

Exploring the Critical Factors Influencing Behavioural Intention to Use Educational Applications in India: A Lesson from an Emerging Market

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ABSTRACT

The purpose of this study is to inspect the acceptance of educational application by the students in higher education. The (TAM) technology acceptance model was extended to include excitement to use technological devices laptops ipad's for educational application operationalized as enjoyment as well as social influence in a field study involving the adoption of technological devices. Survey data were collected from 170 college students and analysed using TAM). The result indicates that excitement and performance expectations were important factors influencing the acceptance of educational application in this context. For those engagement in the educational application learning pilot project upon which the study was based, the use of the TAM and result provided a theory based empirical approach to support the evaluation that the pilot project aims were achieved. All-inclusive, students perceived technological devices to be useful and entertaining tools for fulfil tasks and enhance learning outcomes.

Keywords: Excitement; laptops technological devices; TAM technological acceptance model.

Information technology has changed at a mass level in 1990s and learning through technological devices were started. Education application is defined as the combination of mobile portable hand-held devices along with those technologies in which there is no need to attach wires that is wireless network technologies to increase the efficiency and efficacy of education and learning and also this is the platform for the students to learn anywhere and anytime (O' bannon & Thomas, 2014).

According to (Abachi and Muhammad, 2014) defines M-Learning is basically based on the use of mobile educational applications anywhere and anytime at any place. M- Learning refers to new and latest technology to learn the new things for students the most, which acts as a leaning medium (Bidin and Ziden 2013; Ozdamli and Cavus, 2011), it allows the students to learn about different things and to obtain knowledge about assignments, courses, exams etc.

Above all M- Learning becomes most important for higher education due to the benefits it offers. Al-Emran et al. (2016) argued that it provides advantages and benefits to both professors and students at that time when it combines in the higher education, it includes learning at any place and at any time and helps the students to perform their tasks and assignments in a better way and on time.

With the advancement of technology Smartphone are available to everyone at ease. Mobile learning is a new research trend which provides the researcher an opportunity to study the impact of such technology on students and educators. M-learning is the technology that changed the way students communicate, interact, and behave with each other and their perception towards E-Learning (Homan and woods, 2003). Dahlstrom et al. (2013) findings states that 67% of the learners said that mobile educational learning is very much crucial in higher education. According to (Mohamed et al. 2012; Cheon et al. 2012) M-Learning is the misuse of mobile portable hand-held devices, in the process of learning and teaching. In present era internet, laptops, computers become the most easily affordable, accessible at any place and at any time with the help of internet (Syafar et al. 2015, 2014a, b). The aim of these above-mentioned projects was mainly targeted the results of M-Learning

like how much they are engaged in learning activities and also to know about the needs of people and m-learning has been done to change it from project status to education and training too.

M-Learning (mobile app educational learning) is now famous in worldwide: Asia. Africa, Europe, Australia, New Zealand all have done remarkable studies and achieve remarkable knowledge too.

In present world of technology, use of mobile devices applications becomes important for the students and because of this teaching process too becomes popular and method of teaching also differs. McGhee and Kozma, 2001 Levine, 2002; McKenzie, 2001 said that “use of wireless devices mobile applications in education is of recent trend, and it is also becomes too much popular among the higher education”. In 2003 a study had been done by Chen, Kao and Sheu plan and evolve a bird watching system because of this system students use their devices for the collection of data. (Chu, 2014).

Wu et al. (2012) states that mobile leaning in 164 researches which had already done during 10 years. Their study found that mobile leaning applications were presently built on the effectiveness of the learning and the system of evaluation (Hou et al, 2014).

It is very difficult to define educational apps because it has been used in different research journals, literature in different manner and in a broader way. What is an educational app. An educational app is a mobile application that is designed to help the students and individual to get the knowledge or remote learning on any topic at any time just with the help of internet. Educational apps are designed and developed to increase and improve the efficiency of the prekindergarten with the help of third standard literacy of children and various skills (James Khan et al., Joshua Gilbert et al., Qun yu et al., Charles Gale et al., 2021) all these things are done through information convey on different PDAs, smart phones tablets etc. (Hirsh-Pasek et al., 2015).

The demand for different educational apps by schools, educators, parents, and students take the benefit from the latest mobile and smart phones technology is very much high, there is a majority of educational apps that is accessible at Google Play Store and Apple’s App Store, both may be free or may be paid app along with no guarantee of educational value (Vaala, S; Ly, A; Levine, M.H. Getting et al.: 2015). Selecting the best educational app is the great responsibility for the teachers and parents. According to Martens, Rinnert and Andersen report states that the existence of certain ads, bad and inappropriate design and structure etc cause harm to the children rather than providing good knowledge to them. Along with this if there are certain privacy violation issues further decrease the value of the educational apps.

Shuler, C; Levine, Z; Ree, J. (2020) evaluates the best educational apps for children by analysing the different 100 educational apps that are easily accessible on iPad and iPhone devices from 200 apps. According to them 80% of the apps are beneficial for the children and 72% of them are developed for the pre-school aged children. Student who is not an expert in the mobile technology faces so much trouble, they have to spend lot of time in dealing with those educational apps, efforts etc (Larkin, K. 2015).

Theoretical background

Learning by using technology it’s also called M-learning concept was introduced by *Alan Kay in 1970s*. He was a part of Xerox Corporation’s Palo Alto Research Centre and establish a batch to evolve “Dynabook” that is a movable and hands on personal computer. The main purpose of this is to have the access of digital world to the children. But unfortunately, this was failed due to lack of technological support. In 1994 the very first smart phone was invented by Mitsubishi Electric Corp that is *IBM Simon*. It is a personal communicator, movable, touch screen PDAs. From 1994 onwards big technological companies in INDIA started the manufacturing of smart phones. With the help of these innovative smart phones M-Learning became possible and provides the platform for the online education. The present mobile designs pushed the M-Learning for research and projects.

In M-Learning there were three phases that were discussed below:

FIRST PHASE	Mainly focus on Devices
SECOND PHASE	Focus on learning outside the classroom
THIRD PHASE	Focus on the mobility of the learner

In 2005 various major projects were completed in the second phase of M-Learning, out of these projects four projects were mention below:

1.The Leonardo da Vinci project from e-learning to m-learning conducted by Ericsson Education Dublin
2. The Leonardo da Vinci project Mobile learning: the next generation of learning conducted by Ericsson Education Dubli.
3. The IST project M-Learning was conducted by the United Kingdom government Learning and Skills Development Agency (LSDA).
4. The IST project MOBIL earn conducted by Giunti Ricerca of Genoa, Italy.

The aim of these above-mentioned projects was mainly targeted the results of M-Learning like how much they are engaged in learning activities and also to know about the needs of people and m-learning has been done to change it from project status to education and training too.

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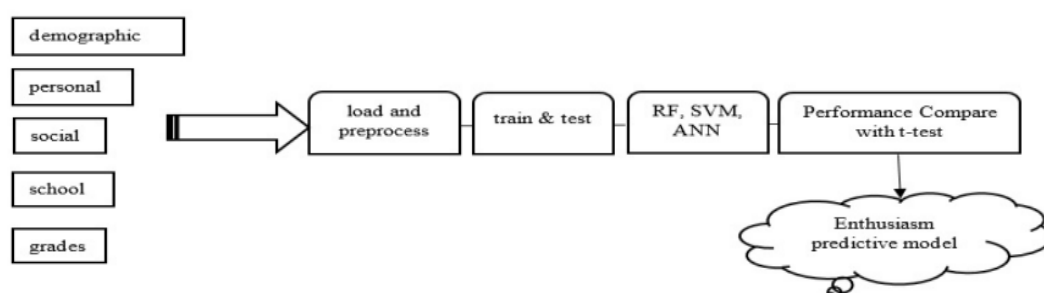
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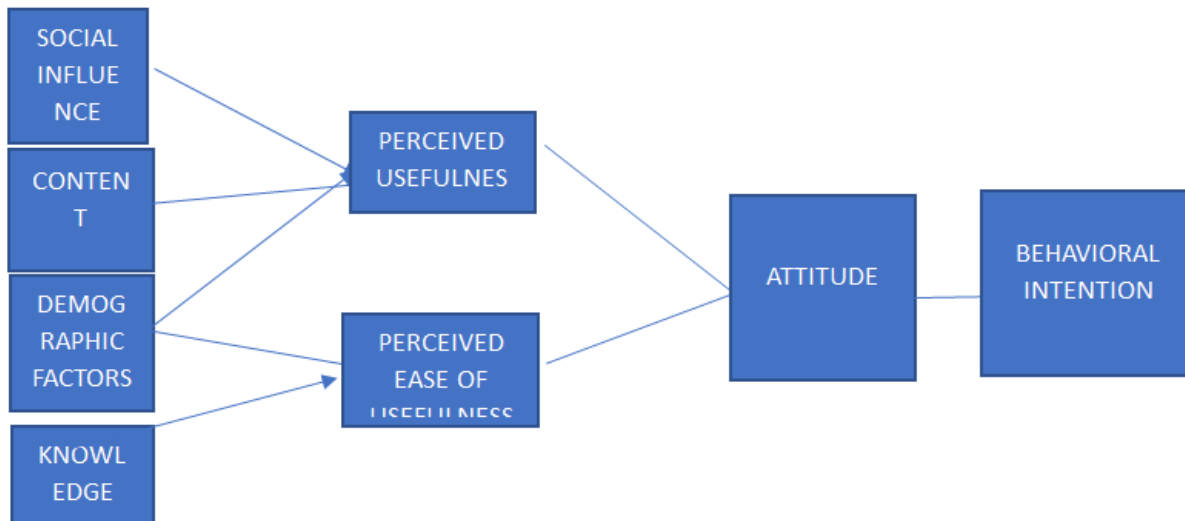
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enthusiasm in their children. The structure of this paper is divided into five major sections.



The datasets of two secondary schools of Portugal are considered to predict the student’s enthusiasm towards higher education in their life [26]. The dataset consisted of 33 features and 649 instances. These features

belonged to the student grades, demographic, personal, social and school. The students were studying in language course. The mode of collection was reports and questionnaires to predict the student's performances in language and mathematic courses.



Education Technology Acceptance Model

Conceptual model and research hypotheses

Based upon TAM, this study hypothesizes that demographic, personal, social, school, and grades will have significant positive relationship with intention to use technological devices for education application. This study also extends the TAM to predict that excitement to use technological devices in educational applications will have significant positive relationship to intention with effort and performance expectancy. This study hypothesizes that social influence will have a significant positive relationship with performance expectancy.

Social Influence (Si)

In the TAM, social influence is defined as the degree in an individual observed that important others believe the person should use the new system. In the education literature TAM based research has reported a positive relationship with social influence and intention of learning context. In this study social influence can be explained as the degree to which individuals observed that necessary to others believes that they should use electronic devices for educational application. On the bases of literature, I hypothesize that social influence positively influences intention to use electronic devices (H1).

Content (C)

The TAM content defined as the material by which the behaviour of an individual positively or negatively influenced towards the use of an educational application. If the content available in an educational application are sufficient and easy to understand then it positively influences the behaviour of an individual but if available contents are not sufficient and not easy to understand then it negatively influences the behaviour of an individual. I hypothesize that social influence positively influences intention to use electronic devices (H2).

Demographic Factors (D)

In the TAM demographic factors explained as age, gender, characteristics of a person, income marital status etc. mainly I used students of graduation in this study so they are mainly between the age of 16 to 20. And both the genders respond in this study male and female students. So, age is the main factor in this study which directly and positively influences the behaviour of students to use electronic devices for educational application. So, gender positively influence the behavioural intention to use educational application I hypothesize that social influence positively influences intention to use electronic devices (H3).

Knowledge (K)

In the TAM knowledge explained as the capability to use educational application by using electronic devices. Knowledge is the main factor of using educational application because students prefer those educational applications which are easy to understand and simple to use they do not prefer those educational applications which are not easy to understand and not simple to use. Maximum educational applications are easy and simple to use but some educational applications are not simple and easy to use. If the educational application knowledge is appropriate only then positively influence the behaviour to use. I hypothesize that social influence positively influences intention to use electronic devices (H4).

METHOD

Participants and procedures

In this study participants were 152 undergraduate students at a Delhi university enrolled in a core course. Students were emailed a link to an online survey. 102 students consented to participate in the study, making a response rate 67%. Among them 21 % were female and mean age was 18.06 years.

Measures

A self-reported questionnaire was used for this study. The theoretical construct was used by adapting items from prior research for the context of this study. The scales for theoretical constructs of social influence, demographic factors, contents and knowledge and behavioural intention were operationalized by adopting items from TAM. The scale was excitement to use educational application by using electronic device was operationalized by adopting items.

RESULT AND CONCLUSION

In the questionnaire first question was asked is the educational application enhance my knowledge 71.9% were agree and 21.9% were neutral and 6.2% were strongly agree. In next Question 77.4% were agree that educational application can be useful in their study. In next question student ask which educational application is used by them 32.3% used Google meet and 16.1% used Google classroom while 45.2% used other educational applications.

48.4% agree to use educational application in classroom is easy for them while 12.9 were disagree.

58.1% agree that interaction with educational application is clear and easy for them while 9.7% disagree. 77.4% agree that educational application is easy to use.

16.1% were agree to use educational application in the classroom while 32.3% were disagree.

45.2% were agree to use educational application without any others help while 9.7% were disagree.

45.2% were agree to that they have enough time use educational application in their study while 16.1% disagree.

64.5% were used educational application because their class fellow think that they should use.

50% students were disagree that educational application stresses me out.

43.3% were agree that educational application should be used in teaching practices while 13.3% were disagree. 30% were agree that interaction between teacher students' interaction should be change. 37.9% find it easy to assume changes in the teaching methodology introduced their educational application.

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