

Acceptance and Usage of Social Media by Gen Z Students as a learning source

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ABSTRACT

Social media has become a tool for reshaping the education system these days. It plays an important role in disseminating information to parents, teachers and students and thus empowering them. Today Gen Z students are easily adopted to new trends and technological changes. This paper explores the acceptance level of social media by Gen z, their usage for the purpose of learning. The main aim of this paper is to find out the important components that students look for in accepting and using social media for learning. This paper considers the UTAUT model developed by Venketesh et al for the study. Questionnaire developed were based on the UTAUT model, which was administered to around 205 Gen Z students of engineering colleges at Tirupathi. Further, factor analysis was run to extract the factors relevant followed by multiple regression. The three main predictors of the study were identified as performance expectancy, effort expectancy and facilitating conditions, which showed significant impact on the behavioral intention of students in using social media as a learning source. Further, the study also tested the impact of behavioral intention on the use behavior of Gen Z and the found that behavioral intention leads to use of social media for learning.

1. Introduction

Traditional education system in India is undergoing a major transformation in this digitalized era. Though there are many changes yet to induce into the system, the rapid changes in the digital environment are demanding a change in the education system. Especially, Social media has become an inevitable part of human life today. As per the report by IAMAI, by Jun 2018, the number of people who use mobile internet is estimated to touch 478 million. These changes are due to the availability of smart phones at a cheaper rate, access to faster connectivity and availability of cost-effective services. The report stated that young students are large scale users of most of the services. The usage of social media differs among gen x, gen y and gen Z. Indian educational system is slowly adapting to the changes of the gen y and gen z students. Though social media can be effectively used as a tool for enhancing education its potential for future education is yet to be investigated (Bharucha, 2018). This study aims at understanding how Gen Z accept and use social media for learning purpose.

2. Review of Literature

The use of ICT tools will enhance students learning. (Lisbet, 2013) supports that ICT enabled tools will help students take responsibility for their own learning which can provide an outcome more effective than that of traditional classroom teaching. However, social media was coined in 2005, which is defined as "a group of internet based application that build on the ideological and technological foundations of web2.0 and that allow the creation and exchange of user generalized content (Kaplan & Halein, 2010; Bharucha, 2017). The

media categorization was done on the basis of the following dimensions social presence, media richness, self disclosure self dimensions (Kaplan & Halein, 2010), which includes content based (YouTube, face book), text based communication (whatsapp), virtual games. As per the findings of (elfheria Kloklytha et al, 2015) students use social media as a platform for socialization and to communicate with friends and family but they seldom recognize it as a tool for learning. It is possible to convert (Stephen Downes, 2010) technology into platform for communication and interaction through development of software's. However, in emerging countries like India embedding education with social media may take its own course as the development of infrastructure and related progress are in a slower phase.

3. Theoretical background and research model

UTAUT (Unified Theory of Acceptance and Use of Technology) was developed by Venketesh et al (2003), as a result of testing other tools emerged as an effective tool to assess the success of new technology introductions and to understand the factors influencing the user to accept the technology. This tool can be used by technology innovators to understand the drivers of technology adoption and effectively plan interventions that help them to adopt the technology faster. This model has four determinants of intention and usage (Venkatesh et al, 2003); performance expectancy, effort expectancy, social influence and facilitating conditions that affect the behavioral intentions. This model also explains the role of moderators (age, gender, voluntariness and experience).

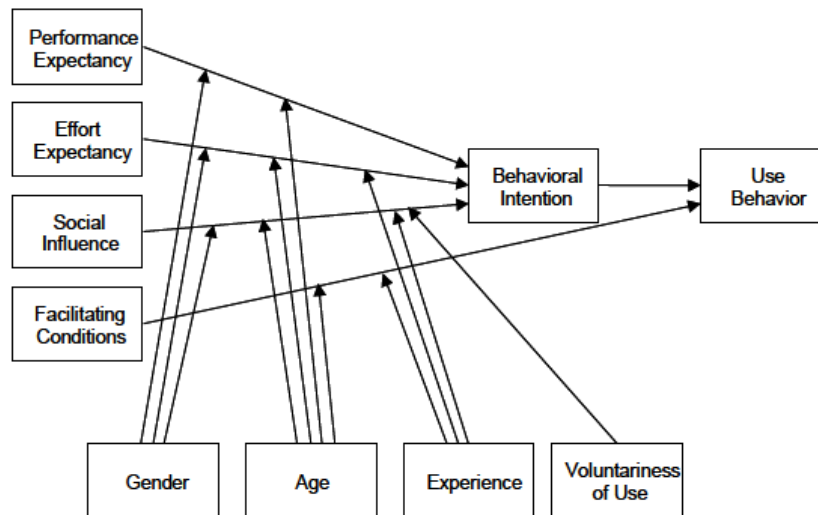


Figure 1: Research Model (adapted from Venkatesh et al., 2003)

Performance expectancy:

Performance expectancy is defined as the degree to which an individual behaves that using the system will help him or her to attain gains in the job performance (Venkaesh et al., 2003). This study has used performance expectancy consists of questions that can predict the intentions of the user.

Effort Expectancy:

Effort expectancy is defined by (Venkaesh et al., 2003) as the degree of ease associated with the use of system. This construct according to studies by (Davis et al., 1989; Venkatesh 1999) is more prominent in the early stages of a new behavior.

Social influence:

Social Influence is defined as the degree to which an individual perceives that important others believe he or she should use the new system (Venkatesh et al., 2003). However, according to (Hartwick and Barki, 1994) reliance on the opinion of others is significant only in mandatory settings.

Facilitating conditions:

Facilitating conditions is defined by (Venkatesh et al., 2003) as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system.

4. Objective of the study

Research questions

RQ1: To understand the social media preference of Gen Z and the time spent by them.

RQ2: To understand the factors that influence the Gen Z to choose social media as a learning resource.

RQ3: To find out the impact of the factors on the behavioral intention and usage behavior of students.

Hypothesis Testing:

H1: Gen Z with high performance expectancy will have high intention to use social media.

H2: Gen Z exposed to high facilitating conditions will have high intention to use social media.

H3: Gen Z with high effort expectancy will have high intention to use social media.

H4: Gen Z with high behavioral intentions will have a positive influence on their usage behavior.

5. Methodology

Students were chosen on a random basis, they include undergraduate and postgraduate students who were born between 1995-2015, this generation has just entered graduation and postgraduation. The survey questionnaire consists of questions regarding the choice of social media and the time spent on an average by students on social media. Second part of the questionnaire consists of 28 questions, that assess the usage of social media, influence of others in using social media, how social media helps them in learning and acceptance of social media as a learning tool. 28 questions were reduced to 17 questions based on the correlation results, highly correlated items were eliminated. Questionnaires were administered to 300 students out of which 205 were fully done. Questionnaire consists of questions based on the UTAUT (Unified Theory of Acceptance and Use of Technology) model developed by (Venkatesh et al., 2003). Five-point Likert scale questions were developed.

Components of UTAUT considered in this study

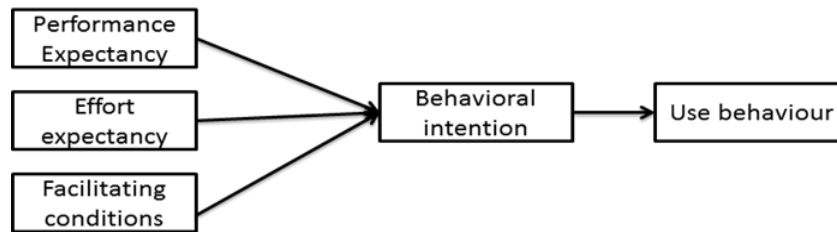


Figure II

Behavioral Intention		
1.	It is interesting to use social media for learning	.835
2.	I will recommend social media for learning/work to others	
3.	I continue to use social media for learning /work in future	
Performance expectancy		
4.	Using the social media enables me to accomplish the task more quickly(UTAUT)	.665
5.	Using the social media increases my productivity(UTAUT)	
6.	If I use social media ,I will increase my chance of getting good grade(UTAUT)	
Effort expectancy		
7.	How to use social media is clear and under stable (UTAUT)	.571
8.	I have the skill to use social media for learning(UTAUT)	
9.	I find social media easy to use(UTAUT)	
Facilitating conditions		
10.	I have the resources (internet connection,smartphone,tablets etc) necessary to use the social media(UTAUT)	.541
11.	I have the knowledge necessary to use the social media(UTAUT)	
12.	All social media can be availed in all the devices communication devices I use	
13.	A specific person(or group) is available for assistance during difficulties in using social media(UTAUT)	
Use behavior		
14.	I communicate comfortably with lectures(compared to face-to-face communication)through social media	.633
15.	Social media helps to share academic materials with others(uploading, downloading etc)	
16.	I always use social media for learning	
17.	I use social media to complete my assignments	

Table I

The items used were modified from UTAUT model developed by Venkatesh et al,(2003).Demographic information consist of gender, type of social media used often by Gen z and time spend on it. It is clear that majority of the respondents used

whatsapp, followed by facebook, email and YouTube for learning and spending time with. It is inferred from the data that majority of the respondents spend at least 1-3 hours daily on the social media of their preference.

Descriptive

Male	152	74.14
Female	53	25.9
Time spend on social media		
Leas than an hour	57	27.80
1 - 3 hours	125	61.27
4 – 5 hours	19	9.313
6 – 8 hours	4	1.96

Table II

Types of Social media used by Gen Z daily

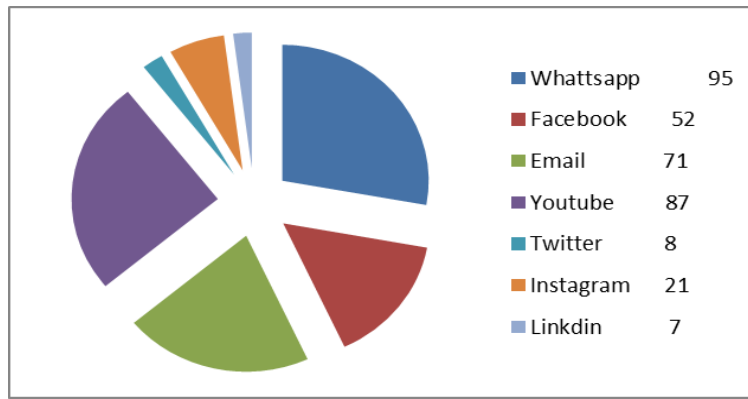


Chart I

The above data clearly indicate that whatsapp is the most common platform for sharing information among gen z, followed by face book ,you tube ,Twitter, Instagram and LinkedIn respectively. This result coincide with the result of (Bharucha, 2018;Junco,2014) where he found that majority of the postgraduate students use facebook, youtube and twitter among social medias, however there was no mention of whatsapp as an option in his study.

In order to validate the item loadings and to check the reliability of the measure employed, factor analysis was conducted for the study. The method used in the analysis is Principal Component analysis and varimax rotation .The Kaiser-Meyer-Olin measure of sampling adequacy was used to check for excessive correlations with value of .875.The reliability check showed a cronbach alpha of .866 for 17 items. The Cumulative variance explained was 56.204, the table showing total variance explained is summarized

Factor Analysis:

Component	Total	% Initial Eigen value of Variance	Cumulative %
1	6.240	31.198	31.198
2	1.466	7.331	38.529
3	1.315	6.575	45.104
4	1.150	5.749	50.853
5	1.070	5.351	56.204

Table III:Total Variance Explained

Social influence was eliminated as the cronbacs of the items put together was less than .5 .Other factors extracted includes behavioral intention, Performance expectancy, effort

expectancy, facilitating conditions and usage behavior .Table shows the Rotated Component Matrix

Factor Loading for items:

	Rotated Component Matrix ^a				
	1	2	3	4	5
PE2				.505	
PE3				.743	
PE4				.624	
BI5	.641				
BI6	.669				
BI7	.716				
UB1			.554		
UB3			.545		
UB4			.622		
UB6			.524		
EE1					.593
EE2					.522
EE3					.725
FC1		.633			
FC2		.578			
FC3		.668			

FC4	.586
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Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 11 iterations.

Table IV

As the factor loadings were not adequate to test the model fit using structural Equation modeling .The impact of the factors were extracted using regression.

correlations were statistically significant and were moderately positively correlated. There was a no significant correlation between effort expectancy and social interaction and a high positive correlation between behavioral intention and use behavior.

6. Correlation and Regression results

Correlation were computed among 5 factors extracted for a data of 205 students. The result suggests that 9 out of 10

		Correlations				
		BI_D	UB_1	EE_1	FC_1	SI_1
BI_D	Pearson Correlation	1	.644**	.418**	.411**	.286**
UB_1	Pearson Correlation		1	.322**	.419**	.298**
EE_1	Pearson Correlation			1	.373**	.070
FC_1	Pearson Correlation				1	.194**
SI_1	Pearson Correlation					1

** . Correlation is significant at the 0.01 level (2-tailed).

Table V

Multiple regression analysis was used to test the significant impact of performance expectancy, effort expectancy and facilitative conditions on behavioral intentions of students in

using social media as a learning resource. The results of the regression indicated 37% variance the predictor variables ($R^2=.37$), $F(3,205)=39.243,p<.001$.

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		.355	.335		1.059	.291
PE_1		.420	.068	.374	6.161	.000
EE_1		.243	.071	.212	3.404	.001
FC_1		.245	.069	.219	3.544	.000

a. Dependent Variable: BI_D

Table VI

Performance expectancy was the most important predictor variable, Effort expectancy and Facilitating condition are also having significant effect on Behavioral Intention. The effect of Behavioral Intention on the use behavior was tested ,the result

suggest 44% variance in the predictor variable($R^2=.42$), $F(1,205)=143.986,p<.001$.Behavioural intention is a high predictor of user behavior with a $\beta=.710$.

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		1.004	.235		4.275	.000
BI_D		.710	.059	.644	11.999	.000

a. Dependent Variable: UB_1

Table VII

7. Discussions and conclusion

Among the factors extracted ,Performance expectancy is found to be having a greater impact on behavioral intention .i.e students with high performance expectancy is most likely to use social media for learning. This result supports the study of (Venketesh et.al,2013) UTAUT model and Davis(1989) in TAM model.(Morris, Hall, Davis, Davis, & Walton, 2003).(Im, Hong, & Soo, 2011) found that performance expectations is an important factor affecting technology adoption, thus supporting the model.

The result also revealed a moderate relationship between effort expectancy and behavioral intentions. In his paper (Schwartz et al,2014) mentions “Present-day college-aged adults are known as “digital natives”; they are those who have grown up around digital communication (Schwartz et al. 2014),this is true for Gen Z who are born tech savvy, they are never seen without smartphones. The other factor that influences the behavioral intention is facilitating conditions which is found to be the least predictor of behavioral intention, which is usually insignificant in the presence of effort expectancy(Venkatash et al,2003).Unlike

developed countries, Indian infrastructural facilities are slowly developing ,hence there is a need to provide younger generations with the required facilities to adapt technology into learning. Further, the study also tested the association between behavioral intention and usage of social media by Gen z ,the result supported that behavioral intention leads to usage of social media. However, with the advancement of technology , gen Z students are slowly getting accustomed to technology based learning especially through social media as a platform. This research validates the integrated model proposed by Venketesh et.al.

Though the study is adapted from UTAUT model ,the moderation effect of extraneous variables are not tested in this

study. Further, there is scope to extent the study to check the model fit by using Structural Equation Modeling after increasing the sample size .This study was conducted among the Gen Z students of engineering colleges at Tirupathi. Therefore ,the results cannot be generalized ,as the exposure and usage of teachers and students to social media differ from that of rural, urban, semi urban depending upon the facilitating conditions. This research does not clearly tell us the role of educational institutions, especially teachers in encouraging students to use social media related leanings, there is a need for a separate study to ensure this. To conclude with social media can become an excellent platform for the new generations and teachers to learn and excel, if utilized for the learning purpose because technology is going to rule the world tomorrow.

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