were interval-scaled and ratio-scaled. The researcher used Pearson Correlation to identify the relationship between Prior knowledge and attitude, attitude and behavioural intention and behavioural intention and actual usage. The result are presented in the following Table 6.

Table 6: Correlation

Variables	Correlation	Lower bound	Upper bound	Z	p
Prior knowledge - attitude	0.950	0.947	0.953	58.838	<0.001
Attitude and behavioural intention	0.852	0.842	0.862	31.472	<0.001
Behavioural intention - actual usage	0.649	0.629	0.669	16.497	<0.001

From the table: 6 correlation between Prior knowledge - attitude is 0.950, Attitude and behavioural intention is 0.852 and Behavioural intention - actual usage is 0.649 which indicate that there is significant positive relationship exist between the variables. Since a relationship exists between Prior knowledge - attitude, Attitude and behavioural intention and Behavioural intention - actual usage, in the next step we use SEM to evaluate mathematical relationship between the two variables and the results are exhibited in Table: 7 and 8.

Table: 7Model fit Indices for CFA

	x^2	DF	P	Normed x2	GFI	AGFI	NFI	TLI	CFI	RMR	RMSEA
MODEL 1	2.751	2	.253	1.375	.996	.982	.977	.980	.993	.045	.032

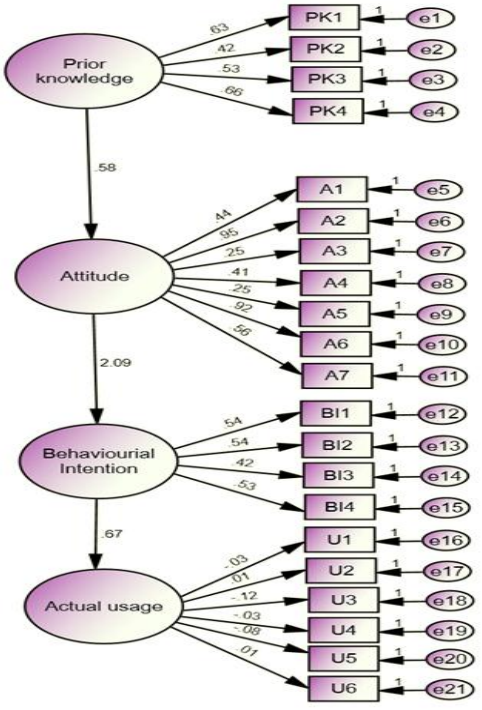
All the attributes loaded significantly on the latent constructs. The value of the fit indices indicates a reasonable fit of the measurement model with data. In table 8 we present the regression coefficients. The validation tests showed models were significant ($p < 0.001$), with GFI, NFI, and TLI values all above 0.9, indicating the model's goodness of fit.

Table:8 The regression Coefficients

Path	Estimate	Critical Ratio (CR)	P	Variance explained (%)
Prior knowledge → attitude	0.577	12.707	<0.001	33.2
Attitude → behavioural intention	2.090	10.062	<0.001	83.6
Behavioural intention → actual usage	0.674	15.799	<0.001	45.4
PK1 → Prior knowledge	0.628	14.255	<0.001	39.4
PK2 → Prior knowledge	0.417	8.576	<0.001	17.4
PK3 → Prior knowledge	0.529	11.371	<0.001	28.0
PK4 → Prior knowledge	0.655	15.142	<0.001	42.9
A1 → Attitude	0.441	9.144	<0.001	19.4
A2 → Attitude	0.946	34.615	<0.001	89.5

A3 → Attitude	0.245	4.830	<0.001	6.0
A4 → Attitude	0.412	8.460	<0.001	17.0
A5 → Attitude	0.250	4.933	<0.001	6.3
A6 → Attitude	0.916	30.198	<0.001	83.9
A7 → Attitude	0.561	12.250	<0.001	31.5
BI1 → Behavioural intention	0.544	11.778	<0.001	29.6
BI2 → Behavioural intention	0.543	11.750	<0.001	29.5
BI3 → Behavioural intention	0.419	8.623	<0.001	17.6
BI4 → Behavioural intention	0.530	11.398	<0.001	28.1
U1 → Usage	-0.032	-0.618	0.537	0.1
U2 → Usage	0.011	0.212	0.832	0.0
U3 → Usage	-0.126	-2.446	0.015	1.6
U4 → Usage	-0.028	-0.541	0.589	0.1
U5 → Usage	-0.082	-1.587	0.113	0.7
U6 → Usage	0.012	0.232	0.817	0.0

From the table the relation between the variables is
Attitude = 0.577 Prior knowledge
Behavioural intention = 2.090 Attitude
Actual usage = 0.674 Behavioural intention



The SEM Model showing the Path Coefficients (Fig:6)

Discussion

From **Table: 2**, we can note that, Smart watch is the mostly purchased product by both Generation Y and Z and then comes AI enabled voice assistants like Alexa, and AI enabled home appliances. For both Generation Y and Z "usefulness of the Technology", attributes of the product and accuracy in completing task are the major factor prompting them to purchase the AI enabled products. Z-test and ANOVA is conducted among Gender wise and Generation wise .In the case of Gender, there is no significant difference exists between males and females for the variables Perceived ease of use and Prior Knowledge as the p value in this case is more than 0.05. But for Perceived usefulness, Attitude, Behavioural Intention and actual usage since the p value is less than 0.05, significant difference is seen between the males and females. Attitude and behavioural Intentions, perceived usefulness and actual usage of males and females is different, and it influence purchase of AI products.

Among generation the result shows that, there is no significant difference exists between Generation X and Generation Y for the variables Attitude, Behavioural Intention and actual usage as the p value in this case is more than 0.05. But for Perceived ease of use, Perceived usefulness, and prior knowledge since the p value is less than 0.05, significant difference is seen between the Generation X and Generation Y.

From Table: 6 shows the correlation between Prior knowledge - attitude is 0.950, Attitude and behavioural intention is 0.852 and Behavioural intention - actual usage is 0.649. This indicates that there exist a significant positive relationship between the variables. Prior consumer knowledge helps in the formation of attitude towards AI product, leads to the formation of behavioural Intention and thus leads to the purchase of AI products. Relationship between the constructs are proved. Then we did Structural Equation Model to validate the conceptual Model. Table: 7 shows that, the value of the fit indices indicates a reasonable fit in the measurement model with data. The validation tests showed models were significant ($p < 0.001$), with GFI, NFI, and TLI values all above 0.9, indicating the model's goodness of fit. The chi-square value is 2.751 which is less than 5, which is significant. Adjusted Goodness of Fit is .982, which is also above .9, Root Mean Square of Error Approximation is .032 which is less than .08, which is significant. The path coefficient of the conceptual Model is shown in Figure: 6.

Future of Artificial Intelligence

Most of the respondents accepts the artificial Intelligence enabled products, because they knew that they cannot imagine a world without AI. Because AI make life easier, increases efficiency in the work and makes processes more automatic leads to increase satisfaction of the consumers. Price of the product act as a major hindrance in the purchase of the product. For Generation Z, only a few people believes in class or status associated with the product influencing the purchase of the product. While adopting technological Innovations like AI, it take time to get it into the mind of the people, about usefulness, attributes and familiarity of the product. Advertisement, narrating experience, prior knowledge coupled with pre-purchase information search helpful in solving the dilemma related to the purchase

of the AI product. Many Consumers express their anxiety about AI, in future these products would make human idle, they were under the slavery of machines, by displacing traditional job and making them less interactive. Privacy is another factor, the consumers more concerned about and it leads to many ethical issues so legal system of the country should tackle this issue by making changes in the law in the concerned area. AI products has many positive effects it increase the performance of the organization.

Limitation

The generalization of the results regarding the acceptance of AI based intelligent product is limited because the data used in the study is collected from India only. If we collect samples from different countries, generalization of the results will be easier. Robots, products in health care sector, AI software's used in manufacturing and HR and other training sector is ignored in the study, because the consumers were not unique and the application of artificial Intelligence in different sectors will be different and this leads to confusion and difficulty in the generalisation of result. In the case of robots, robots are not currently available for individual purchase. Although they are definitely part of the AI technology world, they were not included because the characteristics of robots vary considerably depending on their application, ranging from social service to industrial(Sohn, Kwon, 2019).Virtual and augmented reality products were also eliminated from the study, because the consumers purchasing these kinds of products were few and scattered. In future research, the consumer behaviour towards these products with other factors should be considered

Conclusion

AI-based intelligent products will be developed in more diverse ways and evaluated by consumers more frequently as AI technology evolves. However, the development of this technology and its application to various fields are not enough to ensure consumer use and discovery of the potential benefits it provides. Therefore, advanced knowledge of success factors related to AI-based intelligent products is necessary from the planning stage (Sohn, Kwon,2019). Consumer Prior Knowledge coupled with prior information search should increase the knowledge base of the consumer and help them in making the right choice of the product with right features leads to the acceptance and further purchase of the product. Both the generation Y, and Z is characterized with high education level and Technological knowledge, so both generation is very curious in the advancement and adoption of AI enabled products. Generation Z is more prone to AI enabled products both because of curiosity and a tendency to embrace knowledge technology and it shows some class stigma that project consumer's identity. Thus prior consumer knowledge should have a profound effect on the user's attitude and the behavioural intention and finally leads to the actual usage of the product.

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