Understanding and predicting teachers' intention to use cloud computing in smart education

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Abstract

Purpose – Applying cloud computing (CC) in education is a great opportunity to globalize knowledge with the minimum costs and maximum accessibility. This study aims to understand and predict teacher intention to use cloud commuting as infrastructure in Smart education.

Design/methodology/approach – This was a cross-sectional study in which faculty members' perception concerning CC services adoption in education were assessed based on the extended model of theory of planned behavior, by researcher-developed questionnaire ($a = 0.9$). Collected data were analyzed by regression analysis and the final model was tested by structural equation modeling.

Findings – Attitude towards the behavior, perceived behavior control and privacy; had direct and significant associations with faculty members' intention to use CC. However, subjective norms ($p = 0.311$) and security ($p = 0.505$) were not significant predictors of intention to use CC.

Originality/value – The results of this study elucidate the critical factors associated with teacher's behavioral intentions toward CC services and also serve as a valuable reference for education sector to plan for the better use of these services. The presented model can be considered as best practice framework for adapting cloud commuting as infrastructure in education. Applying CC services in education is great opportunity and should be subsequently the major concern of educational organizations. This study clearly identified significant and non-significant factors that should be considered when successful implementation on could computing services is in progress.

Keywords Education, Security, Theory of planned behavior (TPB), Cloud computing (CC), Smart education, Privacy

**Paper type** Research paper

Introduction

Cloud computing (CC) is a new computational method and service that include distributed, grid, and tool-based computing. The USA National Institute of Standards and Technology (NIST) defines CC as a model with convenient access, on-demand network access, a shared pool of configurable computing resources (e.g. networks, servers, storage, applications and services), that can be rapidly provisioned and released with, and minimal management effort or service provider interaction. Based on Figure 1, CC has three infrastructure, Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS), with four model cloud include, private, public, hybrid, and community (Mell and
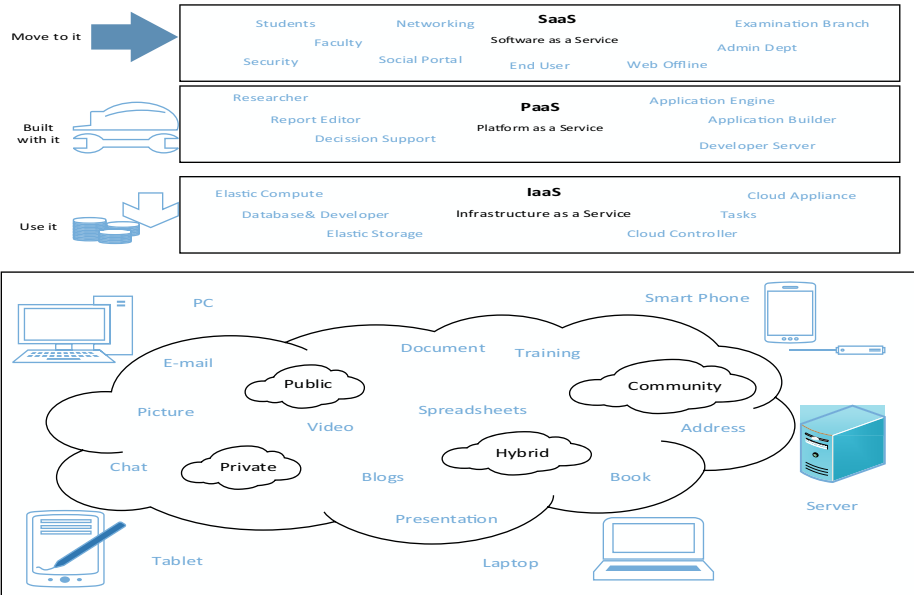
Figure 1.
Education CC system

Sources: Islam *et al*.; Almajalid (2017)

Grance, 2011). SaaS is a CC application over the internet which eliminates the need to install and run the application of end-user system. PaaS is another infrastructure of CC which provides a computing platform and has all the application typically required by the user installed on it. IaaS make available the required infrastructure as a service that user need not purchase the required servers, database or network (Jadeja and Modi, 2012).

Related applications, such as Gmail, Facebook, Twitter, YouTube and Google apps, are proliferating (Armbrust *et al*., 2010), and increasingly more people use CC services. CC is a well-known topic with universal trend. CC can be used to administrative part of education such as university management system, and student management system such as admission, ID card, report card, attendance, transfer certificate, notice board, parents login (Qi, 2017).The users of an education cloud system include students, faculty, administrative staff, examination branch and admission branch, as shown in Figure 1.

Related works on using cloud computing in education

Nowadays, everything has become internet dependent, its users become more and more every moment. One of the most important internet services that called the mini internet is CC. The progress of computing is such that it can be granted as the fifth element after water, electricity, gas, and telephone (Buyya *et al*., 2009). CC is highly regarded in computer science and information systems. To date, using cloud services is limited (Armbrust *et al*., 2010). In this case, users try to access it according to their needs, regardless of where the service is located or how they are delivered. One of the most popular computing systems is CC. The CC services have gained popularity due to their mobility; expand availability and the least cost. The major benefits of CC services are access to information point of need, point of time and place, and no need to preservation responsibility, capability of easy sharing and

synchronization of data on all devices, reduced costs, common support, virtualized sources, and simple operation cause more use of them (Park and Ryoo, 2013). The advent of CC was seriously in 2007, problems such as low storage capacity, lack of interoperability and data sharing, installation and retrieval have been somewhat solved by it. (Rizzardini *et al.*, 2013) On-demand and expandable CC services through the internet are presented by data centers. Easy and every time and a place sharing information cause formal and informal education (Johnson *et al.*, 2012).

Despite more advantages, some adopting obstacles are also include costs of switching (Park and Ryoo, 2013), technology satisfaction (Park and Ryoo, 2013) and privacy and reliability of data (Armbrust *et al.*, 2010) .Totally, CC creates ideal chances and challenges for users and the others. CC is presented by the development of service-oriented attitudes as regards the use of computer power and thus complements of the digital facilities, reduces inequalities in education by easy sharing data and information and the realization of social justice, along with reducing costs and export development and protecting national security, and most importantly, maintaining and achieving the ability to apply the national laws on the web are one of the most important irritant for the importance of CC.

Previous studies implied theory of planned behavior (TPB) on CC in their studies (Park and Ryoo, 2013; Pavlou and Fygenson, 2006) . The attempts of theorists are to describe and foretell users' behavior and have proved that behavioral intention is the superior agent for using IT (Venkatesh *et al.*, 2003). Some agents were having a significant effect to use new things, our attitude towards the behavior, subjective norm and perceived behavioral control (PBC) (Alharthi *et al.*, 2015). Above model is TPB that has been usually used for predicting adoption of new things especial technology (Ajzen, 2002). Abdekhoda *et al.* (2014, 2016), hinted TPB seem to be one of the most important existing theories model for understanding the acceptance or not of an information system (Abdekhoda *et al.*, 2014; Abdekhoda *et al.*, 2016).

Lin and Chen (2012) found that most IT companies will not adopt CC because of security and standardization until they are reduced, in Taiwan (Lin and Chen, 2012). Dillon *et al.* (2010) expressed the security has a brilliant effect in adopting CC(Dillon *et al.*, 2010). Security and privacy issues are one of the most important concerns, yet (Zissis and Lekkas, 2012; Dillon *et al.*, 2010). Privacy concern is one of the barriers to adopting technologies (Armbrust *et al.*, 2010). Determine affected agencies have great importance for everyone who uses CC such as researchers, students. Using the theoretical model to determine effectiveness agents of CC is at the tertiary level (Behrend *et al.*, 2011).

In this study, CC services refer to the internet oriented applications such as social networking, sharing file systems, educational and research sites, and structured storage systems such as Google Drive, Dropbox (allow users to store, synchronize, and share files), and ever note (allows users to create text, audio, and video memos).

This study has been conducted to investigate and predict the behavior of using CC in education by tutors. The present study used an extended model of TPB with two additional item privacy and security (Figure 2) .The results of this study may lead to successful understanding of the use of cloud services in educational settings.

Research model

Ajzen and Fishbein formulated in 1980 the theory of reasoned action (TRA). They formulated the TRA after trying to estimate the discrepancy between attitude and behavior. This resulted from attitude research from the expectancy-value models the TRA was related to voluntary behavior. Later on, behavior appeared not to be 100 per cent the voluntary and under control, this resulted in the addition of TPB With this addition the theory was called
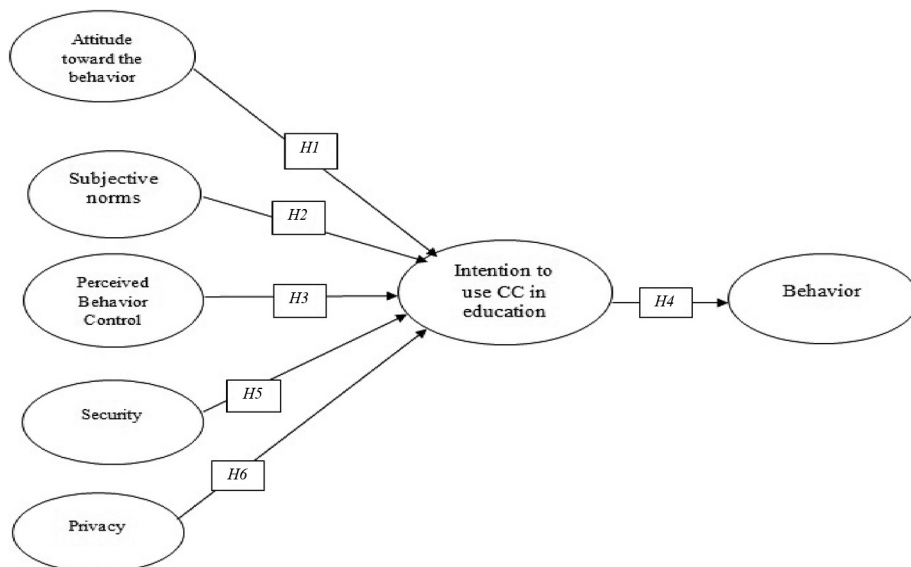
TPB. The TPB is a theory, which predicts deliberate behavior, because behavior can be deliberative and planned. TPB includes the constructs of PBC that is the user's understanding of the difficulty or the ease of an action (Ajzen, 2002).

Attitude towards the behavior is the amount of suitable or unsuitable of a behavior or entirely effective reaction that one perceived the power of an individual's intention to do a demeanor (Behrend *et al.*, 2011). Users' positive or negative thoughts about cloud services may affect their behavioral intentions, and subjective norms are the perceived social pressures to do (or not) a certain demean or in regard to the acceptance of technology, also defined as someone's perception of social perspective of something from friends, senior, colleagues or family can influence the user for using CC. Perceived behavior control refers to perceived ease or difficulty of use (Ajzen, 1991). A behavioral intention refers to the subjective probability that a person will use CC services. Behavior directly determined by intention and indirectly by perceived behavior control, attitude, and subjective norms: and perceived behavior control have direct effect for determining intention (Ajzen, 1991) and intention that plays a pivotal role both in the TRA and in the TPB. It is assumed that the tweets contain motivational factors influencing behavior, and indicate how much people want to do and how hard they are trying to do it. TRA and TPB are introduced as an essential and immediate introduction to behavior. In the framework of these theories, the more intentional the behavior is to be, the greater the success of the expected behavior will be, but there is no 100 per cent relationship between intent and behavior. The intention is for behavior, but not sufficient for behavior.

Attitude directly affects the intention to perform a behavior and may directly affect behavior in situations where an individual intends to perform the behavior. In TPB, beliefs are prior to attitude while they are special to each status. The theory is not for a single field but can be used in different fields. Compatible with this theory, we consider security and privacy perceptions of tutors would be significant predictors of attitude towards using the CC services in an education.

Privacy has been defined as "the right to be let alone" and is based on federal and state statutes, tort law judicial decisions and the US Constitution. (Xu *et al.*, 2008). Security is maintaining the privacy, integrity and availability of information and other properties such as accuracy, accountability, non-repudiation and reliability(Pearson, 2013).Security is, in fact, one of the basic principles of privacy protection (Pearson, 2013).The focus is on providing protection mechanisms that include authentication, access control, availability, privacy, integrity, preservation, storage, backup, common responses, and recovery. Security can be related to all information (Pearson, 2013).Security is the users' belief about the security of the platforms for storing and sharing data. The perception of the low security could be one of the barriers to the acceptance and use of any technology. While privacy refers to the degree to which users believe that cloud services are safe and protects their sensitive information. Using internet-based services such as CC services is associated with a hazard of misuse of personal information. Hence, privacy concerns such as security can affect or even hinder the attitude of individuals in using CC services. In this study Expand TPB with two agents' security and privacy were presented. The model figure is described in Figure 2.

Research hypotheses

In line with this description, following six hypotheses was formulated:

H1. Attitude towards the behavior will have a significant effect on the intent of using CC services by tutors.

H2. Subjective norms will have a significant effect on the intent of CC services by tutors.

H3. Perceived behavior control will have a significant effect on the intent of using CC services by tutors.

H4. The intention will have a significant effect on the behavior use of CC services by tutors.

H5. Security will have a significant effect on the intent of using CC services by tutors.

H6. Privacy will have a significant effect on the intent of using of CC services by tutors.

Method

The TPB has been used to predict the intent use of CC services by tutors. This study was done in Tabriz University of Medical Sciences (TUOMS) by tutors who used some CC services, which is presented in Table II based on the significance of the test (p-value ≤ 0.01) and the distribution of data was normal.

This study designed six hypotheses based upon TPB model, which converted to the extended model of TPB. The current study was a cross-sectional analytical- descriptive method that conducted from August to October 2017. The target population was tutors ($n = 240$) in 2016. Data were collected in a self-descriptive manner by a self-made questionnaire($\alpha = 0.9$) of CC (with 37 item) in two separate sections include demographic information and underlying questions about CC services, which content and relevancy of questions reviewed by 10 experts then the Content Validity Ratio (CVR) and content validity index were measured. In the present investigation, the CC services questionnaire was used to understand faculty members' using behavior as the outcome variable. Due to exploratory nature of this study and confirmed convenient sampling it has been used (Thanasegaran, 2009). Table I presented the item and questions of the questionnaire. The questionnaire was

Construct	Item no.	Items
Attitude toward the behavior	1	In my opinion, the use of CC services requires specialty expertise. (like Google Drive, Google Doc, Google Mail, Research Gate and LinkedIn)
	2	Using CC services increases my success in my work. (like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	3	Using CC services increases my productivity in my work. (like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	4	Using CC services is expected to increase the flexibility of the technology sector. (like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	5	Using CC services (like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn) can be effective in work
	6	Using CC services can be useful in advancing of my scientific goals. (like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	7	Using CC services can be useful in advancing my life's goals. (like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
Subjective norms	8	I think I should use CC services due to people behaviors which affect mine. (like colleagues, faculty and colleagues)
	9	From the IT perspective, I have to use CC services
	10	I think I should use CC services due to people behaviors which affect my professional life. (like Google drive, Google docks, Google mail, Research Gate and LinkedIn)
	11	The scientific community expects me to use CC services, as the advancement of technology and the necessity of using educational new technologies
	12	I will use CC services just if it is an obligation
	13	University expects me to use CC services for storing and sharing information
Perceived behavior control	14	Using CC services is possible for me. (Like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	15	I'm sure that I can use CC services every time. (Like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	16	Using CC services is easy. (Like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	17	Technical and infrastructural barriers cannot prevent using CC services. (Like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	18	I have knowledge about using CC services
	19	I have the necessary resources to use CC services
	20	It will be easy to use CC services, based on the resources of opportunities and knowledge required
	21	A specific person or group are available to teach and guide for using CC services and solve the problems
Privacy	22	I keep my scientific and research documents and documentation in CC services like Google drive, icloud, Drop Box
	23	I believe my scientific and research documents and documentation will be secret in CC services like Google drive, icloud, Drop Box
	24	I have control over my information in CC services
	25	I think that internet service providers can always control my information every time
	26	Failure to control information and privacy issues may lead to lose my career

Table I.
Items and their
questions were used

Construct	Item no.	Items
Security	27	I trust CC service. (Like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	28	CC services are always well implemented
	29	Internet hackers cannot access my stored data on the internet
	30	Feel safe to send sensitive information through CC services. (Like Google Drive, Google Docs, Google Mail, Research Gate and LinkedIn)
	31	Security systems embedded in CC are strong enough to protect information
	32	I feel safe about retrieving and backing up information
Intention	33	In the coming months, I plan to use CC services for storing and sharing information. (like Google Drive, Google Doc, Google Mail, and Research Gate and LinkedIn)
	34	I'm going to focus my work on using more CC services for storing and sharing information. (like Google Drive, Google Dock, Google Mail, Research Gate and LinkedIn)
	35	I'm going to use virtual training based on CC services for storing and sharing information. (like Google Drive, Google Dock, Google Mail, Research Gate and LinkedIn)
Behavior	36	How many CC services do you use in your works? (like Google Drive, Google Docs, and Google Mail)
	37	How many your learning and teaching processes do you use virtual and e-learning?

Table I.

developed based on Arpaci *et al.* (2015) and Ekufu (2012) studies (Arpaci *et al.*, 2015; Ekufu, 2012).

In this study, the internal consistency reliability, as assessed by Cronbach's alpha, was supported for questionnaire of CC ($\alpha = 0.9$). The respondents were selected on one of the five points of the scale (0 = totally disagree, 1 = disagree, 2 = neutral, 3 = agree and 4 = totally agree). The predictors of questionnaire of CC in this study were considered to be gender, age, educational level, academic rank, educational group, college and curriculum vita. Since 260 estimated sample size by stratified random sampling 240 members (response rate = 92.30 per cent) participated in this study. Kolmogorov-Smirnov test was used to determine the normality of the data. The tutors were familiar with and used CC services were considered as inclusion criteria for this study. Data were summarized and presented using the frequency (percent), mean and SD for categorical variables, respectively. The data were analyzed quantitatively using the Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL) v. 23 for Windows and analysis of Moment Structures (AMOS) v. 22 then by performing linear regression, *t*-test, Person – Correlation, and ANOVA, applying structural equation modeling (SEM) results were presented. "Structural equation modeling (SEM) is a collection of statistical techniques that allow a set of relationships between one or more independent variables, either continuous or discrete and one or more dependent variables, either continuous or discrete, to be examined"(Ullman and Bentler, 2012). Hence, the SEM was applied for variables analysis and model presentation.

In the presented model, behavior and intention were dependent variables, while attitude, subjective norms, perceived behavior control, security and privacy were independent variables.

Result

Demographic information of the study showed in Table II. This table show that the majority of participants were in PhD degree. Graduated has the highest participation rate of 117 (48.8 per cent) people. The largest and lowest numbers of affiliates were professors and assistant professors 131(54.6 per cent). The minimum faculty members' work experience was 1 months (0.41 per cent) and 401 months (0.4 per cent).

Table II shows the correlation between variables of the proposed model. As it is seen, there are significant correlations between primary model variables (TPB) and added variables to model (Extended model of TPB). Also the results of this table show there is the highest correlation between the variables of privacy and security. It shows a powerful, positive, direct, and significant correlation between intention and usage behavior of CC services ($\beta = 0.24$, $p = 0.000$).

Also, a great, positive and significant correlation between attitude and intention was found. There was a significant correlation between perceived behavior control and intention. There was a positive and significant relationship between privacy and intention. A positive correlation and significant relationship were observed between security and intention; also, subjective norms have such condition. Besides, the Figure 3 exhibits that the model explains

Constructs	ATB	SN	PBC	SEC	PRV	INT	BEH
ATB	1						
SN	0.511**	1					
PBC	0.276**	0.259**	1				
Security	0.289**	0.198**	0.348**	1			
Privacy	0.186**	0.134*	0.270**	0.659**	1		
Intention	0.370**	0.272**	0.248**	0.313**	0.307**	1	
Behavior	0.305**	0.199**	0.398**	0.162*	0.200**	0.416**	1

Table II.
Correlation between the variables of the proposed model

Notes: **p-value is significant at 0.01 levels. *p-value is significant at 0.05 levels. ATB: Attitude toward the Behavior; SN: Subjective Norms; PBC: Perceived Behavioral Control; SEC: Security; PRV: Privacy; INT: Intention; BEH: Behavior
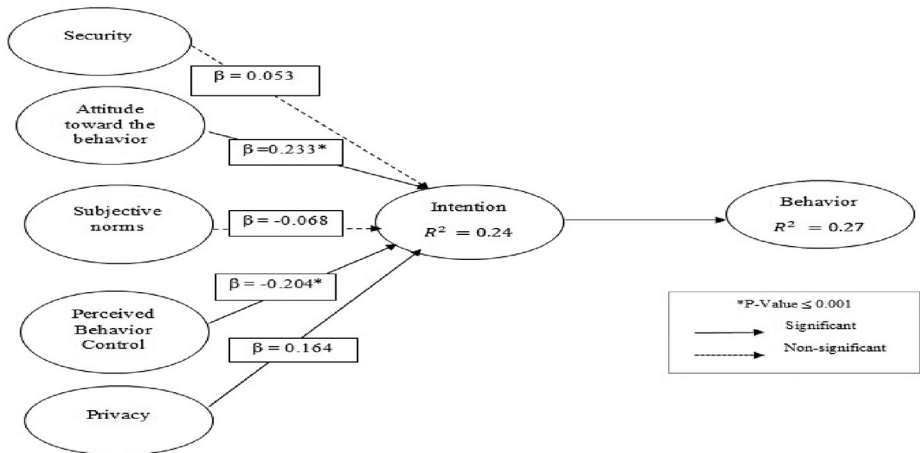
Figure 3.
The result of research model

about 24 per cent of the variance of understanding and predicting tutors' intention to use CC ($R^2 = 0.24$).

Figure 2 indicated the positive and no significant path coefficient of security to intention ($\beta = 0.053$, $p = 0.505$). The attitude had the most powerful, positive and significant impact on intention ($\beta = 0.233$, $p = 0.001$). Illustrates subjective norms have a positive and insignificant effect on intention ($\beta = 0.068$, $p = 0.311$). A positive and significant path coefficient between perceived behavior control and intention was reported ($\beta = 0.204$, $p = 0.001$).Privacy perceived and intent use have a positive and significant path coefficient ($\beta = 0.164$, $p = 0.031$).

The figure shows intention has the greatest direct effect and significant on behavior ($\beta = 0.276$, $p = 0.000$). According to the results, the attitude is the strongest predictor of the intent use of CC services.

Overall, this figure reported that security, attitude, subjective norms, perceived behavior control, and privacy predict about 24 per cent of the variance of intention. The intention is about 27 per cent of the behavior of using CC.

As recommended by Hair *et al.* (1998), model fit was measured by the evaluation of several model fit indices (Hair *et al.*, 1998) . The relative χ^2 or ratio χ^2 was used to test whether the selected distribution was a good fit to the data. According to Gefen *et al.* (2000) and Hair *et al.* (1998), Tucker-Lewis index (TLI), comparative fit indices (CFI), Normal fit index (NFI), and Root Mean Squared Error of Approximation (RMSEA), were measured and appeared to be acceptable(Gefen *et al.*, 2000). Table III summarizes recommended goodness-of-fit measure.

Discussion

The findings showed 75 per cent of participants did not know these services' namely CC and they are not very well qualified to use CC services. Next we want to know what are factors affect them to use CC. This study used the extended model of TPB to validate the proposed conceptual model and to understand factors and predict that affect intent use of CC by tutors. Understanding the factors affecting tutors' attitudes towards the use and adoption of CC services is necessary, as it is crucial that who use and adopt CC services, realize its comprehensive interoperability and make use of its benefits. The studies widely have attempted to explain and predict to a diverse set of technologies in the information system context by TPB. Other studies used both theoretical models TAM and TPB and reported the variance of intent use of in CC (Shiau and Chau, 2016).

Regarding the association between attitude and use of CC, the standard coefficient of attitude and intention acceptance was 0.23 with a *p*-value of 0.001, supporting *H1*. This finding is in accordance with the findings of literature, which reported a positive and significant path coefficient rates between ATB and use of CC (Arpaci *et al.*, 2015;

Fit index category	Suggested index	Suggested value	Obtained value	Result
Incremental fit	Tucker-Lewis Index(TLI)	0.90 or above acceptable fit	0.907	Acceptable
Incremental fit	Comparative fit index(CFI)	0.90 or above	0.916	Acceptable
Incremental fit	Normal fit index (NFI)	0.90 or above	0.831	Tolerance Acceptable
Parsimonious fit	Root Mean Squared Error of Approximation (RMSEA)	≤ 0.1	0.058	Acceptable

Table III.
Recommended
goodness-of-fit
measure

Abdekhoda and Salih, 2017; Taylor and Hunsinger, 2011). Although, results of some studies did not confirm these results (Venkatesh *et al.*, 2003).

Concerning the association between subjective norms and use of CC, it was reported that subjective norms can positively predict the use of CC services with the standard coefficient of 0.68 while with *p*-value = 0.311. There is not a significant relationship between attitude and intent use of CC services so it does not support *H2*.This finding doesn't support the findings of the previous studies. This finding is in contrast with the findings conducted by literature (Park and Ryoo, 2013; Li and Chang, 2012; Taylor and Hunsinger, 2011). In some studies, the impact of subjective norms on acceptance and use of technology was not clear (Davis *et al.*, 1989). Users, when choosing whether to use CC and what application to use, will surely consider the others idea or necessity of the fellows in order to use it. Therefore, those subjective norms will have an effect on what technologies a user may accept and use for its purposes.

The association between perceived behavior control and intent use of CC services, the standard coefficient of perceived behavior control and use of CC services were found to be 0.204 with a *p*-value of 0.001; thus, *H3* was supported, indicating that the perceptions of relative advantage of CC services would have a positive effect on use of CC services. Users with higher levels of perceived behavior control would want to use more services of the CC. Other studies found that perceived behavior had a strong, direct and significant effect on the intent use of CC(Li and Chang, 2012; Taylor and Hunsinger, 2011).

In terms of the relationships between intention and behavior, the finding show in Figure 3, suggest that intention had a direct and significant effect on behavior ($\_\beta\_$ = 0.276, p = 0.000). Hence, *H4* was supported, suggesting that the perception of intention of the use of CC services would have a positive effect on behavior use of CC. this findings is in line with the finding of previous studies(Abdekhoda *et al.*, 2016; Abdekhoda *et al.*, 2015).

Privacy and security concerns are the most widely identified risk agents in CC. The finding confirms the prior finding of literature (Janssen and Joha, 2011; Abdekhoda, 2017). Customer Privacy Bill of Rights by the United States government in February 2012, made regulations and rules to development free on-line risks setting, although a comprehensive protection of internet users is out of rich, yet. Classen and Fogarty, 2012 suggest that end users have to use CC services prudent (Classen and Fogarty, 2012).

As for association between security and intention, the results of this study exhibited that security had a positively predict effect and not significant on intention (β = 0.053, p = 0.505); thus, *H5* was not supported, suggesting that the perceptions of security will have a critical effect on intention. The results of this study are in contrast with the findings of studies conducted by Janssen and Joha (2011), Sultan (2010), and Alshuwaier (2012). (Janssen and Joha, 2011; Sultan, 2010; Alshuwaier *et al.*, 2012). Figure 3 also shows that the model explains about 24 per cent of the variance of intention for CC services used and accepted by tutors.

Moreover, a direct and significant path coefficient between privacy and intention use of CC services is reported in Figure 3 ($\_\beta$ = 0.164, p = 0.031) supporting *H6*, and suggesting that the perception of privacy will have a positive effect on intention. This finding is in accordance with the findings of past studies(Janssen and Joha, 2011; Sultan, 2010).

All told, the contribution of this study to research on the adoption and acceptance of the use of CC services is fourfold. First, this study used TPB model by adding privacy and security, and proposed expand TPB model. Second, the results of this study showed a significant and positive effect of attitude, perceived behavior control, and privacy on intention. Third, the study result revealed that intention and behavior could predict behavioral use of user about CC services 24 per cent and 27 per cent respectively. Moreover,

intention had a significant direct effect on behavior. There were non-significant and positive path coefficients rates reported from subjective norms and security on intention use of CC.

Expanding the setting of this study for teaching users, and investigate technical obstacles, organize law for using some facilities, are some of the items which need to be addressed in future studies. Finally, the study shows that TPB, which has been widely applied in IS research, is still a firm foundation for CC studies.

Limitations

It is better several limitations be considered in the future research. First, this study concentrated on CC services in education, and the results are suitable for that; so, for using those should be careful. Second, the study has investigated the use of CC services on thirty levels and it is necessary to examine the issue from the management perspective. Third, this study has not investigated physical barriers, infrastructure, needed skills for using CC services .Forth, this study has not investigated CC services based on the target community's need (it has not been localized).

Conclusion

Currently, in higher education, colleges and universities use of technology and sharing and saving methods according to clod commuting services, is avoidable. This study presented a valuable model that explained and predicted faculty members' intension to use and apply Cloud technology in education. The expanded model provides a view of the factors affecting the behavioral intention to use CC services. The results of this study elucidate the critical factors affecting behavioral intentions toward CC services and serve as a valuable reference for education sector to plan for the better use of these services, internet based features like internet speed, filtering out system.

All told, applying CC services in education is a great opportunity and should be subsequently the major concern of educational organizations and policymakers. Moreover, research to identify factors that affect attitudes towards acceptance and adoption of CC services among other staff, including students, managers and clerks, is recommended.

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Further reading

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