

## **Adoption of Cloud Computing by Tertiary Level Students – A Study**

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### **Abstract**

Cloud Computing is an emerging trend in the information technology. Cloud computing provides integrated services through internet. Cloud computing is recognized as a significant cost centre. Change in technology requires continuous investment; Cloud Computing requires a minimal investment to work with. It provides easy access through virtual network on personal devices. This research study defines the behavioral approach of the Tertiary Level Students (TLS) towards the Cloud Computing adoption. The key to adoption to any technology is willingness to accept the proposed technological solution. Some theoretical models focus on individual adoption of technology whereas some have focused on implementation of infrastructure. UTAUT2 is one of the model focuses on individual behavior approach towards adoption. This study is based on the theoretical UTAUT2 model pertaining to adoption of Cloud Computing. With the help of UTAUT2 model Venkatesh et.al. UTAUT2 model includes the behavioral intention and technology use. This research study attempts to identify the influencing factors contributing to the Tertiary Level Students (TLS) towards adoption of Cloud Computing. This study addresses the factors including behavior intention, usage behavior, performance expectancy, effort expectancy, social Influence, facilitating conditions, hedonic motivation, price value, and habit. Individually differences- gender, expenditure and experience are hypothesized having an effect on behavioral intention and usage behavior with respect to Cloud computing adoption. The theoretical and managerial implication of this study is discussed.

Keywords : Unified Theory Acceptance and Use of Technology (UTAUT), UTAUT2, behavior intention, usage behavior, performance expectancy, effort expectancy, social Influence, facilitating conditions, hedonic motivation, price-value, habit, gender, expenditure, experience, Cloud Computing Adoption.

### **Introduction**

Cloud Computing is an emerging trend in the information technology. Cloud technology platform is recommended as a viable platform for a business, to manage and plan the internal and external activities. It is a demand driven platform which can be accessed from any-where any-time on a shared pool of configurable computing resources viz. networks, servers, storage, applications, and services. These resources can rapidly provision and released with minimal investment and less interaction of the authorities. Cloud operational model is composed of service models and deployment models (NIST-2012: 800-145). Service models are employed for operational services whereas deployment model is a platform for the delivery of these operational services. Cloud Computing is known for its characteristics- on-demand self service approach, broad network access, resource pooling rapid elasticity and measured service. Because of it's on- demand modular architecture, technology users have adopted it for their day to day work.

Cloud computing is recognized as a significant cost centre. Change in technology requires continuous investment; Cloud Computing requires a minimal investment to work with. It provides easy access through virtual network on personal devices. These devices

include personal computer, mobile phone, smart phone, tablet et.al. Global player's viz. Google, Microsoft is providing cloud services successfully. Utility based pricing is another attractive proposition for users to adopt the same. Cloud Computing embraces the opportunity to innovate more with less efforts. Services offered by the providers are in customized mode, off the shelf and without any cost (example- Google docs, sky drives). IT services including portfolio management, investment management, online banking, shopping, data storage, CRM et.al are available on clouds. It is also used as an entertainment tool.

Many research studies have been done by the authors to identify the IT users' approach towards the technology adoption. Users from different walks of life viz. employee, students, professional's et.al. are using cloud computing any where any time. A study done by Appstate University (USA, 2011) based on the Theory Planned Behavior (TPB, Ajzen, 1991) states that the constructs viz. attitude, subjective norms and perceived behavior control are positively correlated and play an important role as influencing factor for cloud computing adoption. Cloud Computing allows students to access application software/packages, data bases, assignment and projects from off campus. It is also a dynamic resource for entertainment and data storage.

### **Objectives of the Study**

This study will address the following objectives:

1. To understand the theoretical UTAUT2 model pertaining to adoption of Cloud Computing.
2. Behavioral intention and behavior usage are highly correlated predictors of Tertiary Level Students (TLS) towards adoption of Cloud Computing.
3. PE, EE, SI, FC, HM, PV and HB individually have a significant role for adoption of Cloud services by the Tertiary Level Students (TLS).
4. Gender, experience and expenditure individually have a significant role for adoption of Cloud services by the Tertiary Level Students (TLS).

### **Literature Review**

The key to adoption to any technology is willingness to accept the proposed technological solution. Some theoretical models focus on individual adoption of technology whereas some have focused on implementation of infrastructure. UTAUT2 is one of the model focuses on individual behavior approach towards adoption. This study is being built on 'Unified Theory Acceptance and Use of Technology' (UTAUT2) model, originated by Venkatesh et. al. (2012). The objective of the model is to analyze the behavioral intention towards the technology adoption. Several studies have been done by the researchers by using the models viz. 'Technology Acceptance Model' (TAM) (Davis 1986, 1989, Venkatesh and Bala 2008, Davis 2000, Venkatesh et.al 2003), 'Theory of Planned Behavior' (TPB) (Ajzen, 1991), 'Theory of Reasoned Action' (TRA) (Ajzen & Fishbein, 1975) et.al. to analyze the behavioral approach towards the adoption of technology. UTAUT2 model is an extension of the UTAUT model (2003). Aim of the model is to determine the influencing factors with respect to usage behavior. UTAUT2 model includes three more constructs into the original UTAUT model (Venkatesh et.al. 2003). It is necessary to first discuss about the UTAUT model (Venkatesh et.al. 2003) as UTAUT2 is an extension of the same. UTAUT model comprises four constructs viz. performance expectancy, effort expectancy, social influence and facilitating conditions. According to Paul A Pavlou (2006), technology adoption by the students and internet consumers indicates that self efficacy and perceived behavioral control are two important factors. Other factors ease of use, knowledge, awareness et.al. are considered as secondary.

Individual user’s approach towards the technology innovation eventually influences technology adoption (Davis, 1989). Davis’s study mentions that perceived usefulness and perceived ease of use are two important factors (TAM, TAM2, and TAM3). Davis (1989) related perceived ease of use to self efficacy. TAM model inclined the impact of social / peer influence (Malhotra & Galletta, 1999). Shin (2009) stated in study “efficacy of the model changes as the technology changes”. Therefore, it is necessary to change the model to meet the new technology pace.

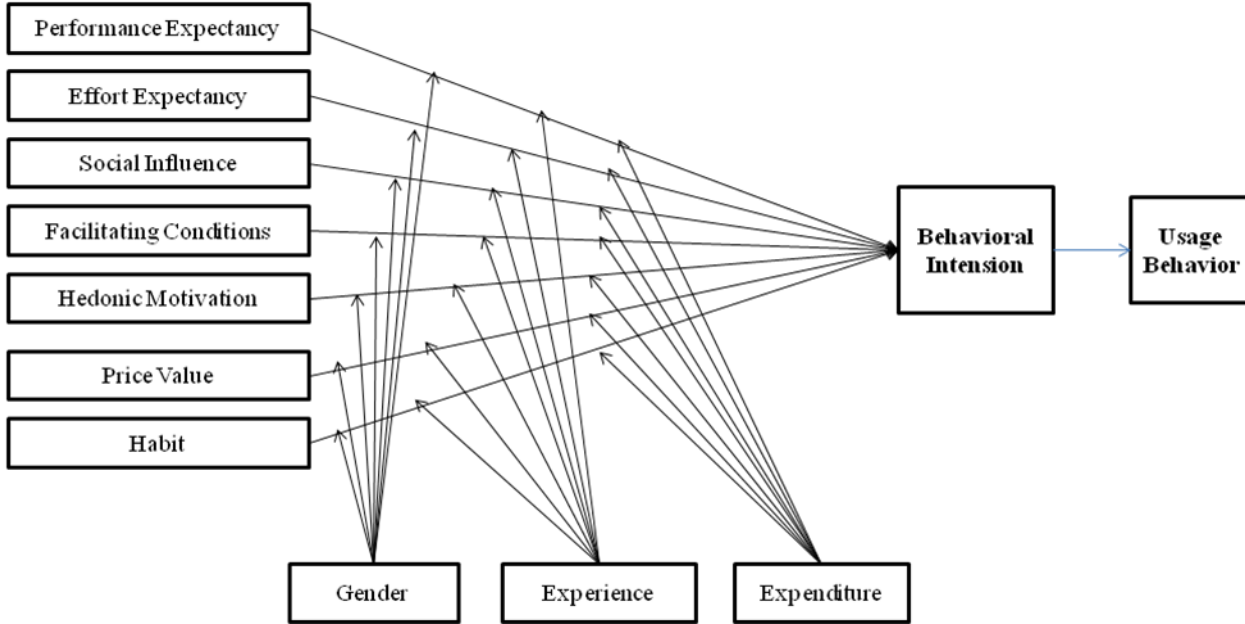
Other than the technology change, facilitating environment plays an important role in adoption of any new technology. Behavior and intention are also influenced by the environment (Morris et.al. 2005). With the help of UTAUT2 model Venkatesh et.al. (2003) gives an integrated approach which can help to develop a model for Cloud adoption. UTAUT2 model includes the behavioral intention and technology use. The important constructs are performance expectancy, effort expectancy, and social influence, facilitating conditions, hedonic motivation, price value and habit. These constructs are influenced by behavioral intention including trust. This model will help to understand the relationship between individual behavior and their preferences towards adoption of new technology (Cloud computing). It is important to discuss the definition of constructs in the UTAUT2 model to understand the research model-

<b>Construct</b>	<b>Definition</b>
Performance Expectancy(PE)	The degree to which an individual believes that adopting the technology will help him or her to increase the work performance (Venkatesh, et.al. 2012).
Effort Expectancy(EE)	The degree of ease associated with the use of the technology (Venkatesh, et.al. 2012).
Social influence(SI)	The degree to which an individual perceives that it is important others believe he or she should use the new technology (Venkatesh, et.al. 2012).
Facilitation Condition(FC)	The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system (Venkatesh, et.al. 2012).
Hedonic Motivation(HM)	It is defined as an enjoyment or happiness resultant from using a new technology and play significant part in determining new technology adoption (Brown and Venkatesh 2005).
Price Value(PV)	It refers to the cost associated with the purchase of device and service, which user has to bear (Venkatesh, et.al. 2012).
Habit(HB)	It is defined as behavior. The degree to which a person has formulated conscious plans to perform or not perform some specified future behavior (Venkatesh, et.al. 2012).
Behavioral Intention (BI)	The degree to which a person has formulated conscious plans to perform or not perform some specified future behavior. (Venkatesh, et.al. 2012).

**Table: 1 Constructs Definition**

**Research Model**

This study proposes the extended version of UTAUT model i.e. UTAUT2 model framework. The model constructs are appropriate to study the behavioral approach of individual TLS towards adoption of Cloud Computing. Model comprises seven constructs and predicts that they are highly influenced by the factors viz. gender, experience and expenditure. Intention is considered to be the antecedent of behavior (Ajzen 1995, 1991). A longitudinal study done by Venkatesh et.al (2003) explained 70% variance in behavior intention and usage by using UTAUT.



**Figure: 1- PRM**

**Abbreviation used:** Proposed Research Model- PRM, Behavior Intension – BI, Usage Behavior – UB, Performance Expectancy –PE, Effort Expectancy – EE, Social Influence- SI, Facilitating Conditions- FC, Hedonic Motivation-HM, Price Value- PV, Habit-HB.

**Hypothesis 1:** Behavioral intension and usage behavior is highly moderated factor influencing Cloud adoption by TLS.

Behavioral intention and usage behavior both factors are associated and strong predictor for technology adoption (Venkatesh et.al.2003). Ajzen (1991), supports that the behavior intention is motivational factor for the person, what he/she intends to do. Though environment impacts behavior usage, behavior intention influenced the usage. Automatic Teller Machine (ATM) usage is one of the real life examples to represent the relationship between behavioral intention and usage. If the customer perceives ATM system to be useful, it influences their behavioral intention to use the system. Their intention translates to actual usage which further becomes a pattern. Cloud computing user also extends its usage as they find it more flexible and beneficial for their work.

**Hypothesis2:** The Impact of Gender, Experience and Expenditure will moderate the effect of Performance Expectancy on behavioral intension, such that the effect will be stronger among TLS.

TLS continue to seek opportunities to rationalize the way they manage their resources. The economic benefit of cloud computing is that even though it is in its nascent stage, it is bound to grow enormously because of its potential as a cost reducer & its other competitive advantages.

There was a time when, to use files (word processing files, spreadsheets, etc.) on different computers, students needed to save the files on a thumb drive or CD-ROM disk. The drive or disk then travelled around so that information could be loaded onto other computers while holding your breath until the document or PowerPoint slide was actually retrieved. Now holding files is no longer a challenge, skydrives on clouds help to access and retrieve from anywhere. The safety, stability, and ease-of-use are important factors for adoption of cloud computing by TLS.

**Hypothesis3:** The Impact of Gender, Experience and Expenditure will moderate the effect of Effort Expectancy on behavioral intention, such that the effect will be stronger among TLS.

The greatest power of Cloud Computing has been its ability to break down geographical barrier, cost and time flexibility. It ensures that students can use technology to get the information and access to fulfill their educational needs viz. virtual visits of companies, project assignments submission et.al. no matter where they are or what time they are working. Students can share their views with the virtual World by using blogs. Due to advanced technology student's lifestyle has changed. Another example is the difficulty in getting a group of students together to plan for a collaborative project, especially if they don't stay on campus or if some of them work. Rather than finding time to meet at a central location, students can set a time; they can all agree to be online (Internet-capable place).

**Hypothesis4:** The Impact of Gender, Experience and Expenditure will moderate the effect of Social Influence on behavioral intention, such that the effect will be stronger among TLS .

A small piece of technology innovation brings potential change in the behavior of a person i.e. male or female. Cloud computing creates a scale of economy leading to significant cost savings for users (Shimbha 2010). It is being observed from a survey that women business owners are more comfortable in the digital space than their male counterparts. Accounting software company MYOB's latest poll of Kiwi (New Zealand) small and medium businesses (SMEs) shows 27% of female SME operators use a social media site to promote their enterprise, compared with 21% of men. "Increasingly we are seeing women shaping their working life around their own requirements and commitments, and the use of technology is playing a vital role in this," according to MYOB New Zealand national manager, enterprise division, Alison Fairkettle.

**Hypothesis5:** The Impact of Gender, Experience and Expenditure will moderate the effect of Facilitating conditions on behavioral intention, such that the effect will be stronger among TLS.

According to Venkatesh and Bala (2008), facilitating conditions are considered as independent environmental factor. We expect the effect of facilitating conditions on behavioral intention to be moderated by gender, experience and expenditure. Students today have various cloud computing options for using necessary software office suites, storing files and even collaborating projects and papers. The facilitating conditions of the cloud computing is a platform to share applications virtually and help them to track their valuable project assignments with their class fellows. Moreover, as compare to men, women are willing to spend more effort to overcome different constraints and difficulties to pursue their goals, while women tend to focus more on the magnitude of effort involved and the process to achieve their objectives (Henning and Jardim 1977; Rotter and Portugal 1969; Venkatesh



and Morris 2000). Thus, men tend to rely less on facilitating conditions when considering use of a new technology whereas women tend to place greater emphasis on external supporting factors.

**Hypothesis6:** The Impact of Gender, Experience and Expenditure will moderate the effect of hedonic motivation on behavioral intention, such that the effect will be stronger among TLS.

Hedonic motivation has been found to influence on technology adoption and use (Vander Haijden 2004, Thong et.al.2006). It is expected that hedonic motivation on behavioral intention is moderated by the gender, experience and expenditure. TLS prefer to experiment with new innovative technology for their betterment and use it for the ease of work. The provision of this service is a pay-as-you-go way through (largely). The popular medium of the Internet gives this service a new distinctiveness. Novelty seeking is the tendency of an individual to seek out novel information or stimuli (Hirschman 1980). Such innovativeness and novelty seeking can add to the hedonic motivation to use any product (Holbrook and Hirschman 1982). Thus, hedonic motivation will play important role in determining Adoption of Cloud Computing.

**Hypothesis7:** The Impact of Gender, Experience and Expenditure will moderate the effect of Price Value on behavioral intention, such that the effect will be stronger among TLS.

Price value is predicted as a significant factor and influenced by the gender, expenditure and experience. Cloud computing development provides opportunity to users within an affordable cost. Again, we draw from theories about social roles (e.g., Bakan 1966; Deaux and Lewis 1984) in theorizing about the differential importance of price value among men versus women and among younger versus older individuals. Existing literature suggests that men and women typically take on different social roles and exhibit different role behaviors. Particularly, men tend to be independent, competitive, and make decisions based on selective information, while women are more interdependent, cooperative, and consider more details (Bakan 1966; Deaux and Kite 1987).

**Hypothesis8:** The Impact of Gender, Experience and Expenditure will moderate the effect of Habit on behavioral intention, such that the effect will be stronger among TLS Male then Female.

Habit operates in two ways, one is prior behavior (Kim and Malhotra 2005) and other is extent to which an individual believes the behavior to be automatic (Limayem et.al. 2007). In the context of decision making, women have been found to exhibit greater sensitive towards details rather than men (e.g., Farina 1982; Meyers-Levy and Tybout 1989). Thus habit has direct effect on technology adoption. This is mainly due to the fact that men tend to process stimuli and information in a schema-based manner and tend to ignore some relevant details, while women tend to process information in a piece-meal and more detailed manner (Meyers-Levy and Maheswaran 1991).

### **Methodology & Analysis**

Tertiary Level Students (TLS-161), individuals from the Management course have been selected by using the simple random sampling. The population selected for the study is taken from Mumbai. A questionnaire has been designed with 40 questions to administer the survey to analyze the proposed study. Further, entire data is converted into electronic form and analyzed by using SPSS. First, we applied KMO (Kaiser-Meyer-Olkin) and Bartlett test to measure the sampling adequacy shown in the Table 1. KMO for the data set is .845 (table 2), which supports the factor analysis and the Bartlett's Test of Sphericity is also less than 0.05, justify the sampling adequacy.

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		<b>.845</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	396.979
	df	28
	Sig.	.000

**Table: 2**

Table 2 presents the total variance and explained factors that affect the cloud adoption among TLS. Among the 8 factors only two factors have been extracted because their eigenvalues are greater than 1 (recommended by Kaiser, 1960). When these two factors were extracted then 57.570% of the variance was explained from the analysis. 42% has remained unexplained (table 3).

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.578	44.726	44.726	3.578	44.726	44.726	3.576
2	1.028	12.844	57.570	1.028	12.844	57.570	1.028
3	.798	9.975	67.546				
4	.764	9.547	77.093				
5	.639	7.983	85.076				
6	.521	6.507	91.583				
7	.421	5.264	96.847				
8	.252	3.153	100.000				

*Extraction Method: Principal Component Analysis.*

*a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.*

**Table: 3**

Table 4 shows the association of variables by using Pearson correlation. The factors are labeled considering the strength of association with the variables. Each variable is significantly contributing except Habit.

**Correlations Matrix**

	PE	EE	SI	FC	HM	PV	HB	BI
PE	1.00							
EE	.390**	1.00						
SI	.277**	.382**	1.00					
FC	.233**	.393**	.334**	1.00				
HM	.419**	.343**	.388**	.475**	1.00			
PV	.434**	.352**	.323**	.440**	.473**	1.00		
HB	0.02	0.04	-0.05	0.02	0.06	0.07	1.00	
BI	.541**	.422**	.395**	.518**	.693**	.638**	0.06	1.00

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

**Table: 4**

Table 5 represents the KMO (Kaiser-Meyer-Olkin) to analyze the adequacy of the factors including usage behavior. KMO of the twelve factors is 0.820. It justifies that the presence of factors viz. usage behavior, gender, expenditure and experience contribute to the adoption of Cloud Computing.

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		<b>.820</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	608.132
	df	66
	Sig.	.000



**Table: 5**  
**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.229	35.244	35.244	4.229	35.244	35.244	4.225
2	1.300	10.831	46.075	1.300	10.831	46.075	1.311
3	1.189	9.912	55.987	1.189	9.912	55.987	1.200
4	1.026	8.548	64.536	1.026	8.548	64.536	1.060
5	.834	6.954	71.489				
6	.795	6.627	78.116				
7	.622	5.185	83.301				
8	.581	4.844	88.145				
9	.522	4.351	92.496				
10	.425	3.538	96.034				
11	.269	2.243	98.277				
12	.207	1.723	100.000				

*Extraction Method: Principal Component Analysis.*

*a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.*

**Table: 6**

Table 6 represents that the 64.536% variance is explained while including the four factors i.e. usage behavior, gender, experience and expenditure. It also states that the presence of these factors will not make any difference in the statistics. Similarly, Table 6 also shows that usage behavior and behavior intention are positively influenced by the PE, EE, SI FC, HM and PV. Habit has shown less influence.

**Table: 7**  
**Correlation Matrix**

	UB	BI	Gender	Experience	Expenditure	PE	EE	SI	FC	HM	PV	HB
UB	1.000											
BI	.640	1.000										
Gender	.019	-.150	1.000									
Experience	-.014	-.060	.203	1.000								
Expenditure	-.069	-.016	-.098	.133	1.000							
PE	.319	.541	-.023	.152	.064	1.000						
EE	.484	.422	-.007	.155	-.062	.390	1.000					
SI	.448	.395	.009	.107	-.204	.277	.382	1.000				
FC	.579	.518	-.030	.098	-.034	.233	.393	.334	1.000			
HM	.686	.693	.013	.013	-.096	.419	.343	.388	.475	1.000		
PV	.571	.638	.013	.053	-.010	.434	.352	.323	.440	.473	1.000	
HB	.101	.058	.065	.086	-.012	.016	.041	-.053	.018	.064	.072	1.000

**Table: 8**

**Hypothesis Testing**

Based on the existing literature (Venkatesh et.al. 2003), it is considered that behavior intention and use of technology are closely associated. Behavior intention influences users to use or adapt technology. Ajzen, (TPB, 1991) suggests that behavior intention is the most influential predictor of behavior.

Hypothesis	Relationship	Result
Hypothesis 1	BI □ UB	Supported based on existed research (Ajzen (TPB 1991) & Venkatesh et.al. 2003)
Hypothesis 2	PE □ BI	Supported
	PE □ Gender	Not Supported
	PE □ Experience	Not Supported
	PE □ Expenditure	Not Supported
Hypothesis 3	EE □ BI	Supported
	EE □ Gender	Not Supported
	EE □ Experience	Not Supported
	EE □ Expenditure	Not Supported
Hypothesis 4	SI □ BI	Supported
	SI □ Gender	Not Supported
	SI □ Experience	Not Supported
	SI □ Expenditure	Not Supported
Hypothesis 5	FC □ BI	Supported
	FC □ Gender	Not Supported
	FC □ Experience	Not Supported
	FC □ Expenditure	Not Supported
Hypothesis 6	HM □ BI	Supported
	HM □ Gender	Not Supported
	HM □ Experience	Not Supported
	HM □ Expenditure	Not Supported
Hypothesis 7	PV □ BI	Supported
	PV □ Gender	Not Supported
	PV □ Experience	Not Supported
	PV □ Expenditure	Not Supported
Hypothesis 8	H □ BI	Not Supported
	H □ Gender	Not Supported
	H □ Experience	Not Supported
	H □ Expenditure	Not Supported

## Discussion

This research study examines the factors that influence the adoption and actual use of Cloud Computing by TLS. Study follows the modified UTAUT (UTAUT2) model as base for analyzing the factors. This study contributes to literature on adoption of Cloud Computing in several ways.

**Performance Expectancy** is defined as the degree to which Cloud Computing will provide benefits to TLS. The Total percentage Variance by PE has been calculated by Extraction Method – Principal component analysis and was found to be 44.726% , which is a very huge contributor for adoption of cloud computing. The results have shown that performance expectancy is an important antecedent of technology usage in TLS. TLS have the option of using SAAS, PAAS, IAAS as means to use cloud computing .However according to the findings it was found that Gender& Experience does not have any impact on the link between PE & BI. On the bases of Correlation matrix (Table 3, 4 & 7) it's been found that PE is significantly correlated at 0.01 level with all the variable except HB (Habit) & there is high positive correlation between PE & BI.

**Effort Expectancy** is defined as the degree to which TLS Cloud Computing is easy to use .The Total percentage Variance by EE has been calculated by Extraction Method – Principal component analysis and was found to be 12.844%. The results have shown that Gender & Experience does not have any impact on the link between EE & BI. On the bases of Correlation matrix (Table 3, 4 & 7), its being found that EE is significantly correlated at 0.01 level with all variable except HB (Habit).

**Social Influence** is defined as the extent to which the TLS are influenced by important others such as family and friends in Adopting Cloud Computing .The Total percentage Variance by SI has been calculated by Extraction Method – Principal component analysis and was found to be 09.975% In the original UTAUT model, social influence was found to have no significant direct relationship with the behavioral intention to adopt a technology, while it was significant when moderators such as gender, age, voluntarism, and experience were included. The results have shown that Gender& Experience does not have any impact on the link between SI & BI. On the bases of Correlation matrix (Table 3,4 & 7) it's been found that EE is significantly correlated at 0.01 level with all the variable except HB (Habit) where it is negatively correlated.

**Facilitating conditions** are defined by Venkatesh et al. (2012) as consumers' perceptions of the resources and support available to behavioral performance. The Total percentage Variance by FC has been calculated by Extraction Method – Principal component analysis and was found to be 09.547%. The results have shown that Gender& Experience does not have any impact on the link between FC & BI. On the bases of Correlation matrix (Table 3,4 & 7), it's being found that EE is significantly correlated at 0.01 level with all the variable except HB (Habit) & there is high positive correlation between FC & BI besides been less contributor in component analysis. In UTAUT, facilitating conditions were theorized to determine the technology use. In UTAUT2 however, facilitating conditions were examined and found to influence the behavioral intention to use a technology as well as the actual technology usage. As this study adopts the UTAUT2 instead of the UTAUT, we examined the relationships between facilitating conditions and behavioral intention.

**Hedonic Motivation** is stated as a pleasure (use of cloud computing for fun) by the researchers (Van der Haijden 2004; Thong et,al. 2006). Total Variance is being calculated by Extraction Method for the HM – Principal component analysis and was found to be 07.983%.

It has been found that hedonic motivation is one of the factors that play a key role for motivating the TLS for Cloud computing adoption. The same is indicated by the correlation matrix (Table 3, 4 & 7). The scope of Cloud computing is widening, which adds value to our argument. Based on the experience TLS will use more Cloud technology for their day to day work.

**Price Value** is defined as an influencing factor ,as TLS fraternity pays more attention to the price ( as observed from the analysis) due to their dependence on family/parents for finance. It is found that TLS are sensitive about expenses made by them. The total Variance calculated by Extraction Method for PV– Principal Component analysis and was found to be 06.507%. There is no gender influence observed (Table 3,4 & 7) among TLS towards the price value. Intention to adopt Cloud computing is observed based on the experience and its applications.

**Habit** is directly related to the intention. If TLS perceive the change then it may impact their habit. Habit can change based on the experience. Habit shows an indirect effect (Table 3, 4 & 7) on the behavioral intention and other variables viz. gender, experience and expenditure. However the relationship is not statistically significant. According to the hypothesis testing (Table 8) indicates that the gender, experience, expenditure and habit do not help on the behavior intention for adoption of Cloud Computing.

Habit is one such factor, which is highlighted by the Harry Triand in his 'Theory of Interpersonal Behaviours' (TIB, Triand's 1977) and is being seen as primary and significant relationship. H. Triand mentioned in the study that even a small amount of variance may be socially important, if the behavior intention in question is critical. Another study also indicates that intention does not always matter (Moez L.,Sabine H., and Wynne C., 2001). Habit plays a contingent role on IT (information technology) usage behavior. It has also been found in this current study, that habit does not play any significant role for adoption of Cloud Computing.

## **Conclusion**

The current study summarizes that TLS approach towards the Cloud Computing adoption is influenced by performance, Effort expectancy hedonic motivation and price value. Hedonic motivation shows strong association with behavioral intention. Cloud Computing comprises with many feature but willingness to adopt the same is influenced by price value. TLS fraternity is more concerned about the expenses and makes best use of the money spent by them. In current scenario it has been observed that price value is important in context of adoption of Cloud Computing by TLS. Acceptance or adoption of any new technology requires usefulness and satisfaction. Usefulness and satisfaction are two aspects but complex to define. The definition varies based on the users. Venkatesh et.al. (2003) draws attention on the 'Intention to Use' is influenced by PE, FC, EE, SI, HM, PV and habit. Gender, age and experience act as moderators. In a nutshell, the finding indicates that Adoption of Cloud Computing among TLS fraternity is based on technology features which can make their daily activities easier. However, the readers of this research paper should be aware that the population is drawn from the management students of Mumbai. Therefore the results cannot be generalized to the entire population of TLS. We hope this study serves as a first step in interest of inquiries towards the adoption of Cloud Computing among TLS.

## References

1. Ajzen, I., "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Processes* (50:2), 1991, pp. 179-211.
2. Ajzen, I., "Residual Effects of Past on Later Behavior: Habituation and Reasoned Action Perspectives," *Personality & Social Psychology Review* (6:2), 2002, pp. 107-122.
3. Ajzen, I., and Fishbein, M., "Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes," *European Review of Social Psychology* (11:1), 2000, pp. 1-33.
4. Ajzen, I., and Fishbein, M. "The Influence of Attitudes on Behavior," in *The Handbook of Attitudes*, D. Albarracín, B. T. Johnson, and M. P. Zanna (eds.), Mahwah, NJ: Erlbaum, 2005, pp. 173-221.
5. Bandura A., "Social foundations of thought and action: A social cognitive theory". Englewood Cliffs, NJ: Prentice Hall, 1986.
6. Davis F. D., " Perceived usefulness, perceived ease of use and user acceptance of information technology". *MIS Quarterly*, Vol. 13, 1989, pp. 319-340.
7. Gupta, B., Dasgupta, S., and Gupta, A., " Adoption of ICT in a Government Organization in a Developing Country: An Empirical Study," *Journal of Strategic Information Systems* (17:2), 2008, pp. 140-154.
8. Hasan S., Ismail N., Yonsharlinawati W., Jaafar W., Ghazali K., Budin K., Gabda D., and Samad A.S.A., "Using Factor Analysis on Survey Study of Factors Affecting Students' Learning Styles", *International Journal of Applied Mathematics and Informatics*, (1:6), 2012, pp. 33-40.
9. Hirschman EC., "The Creation of Product Symbolism", NA - Advances in Consumer Research Volume 13, eds. Richard J. Lutz, Provo, UT : Association for Consumer Research, 1986, pp. 327-331.
10. Hirschman EC., Holbrook MB., "Hedonic Consumption: Emerging Concepts, Methods and Propositions", *Journal of Marketing*. 01, 46(3), 1982, pp. 92-101.
11. Lin, C. P. and Anol, B., "Learning online social support: An investigation of network information technology based on UTAUT". *Cyber psychology and Behavior*, 11(3), 2008, pp. 268-272.
12. Ong J.W., Poong Y.S., Ng T.H., "3G Services Adoption Among University Students: Diffusion of Innovation Theory," *Journal of Communication of the IBIMA*, (3), 2008, pp. 114-120.
13. Malhotra, Y., & Galletta, D. F., "Extending the technology acceptance model to account for social influence: Theoretical bases and empirical validation", *Proceedings of the 32nd Hawaii International Conference on System Sciences*, ISBN 0-7695-0001-3, 1999, pp. 1-14.
14. Moez L., Sabine H., and Wynne C., "Intention Does not Always Matter: The Contingent Role of Habit on IT Usage Behaviour", *The 9th European Conference on Information Systems Proceedings*, 2001, pp. 273-286.
15. Morris, M. G., Venkatesh, V., and Ackerman, P. L., "Gender and Age Differences in Employee Decisions about New Technology: An Extension to the Theory of Planned Behavior," *IEEE Transactions on Engineering Management*, (52:1), 2005, pp. 69-84.



16. Mustafa A., Michael G., “The moderating Influence of Device Characteristics and Usage on User Acceptance of Smart Mobile Devices”, *23<sup>rd</sup> Australian Conference on Information Systems Proceedings*, 2012, pp. 1-10.
17. Mell P., Grance T., “The NIST Definition of Cloud Computing”, *NIST US Department of Commerce, Special Edition 800-145*, 2011, pp.1-3.
18. Pavlou PA., Fygenson M., “Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior”, *MIS Quarterly* (30:1), 2006, pp.115-143.
19. Raman A., and Don Y., “Preservice Teachers’ Acceptance of Learning Management Software: An Application of the UTAUT2 Model”, *International Education Studies: Canadian Center of Science and Education*, ISSN 1913-9020, (6:7), 2013, pp.157-164.
20. Shaughnessy, J. J., Zechmeister, E. B and Zechmeister, J.S, “Research methods in psychology”. Seventh edition. New York: McGraw-Hill, 2006.
21. Venkatesh, V., “Determinants of perceived ease of use: Integrating perceived behavioral control, computer anxiety and enjoyment into the technology acceptance model”. *Information System Research*, 11(4), 2000, pp. 342-365.
22. Venkatesh, V., and Davis, F. D., “A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies,” *Management Science* (46:2), 2000, pp. 186-204.
23. Venkatesh, V., and Morris, M. G., “Why Don’t Men Ever Stop to Ask for Directions? Gender, Social Influence, and Their Role in Technology Acceptance and Usage Behavior,” *MIS Quarterly* (24:1), 2000, pp. 115-139.
24. Venkatesh, V., Davis, F. D., and Morris, M.G., “Dead or Alive? The Development, Trajectory and Future of Technology Adoption Research,” *Journal of the AIS* (8:4), 2007, pp. 268-286.
25. Venkatesh, V., Morris, M. G., Davis, G. B., and Davis, F. D., “User Acceptance of Information Technology: Toward a Unified View,” *MIS Quarterly* (27:3), 2003, pp. 425-478.
26. Venkatesh, V., Thong, J Y.L., Xin X., “Consumer acceptance and use of information Technology: extending the unified theory of acceptance and use of technology,” *MIS Quarterly Vol. 36 No. 1*, 2012, pp. 157-178.
27. Yi, M. Y., Jackson, J. D., Park, J. S., and Probst, J. C., “Understanding Information Technology Acceptance by Individual Professionals: Toward an Integrative View,” *Information & Management* (43:3), 2006, pp. 350-363.