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User's Satisfaction Towards Course File Information System (CFIS): The Role of Green IT Attitude, Self-Efficacy and CFIS Training

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Abstract
This study aims to investigate the role of green information technology (GIT) attitude, self-efficacy and Course File Information System (CFIS) training towards the relationship between technology acceptance and user satisfaction on CFIS. CFIS was developed to help the Faculty of Business and Management (FBM) manage and handle course file info of every program in FBM via Internet. The Technology Acceptance Model was adapted as a research model and focusing GIT attitude as a mediating variable, self-efficacy and CFIS's training as moderators. A quantitative method was employed to test the research model using the PLS-SEM technique. Using a purposive sampling technique, this study received feedback from 173 academic staff regarding CFIS usage. The PLS-SEM analysis shown that all the indicated factors significantly influenced the user's satisfaction towards CFIS usage. Meanwhile, the GIT attitude does mediate the relationship between technology acceptance dimensions and user satisfaction. Likewise, the relationship between perceived usefulness and GIT attitude was stronger when CFIS training is higher. This study will hope to provide a guideline to the management of higher education on how to improve their organizational performance through information system (IS) innovation.

Keywords: User's Satisfaction, Information System, Perceived Ease of Use, Perceived Usefulness, Green IT Attitude, Innovation, Self-Efficacy, Training

Introduction

In conjunction with Green Technology Master Plan Malaysia (GTMP) 2017-2030, our government has taken the green technology initiative to align with Sustainable Development Goal (SDG) in supporting green-nation for future life. According to the GTMP (2017-2030), Malaysia has gauged in reducing the Green House Gas (GHG) emissions intensity of Gross Domestic Product (GDP) by 45% by 2030 relative to GDP's emissions intensity in 2005.

To support Green IT towards sustainability in reducing GHG emissions, the Faculty of Business and Management (FBM), Universiti Teknologi MARA (UiTM) Selangor has initiated an e-course file database management system namely, Course File information system (CFIS). The system is used to compile and organize the course files in FBM automatically via the Internet. This online course file management system was created to reduce paper-based for resource person (RP) and all lecturers who taught the same code with RP. The initiative is one of the efforts toward innovation and green IT in FBM. Moreover, CFIS was developed to facilitate a record-keeping of relevant documents used for teaching and assessing all courses taught in FBM. It was designed for the RP and lecturers to update their course and teaching

materials online anywhere and anytime. The new online system consists of course content, notes/materials, rubrics, and assessment methods to improve a specific course offered and references to the lecturers. A course file is documented evidence of teaching and learning that helps the RP review and improve the class's teaching and learning process.

According to Anwar and Ahmed (2013), many accreditation agencies urged universities to keep up course files as an essential element for keeping track of the educational process's quality. It also indicates the course's effectiveness is taught and assessed for an individual course offered. The researcher has stated that paper-based course files that have been maintained manually lead to various disadvantages such as physical storage, retrieval issues, recurring paper, location-wise, and printing costs. Hence, it can negatively impact the papermaking and disposal stages of the paper life-cycle.

During the Covid-19 pandemic, the academic staff have to work from home and it is difficult for them to update the course and teaching files manually. Likewise, it will also delay the faculty auditing process. Therefore, CFIS was developed to overcome the problems occurring in the conventional system. The new online system has provided many benefits, which the conventional system cannot give, in any type of situation (Namik et al., 2019). It is necessary for the faculty to keep track of teaching and learning activities and audit the course and teaching files that keep the faculty running smoothly and successfully. Keeping track of all the activities and their records on paper is very cumbersome and error-prone (Pinho, Franco & Mendes, 2018). Pinho et al. (2018) also stated that the conventional system is a very inefficient and time-consuming process. Moreover, executing analytical tasks by management users was also not easy on the conventional system. However, to ensure the effectiveness of the new system, it is important to discover the satisfaction dimensions of the users to reveal their preferences on the online services (Nilashi et al., 2021). Nilashi et al. (2021) also stated that the user's reviews are a valuable source of information to identify the main concerns of the users and satisfaction level can be effectively revealed.

Moreover, Kasim et al. (2012) also stated that user satisfaction is the essential information system success criteria. Therefore, understanding and evaluating the user's satisfaction and attitude lead to a critical element to determine the value and effectiveness of the CFIS implementation. Many studies related to information system satisfaction are only focused on the basic attitude of the users. However, to fill up the gap of the studies related to user satisfaction, the current study focused on the role of green IT attitude and the moderating effect of CFIS training, and the user's ability to use the current technology. Hence, this study was conducted to determine the role of green IT attitude towards CFIS satisfaction among the CFIS users and does the CFIS training and self-efficacy play a role to improve the relationship between technology acceptance and user satisfaction towards CFIS implementation. It is also instrumental in advocating user acceptance of information system use, in ensuring an appropriate level of fit between the user needs and expectations.

Previous studies have argued that the implementation of educational technologies depends mostly on the attitudes of the educators (Oner & Nilay, 2012; Klieger et al., 2010; Pierce & Ball, 2009; Glaze et al., 2009; Hixon & Buckenmeyer, 2009; Liu & Szabo, 2009; Goktas et al. 2008; Sang et al., 2010). Previous studies also indicated the attitude of teachers towards ICT considered an essential issue in this research. Nevertheless, Bullock (2004) has identified that teachers' attitude is also considered another vital element in adopting technology. Kersaint et al. (2003) also mentioned that the teachers with positive attitudes towards technology feel more comfortable using technology in their teaching activities.

This study begins with a review of the previous literature related to technology acceptance and satisfaction. Moreover, this study also explores the green IT attitude, which plays a vital role in this context. Based on the previous studies, the identified variables were examined, the link

between them, and the hypotheses that give rise to the proposed model, with variables and indicators measured using the data obtained from the lecturers at FBM UiTM Selangor through e-survey during the CFIS training. The proposed model is then validated using SmartPLS Version 3.3.3 software (Ringle et al., 2015), where the hypotheses are tested. Finally, the results of the study were discussed, and conclusions emerge.

Literature Review

Green IT Research

Increasing concerns for IT's impact on environmental sustainability has led to Green IT's emergence (Dezdar, 2017). It refers to the study and practice of pro-environmental IT, such as the design, manufacture, use and disposal of IT efficiently and effectively (Melville, 2010). The four green IT initiatives are green design, green manufacture, green use and green disposal (Murugesan, 2008). Green design is related to the creation of energy-efficient IT equipment. Green manufacture refers to minimizing the negative environmental impacts of the IT manufacturing process. Green use can be associated with decreasing the energy usage of IT equipment. Green disposal can be linked to reducing electronic waste by restoring and reprocessing IT equipment (Murugesan, 2008). This study focuses on green use, such as minimizing the carbon footprint through energy-efficient IT equipment and less printing (less paper reporting). Green IT has attracted many organizations since the initiative could enhance their economic performance and address environmental sustainability (Asadi et al., 2019). While understanding organizational factors of Green IT adoption are essential, it is also vital to understand the individual-level factors since every individual in the organization plays his/her role in supporting the Green IT initiatives or policies (Molla et al., 2014; Dezdar, 2017). However, there is still a limited study of Green IT adoption from the individual level (Asadi et al., 2017).

Technology Acceptance Model (TAM)

TAM is a model that explains and predicts an individual's acceptance of IT using two key factors of perceived ease-of-use (PEOU) and perceived usefulness (PU) Davis (1989). PEOU is the degree to which someone believes that a particular technology can be easily used. PU is the extent to which someone believes that technology can provide values or benefits in improving job performance (Davis, 1989). TAM's parsimony and predictive power have attracted massive support for its use in IT acceptance research (Kim et al., 2009). TAM has been widely acknowledged as one of the most influential models of information technology acceptance. The model has been extended in numerous information systems studies to predict individual acceptance of new technology. Still, few studies using this framework are found in the area of Green IT (Yoon, 2018). In this study, TAM is used as a theoretical basis to explain and predict new technology users.

Research Model

The research model is based on the TAM (Davis, 1989) in which two key variables of PEOU and PU are being used to explain and predict user satisfaction. Green IT attitude (Molla et al., 2014) is introduced in the model to accommodate a specific attitude toward using Green IT behaviour. Meanwhile, CFIS's training and self-efficacy was adapted as a moderator for the study. The proposed research model can be seen in Figure 1.

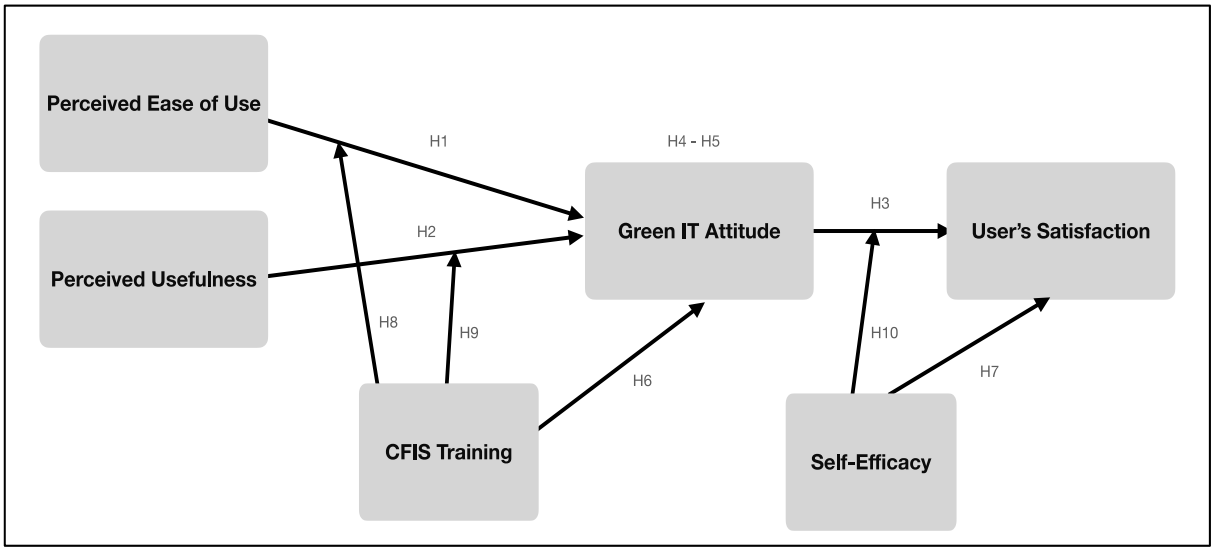

Figure 1: Research model

The Direct Relationship Between Perceived Ease of Use, Perceived Usefulness and Green IT Attitude

Attitude is affected by both perceived ease of use and perceived usefulness (Davis et al., 1989). These economic factors of TAM, perceived usefulness and perceived ease of use, need to be considered in the study of Green IT adoption (Yoon, 2018). Attitude toward Green IT refers to individuals' appraisals of the IT role in environmental sustainability (Molla et al., 2014). In this way, users' perceptions of the easiness and the usefulness of the eco-friendly technology being used will be more likely to affect the technology's attitude. As such, the following hypotheses are given:

H1: Perceived Ease of Use positively influences Green IT Attitude.
H2: Perceived Usefulness positively influences Green IT Attitude.

The Direct Relationship Between Green IT Attitude and User Satisfaction

Ajzen (1991) defines attitudes as the extent to which an individual has a positive or negative evaluation toward behaviour. Attitudes toward using technology can predict users' technology acceptance (Davis et al., 1989). Whether individuals take Green IT seriously will depend on their sentiments on the pro-environmental issue (Molla et al., 2014). In other words, attitudes toward Green IT can affect the use of green technology (Dezdar, 2017; Asadi et al., 2019) and influence user satisfaction. Positive attitudes toward technology being used can influence user satisfaction (Mahmood et al., 2000). Thus, the following hypothesis is proposed:

H3: Green IT Attitude positively influence User Satisfaction on CFIS

The Mediating Role of Green IT Attitude

Based on the Technology Acceptance Model (Davis, 1989), PEOU and PU are two key variables that influence an individual's technology acceptance. Users are more likely to accept the technology when they perceive the technology as easy to use or less effort is required to use it. Similarly, users are more likely to use the technology if they perceive the technology can provide benefits, like improving their job performance (Davis, 1989). Both PEOU and PU are strongly related to user satisfaction. End-users are more likely to be satisfied with the

technology when they perceive the technology as easy to use and useful (Mahmood et al., 2000; Lee & Park, 2008).

Moreover, Davis et al. (1989) posits that attitude can mediate the relationship between technology acceptance factors (PEOU and PU) and intention. The beliefs of the easiness and the benefit of technology can affect the acceptance or user satisfaction with the technology via attitude toward using the technology. The main factor influencing the users' acceptance of green technology is green IT's attitude (Chow & Chen, 2009; Dezdar, 2017). Positive attitudes toward the technology being used will be more likely to increase the level of user satisfaction (Mahmood et al., 2000). The more significant beliefs of using eco-friendly technology will result in a positive green IT attitude and increase user satisfaction. Similarly, the more significant views of the eco-friendly technology's usefulness will cause a positive green IT attitude and then yield greater user satisfaction on the technology being used. Therefore, the following hypotheses are proposed:

H4: Green IT Attitude mediate the relationship between Perceived Ease of Use and User Satisfaction on CFIS

H5: Green IT Attitude mediate the relationship between Perceived Usefulness and User Satisfaction on CFIS

The Direct and Moderating Effect of CFIS Training and Self-Efficacy

In an organization, training is important for staff development and it will drive people for possible future promotion. Other than that, training facilities also will ensure substantive development in the business environment. According to Ariyabuddhiphongs and Kahn (2017), the training facilitates will provide huge impacts on organizational profitability, employee retention, and employee performance. In the rapidly changing business environment across the world with environmental uncertainty, the organization's difficulties in dealing with the new challenges (Ashton, 2018). Thus, the organization should invest in training programs that can tackle the uncertainties through effective decisions on time to remain competitive in the market in order to produce a competent employee in the organization.

Previous studies have argued that training is essential to improve employee's attitude (Pham et al., 2020; Loosemore & Malouf, 2019). Employees with positive attitudes become stakeholders in the process, and job accomplishment is of a higher priority. Furthermore, successful organizations achieve a partnership between workers and management. The block includes participation in teamwork activities and continuous learning applications. Therefore, the proper efficient training is advantageous for the organization in different ways in building and maintaining competences both for individual and organization which in turn, participates in the process of organizational change (Kasemsap, 2017).

H6: CFIS Training positively influence Green IT Attitude

According to Bandura, (1977) increasing employees' self-efficacy was one of the main strategies to increase the number of performances in the organization and it is also related to self-assessment that influences decisions about undertaking certain behaviours in the organization. In this study, self-efficacy is defined as the users' belief in their capability to use a web system in performing their academic tasks and lead to their satisfaction with the information system that is developed. Therefore, the following hypothesis was constructed:

H7: Self-Efficacy positively influence User Satisfaction on CFIS

Previous studies have argued that user's knowledge of the system will influence their attitude or behaviour towards the system usage (Mota & Cilento, 2020; Pham et al., 2019). System training helps to increase employee knowledge and self-efficacy in the organization (Houwelingen et al., 2021). Thus, it will lead to better attitude towards system usage and improve user's satisfaction towards the system that they will be used in the organization. The user's satisfaction towards the online system that the organization developed is important to ensure their motivation in using the proposed system for enhancing organizational performance (Alruwaiea et al., 2020).

Based on the above reviews, this study proposed a significant view on system training and self-efficacy will provide a positive impact in our study. Thus, the following hypothesis been proposed:

H8: The positive relationship between Perceived Ease of Use and Green IT Attitude will be stronger when CFIS Training is high.

H9: The positive relationship between Perceived Usefulness and Green IT Attitude will be stronger when CFIS Training is high

H10: The positive relationship between Green IT Attitude will be stronger when Self-Efficacy is high

Methodology

This study employed a quantitative research approach technique. The sample was selected from the academic staff of a Faculty of Business Management, UiTM Campus Selangor, the unit analysis for this study. An e-questionnaire was distributed to all the academic staff as the user of CFIS. Based on the record, the total number of lecturers recorded are 198, but only 173 were responded for this study. G-Power software being used to calculate the sample of the size required for this study. Based on the effect size set at 0.15, an alpha level of 0.05, and 5 predictors, a minimum sample of 138 was considered appropriate. However, taking the suggestions of Hair et al. (2014) that larger sample improves precision and reliability of PLS-SEM results, the questionnaires were distributed to more than 138 lecturers. As this study focuses on measuring the initial stage of CFIS, it is expected that users need to blend the system's environment with the function provided. The perception and experience user using this system will be calculated to measure the system's robustness and deliverability.

The research instrument used in the present study was developed based on the items used and tested in the previous studies. The items were slightly amended to make it appropriate for the context of the study. The items for perceived usefulness, perceived ease of use, green IT attitude, self-efficacy, CFIS's training and user satisfaction were applied using a 7-point Likert scale. The scale ranging from 1 as strongly disagree to 7 as strongly agree, and data was collected using online survey. A link to the e-questionnaire was provided to the respondent. All participants took around 20-30 minutes to complete the e-questionnaire. Respondent was requested to complete the e-questionnaire after they have been trained and using the system. The questions were created by adopting and adapting from the previous research from the relevant literature (Kautish & Sharma, 2019; Garcia et al., 2019). Before the actual survey was conducted, a face and content validity of the instrument was verified. The questionnaire was pre-tested; they were asked to critically evaluate the questionnaire concerning the objectives, contents, clarity and ease of completion.

In collecting the data, the study population comprised those involved as the user who used CFIS. The sample of the study was chosen using a purposive sampling technique. The purposive sampling technique was chosen because it is useful since it only targets the lecturers who have experience using CFIS. The e-survey form was given to the CFIS users during the

CFIS workshop training implemented in October to November 2020. The study used perceptual measures to capture data as these are acceptable measures in most survey research.

Results

Results in Table 1 reveals the respondents' percentages, where 80.9 per cent were female and 19 per cent male. The majority of the respondents were 36-45 years old (47.4%), followed by 16.8 of them aged between 46 and 50. The remaining are below 35 years old (13.3%), 51-55 years old (12.1%), and >55 years old (10.4%). Most of the respondents, 58.4% received Masters as their highest level of education while others own a PhD (41.6%). Aimed at position level, most respondents are senior lecturer (75.7%) followed by lecturer (14.5%). The remaining are Associate Professor (8.1%) and Professor (1.7%). The ensure the robustness of the findings, the survey was sent to all academic departments of FBM as in Table 1.

Table 1: Demographic Details

	Frequency	**Percentage**
Gender		
Female	140	80.9
Male	33	19.0
Age		
Below 35 years	23	13.3
36 – 40 years	41	23.7
41 – 45 years	41	23.7
46 – 50 years	29	16.8
51 – 55 years	21	12.1
56 – 60 years	18	10.4
Highest Education		
Master	101	58.4
PhD	72	41.6
Years of teaching		
Less than two years	3	1.7
2 – 5 years	4	2.3
6 – 10 years	48	27.7
11 – 15 years	51	29.5
16 – 20 years	32	18.5
More than 20 years	35	20.2
Position		
Lecturer	25	14.5
Senior Lecturer	131	75.7
Associate Professor	14	8.1
Professor	3	1.7
Academic Background		
Customer Service	6	3.5
Economics	18	10.4

	Frequency	Percentage
Entrepreneurship	15	8.7
Event Management	9	5.2
Finance	17	9.8
Health Administration	9	5.2
Human Resource	13	7.5
Insurance	4	2.3
International Business	9	5.2
Islamic Banking	8	4.6
Management	12	6.9
Marketing	13	7.5
Office System Management	18	10.4
Operations Management	9	5.2
Retailing	4	2.3
Transport	9	5.2
TOTAL	**173**	**100**

Data Analysis

This study uses the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method using SmartPLS Version 3.3.3 software (Ringle et al., 2015). The study model used a two-stage approach that analysed the measurement and structural model (Anderson & Gerbing, 1988). Various methods are used to test the accuracy and reliability of the data collection. The bootstrapping process (500 samples) was used to test the relations' hypotheses (Hair et al., 2017).

As the data collected from this study are obtained from self-reported questionnaires and, in particular, from the same person, the standard method variance must be examined (Podsakoff et al., 2003). The paper focused on both methods and statistical approaches before and after data collection. In addition to implementing the methodological guideline when developing the questionnaire, a statistical approach was also used to evaluate the Common Method Variance (CMV) problem by adopting the Rönkkö and Ylitalo (2011) guideline, which included a method factor an indicator (called a marker variable) for all endogenous constructs. By following Lin, Huang and Hsu (2015) study, the marker variables were constructed as an exogenous variable predicting each endogenous design within the model. As all significant effects remained important and R^2 improvements were minimal by 1% - 3%, the inference can be drawn that CMV is not a severe problem.

Assessment of Measurement Model

Various techniques were used to determine the unidimensionality and reliability of the collected data. Following the guideline by (Hair et al., 2017), factor loadings, composite reliability (CR) and average extracted variance (AVE) were accessed to confirm the data's convergent validity. The study's findings revealed that the loading factor of each item in the measurement model surpassed 0.7. The measurements' reliability was measured using CR index and AVE index. AVE of constructs ranged from 0.717 to 0.933. Likewise, CR of constructs ranged from 0.938 to 0.982. Consequently, both statistics follow the convergent validity criteria. As shown in Table 2, all values meet the recommended internal threshold (Hair et al., 2014).

Table 2: Measurement Model

Constructs	Items	Loadings	AVE	CR
Green IT Attitude	It is a convenient thing for me to practice in the workplace.	0.970	0.933	0.982
	It is a good thing for me to practice in the workplace.	0.973		
	It is a pleasant thing for me to practice in the workplace.	0.964		
	It is a sensible thing for me to practice in the workplace.	0.957		
Perceived Ease of Use (PEOU)	Using CFIS to update the course file/teaching file would be easy for me.	0.919	0.809	0.944
	Using CFIS to update the course file/teaching file would require minimal effort to understand.	0.836		
	Using CFIS to update the course file/teaching file is flexible.	0.926		
	Using CFIS to update the course file/teaching file is intuitive.	0.915		
Perceived Usefulness (PU)	Using CFIS to update the course file/teaching file would increase the efficiency of my teaching work.	0.908	0.825	0.949
	Using CFIS to update the course file/teaching file would make it easier to track my teaching work.	0.926		
	Using CFIS to update the course file/teaching file would be useful for me as a lecturer.	0.934		
	I would feel enjoy to update the course file/teaching file using CFIS.	0.863		
CFIS Training	My company provides adequate training opportunities for CFIS system.	0.909	0.877	0.966
	Training is designed and conducted to substantially increase user's knowledge on the CFIS usage.	0.944		
	Training is designed and conducted to influence my attitudes concerning this new system.	0.938		
	Training is designed and conducted to help me better conceptualize what I should do to update the course file/teaching file	0.953		
Self-Efficacy	I can access the contents of the CFIS.	0.896	0.717	0.938
	I can freely navigate the contents of the CFIS system.	0.915		
	I can use the CFIS without needing to	0.854		

Constructs	Items	Loadings	AVE	CR
	be told how it functions.			
	I can solve problems that arise on the CFIS system.	0.876		
	I can use the CFIS system if there are user manuals available.	0.703		
	Overall, I am able to use the CFIS system without any assistance.	0.818		
	Using CFIS to update the course file/teaching file has met my expectation.	0.914	0.874	0.976
	Using CFIS to update the course file/teaching file is excellent.	0.957		
	I am satisfied with CFIS to update the course file/teaching file that I am using.	0.919		
User Satisfaction	Using CFIS to update the course file/teaching file is effective.	0.944		
	Using CFIS to update the course file/teaching file has helped the faculty to provide reliable services.	0.930		
	Overall, I am satisfied with the new system to update the course file/teaching file.	0.944		

Additionally, the discriminant validity was also tested to ensure there is no multicollinearity issue existed in this study. This was done using Heterotrait-Monotrait Ratio (HTMT) technique by examining *r* correlation value between the constructs. The results (Table 3) showed that *r* correlation values between the independent variables were below than 0.95, indicating adequate discriminant validity; this can be concluded there is no overlapping construct exists.

Table 3: Discriminant Validity (HTMT)

Construct	1	2	3	4	5	6
(1) Green IT Attitude						
(2) PEOU	0.846					
(3) PU	0.930	0.878				
(4) Users Satisfaction	0.921	0.872	0.947			
(5) Self-Efficacy	0.758	0.739	0.803	0.819		
(6) CFIS Training	0.843	0.794	0.855	0.877	0.766	

Assessment of Structural Model

After the measurement model was established, next, the analysis moved to structural model evaluation. The existence of strongly correlated construct was tested using a collinearity test. The collinearity test was conducted by calculating the variance factor inflation (VIF) values. The findings revealed that the inner VIF values ranged from 2.070 to 4.618 below the suggested VIF threshold < 5.0 (Hair et al., 2017), which indicated that in this analysis multicollinearity was not an issue.

Next, as Hair et al. (2017) suggested, the hypothesis formed for this study was tested by running a resample 500 bootstrapping procedures. PU and PEOU predicted Green IT Attitude, which in turn, H1 and H2 were confirmed (β=0.597, t=5.292, p<0.000) and (β=0.159, t=2.018, p=0.022). The Green IT Attitude substantially predicted satisfaction and, therefore, H3 was accepted (β =0.703, t=13.096, p<0.000). Likewise, the direct effect between Training (β =0.216, t=3.019, p=0.001), Self-Efficacy (β =0.270, t=4.786, p<0.000) on user's satisfaction towards CFIS are also significant. Both H6 and H7 were supported.

The bootstrapping test also found that the indirect effects of Green IT Attitude between the PU, and user's satisfaction towards CFIS was significant (β=0.419, t=4.731, p<0.000). Meanwhile, the indirect of Green IT Attitude between PEOU and user's satisfaction towards CFIS was also significant (β=0.112, t=2.059, p=0.020). Therefore, both the mediating hypotheses H4 and H5 were supported. Both the direct and indirect impact 95 per cent Boot CI Bias Corrected do not straddle a 0 in between that suggested by Preacher and Hayes (2004), which is the results are valid. Thus, it can be inferred that the results of direct and indirect effect are statistically significant. The findings of the hypotheses testing are summarized in Table 4.

The findings further described the exogenous constructs collectively, which explained the endogenous construct variance. According to (Cohen 1988), R^2 for endogenous latent variables varies from zero to one (i.e., 0.26 = substantial, 0.13 = moderate, and 0.02 = weak). The results shown that PEOU, PU and CFIS Training explained 83.3% of Green IT Attitude variation. Subsequently, the satisfaction of using the CFIS system explained by 84% of this variation in Green IT Attitude. The evidence showed that the R^2 values had a substantial explanatory, demonstrated it is a significant model.

Besides, the effect sizes (f^2) were calculated to assess the impacts of exogenous latent constructs on endogenous latent constructs, which were either weak, moderate, or substantial. Using the guideline by Cohen (1988) in which f^2 values of 0.02, 0.15, and 0.35 respectively reflect small, medium, and large effects. The results indicated that PEOU had a little impact in producing the R^2 for Green IT Attitude (0.045). This is followed by CFIS Training that had no substantial impact on Green IT Attitude (0.088). Meanwhile, PU is having a larger effect on Green IT Attitude (0.460) compare to PEOU. The Green IT Attitude also had a larger effect on satisfaction with the effect size of 1.495.

The moderating effect of CFIS Training on the relationship between PU and Green IT Attitude was significant (β=-0.159, t=1.656, p=0.049) and the interaction plot for this relationship was shown in Figure 2. The interaction plot shown that the effect of PU on Green IT Attitude is stronger when the CFIS Training is high and weaker when the CFIS Training is low. On the other hand, CFIS training does not moderate the relationship between PEOU and Green IT Attitude. The result also found that the Self-Efficacy does not moderate the relationship between Green IT Attitude and user's CFIS satisfaction. Thus, only H9 was supported while H8 and H10 were not supported.

Additionally, the predictive relevance of the model was checked. The model can be considered to have a predictive significance to endogenous systems if the Q^2 value is greater than 0 (Hair et al., 2017; Ramayah et al., 2018). Overall, the Q^2 values of IT Green Attitude (0.699) and Satisfaction (0.651) showed that the model had adequate statistical relevance for model motivation. The final model was shown in Figure 3. The green highlighted is showing these hypotheses are supported for this study.

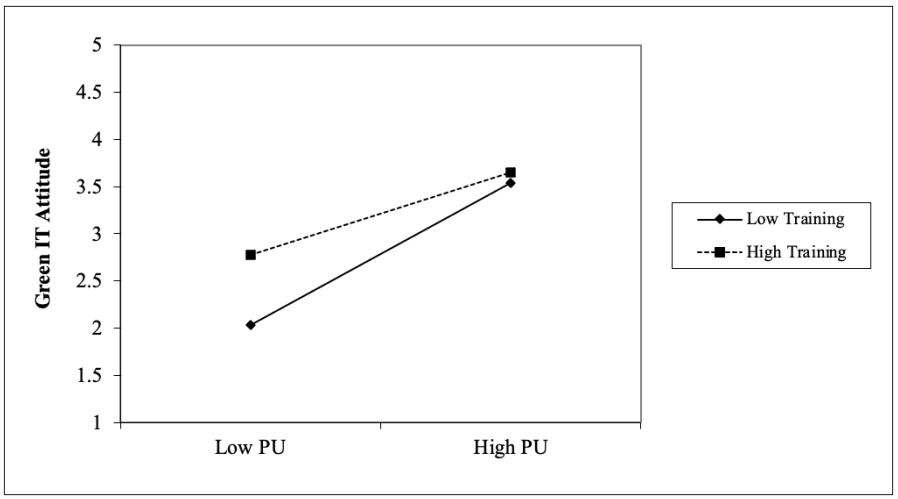

Figure 2: Interaction Plot

Table 4: Structural Model

Hypothesis	Relationship	Beta	Std. Deviation	t-value	p-value	BCI LL	BCI UL	f^2	VIF
Hypothesis Testing for Direct Effect									
H1	PEOU -> Green IT Attitude	0.159	0.079	2.018	0.022	0.024	0.278	0.045	3.326
H2	PU -> Green IT Attitude	0.597	0.113	5.292	0.000	0.416	0.795	0.460	4.618
H3	Green IT Attitude -> Satisfaction	0.703	0.054	13.096	0.000	0.618	0.786	1.495	2.070
H6	Training -> Green IT Attitude	0.216	0.071	3.019	0.001	0.093	0.333	0.088	3.166
H7	Self-Efficacy -> Satisfaction	0.270	0.056	4.786	0.000	0.178	0.360	0.221	2.070
Hypothesis Testing for Mediating Effect									
H4	PEOU -> Green IT Attitude -> Satisfaction	0.112	0.054	2.059	0.020	0.020	0.196		
H5	PU -> Green IT Attitude -> Satisfaction	0.419	0.089	4.731	0.000	0.291	0.571		
Hypothesis Testing for Moderating Effect									
H8	Train*PEOU -> Green IT Attitude	0.142	0.101	1.404	0.081	-0.006	0.320		
H9	Train*PU -> Green IT Attitude	-0.159	0.096	1.656	0.049	-0.344	-0.042		

Hypothesis	Relationship	Beta	Std. Deviation	t-value	p-value	BCI LL	BCI UL	f^2	VIF
H10	SE*GIT -> Satisfaction	-0.023	0.045	0.509	0.305	-0.058	0.097		

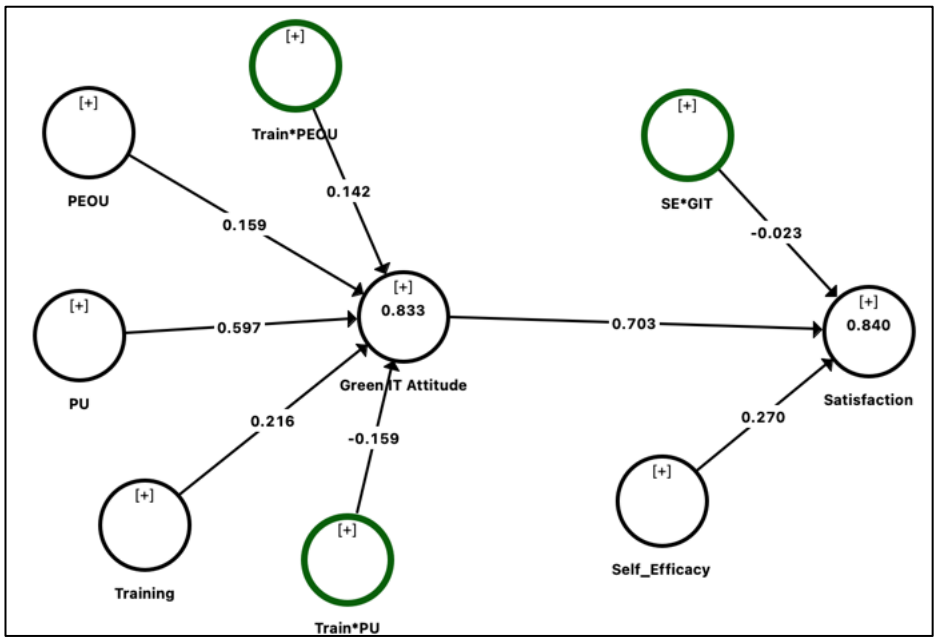

Figure 3: Structural Model Result

Discussion

Having online information systems are essential in almost industries for managing an organization's records automatically. The higher education industry also does not run away from this situation where digital information systems are crucial in today's life. Managing academic course file records manually is troublesome if the faculty doesn't have a proper record management system, especially when it has many programs to operate. Therefore, CFIS has been developed to overcome this problem. Nevertheless, without the support from the academic staff of the faculty, the system will render useless. User's acceptance of the new system development is vital in the institution. More importantly, the online system will affect the institution in managing the course file record effectively and efficiently. Likewise, in the industry revolution 4.0 (IR4.0) era, most of everything and everyone is getting online. Therefore, having this online system is essential for FBM.

In this study, users' attitude on practicing green IT was proposed as a mediating factor between the TAM factors (perceived ease of use and perceived usefulness) and user's satisfaction with CFIS implementation. As the technology keeps updated every day, technology needs to be matched with personal and organization. One of the technologies that been introduced in our daily life is Going Green. According to Jailani et al. (2014), green IT implementation's success is influenced by human attitude. The current study findings show that the user's green IT attitude mediates the relationship between technology acceptance factors and the user's satisfaction towards CFIS implementation. The result findings also showed that the indirect relationship between perceived usefulness and CFIS satisfaction among FBM academic staff is highly mediated by green IT attitude. This indicates that users' positive attitude on practicing IT attitude plays a vital role in increasing user satisfaction related to online system usage.

Previous studies found that users' attitudes were a significant predictor of users' intention to use an information system (Verma et al., 2018; Hussien, 2017; Cheung & Vogel, 2013). Other studies also discussed the vital role of green IT attitude, leading to users' acceptance in using the organization's online system or any institution (Shahin, 2020). Previous research paid less attention to investigating the relationship between green IT attitude and user satisfaction with the online system. However, this study focused on green IT practice among users to measure their green IT attitude.

Moreover, the research findings showed that CFIS training is positively influenced green IT attitude. Likewise, CFIS training is also shown to moderate the relationship between perceived usefulness and the green IT attitude of academic staff. This is indicated that CFIS training plays an important role to improve green IT attitude among the academic staff in accepting the proposed information system that implemented in the faculty. However, CFIS training does not moderate the relationship between perceived ease of use and green IT attitude. Most of the academic staff is familiar with the information system and has no issue adopting any technology. This is supported by the research finding which is self-efficacy did influence user satisfaction on CFIS usage while the role of self-efficacy as a moderator is insignificant. The academic staff is more concerned about the usefulness of the information system and the innovative system should reduce their tasks especially during the COVID-19 pandemic that required them to work from home.

In line with previous studies, the current study found that perceived ease of use and perceived usefulness significantly influenced users' attitudes in using new technology (Verma et al., 2018; Hussien, 2017). The use of CFIS can be more effective when the new system is useful and easy to use. Therefore, in the future, the institution management team should consider these elements when proposing a new system, especially the new system is required to be developed and implemented in the institution for replacing a manual system. The greater an innovation's usefulness, the greater it's capacity to help the institution achieve its strategic objectives and meet its performance goals.

Conclusion

On utilizing TAM basics and focusing on users' perceptions of their attitude toward practicing green IT, this study discovers that all the indicated factors have significantly influenced the user's satisfaction with CFIS usage. Moreover, users' positive attitude toward practicing green IT plays an essential role in mediating the effect of perceived ease of use and perceived usefulness. Likewise, the research findings also show that the relationship between perceived usefulness and green IT attitude is stronger when the CFIS training is higher compare to lower CFS training. Most of the respondents at any generation based on their age were agreed that all these elements are essential to influence them to use a new online system, mostly this is related to managing their teaching and learning records. The findings of this study confirmed the validity and reliability of the research model in the context of CFIS usage. The research model was empirically validated and offered several significant implications to the faculty's management, especially in managing records related to teaching and learning effectively and efficiently. Likewise, during pandemic situations where the academic staff cannot move around, the automated and online system is essential.

Similar to any other research, there are some limitations to this study. This study only focused on academic staff at FBM, UiTM Selangor Puncak Alam Campus, whereby the findings may not hold for other places. Therefore, it was encouraged to explore a similar study in other parts of the world with a different culture.

Additionally, this study only focused on the two TAM elements, which are perceived ease of use and perceived usefulness. It would be interesting if future researchers can adapt more

potential variables that might influence user satisfaction using a new innovative system that can improve their work productivity. The potential moderating factors such as top management support and trust are encouraged to be explored in future research.

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