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Students' Acceptance and Adoption of Mobile Learning Systems in Higher Education

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***Abstract*- The Mobile learning is creating sharping knowledge and give suitable result. It can useful for creating capabilities of students or learner people. Student can learn the thing anywhere and anytime. Using mobile learning cost can be decrease and the capabilities can be increase. When wireless technology can development and mobile applications also increase so it can help of many people to study like educators, students, teachers and many more people. Now these mobile devices are eye catching and it is one of the novice arena of research. The research aims to examine the factors that can influence the intention of using mobile learning among higher education's students in Nepal. M-leaning has not been widespread in developing countries like Nepal, enriching conventional learning by the extensive use of mobile device is possible in Nepalese institutes of higher educations. If teachers and institutes provide the guidance to use mobile technology, it can change the pedagogy, which supports the teacher. Therefore, M-learning has the potential of being the next prevalent channel of educations in both formal and informal system. To achieve the objective to a survey was conducted among maximum range of 200 students in Kathmandu valley students or out of valley. The research focuses the perceptions to apply unified theory of acceptance and use of technology model (UTAUT). The UTAUT model derived the theoretically integrated model could be applied to study the intentions for implementations of M-learning.**

Keywords: - M-learning; Higher educations; Intension; Developing Countries; UTAUT

I. INTRODUCTION

Science and technology has brought drastic change in the various aspects of life where the learning is also changing. The use of mobile device is increasing all over the world rapidly. It can be appeared as the additional new approach to existing method of learning. Due to the advancement of information, communications and technology (ICT), all the persons have personal mobiles and subsequently the mobile applications are developed to support anytime and anywhere to promote learning program and support teaching through the use of wireless internet and mobile device including personal digital assistants, smart phone, iPad, etc. Mobile learning expected to become one of the most effective ways of delivering higher education tools in future. Mobile learning is the new creating, easiest and the new platform to learn.

Mobile learning can provide students opportunity to explore and experience in the first way M-learning has been introducing as potentially powerful enable tool for educations change and reform. i.e from traditional educations to modern educations. Likewise, the e-learning, m-learning facilities the student not only class but also in the outside of the class anytime and anywhere. It helps the students exchange information and knowledge to others moreover, m-learning provides a synopsis of learning such as research strategies trends approaches design for syllabus integrations as well as professional development along with learning and training. in additions by using the mobile technology student can identify the topic, find the course related content, and can analyze the problems. Part and partial, it is able to support the course relate with the real world practice. Hence, m-learning covers almost all fields of teaching and learning, that enables evaluating the effectiveness in addressing educational necessities and problem in performance.

Now, m-learning has been practices in Nepal as a reliable method of teaching since it can do a lot of merits to the students such as, attending school register, note making and taking. consequently, m-learning is able to remove traditional classroom, scribbling use whiteboard coping quickly a thing of the part. It can replace books and notes engaged with fun also combining with gaming and learning of effective way. higher educations is planning and executing learning in mobile devices.

The role of mobile device in education an individual's personal growth, skill and development. To use smart mobile phone, it led to the creation of verity of researcher in higher educations to develop the content of theories as learning method. for example, it offered a theory sharpness efficiency which stands out as a conversation and mobile learning. There is some suitable mobile learning aspect, some as:

M-learning helps to make students self-motivates and self-confident.

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- M-learning helps to make students self-motivates and self-confident.
- Broaden the range of students of their work.
- Links to other learning and to real-world experience and situations.
- M-learning helps to develop self-study habit and provides freedom in learning.

Mobile learning is to gain knowledge everywhere at same time and movably which is with m-device such as mobile phone, PDAs and iPODs. People can learn on anywhere, anyplace and any time when they want to learn, they can't use the mobile but they choose books, laptop computers and other things. Mobile devices are not likely to be their main choice. mobile is their second alternative. Mobile is in maximum use for checking the mail, writing the SMS and calling the phone etc. in the context of Nepal, people mostly use mobile phone just for entertainment. People listen to music and the radio, watch video, browse the internet and update the Facebook.

- What are the factors/challenges that affect to use the mobile learning systems in higher level college education?
- Are these independent variables significant predictors of the behavioral intention to use M-learning: performance expectancy, social influence, perceived ease of use, and facilitating conditions?

The research will be conducted in Kathmandu metropolitan city to study the behavior intension to adopt the m-learning based on UTAUT model. The objective is:

- to test the determinants of the acceptance and use of mobile learning in higher level college students.
- to suggest the possible solutions and to promote the use of M-learning.

II. LITERATURE REVIEW

Mobile learning supports learning communities where students can collaborate on a number of educational problems, promoting high-level learning[1]. These claims are consistent with other studies [2] which report that mobile devices are useful in providing instant and continued access to information, learning materials, assessments and opportunities for communication, as well as increasing student engagement. Mobile learning is a continue version of e-learning by using mobile technology [3]. E-learning is defined as learning experiences to support individual learning with various types of computer technologies [4]. Thus, m-learning hug many features of e-learning such as multimedia contents and communications with other students [5], but it is unique in terms of flexibility of time and location [6].

M-learning supports individual learning by allowing students their own speed, convenience and place. It enables to collaborative to learn when students use mobile learning devices it can easily interact and communicate with other students and teachers. also it supports informal learning, and allows students to learn out of class at their convenience. Some students are not use to mobile to use learn because of some limitations of mobile device. There are some technical limitations of mobile devices [7], such as the small screens with low resolution display, inadequate and low memory, slow network speeds and dis-connectivity, and lack of standardization and comparability. Traxler commented the following on mobile learning spaces: "Mobile devices demolish the need to tie particular activities to particular places or particular times. [8] They reconfigure relationships between public and private spaces, and the ways in which these relationships are penetrated by virtual spaces. Virtual communities and discussions were previously mediated by static networked PCs in dedicated times, places and spaces. Now, mobiles propel these communities and discussions into physical public and private spaces, forcing changes and adjustments to all three as we learn to manage a more fluid environment. (p. 59)"

The unified theory of acceptance and use of technology (UTAUT) is a Technology Acceptance Model formulated by Venkatesh and others in "User acceptance of information technology: Toward a unified view". [9] The UTAUT aims to explain user intentions to use an information system and subsequent usage behavior. The theory holds that there are four key constructs: Performance expectancy, Effort expectancy, Social influence, and Facilitating conditions.

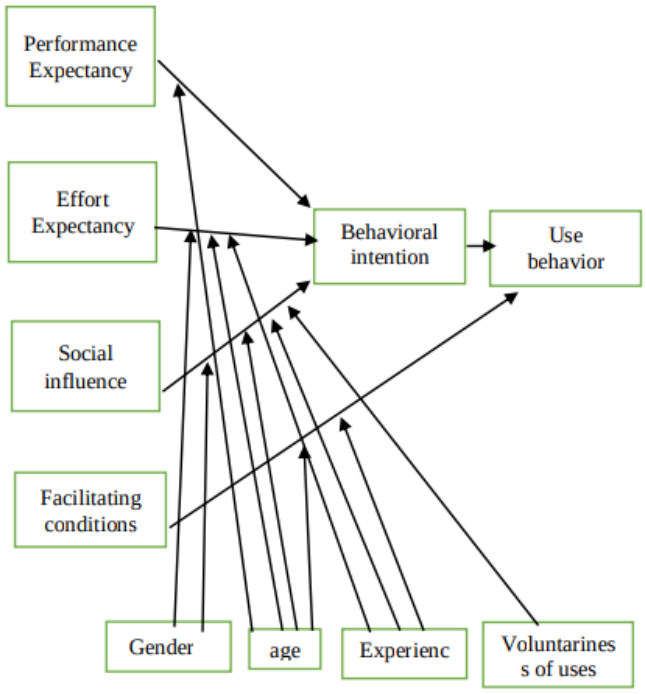

Fig. 1. UTAUT model

III. METHODOLOGY

A. Conceptual model

This model study to developed the Intension to adopt of m-learning basic in UTAUT model. The model proposes is show the relations between independent variable and dependent variable specifically, it is assumed the relationship between performance expectancy and intension to adopt m-learning. Also there could be a link between social influence and adopt m-learning. It is also evident from model that a relationship is proposed between preserved ease of use and facilitating conditions to adopt m-learning. In additions, the

model also seeks to test the influences of the four independent variables on the dependent variables.

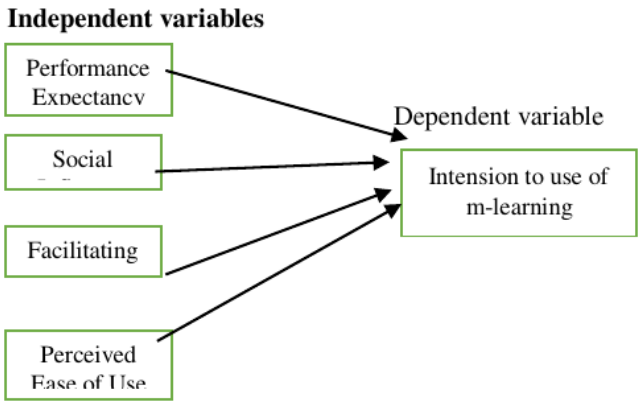

Fig. 2. Theoretical framework for the studying

UTAUT model is applied to investigate the acceptance of M-learning in Nepal. In this moderating effect of age, gender, experience and voluntaries of use have been removed because all the sample participants belong to one particular type of higher educations. The researcher removed the moderate effective age, gender, volunteer of use and experiences. Where it can be not a highness in higher level educations where it can show relations all of one significant type to use of mobile learning. In this study each of the UTAUT constructs has four items, which are analyzed.

B. Tools

The following statistical tools were used for analysis of collected data.

- Descriptive analysis: - it is used to measure frequency of data.
- Reliability analysis: -it is measure which are free from error. To measure the reliability of instruments and constructs. Cronbach's Alpha (α)was used.
- Correlations analysis: - it is measure which a change in the independent variables will result in a change the dependent variable. Pearson correlation is used.
- Regression analysis: it is analyzing different variable with focus on the relations between a dependent variable and one or more independent variable. Multivariate linear regression is used.

IV. ANALYSIS, RESULT AND DISCUSSION

A. Descriptive Analysis and reporting

The study used the statistical packages for social science (SPSS)version 25 to analyses the collected data.

TABLE I. DESCRIPTIVE ANALYSIS: RESPONSE ON BASICS ABOUT M-LEARNING

Questions	Yes(%)	No(%)
Are you Aware of the concept of m-learning systems?	95(47.5)	105(52.5)
Does mobile technology used for education transformations.	191(95.5)	9(4.5)
Does m-learning improve or help in quality educations systems.	177(88.5)	23(11.5)
Does M-learning can replace traditional face to face class.	107(53.5)	93(46.5)
Have you ever used Mobile learning system?	95(47.5)	105(52.5)

B. Reliability analysis

The results of the Cronbach's Alpha (α) co-efficient for the 23items instrument were 0.722.

TABLE II. RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.722	23

Cronbach's Alpha Is measure of internal consistency, that is how closely relates a set of item are as a group.

C. Correlations analysis

Correlation is a measure of the strength of a relationship between variables. Table 4.4 provides a summary of person of correlations analysis to test the relationship among the UTAUT model constructs and intension to adopt m-learning use.

TABLE III. CORRELATIONS ANALYSIS

		ITAM	PE	SI	FC	PEOU
ITAM	Pearson Correlation	1	.114	.259**	.190**	.239**
	Sig. (2-tailed)		.108	.000	.007	.001
	N	200	200	200	200	200
PE	Pearson Correlation	.114	1	.361**	.306**	.391**
	Sig. (2-tailed)	.108		.000	.000	.000
	N	200	200	200	200	200
SI	Pearson Correlation	.259**	.361**	1	.341**	.378**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	200	200	200	200	200
FC	Pearson Correlation	.190**	.306**	.341**	1	.410**
	Sig. (2-tailed)	.007	.000	.000		.000
	N	200	200	200	200	200
PEOU	Pearson Correlation	.239**	.391**	.378**	.410**	1
	Sig. (2-tailed)	.001	.000	.000	.000	
	N	200	200	200	200	200

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

D. Regression Analysis

In this model researcher analyzed the Multivariate linear regression analysis is used to assess the effort of PE, SI, FC and PEOU on intention (ITAM) to adopt m-learning in higher educations. Where Regression is used to predict the value of one variable based on the value of a different variable. Multiple regression also allows to determine the overall fit (variance explained) of the model and the relative contribution of each of the predictors to the total variance explained.

TABLE IV. SHOWS THE MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error the Estima	R Square Change
1	.309	.095	.077	.96774	.095

a. Predictors: (Constant), PEOU, SI, PE, FC
b. Dependent Variable: ITAM

R is the correlation between the predicted values and the observed values. R is the value of predictions value between the independent and dependent variable. When researcher fitted a linear model using the regression analysis, then it need to determine how well the model fits the data. Those coefficients (R, R^2, adjusted R) quantify the 'model quality' can be explained by the model.

E. Conformations of Hypothesis

Regression analysis was used to determine the standardized and non-standardized coefficients for the constructs entered in the model. The Coefficients table provides us with the necessary information to predict ITAM from all independent variables, as well as determine whether income contributes statistically significantly to the model (by looking at the " Sig." column).

TABLE V. REGRESSION COEFFICIENTS [A]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	4.843	.513		9.434	.000
	PE	-.029	.061	-.036	-.471	.638
	SI	.127	.052	.190	2.458	.015
	FC	.038	.039	.074	.964	.336
	PEOU	.081	.043	.151	1.881	.021

a. Dependent Variable: ITAM

V. RESULT AND DISCUSSION

The mobile learning systems in higher educations the researcher major task is to find the intension to adopt the mobile learning in the higher educations. The main purpose of this research is to study on student acceptance of m-Learning for higher education in Nepal. And also to find out intension adopt a mobile learning in higher level collage. The researcher is investigating the factor who can help the students adopt the m-learning in educations and how can they learn which content to provide to use m-learning in educations. However, its full-scale implementation can be achieved if the perception and attitude towards its acceptance are studied from the viewpoint of higher education teachers.

TABLE VI. FINDING COEFFICIENT PATH

s.n	Construct	Finding
1.	Performance Expectancy	0.638
2.	Social Influence	0.015
3.	Perceived ease of use	0.021
4.	Facilitating Conditions	0.336
5.	ITAM	0.309

VI. CONCLUSION

Mobile learning has become a crucial learning method in the field of learning and teaching in modern society. The outcomes of mobile learning have indicated the socio-cultural influence up on the effective learning method in educational institutional however, the findings represented the opinions of mostly in higher levels college students from different collage and different level in Kathmandu valley. It was also demonstrated that most of students were not aware of the mobile technologies. Mobile learning is useful in their learning environment. the facilitating conditions is not available to all of the students for instant some students don not have smart phone and access the bandwidth internet service, proper infrastructure and resource. Performance expectancy is useful of the adopt the mobile learning.

Furthermore, Organizational and educational sector member can establish the policies to encourage learning process such as training, implanted the work, integrated the project team to design, research and practice to regular the learning, and regulate utilizes the research, seminars and workshop can increase to understanding, prepare and understand to support family members or other etc. Mobile learning can promote to highly increase this point.

VII. RECOMMENDATION

The study demonstrates the contemporary circumstances and situations of mobile phone integrated learning in higher level educations in Nepal and it also presented the prospects implications of m-learning in educational institutions. This researcher attempts to fulfill the expectations of students and towards the m-learning to boost up this performance. However, students have been facing many challenges due to the lack of facilitating conditions and social cultural impact on the usage of m-learning. The further measures to promote the integrations of M-learning. Students are stand for to use m-learning because of reason i.e. it is use to learn and increase of performance. The research has mentioned challenges and prospects of m-learning by providing multiple some instances of creative mobile phone integrations in higher level study. Such as: -

- Can really students get first priority using mobile device in study?

- Can social influence, organizations faculty member or parents can help or not to promote the mobile learning?
- Can it replace the books or notes or face to face class? How effect of using m-learning?
- What are everybody perceptions of such uses?

The further study seeks to answer the above mentions questions

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