

Factors Influencing Behavioural Willingness to Store Personal Information in Cloud Computing Application among Professional Employee

Yulita Hanum P Iskandar *

Graduate School of Business, Universiti Sains Malaysia, 11800 USM, Pulau Pinang, Malaysia

Email: yulita@usm.my

* *Corresponding Author*

Abstract

Purpose: This study proposed factors influencing behavioural willingness to use Cloud Computing Application (CCA).

Design/methodology/approach: The factors of perceived security concern, perceived privacy concern, trust, perceived CCA value and perceived security and privacy interventions were proposed to determine user willingness based on the extension of technology acceptance model theory. A total of 155 voluntary professional employees participated in the study. The hypothesized model was assessed using the Partial Least Squares approach.

Findings: Findings revealed that trust has the most potent effect on behavioural willingness to store personal information among professional employees. Perceived CCA value also had a significant relationship to store personal information in CCA.

Practical implications: The findings extend the literature and provide useful insights for cloud computing providers in developing more effective CCA.

Originality/value: This study extend the theory of Technology Acceptance Model.

Keywords: Behavioural willingness, Cloud computing, Professional employee, Industrial growth.

1. Introduction

As cloud computing technology evolves, a number of applications are being developed to optimize technology resources and increase productivity for business opportunities. The adoption of cloud computing solution covering almost all aspects of our routine life, such as email, scalable solution, social networking, testing and development of software (Golightly, Chang, Xu, Gao, & Liu, 2022). The benefits of Cloud Computing Applications (CCA) include rapid response to business needs where CCA can be developed and updated quickly to shift in business operations and needs. In addition, CCA can also provide instant scalability to meet the uncertainty of demand or needs where available capacity can be adjusted accordingly. CCA will also improve data sharing with data stored on cloud services that are openly accessible to an authorized user. The centralized data store on Cloud managed by cloud computing provider is designed to ensure data security and disaster recovery backup whenever necessary.

The adoption of cloud computing covers nearly every aspect of our daily lives, such as e-mails, scalable solutions, social networking and software testing. CCA is developing to meet the requirements of cloud computing technology to allow users to access their applications and data from anywhere at all times. One of the typical examples of CCA is Cloud Storage Application, which consists of Dropbox, Google Drive, Microsoft One Drive and Box (Saputra, Watae, & Runtukahu, 2021). These are CCAs that allow users to store files and personal data on a cloud server, sync files across multiple devices, and share files. CCA, such as Microsoft One Drive, can even store personal settings such as BitLocker Recovery Keys or Windows Cloud settings for system recovery purposes. With these CCAs, users can store any kind of information in the cloud, including personal information anywhere, at any time, and secure personal information in the cloud. Based on the CloudRAIL survey, Dropbox, Google Drive, One Drive and Box are the world's most popular cloud computing applications for storage purposes.

Facebook is another typical example of CCA, the American social networking service that Mark Zuckerberg established in 2004 and has become the world's largest social network with millions of users since 2012 (Saputra et al., 2021). Facebook is a social media platform that allows people to create their own profiles and upload their images and share personal data with an existing group or community. Facebook also has many components, including timelines, in which users can upload images and content. In addition, Facebook status allows people to share and notify their friends to their current situation or location. Aside from that, Facebook allows users to communicate with family and friends or anyone via their private message platform. All of these advantages have made Facebook one of the most popular social networking sites in recent years.

Based on a survey conducted by the U.S. Pew Research Center (Pew Research Centre, 2021), Facebook and YouTube have dominated the social media landscape from 2012 to 2018. 73% of U.S. adults follow YouTube, while 68% follow Facebook on their mobile phones. In addition to YouTube and Facebook, the majority of the Social Media Platform, which operates as a CCA, is experiencing an increasing trend every year. The Pew Research Center U.S. survey also examines the frequency of Facebook users accessing the website. As Facebook is the most popular social media platform, 74% of Facebook users visit the website every day, while 51% visit the website several times a day. While Facebook has remained popular among Asians over the past year in Asia, the StatCounter survey reported an average of 78.05% of Asians using Facebook in many regions. According to a survey from the Global Social Media Research Summary (Smart Insight, 2021), Malaysia ranks No. 6 as a country in the world with a high social media penetration rate of 78% in 2019. This can also reveal that CCA, such as Facebook and Twitter, are prevalent and widely used by Malaysians.

The Forbes study shows that the CCA business is projected to increase from \$67B in 2015 to \$162B in 2020 Columbus (Columbus, 2017). Malaysia was, however, rather reluctant to accept the development of CCA as opposed to Vietnam or Thailand (Pandiyan, 2017). According to Datuk C. M. Vignaesvaran Jeyandran, Chief Executive Officer of the Human Resources Development Fund (HUMAN RESOURCES DEVELOPMENT FUND, 2017), most of the 15 million Malaysian workers need to be trained to meet the requirements of increasing job digitalization.

The professional employee shall determine the level of education. Professions usually require a bachelor's degree, a master's degree or a Ph.D; they are considered to be a skilled job. Based

on the data revealed by the Department of Statistics (Department of Statistics Malaysia, 2021), Malaysia has 23.5 per cent of skilled workers, 61.9 per cent of semi-skilled workers and 14.6 per cent of low-skilled workers. Skilled workers are generally regarded as highly educated or specially qualified employees, such as a doctor, engineer, teacher, lawyer, etc. They have the capacity to rationally analyse the concept and to take into account the facts and different perspectives in order to achieve a solid, logical conclusion. Based on the research proposed by Stephanie Farley Pardue (Pardue, 1987), critical thinking skills and abilities have a significant influence on the level of education. Moreover, based on the findings of Mehra et al. (Mehra, Paul, & Kaurav, 2020), the accepted level of technology also affects demographics, such as the educational background. Thus, despite the protection and privacy of personal information on the cloud, the ability to place personal data on cloud computing systems, such as Google Drive, Facebook and Instagram, among professionals remains uncertain.

Teo, Lee, and Chai (2008) argue that the educational background has also influenced the level of acceptance of technology. A professional staff member requires a bachelor's degree, a master's degree or a PhD. Based on data revealed by the Department of Statistics (Department of Statistics Malaysia, 2021), Malaysia has 23.5 per cent of skilled workers, 61.9 per cent of semi-skilled workers and 14.6 per cent of low-skilled workers. Skilled employees are generally perceived as professional employees where they are highly educated or have a specific qualification. There is a lack of willingness of the research study user to use CCA among professional staff. This research therefore proposed the willingness of professional employees to store their personal information in the CCA.

The remainder of the article is organized as follows. The next section discusses the motivation for the study followed by the relevant literature. The next section discussed the research methods section. The findings will be discussed in the fourth section. The final section concludes and sets out recommendations for future studies.

2. Literature Review

The relevant theoretical models, the conceptual framework, the five major determinant include Perceived Security Concern, Perceived Privacy Concern, Trust, Perceived Cloud Computing Application Value, Perceived Security and Privacy Interventions for the use of Cloud Computing Application by Professional Employees will be discussed further in this chapter.

2.1 Privacy-trust –behavioral willingness model of Electronic Commerce

Despite the emergence of cloud computing technology in the business world, legitimate concerns about privacy and trust remain a vital concern for online users. Privacy-trust – The behavioral willingness model proposed by Liu (Liu, Lin, & Sun, 2020) considers the perception of privacy of individuals. This model also illustrates how it relates to his or her willingness to make an online transaction and demonstrates that data security is an essential antecedent of trust. Wu et al (Zhou, Wu, Rau, & Zhang, 2009) proposed an additional study which adjusted this model to investigate trust and privacy concerns related with the preparation to provide online personal information under cross-cultural influence. This study was based upon an online survey on Consumer Privacy and Trust Policy. King & Raja (Ali, 2020) proposed “Protecting the privacy and security of sensitive customer data in the cloud,” underlining how to develop the consumers trust by ensuring adequate privacy and security for sensitive consumer information. The trust and confidence of online users in the concept of this study should therefore be established into this research.

2.2 Cloud Computing Security and Privacy

In addition to Trust, the security and privacy of Cloud Computing perceived as major issues for cloud users, particularly the willingness of users to store personal information on Cloud. Communication Privacy Management Theory (CPMT)

CPMT is a communication and systematic research theory that has been developed to understand how people make decisions about the disclosure of personal information. The CPM theory demonstrates that the individual sets, retains and coordinates their privacy limits (the limits of what they are willing to share and disclose) to third parties or communication partners, depending on the perceived benefits and costs of disclosure. This model was first developed by Sandra Petronio (D'Elia & Walsh, 1983). That being revealed, the higher the user's benefit, the greater the willingness of online users to place their personal information into Cloud Computing based application.

2.3 Privacy Calculus

Privacy researchers argue that individuals are conducting a cost/benefit analysis prior to the actual disclosure of information. Based on the cost/benefit analysis, individuals share their private information with third parties in online settings when the cumulative benefits that individuals gain from the disclosure of information exceed the cumulative costs associated with the disclosure (Dinev & Hart, 2006). The Privacy Calculus is a cognitive/mental analysis that harmonizes the competing forces resulting from the benefit of sharing information and the cost of not withholding information.

2.4 Technology Acceptance Model (TAM)

TAM is a theory that represents the acceptance of users and the implementation of new technologies by Davis et al., (Venkatesh, Morris, Davis, & Davis, 2003) and defines Behavioral Intent as a factor that influences people on the adoption of new technologies. The model also stated that the behavioural intention (BI) was strongly influenced by the attitude associated with the general impression of the technology. In this model, one of the factors that influence the user's decision to use technology is perceived to be efficiency related to the perceived value of cloud computing applications that impact the user's willingness to continue storing personal information in the cloud.

3. Hypothesis Development

3.1 Behavioural Willingness Use

The dependent variable is the willingness to include personal data in the CCA. The willingness of professional employees to use CCA is defined as the intention of behaviour. This variable is based on the acceptance model theory of technology (Surendran, 2012).

3.2 Perceived Security Concern

The emergence and growth of cloud computing has increased the vulnerability and versatility of cloud computing information. Cloud computing is exposed to security risks such as data breach, account hijacking, and malware injection (Alam, 2022). Mobile devices are exposed to security threats as well as malicious codes such as viruses, worms, Trojan horses and spyware (Prasad & Rohokale, 2020). Compared to compatible devices, it is relatively difficult to protect mobile devices from such threats. Chen and Zahedi (Chen, Ou, Wang, Peng, & Davison, 2020) found that issues regarding online security threats lead to the management of behaviours such as avoidance. The vulnerability and versatility of CCA could develop security concerns for the user, as they have no control over the manipulation and use of their personal information by an

unauthorized person. As a result, security concerns influence the willingness of users to place personal information in the CCA. Therefore, the hypothesis is mentioned below:

H1: Perceived security concern will negatively influence willingness to insert personal information in CCA.

3.3 Trust

Trust is the critical consideration and obstacles for the growth of cloud computing (Rahmani et al., 2022). Trust plays a crucial role in online transaction context (Varma, Kumar, Sangvikar, & Pawar, 2020) where it facilitates an online transaction. Ali (2020) show that trust correlates with cloud computing usage. Personal information for CCA perceived as confidential information. Thus professional employees believe they will be more likely to use CCA is cloud provider capable of delivering trusted services for them. Therefore, the hypothesis is mentioned below:

H3: Trust will positively influence willingness to put personal information in CCA.

3.4 Perceived CCA value

CCA is designed to provide its users with benefits and values (Saratchandra & Shrestha, 2022). The values are entertainment, data storage, collaboration and work-related purpose with the requirement to store their personal information. These values could influence user willingness to store their personal information on the Cloud (Widjaja, Chen, Sukoco, & Ha, 2019). Therefore, we hypothesize

H4: Perceived CCA value will positively influence willingness to put personal information in CCA.

3.5 Perceived Security and Privacy Interventions

CCA providers create privacy policies to ensure their customer data are protected with their security practices and solution (Parast et al., 2022). The effectiveness of data security and privacy influence the willingness of users to put their personal information in CCA (Adelmeyer, Meier, & Teuteberg, 2019). Therefore, the hypothesis is mentioned below:

H5: Perceived security and privacy interventions will have a positive impact on the willingness to place personal information in CCA.

4. Methodology

4.1 Measure of constructs

The survey instrument was used in the present study. The study design elements were adapted from previous studies and measured using five-point Likert scales ranging from "strongly disagree" to "strongly agree." Items of behavioral willingness and perceived privacy concerns have been adapted (Soodan & Rana, 2020). Items for perceived security control have been measured using (Nepomuceno, Laroche, & Richard, 2014). Items of trust perceived CCA value and perceived security and privacy interventions have been adapted from (Jarvenpaa, Tractinsky, & Vitale, 2000) and (Limayem, Hirt, & Cheung, 2007) respectively.

4.2 Data Collection and the Sample

A survey form is created for the questionnaire using a free online survey tool called Google Forms. The survey form is then sent to voluntary respondents across Malaysia via email and social media platforms. Criteria respondents included are professional workers who have witnessed the use of CCA. Each respondent is requested to participate in the survey by filling out their feedback online via Google Forms. It took approximately ten minutes for each respondent to respond to the questionnaire.

As the sample size required is large from the population, thus non-probability sampling method with random basis is adopted in this study. Sampling size 155 professional employees are obtained by the Raosoft sample size calculator (Raosoft, 2004). Sampling based on employment in Malaysia, 2016, with a confidence level of 95% and a margin error of 5% as listed in **Error! Reference source not found.**

Table 1 Sample size calculation

Subject	Total in Figure or %
Population of Employment in Malaysia, 2016	14,164,200
Professional in Malaysia	12.4%
No of Professional in Malaysia	1,755,300
Confidence Level	95%
Margin Error	5%
Recommended Sample Size	150

4.3 Analysis

The IBM SPSS statistics have been analysed for descriptive statistics. Data is collected using Smart Part Least Square Software (SmartPLS) version 3.2.8 to summarize and view the demographic information collected in the questionnaire. The test model for the validation of the questionnaire was tested and the structural model was tested to evaluate the hypotheses on the factors influencing behaviour willingness of CCA.

5. Results

5.1 Sample

A total of 155 questionnaires have been distributed through the Google Online Response Form. However, the total number of questionnaires with qualified respondents is 145 with a response rate of 93.5%, excluding 10 questionnaires with disqualified respondents. The profile of the respondent includes gender, current job, level of education, ownership of the CCA, frequency of use of the CCA, frequency of storage of personal information on the CCA, the purpose of storage of personal information on the CCA. A summary of the profile of the respondent is shown in **Error! Reference source not found.**

Table 2 Profile of respondents

Demographic Features	Frequency	%	
Gender	Male	66	45.5
	Female	79	54.5
Current Job	Engineer	55	37.9
	Teacher	60	41.4
	Accountant	15	10.3
	Lawyer	3	2.1
	Doctor	3	2.1
	Architect	4	2.8
	Scientist	2	1.4

	Purchaser	1	0.7
	Pharmacist	1	0.7
	HR Executive	1	0.7
Education Level	Bachelor's Degree	115	79.3
	Master's Degree	21	14.5
	Doctoral Degree	122	58.4
	Professional Degree	8	5.5
	Other	1	0.7
Owning Cloud Computing Apps	No	2	1.4
	Yes	143	98.6
Use of Cloud Computing Apps	Daily	125	86.2
	Monthly	15	10.3
	Yearly	1	0.7
	Never	4	2.8
Frequencies of Storing Personal Information on Cloud	Daily	105	72.4
	Monthly	34	23.4
	Yearly	2	1.4
	Never	4	2.8
Purpose of Storing Personal Information on Cloud	Work-Related	115	79.9
	Entertainment	88	61.1
	Collaboration	70	48.6
	Study/Teaching	45	31.3
	Business Purpose	14	9.7
	Personal Backup	1	0.7
	N/A	2	1.4

5.2 Measurement model

Reliability analysis is carried out to check the numerous measurements are consistent and the reliability is assigned to the constructor variable and to check the construct of the measurements without error. Cronbach's Alpha coefficient was adopted to measure the inner consistency of the eight constructs, the behavioural willingness to use, the perception of security concerns, the perception of privacy concerns, trust, the perceived value of CCA, the perception of security and privacy.

Results of the reliability analysis show that Cronbach's Alpha value is 0.933, perceived CCA value is 0.931, perceived security and privacy interventions are 0.942, perceived privacy concerns are 0.947, perceived security concerns are 0.943 and trust is 0.941. It indicates that all constructs with an alpha value ranging from 0.876 to 0.960 are consistent and reliable that meet the acceptable value of 0.7 or above. It has also been confirmed that the measures are homogeneous for the same construction.

In addition, the composite reliability and average variance extracted were constructed as shown **Error! Reference source not found.** to measure the internal consistency and reliability of each development. The composite reliability value ranged from 0.949 to 0.956, with a value greater than 0.70. Apart from that, the average variance extracted ranges from 0.791 to 0.813, with a value greater than 0.70. The validity and reliability of all measurement items used in this study were therefore satisfactory.

Table 3 Measurement model

Constructs	Items	Factor Loading	CR	AVE
Behavioural Willingness	I plan to use Cloud Computing Application to store personal information frequently.	0.801	0.950	0.791
	I will always use Cloud Computing Application to store personal information for better interaction.	0.915		
	I will always use Cloud Computing Application to store personal information for private/public usage.	0.913		
	I intend to continue using Cloud Computing Application to store personal information.	0.891		
	I will recommend others to use Cloud Computing Application to store personal information.	0.922		
Cloud Computing Apps Value	Cloud Computing Apps applies to me.	0.898	0.949	0.788
	Cloud Computing Apps is cost-effective for me.	0.768		
	Cloud Computing Apps is convenient for me.	0.918		
	Cloud Computing Apps is flexible to me.	0.921		
	Overall, I think Cloud Computing Apps benefit me in general	0.924		
Perceived Security and Privacy Intervention	Cloud Computing Apps compliance with Data Protection.	0.853	0.956	0.813
	Cloud Computing Apps enforce Security Protection.	0.894		
	Cloud Computing Apps compliance with Privacy Protection.	0.916		
	Cloud Computing Apps compliance with Data Integrity.	0.907		
	Overall, Cloud Computing Apps prioritize Security and Privacy protection for the user.	0.935		
Perceived Privacy	I concern about data misuse of Cloud Computing Apps.	0.855	0.954	0.806
	I concern about a data breach (data access without authorizing) of Cloud Computing Apps.	0.871		
	I concern about the privacy threat of Cloud Computing Apps.	0.923		
	I concern about data tracking (e.g. cookies) of Cloud Computing Apps.	0.918		
	Overall, I concern about Privacy Protection of Cloud Computing Apps	0.921		
Perceived Security	I concern about access control of Cloud Computing Apps.	0.928	0.950	0.791
	I concern about security enforcement of Cloud Computing Apps.	0.913		
	I concern about security protection of Cloud Computing Apps.	0.886		
	I concern about the security threat of Cloud Computing Apps.	0.847		
	I concern about unauthorized access to Cloud Computing Apps.	0.869		
Trust	The security mechanism of Cloud Computing Apps is reliable.	0.899	0.955	0.810
	Cloud Computing Apps service is reliable.	0.910		
	Data Protection Agreement of Cloud Computing Apps is reliable.	0.894		
	The instruction given by Cloud Computing Apps is reliable.	0.891		

Privacy protection of Cloud Computing Apps is reliable	0.905
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Note: CR: Composite Reliability, AVE: Average Variant Extracted

The Convergent Validity Test was carried out in order to determine that the measures of the constructions, which are connected, are highly correlated. **Error! Reference source not found.** shows that the average variance extracted was more than 0.5, and the composite reliability was more than 0.7. The loadings were in the ranges of behavioural intension (0.801-0.922), CCA value (0.768-0.924), perceived security and privacy intervention (0.853-0.935), perceived privacy (0.855-0.921), perceived security (0.847-0.928) and trust (0.891-0.910).

The Discriminant Validity Test was carried out to determine the measures for different constructions, which should not be highly correlated. It was also used to determine whether the correlation between the measures was an overlapping structure. **Error! Reference source not found.** shows that all value on Heterotrait-Monotrait Ratio (HTMT) below than 0.900 (Hair Jr, Matthews, Matthews, & Sarstedt, 2017), so there is no discriminant validity issue.

Table 4 Discriminant validity coefficients

	Behavioural Willingness	Cloud Computing Apps value	Perceived Security and Privacy Intervention I	Perceived Privacy	Perceived Security	Trust
Behavioural Willingness						
Cloud Computing Apps value	0.729					
Perceived Security and Privacy Intervention I	0.660	0.706				
Perceived Privacy	0.091	0.190	0.099			
Perceived Security	0.064	0.162	0.079	0.885		
Trust	0.739	0.676	0.824	0.050	0.071	

5.3 Structural model

The hypotheses developed for this study were tested by running a bootstrapping procedure with a resample of 2000, as suggested by (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014). The approach of linear regression analysis was carried out to analyse the significant relationship between the dependent variable and independent variables. This study model is effectively to explain the factors influencing the behavioural willingness to store personal information in CCA. The p-value in the structural table that indicates 0.000, which value is < 0.05 , and < 0.01 proved that this study model has explanatory power to predict the relationship between independent variables and dependent variable.

Error! Reference source not found. show that there is two factors had been identified have a positive significant relationship with behavioural willingness to store personal information with CCA. The significant factors are CCA Value ($\beta = 0.391$, $p < 0.01$), and trust ($\beta = 0.424$, $p < 0.01$) while perceived security and privacy intervention ($\beta = 0.034$, $p > 0.05$), perceived privacy concern ($\beta = 0.096$, $p > 0.05$), and perceived security concern ($\beta = -0.095$, $p > 0.05$) do not have significant relationship or not supported.

Table 5 Path coefficients and hypotheses testing.

Hypothesis	Relationship	Path Coefficient	T Values	P Values	Decision
H1	Perceived Security -> Behavioral Willingness	-0.095	0.848	0.198	Not Supported
H2	Perceived Privacy -> Behavioral Willingness	0.096	0.719	0.236	Not Supported
H3	Trust -> Behavioral Willingness	0.424	5.302***	0.000	Supported
H4	Cloud Computing Apps value -> Behavioral Willingness	0.391	5.072***	0.000	Supported
H5	Perceived Security and Privacy Intervention -> Behavioral Willingness	0.034	0.338	0.368	Not Supported

Note: *p<0.05; **p<0.01; ***p<0.01

6. Discussion

This section discussed the findings among the factors that influence the willingness of the behaviour to use the CCA.

6.1 Perceived Security Concern and Behavioural Willingness

Perceived security is the likelihood that unauthorized parties will interpret and manipulate user information during cloud transfer or storage. These findings show that perceived safety concerns do not significantly affect the willingness of the CCA to store personal information. These findings are supported (Widjaja et al., 2019). The findings have shown that, if personal information is less sensitive, users may experience less security threats when they store personal information in cloud storage. Mobile devices are subject to security threats such as malicious codes, including viruses, worms, Trojan horses and spyware. Irrelevant findings may be due to professional employees, such as engineers, teachers and accountants, who rely on CCA for their daily work. This may be due to their confidence in the safety control provided by the CCA. Professional employees also believed in the control in place in these findings; it would have no impact on them. Hypotheses 1 are therefore not supported.

6.2 Perceived Privacy Concern and Behavioural Willingness

Perceived privacy is a concern about any unethical behaviour that CCA may perform with the data of users. The findings show that perceived privacy does not significantly affect the willingness of professional staff to store personal information in CCA. This shows that professional employees who decide to use the CCA are not affected by privacy concerns. This was probably due to the majority of professional staff, such as engineers, who are exposed to technology development and who have confidence in privacy control. This findings supported by Jozani, Ayaburi, Ko, and Choo (2020) have shown that less sensitive personal information may not pose a risk to privacy where users may not even be concerned if personal information is sold by a cloud storage provider. Sensitivity of information could be defined as "the level of privacy that concerns an individual's perception of the type of data in a particular situation" \ (Weible, 1994). Consequently, Hypothesis 2 is not supported.

6.3 Trust and Behavioral Willingness

Trust is one party 's willingness to be sensitive to another party's actions on the basis that the others will act significantly to the trustee, regardless of the ability to monitor or control that

other party. Findings show that trust is significantly influencing willingness to use CCA. This finding consistent with Dinev and Hart (2006). They believed that trust is a “confidence and enticement” beliefs that may influence willingness to provide personal information to transact on the internet. The significant findings may due to teacher believes that CCCA can contribute to impactful learning and teaching experience. Therefore, Hypothesis 3 is supported.

Trust is the willingness of one party to be sensitive to the actions of another party on the basis that the others will act significantly on the trustee, irrespective of the ability to monitor or control that other party. The findings show that trust has a significant impact on CCA 's willingness to use. This finding is consistent with the findings of Fernandes et al (Fernandes & Pereira, 2019). They believed that trust was a "confidence and attraction" belief that could influence the willingness to provide personal information for transactions on the Internet. Significant findings may be based on the opinion of the teacher that CCCA can contribute to an effective learning and teaching experience. Hypothesis 3 is therefore supported.

6.4 Perceived CCA Value and Behavioral Willingness

Perceived CCA value is the extent to which users believe that CCA provides them with benefits. The findings show that the perceived value of CCA significantly affects the willingness to use CCA. The value of CCA may include status monitoring and notifying, purpose of data tracking, data retrieval at any time, anywhere, backup and recovery, and entertainment. Professional employees, such as teachers, rely heavily on CCA to store their teaching materials on Cloud, while engineers, accountants and lawyers store their working documents and data for collaboration purposes. As a result, this hypothesis 4 is strongly supported.

6.5 Perceived Security and Privacy Intervention and Behavioral Willingness

Security and Privacy Intervention refers to a regulatory attempt to ensure that data transactions and storage are safe for users. The findings show that perceived security and privacy interventions do not significantly affect the CCA 's willingness to store personal information. This may be due to the expectations of the professional staff regarding the values provided by the CCA. These findings have been supported by Nikkhah, Grover, and Sabherwal (2018). The findings show that privacy and security interventions do not significantly affect user behaviour when storing personal information on the cloud, as most users are aware of security, privacy and protection risks. However, these findings are inconsistent with the findings Soodan & Rana (Soodan & Rana, 2020). Consequently, Hypothesis 5 is not supported.

7. Implications of the Study

Theoretically, the results revealed that CCA value and trust had a positive impact on the behavioural willingness to store personal information. Perceived security and privacy interventions, perceived security concerns and perceived privacy concerns do not, however, demonstrate a significant positive relationship with the willingness of the CCA to store personal information.

Among the determinants, trust revealed the most significant determinant ($\beta = 0.424$, $p < 0.01$). Most internet users are confident and believe that CCA could bring them benefits and lesser concerns. CCA value ($\beta = 0.391$ $p < 0.01$) shows significant value and these findings are supported by the Communication Privacy Management Theory. This shows that the higher the user's benefit, the greater the online user 's willingness to place their personal information in

the CCA. Professional employees who are concerned with data reliability and data privacy protection can gain trust in using CCA.

CCA providers should focus on highlighting the benefits of CCA to professional employees. Benefits include cloud backup, instant notification, real-time update or alert and instant meeting. Findings have also shown that professional employees use CCA for work-related activities, entertainment and collaboration. This can help the CCA provider to understand the requirements of professional employees and, subsequently, to fulfil the needs, to penetrate and gain market share among professional employees in particular.

8. Limitations and Future Research

The potential limitations of this study are that the data analysis is software-based with no face-to-face communication. Approximately 90% of the research respondents to this study were from a teacher, engineer, and accountant, while another 10% of the total respondents were from a lawyer, a doctor, a scientist, etc. Although the respondent population found similar conditions in Malaysia where the three occupations had a higher population, they may not reflect the same percentage of respondents in a different field.

Other than that, the most frequent users of CCA are excluded from the criteria of the participants, as they are not professional employees. There was a total distribution of 155, but due to their educational background, only 145 respondents were qualified. Correspondingly, their input could not be obtained for further assessment.

The understanding of the factors that influence the CCA will vary depending on the professional classification. Security means different things for different groups, e.g. senior managers and policy makers may take a more holistic view of the storage of company data, and medical professionals may keep patients confidential, and individuals may be more careful when storing their personal financial data, and so on. Then there are 'difficult' categories, such as the social meaning of 'Trust,' which will mean different things to different people as well. This findings does not taken age factors as affecting factors. Thus, it is also not clear which age groups were involved, e.g. it is likely that younger participants are more ready to 'give up' their data to a third party than older users who are more circumspect.

Future research has suggested that all professional staff in Malaysia should provide the average response. This will reflect the feedback on the balance based on the proportion of the population in order to increase the accuracy of the results. Employees in other fields will also be involved in future research. User satisfaction should also be included in future research activities. These factors may be key to fostering and maintaining a loyal relationship with consumers after use (Hsiao, Chang, & Tang, 2016). Thus, this factor can be explored the influential factors in willingness to use CCA.

Conclusions

This study identified the factors that influence the ability of professional employees to store personal information in the CCA. Results have shown that trust has a significant impact on the willingness to store behaviour in the CCA. The value of the CCA was followed. This study helps identify the important factors that the relevant parties should focus on in order to achieve their best practices. Despite the findings, new techniques for promoting and expanding the willingness to store personal information in the CCA should also be derived from the relevant organization or industry. Such a policy decision requires a more comprehensive study.

Relevant to Communications Multimedia Blueprint 2018-2025 (Ministry of Communications and Multimedia, 2018), the government is expected to continue to support cloud computing in Malaysia. This will be consistent with the shift from environmental services to online service delivery and physical infrastructure to cloud-based shared services. The Government should also consider imposing tax incentives and offering mortgage assistance to the relevant organizations adopting the CCA. As a result, it could indirectly gain trust in the case of professional employees.

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