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DETERMINANTS OF BEHAVIORAL INTENTION FOR USING M-LEARNING AMONG STUDENTS: CONCERNING PRIVATE UNIVERSITY IN GUJARAT

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Abstract

Recent trends in m-learning have drawn the attention of scholars globally. M-learning is simply the way of learning online by using different digital devices such as smartphones, tablets, etc. This study is being conducted in Gujarat state by considering private university students only. This study has applied a non-probability convenient sampling technique in selected regions of Gujarat state i.e. north Gujarat, south Gujarat, and central Gujarat. The questionnaires were distributed in Google form in various private universities in Gujarat. The respondents taken for the study were UG and PG students from various universities from different fields of education. This study is carried out by applying the theory of technology acceptance model i.e. UTAUT Model. UTAUT model have extended by researcher by adding few variables in to the existing model. For the purpose of analysis of the data structural equation modelling has been carried to check the relationship and to determine behavioral intention of the students for m-learning in private universities. As the result showing performance expectancy, effort expectancy, social influence, and facilitating conditions significantly influence the behavioral intention of the students for m-learning.

Keywords: *m-learning, Technical Anxiety, UTAUT model, SEM, Behavioral intention, Digitization*

1.0 INTRODUCTION

Alan Kay first presented the idea of mobile learning in the 1970s when he joined the Palo Alto Research Centre of Xerox Corporation and organized a team to create the "Dynabook," a hands-on, portable personal computer. The intention was to provide kids access to the digital world. With 650 million mobile phone users and slightly over 300 million smartphone owners, India has a large population and is the third-largest smartphone market in the world, behind China and the United States. Initially used only for phone calls, mobile phones gradually began to be utilized for other tasks, such as texting, sending videos through multimedia messaging, accessing the internet, and instant messaging. Today, they are enhanced (Khadse Kavita 2023)

Definition of Mobile-Learning

Any kind of education that takes place when a student is not in a set, predefined location or when a student uses the educational resources provided by mobile technologies.

Meaning of Mobile Learning

Mobile learning is any kind of learning that takes place via a portable handheld electronic device. It also refers to learning via other kinds of mobile devices, such as tablet computers, netbooks, and digital readers.

Background of Mobile-Learning

The idea of mobile learning originated in the 1970s when businesses like Lingua-phone began to offer language lesson recordings that teachers could listen to whenever it was convenient for them. The phrase "mobile learning" is a relatively new addition, inspired by mobile communications technology on terms like "e-learning," which more broadly describes instruction and learning facilitated by computers and other electronic devices. Mobile Education For various cultures, the word "mobile learning" might mean different things. It is different in that it focuses on learning with mobile devices and across settings, even if it is connected to e-learning, educational technology, and remote education. It is our responsibility as educators to instruct, involve, and challenge these pupils. It is necessary to include both their digital anticipation and digital literacy.

2.0 LITERATURE REVIEW

Iram A. (2021) evaluates Indian students' acceptance of social networking for educational purposes using the UTAUT model. As per study performance expectancy, effort expectancy, and social influence significantly influence behavioural intentions. In terms of simple bibliometric data, **Hwang and Tsai (2011)** reviewed studies about m-learning published in six major research journals related to technology-enhanced learning from 2001 to 2010 and reported that from 2006 to 2010 the number of articles related to MUL (Mobile and Ubiquitous Learning) almost quadrupled concerning the 2001–2005 period. These figures can be supplemented by the ones

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developed by **Hung and Zhang (2012)** and **Chee et al. (2017**) who conducted meta-analytical reviews of m-learning trends from 2003 to 2008 and from 2010 to 2015. Although these authors used different journal databases, the results also present a parallel evolution pattern in the case of the **Hung and Zhang (2012**) study and a more modest but still evolutional pattern in terms of number of publications in the period reported in the **Chee et al. (2017**) literature review.

Research Gap

After reviewing different articles it has been observed by the researcher that very few study done in the area of m-learning. Moreover specifically in Gujarat state comparative few studies have been done. Further student's intention for m-learning in the case of private universities is still not covered in existing literature or research done. To bridge these gaps this research has been conducted.

3.0 RESEARCH METHODOLOGY

Objective of the study

✓ To investigate what factors are influencing the usage and behavioural intention of m-learning among students of private university

Hypothesis of the Study:

✓ H_{01} Private university students' behavioural intentions are not significantly impacted by performance expectations, effort expectations, social influence, facilitating conditions, technical anxiety, hedonic motivation, or personal innovativeness.

Instrument

The items included in this study's instrument were taken from earlier research, where it was established that they were valid and dependable for measuring the phenomena they were intended to measure. A five-point Likert scale, ranging from strongly agree to strongly disagree, was used to measure the constructs PE, EE, SI, FC, TA, HM, PI, BI, and UB.

Original UTAUT Model

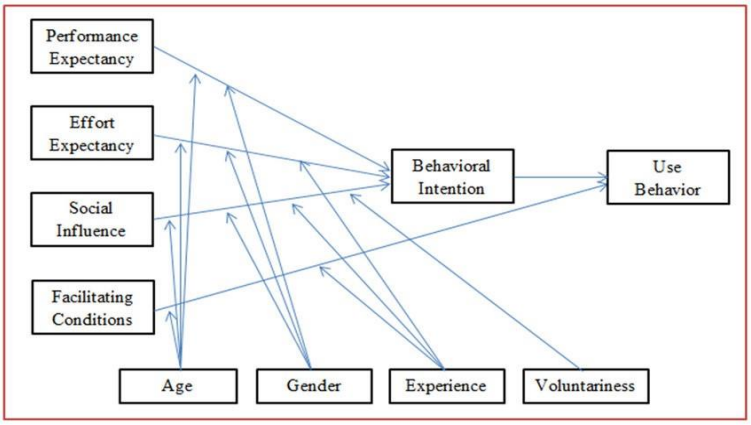

Figure: Original UTAUT model by Venkatesh 2003

4.0 DATA ANALYSIS & INTERPRETATION

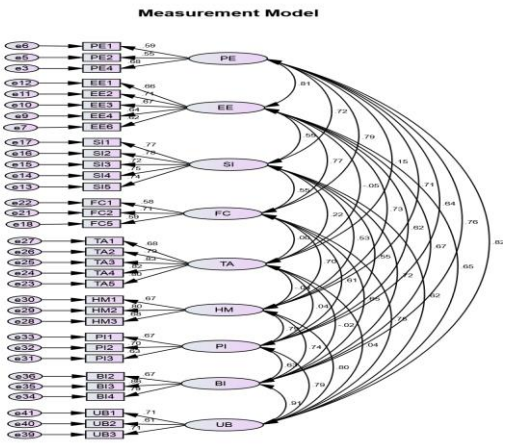

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Figure: Measurement Model

Reliability Test

Table No 01 Reliability Test

Construct	Cronbach's alpha	Composite Reliability	AVE	The square root of AVE
PE	0.87	0.85	057	0.80
EE	0.76	0.82	0.55	0.74
SI	0.78	0.80	0.65	0.85
FC	0.71	0.82	0.54	0.77
TA	0.79	0.78	0.52	0.69
HM	0.77	0.77	0.51	0.72
PI	0.75	0.84	0.62	0.79
CBI	0.80	0.83	0.61	0.78
UB	0.88	0.87	0.56	0.5

To assess convergent validity, average variance extracted (AVE) values were observed. As Table No. 1 indicated AVE values for this study range from 0.51 to 0.65, which is higher than the threshold critical level of 0.5. The AVE shows the extent to which the latent unobserved variable accounts for the variation of the indicators. The values of the square root of AVE for all latent constructs were higher than the intercorrelation of latent variables. Further Cronbach's alpha for all items is >0.7 Indicates the scale's acceptability level, which indicates internal consistency.

Goodness of Fitness Measure

Table No.02 Goodness of fit

Goodness of Fit Measures	χ2/df	GFI	NFI	CFI	TLI	RMSEA
Measurement Model	2.503	0.85	0.73	0.888	0.87	0.052
Structural Model	2.490	0.87	0.72	0.81	0.86	0.059

Table no 2 shows the goodness of fit for the structural equation model. As showing in the above table all the value of parameter are closed to the threshold limit which is shows the fitness of model for the given study. The RMSEA also looks fine as the value is below its threshold limit is 0.10, as per the table it is 0.059 which is an acceptable limit. Overall all the parameter is a good fit with model dimension.

5.0 DISCUSSION AND RECOMMENDATIONS

Structural Equation Modelling:

Structural Equation Modelling (SEM) is a statistical technique used to test and estimate causal relationships among variables. It is a comprehensive approach that combines factor analysis and multiple regression analysis. SEM allows researchers to test complex theoretical models that consist of latent (unobserved) variables and observed variables.

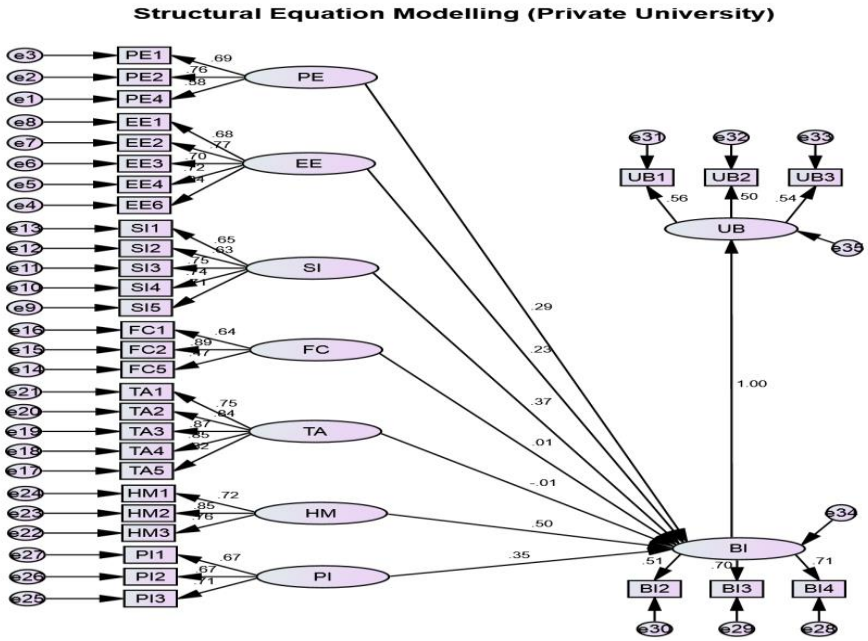

Table no. 03 SEM Assessment (Private University)

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Hypothesis	Regression Path	estimate	S.E	C.R	P-Value	Decision
H1	PE → BI	0.320	-0.9	3.33	***	Not Support
H2	EE → BI	0.233	0.78	3.004	0.03	Not Support
H3	SI → BI	0.295	0.65	4.511	***	Not Support
H4	FC → BI	0.14	0.95	0.144	0.885	Support
H5	TA → BI	-0.08	0.38	-0.20	0.842	Support
H6	HM → BI	0.403	0.70	5.734	***	Not Support
H7	PI → BI	0.274	0.69	3.986	***	Not Support
H8	BI → UB	0.796	0.124	6.413	***	Not Support

Note: *** Indicate Value is <.001

✓ As per the result, Performance expectancy influenced the behavioral intention of private university students.

✓ According to this study, EE was the most influencing determinant of BI to use an m-learning system in the case of private university students

✓ The third determinant of the study was SI, which refers to how a person perceives that others expect he/she is to use a system, which is the third influencing factor in the study. As per the SEM analysis private university students are influenced by the social influence of the people.

✓ Findings of the study also show that there is no involvement of facilitating conditions for students' behavioural intention for using m-learning for private university students. This finding is contrary to the study of (Ali et al., 2018; Masa'deh et al., 2016).

✓ To check the technical anxiety among students' technical anxiety has been added to the existing UTAUT model, which is referred to as an "anxiety and fear associated with students towards using technology". According to the study technical anxiety has no impact on students' behavioural intention for using m-learning.

✓ Hedonic Motivation which is defined as enjoyments of using particular technology, significantly influence students' behavioural intention for using m-learning. As per the result, students are more prone to use m-learning as they are enjoying learning by m-learning.

✓ Personal innovativeness strongly influences students' behavioural intention for using m-learning in private university students. Behavioural intention also proved to be significant factor in students' use behaviour for m-learning, this finding is consistent with past studies (Ali et al., 2018; Masa'deh et al., 2016).

Limitations of the study

It is important to keep in mind that this study contains limitations just like earlier ones. The method of easy non-probabilistic sampling was utilized. Therefore, it would not be fair to regard this kind of sample as a perfect representation of all Gujarat private University students. The investigation's findings are limited to students enrolled in Gujarat's private universities, so they cannot be generalized to other contexts. The small sample size means that care must be taken when extrapolating the results. Future studies ought to aim to incorporate a greater number of replies by increasing the sample size. The study's technique was quantitative and its period was cross-sectional due to the restricted resources available for this examination; if the study had used a longitudinal

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