International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 6, Issue 4, 2019

Assessing user Perception of Intention to use Customer Relationship Management (CRM) System for Future Adoption in Firms

***Omar Bin Musa[a], Noor Raihan Abdul Hamid[b], Siti Harrijah Binti Mohammad[c], Normaiza Mohamad[d],** [a,c,d]Faculty of Business and Technology, UNITAR International University, [b]Vice Chancellor Office, UNITAR International University,
***Corresponding Author Email**: omarm@unitar.my

This study uses the Technology Acceptance Model (TAM) to investigate potential users regarding their intention to use the Customer Relationship Management (CRM) system for future adoption in their firm. The aims are to examine determinant factors such as perceived usefulness, perceived ease of use and external variables such as attitude toward changes and computer self-efficacy that may affect the intention to use CRM. Simple Linear Regression analysis was conducted to determine the direct relationship between perceived usefulness, perceived ease of use, attitude toward changes and computer self-efficacy with intention to use. Multiple Regression analysis was carried out to test for the indirect relationship between attitude toward changes, and computer self-efficacy with intention to use mediated by perceived usefulness and perceived ease of use. Based on the results, it was confirmed that all direct relationships among variables are significant. All indirect relationships are also significant indicating a full mediation effect in which perceived usefulness has a stronger effect as a mediator than perceived ease of use.

Key words: *CRM, TAM , Intention to Use ,Firm adoption , Change Management.*

Introduction

In a competitive market, capturing and maintaining an increasing number of customers is very critical (TO Jones & WE Sasser, 1995). Achieving a very high customer satisfaction through various marketing efforts should be a key critical task for companies. The use of technology is important in managing transactions, organizing and synchronizing sales, marketing management, provision of customer service support and technical support. Customer Relationship Management (CRM) systems have been introduced as an important software system supporting the interaction between firms with current and potential customers.

Background

Firms need to adopt a CRM system, but the adoption of the information system (IS) is a critical and ongoing challenge (Salleh, 2013). Organizational capability influence the success of IS adoption. An organizational culture that falls under organization capability are interrelated to IS adoption and utilization (Salleh, 2013; Olajoke & Olamide, 2017). Organizational culture highlights culture as learned around major issues of external adaption and internal integration, and it is always in the process of formation change (Schein, 1984). The people are the source for change, readiness to accept change is reflected in user beliefs, attitude and intention (Susanto, 2008). Perceived usefulness and perceived ease of use are determinant factors for user acceptance which causes the user to accept or to resist the information systems (Davis, 1986). This study will focus on determinant factors of user acceptance on intention to use the CRM system for future adoption in a firm.

There are great expectations for what CRM can accomplish such as to maximize the value of every customer. However, identifying critical success factors is important because failure rates of CRM project are high when there are lack of focus in-depth understandings of the issues of integrating culture, process, people and technology within the organizational context (Vazifehdust, 2012). The importance of this study then is that it helps firms that are under these 3 categorizes; Firstly, firms that are in planning to implement CRM system in the near future. Secondly, firms that have the intention to adopt one in the future. Thirdly, firms that have no intention yet to adopt but potentially needto adopt one.

Firms can achieve understanding on their employee's intention to use the new system. Firms also could identify the critical factors that they should focus on before planning to adopt one to ensure success of performance of employees, department and business (Ranjan & Bhatnagar, 2008), which is part of the organizational context.

Literature Review

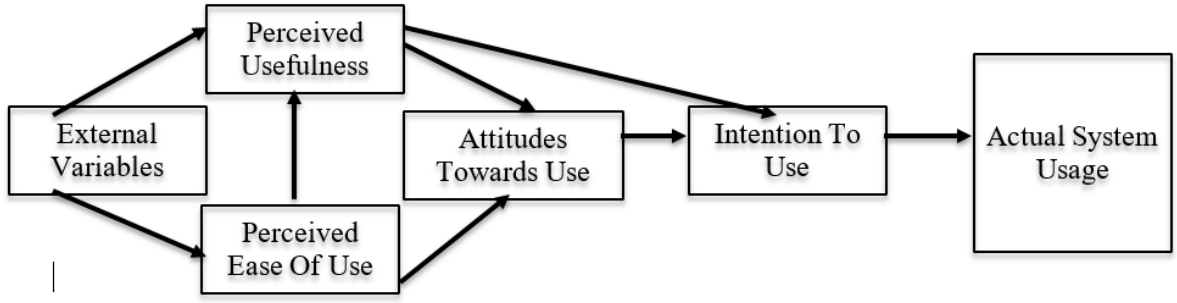
Customer Relationship Management (CRM) was defined for the purpose of this study as "practicing values and strategies of relationship marketing that put emphasis on customer and supplier, aligning with information technology" (Gummesson, 2002). The definition of a CRM system is, "a software system fabricated to enforce a company to boost profits by lowering costs and proliferating revenue; to escalate competitive advantage by streamlining operations and to achieve business targets" (Lin, 2003). The business world now has moved from a product focus to a customer focus. Managers have found that improvement in customer-based relationships brings benefit to firm business and increases profitability to sustain business revenue growth (Lin et al, 2006).

"CRM is a framework of a customer-oriented culture, where approach is formed for attaining; adding the profitability of, sustaining customers, that is facilitated by an IT application; gaining reciprocal benefits for both, the organization and the customers" (Rababah et al, 2010; Olatunji, 2017).

Research Framework

For this study, TAM model (Davis, 1986; Davis, 1989) was used as the foundation but some variables are deleted for this study. The variables that are excluded in this study are attitude toward use and actual system use. The attitude toward use is minus off because in this study we will only be concentrating on the relationship between external variables as independent variables (IV), PU and PEOU as independent variables as well as mediating variables on intention to use as dependent variables (DV). The actual system use is excluded because this study is concentrated on the user intention of future system adoption and not current usage.

Figure 1. The TAM Model (Davis,1986)



The external variable consists of computer self-efficacy (CSE) which has been used in other studies previously and has been found to have a positive result on the direct relationship (Li et al, 2012) and indirect relationship (Venkatesh, 2000). While attitude towards changes (ATC)

usually used as a variable in organizational change (Al-Zu'bi, 2011) is a new contribution to the field as tested in this study through the relationship on intention to use.

Regarding the research model and framework below (Fig.2 and Fig.3) there is a respresentation of attitude towards changes, computer self-efficacy, PU and PEOU as tested for the direct relationship with intention to use CRM, which are linked with the straight line arrow. At the same time, attitude toward changes and computer self-efficacy on intention to use CRM mediates by PU and PEOU (Sentosa et al, 2012), which are linked with the dashed line arrow.

Figure 2. Research Model

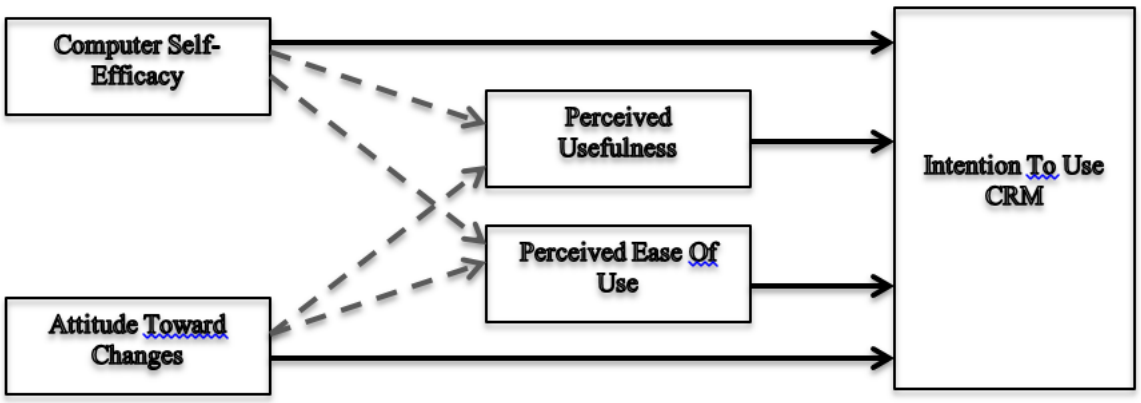
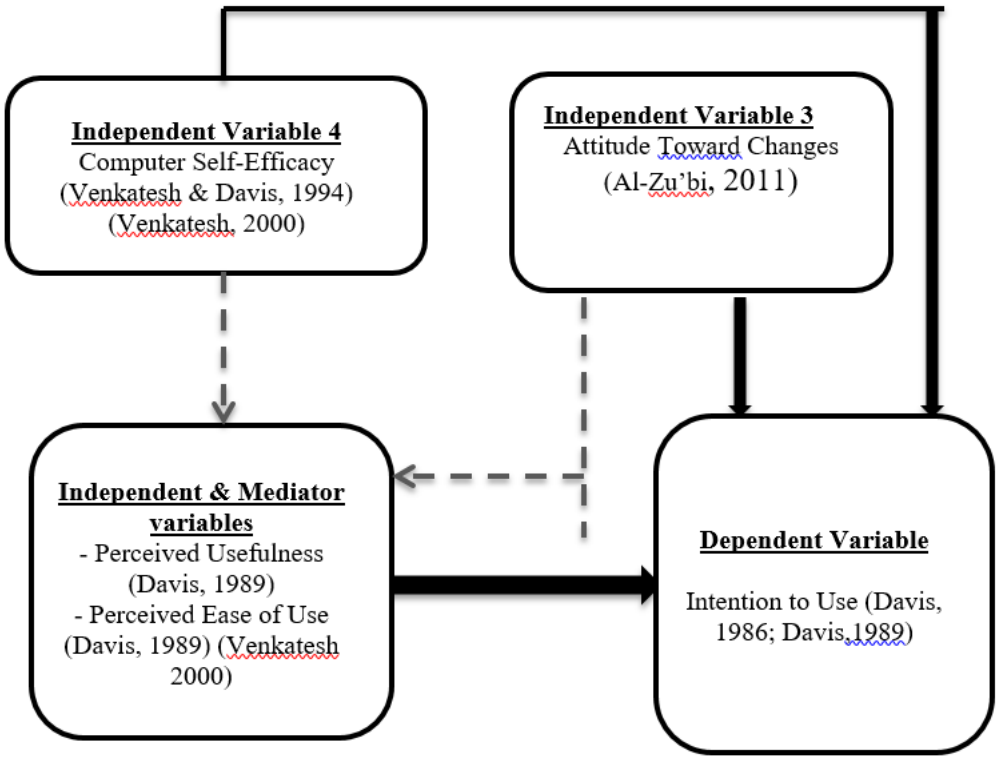


Figure 3. Research Framework



Literature Review

This article examines the determining factors that may affect user acceptance of intention to use CRM system future adoption in firm.The following research questions have been formulated to guide this study to an answer. The first research question is: Do factors such as perceived usefulness (PU), perceived ease of use (PEOU), attitude toward changes (ATC) and computer self-efficacy (CSE) has an effect on the intention to use (ITU) the CRM system for future adoption in firm? The second research question is: To what extent is the relationship between attitude toward changes and intention to use, computer self-efficacy and intention to use, mediated by perceived usefulness and perceived ease of use?

Customer Relationship Management (CRM) is defined as "practicing values and strategies of relationship marketing that emphasises customer and supplier, aligning with information technology" (Gummesson, 2002). The definition of a CRM system, "a software system fabricated to enforce a company to boost profits by lowering costs and proliferating revenue; to escalate competitive advantage by streamlining operations and to achieve business targets" (Lin, 2003; Omenka et al, 2017). The business world now has moved from product focus to customer focus. Managers have found that improvement in customer-based relationships brings benefit to firm business and increases profitability to sustain business revenue growth (Lin et al, 2006).

"CRM is a framework of a customer-oriented culture, where approach is formed for: attaining and adding the profitability of, sustaining customers, that is facilitated by an IT application; gaining reciprocal benefits for both, the organization and the customers" (Rababah et al, 2010). The CRM systems adoption and implementation need to highlight the main critical success factors into careful thought to improve the success rate and reduce the failure rate of CRM initiatives (Mohd et al, 2011). During the implementation stage, when firm strategic direction is considered, its CRM initiatives with emphasis on understanding customers, are able to improve the relationship among customers and firms and their CRM system will have high potential for success (Pham, 2007).

The TAM Model

The concept of this study is to identify determinant factors of user acceptance on technology that theorize the root of user acceptance developed by Davis, (1986). The mediating factors that influence the effect of user acceptance towards intention to use and identifying the relationship of variables with the intention of use ofthe CRM system in the future.

In TAM, there are four independent variables of user acceptance, they are: 1) perceived usefulness (PU), 2) perceived ease of use (PEOU), 3) attitude toward changes (ATC), 4) computer self-efficacy (CSE). These variables will be tested on dependent variable of intention to use (ITU). The PU and PEOU are known as determinant factors, while ATC and CSE will be under the external factors. Through mediation of PU and PEOU, ATC and CSE will be tested for their indirect relationship with ITU.

Perceived Usefulness

In this study, perceived usefulness (PU) will be used as one of the independent variables. Based on TAM model, PU is one determinant factor for user acceptance and is also known as user belief which causes the user to comply with or to decline the information technology (Davis, 1986). PU is defined as "the extent to which a person believes that using a certain system would enhance performance" (Davis, 1989, p. 320). Perceived usefulness and perceived ease of use have been used in many studies and empirically have proven with high validity (Davis, 1989; Ramayah, 2002; Jones et al, 2010; Gumussoy et al, 2007; Esen & Özbağ, 2014).

Perceived Ease of Use

Perceived ease of use (PEOU) is defined as "using a system would be effortless in proportion to users belief" (Davis, 1989, p. 320). PEOU is another determinant factor for user acceptance

and is also known as user belief based on TAM (Davis, 1986). PEOU is defined as "believing to an extent, that applying a certain system would be free of exertion" (Davis, 1989, p. 320).

Attitude toward Changes

"An attitude is a predetermined or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude affect an individual's action choice, and accepts challenges, motivation, and rewards known as stimuli." (Bagherian et al, 2011). Attitude object is referred to as "view of the change" and is not a physical entity independent of the individual (Visagie, 2010; Asnawi et al., 2019). The experience that a person has is reinforced by their beliefs, and these determine how a person behaves towards the attitude object (Al-Zu'bi, 2011). Attitude is defined as "an influencer for or against an emotional leaning" Attitude is a word related to psychology, and attitude differs from person to person perception (Thurstone, 1931).

Computer Self-Efficacy

Self-efficacy (SE) is "comprehensiveness to carry out tasks in a situation" Self-efficacy beliefs theorized as determinant behavior (Davis, 1986). SE is one's belief of effectiveness in perform specific tasks (Li et al, 2012). Computer skill adequacy is defined as "the amount of belief the user puts on his ability to complete tasks using a computer" (Davis et al, 1989). The judgment of the person that is capable to competently use a computer to complete job is the reflection of user general computer self-efficacy (Venkatesh & Davis, 1994). "Computer self-efficacy could provide an anchor in judging the applicability of new and different systems"(Venkatesh & Davis, 1994).

Computer self-efficacy (CSE) is an attribute in external variables. In some research, this variable is tested as direct factors and in others, as indirect factors. "Compeau and Higgins (1995) as cited in Lee (2006), put forward three dimensions in computer skills adequacy; 1) The significance of self-efficacy as measured by the degree of belief in user to complete difficult tasks using a computer, 2) The strength of their computer skills as reflected on the power of self-judgement by individual, 3) The "generalizability of computer self- efficacy" refers to the individual perception of the user in their ability to utilize varying computer software and hardware devices" (Lee, 2006).

Intention to Use

Intention to use (ITU) as a dependent variable is widely used to test the direct and indirect relationship with independent variables or external variables. The variable is also one of the

fundamental theorized of the users acceptance and behaviors to improve performance (Davis, 1989) in the TAM model.

Davis defined ITU as 'consciously pre-made decisions to perform or neglect tasks (specified future behavior)' (Davis, 1989). Behavioural ITU is a depth of the intention to achieve a specified behavior' (Fishbein & Ajzen, 1975). The TAM model defined as when more user accepting new technology, they willingly spend more effort to learn the system and wants to make changes (Jones et al, 2010)

Perceived Usefulness

Perceived usefulness (PU) has been tested for its relationship with computer current usage and future usage and the finding was significantly related (Davis, 1989). In past research study, (Gumussoy et al, 2007) tested direct consequence of PU to ITU of enterprise resource planning (ERP) system by using survey questionnaires with target population in the country of Istanbul Turkey. The potential ERP system users are the manufacturing organization with respondents of 75 out of 200 who received the survey form. The statistical analysis used are reliability test to test the Cronbach Alpha and it achieved high level of reliability, mean and standard deviations of variable summarized and multiple regression was utilized in establishing the variable notable contribution in anticipating the ITU the ERP system. PU is tested with the attitude towards use and the ITU ERP system. The finding showed that there was a positive effect on both the attitude toward use and ITU in regards to the ERP system (Gumussoy et al, 2007).

Table 1 summarises the various variables that will be studied in this research.

Table 1: The List of Variables

Hypotheses	**Independent Variables**	**Mediating Variables**	**Dependent Variable**
H1	**Perceived Usefulness**	**-**	**Intention to Use CRM System In Future Adoption**
H2	**Perceived Ease of Use**	**-**	
H3	**Attitude Toward Changes**	**-**	
H4	**Computer Self-Efficacy**	**-**	
H5	**Attitude Toward Changes**	**Perceived Usefulness**	

H6	**Computer Self-Efficacy**	**Perceived Usefulness**	
H7	**Attitude Toward Changes**	**Perceived Ease of Use**	
H8	**Computer Self-Efficacy**	**Perceived Ease of Use**	

Research Methodology

Data Collection

The primary data collection used in this study is quantitative, through the use of survey questionnaires with a combination of 3 sections. There are: part 1, demographics questionnaires by ticking the appropriates box provided, part 2, 5 point likert-type scales by circling the desire answer for all items and.

This study adopts most items for the questionnaires developed by (Davis, 1989) to measure the PU and PEOU. This study also adopts the items for the questionnaires developed by (Esen & Özbağ, 2014) to measure intention to use. This study also adopts the items for the questionnaires developed by (Kwahk & Lee, 2008) to measure the PU, PEOU and CSE.

Sampling Technique

This study applied the stratified random sampling technique of probability in which the sample size selected is homogenous in that the respondents have the required characteristics to be included in this study and have the equal chance of being selected within the departments.

Population Sample Size

The population sample size for this study is the employees who are potential users of CRM systems future adoption. Firms located in Klang Valley and Kuala Lumpur have been viewed with the advancement of technology implementation from other firms. Questionnaire surveys are to be filled by employees at firms that have not adopted the CRM system, firms that have intention to adopt the CRM system in the future and firms that are planning to implement the CRM system. The questionnaires are distributed to employees from the department of sales and marketing, customer service counter, finance, IT, purchasing, production and related departments. There are a total of 350 survey questionnaires distributed, but there are only 207 completed survey questionnaires out of 260 returned survey forms that are used in the findings.

Pilot Test

The validity and reliability of the questionnaires were tested, the stratified random sampling technique of probability in which the sample sizes selected is have the equal chance being selected within departments. The questionnaires were distributed to total of 40 subjects where the subjects are from the department of sales and marketing, customer service counter, finance, IT. A total of 36 completed questionnaires were tested using the Cronbach alpha for reliability of the questionnaires.

Table 2: The Hypotheses Testing and the Statistical Analysis

Hypotheses	**Statistical Analysis**
H1: PU is significantly related to ITU	**Simple Linear Regression Analysis**
H2: PEOU is significantly related to ITU	**Simple Linear Regression Analysis**
H3: ATC is significantly related to ITU	**Simple Linear Regression Analysis**
H4: CSE is significantly related to ITU	**Simple Linear Regression Analysis**
H5: PU will mediate the effect of the relationship between ATC and ITU	**Multiple Regression Analysis - INDIRECT by (Preacher & Hayes 2008)**
H6: PU will mediate the effect of the relationship between CSE and ITU	**Multiple Regression Analysis - INDIRECT by (Preacher & Hayes 2008)**
H7: PEOU will mediate the effect of the relationship between ATC and ITU	**Multiple Regression Analysis - INDIRECT by (Preacher & Hayes 2008)**
H8: PEOU will mediate the effect of the relationship between CSE and ITU	**Multiple Regression Analysis - INDIRECT by (Preacher & Hayes 2008)**

Results and Analysis

350 survey forms were distributed, 260 forms were returned, of which; only 207 completed. This means that of all the data collected, 207 cases that are approximately 80% of the surveys

were usable, whereas the remaining 53 cases that are about 20% were discarded due to missing responses.

Reliability Test

According to Julie Pallant (2005), Cronbach Alpha coefficient of a scale should be a minimum of 0.7 to be considered as reliable data.

Table 3: Cronbach Alpha values

Independent Variables (IV) / Mediator Variables (MV)	**Cronbach Alpha**	**No. Of Items**
Perceived Usefulness (PU)	**0.973**	**8**
Perceived Ease Of Use (PEOU)	**0.935**	**6**
Attitude Towards Changes (ATC)	**0.917**	**9**
Computer Self-Efficacy (CSE)	**0.917**	**9**
Dependent Variable (DV)	**Cronbach Alpha**	**No. Of Items**
Intention To Use (ITU)	**0.952**	**6**

Linear Regression

Simple linear regression was used to test the hypotheses of PU and ITU, PEOU and ITU, ATC and ITU, and finally CSE and ITU whether they are significantly related. The relationships will be measured by R-squared percentage, significant p-value and Beta-coefficients.

According to Julie Pallant (2005), when the significant value is 0.05 and less, then the variable will show a significant contribution to the prediction of the outcome variable.

However, if the significant value is 0.05 and greater, then the contribution in the prediction of the IV will be not significant.

Hypothesis Test between PU and ITU

Research Hypothesis 1: PU is significantly related to ITU.
Null Hypothesis 2: PU is not significantly related to ITU.

Table 4: PU and ITU Model Summary and Coefficients

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803[a]	.645	.643	.50116

a. Predictors: (Constant), Perceived Usefulness (PU)

b. Dependent Variable: Intention to Use (ITU)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.730	.155		4.699	.000
	Perceived Usefulness	.793	.041	.803	19.307	.000

a. Dependent Variable: Intention to Use

Based on table 4 above, the R-squared value is 64.5% of ITU, which is explained by PU. This is supported by the Beta value of (β) = 0.793. Based on the coefficients result, the significant p-value is 0.000, which shows that the constant of PU is showing a strong significant contribution to the prediction of the ITU.

According to Julie Pallant (2005), when the significant value is 0.05 and less, then the prediction of the outcome variable will explain a significant contribution.

Therefore, reject null hypothesis 1 because PU is significantly related to ITU due to the significant p-value being 0.000.

Hypothesis Test between PEOU and ITU

Research Hypothesis 2: PEOU is significantly related to ITU.
Null Hypothesis 2: PEOU is not significantly related to ITU.

Table 5: PEOU and ITU Model Summary and Coefficients

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.558[a]	.312	.308	.69805

a. Predictors: (Constant), Perceived Ease of Use (PEOU)
b. Dependent Variable: Intention to Use (ITU)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.372	.242		5.673	.000
	Perceived Ease of Use	.625	.065	.558	9.633	.000

a. Dependent Variable: Intention to Use

Based on table 5 above, the R-squared value is 31.2% of ITU, which is explained by PEOU. This is supported by the Beta value of (β) = 0.625. Based on the coefficients result, the significant p-value is 0.000, which shows that the constant of PEOU is showing a strong significant contribution to the prediction of the ITU.

According to Julie Pallant (2005), when the significant value is 0.05 and less, then the prediction of the outcome variable will explain a significant contribution.

Therefore, reject null hypothesis 2 because PEOU is significantly related to ITU due to the significant p-value being 0.000.

Hypothesis Test between ATC and ITU

Research Hypothesis 3: ATC is significantly related to ITU.
Null Hypothesis 3: ATC is not significantly related to ITU.

Table 6: ATC and ITU Model Summary and Coefficients

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.311[a]	.096	.092	.79973

a. Predictors: (Constant), Attitude Toward Changes (ATC)

b. Dependent Variable: Intention to Use (ITU)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.943	.370		5.248	.000
	Attitude Toward Changes	.440	.094	.311	4.678	.000

a. Dependent Variable: Intention to Use

Based on table 6 above, the R-squared value is 9.6% of ITU, which is explained by ATC. This is supported by the Beta value of (β) = 0.440. Based on the coefficients result, the significant p-value is 0.000, which shows that the constant of ATC is showing a strong significant contribution to the prediction of the ITU.

According to Julie Pallant (2005), when the significant value is 0.05 and less, then the prediction of the outcome variable will explain a significant contribution.

Therefore, reject null hypothesis 3 because ATC is significantly related to ITU due to the significant p-value being 0.000.

Hypothesis Test between CSE and ITU

Research Hypothesis 4: CSE is significantly related to ITU.
Null Hypothesis 4: CSE is not significantly related to ITU.

Table 7: CSE and ITU Model Summary and Coefficients

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.428[a]	.183	.179	.76047

a. Predictors: (Constant), Computer Self-Efficacy (CSE)
b. Dependent Variable: Intention to Use (ITU)

Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	1.620	.305		5.315	.000
	Computer Self-Efficacy	.554	.082	.428	6.776	.000

a. Dependent Variable: Intention to Use

Based on table 7 above, the R-squared value is 18.3% of ITU, which is explained by CSE. This is supported by the Beta value of (β) = 0.554. Based on the coefficients result, the significant p-value is 0.000, which shows that the constant of CSE is showing a strong significant contribution to the prediction of the ITU.

Therefore, reject null hypothesis 4 because CSE is significantly related to ITU due to the significant p-value being 0.000.

Hypotheses for Indirect Relationship

This section discusses the test of the indirect relationship between IV and DV influenced by the mediating variable. Multiple regression analysis used the INDIRECT theory by (Preacher & Hayes, 2008) for mediation effect. To test the hypotheses of ATC and ITU mediate by PU, CSE and ITU mediate by PU, ATC and ITU mediate by PEOU and finally CSE and ITU mediate by PEOU. The mediating effect should be measured by R-squared percentage, Beta-coefficients, significant p-value, confidence interval level.

Hypothesis between ATC and ITU Mediate by PU

Research Hypothesis 5: PU will mediate the effect of the relationship between ATC and ITU.
Null Hypothesis 5: PU will not mediate the effect of the relationship between ATC and ITU.

Table 8: Indirect Analysis between ATC and ITU Mediate by PU

Dependent, Independent, and Proposed Mediator Variables:
DV = Intention to Use (ITU)
IV = Attitude Toward Changes (ATC)
MEDS = Perceived Usefulness (PU)

Sample size
207

IV to Mediators (a paths)

	Coeff	se	t	p
PU	.5345	.0929	5.7516	.0000

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
PU	.7886	.0444	17.7673	.0000

Total Effect of IV on DV (c path)

	Coeff	se	t	p
ATC	.4399	.0940	4.6784	.0000

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p
ATC	.0184	.0636	.2891	.7728

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.6453	.6418	185.5807	2.0000	204.0000	.0000

****
******

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	.4215	.4149	-.0066	.0836
PU	.4215	.4149	-.0066	.0836

Bias Corrected Confidence Intervals

	Lower	Upper
TOTAL	.2661	.6015
PU	.2661	.6015

****
******

Level of Confidence for Confidence Intervals:
95
Number of Bootstrap Resamples:
5000

Based on the results from the table 8, multiple regression analysis was conducted to assess the recommended mediator. First, it was found that the total effect of ATC was positively related to ITU with the R-squared value of 9.6% and significant p-value of 0.000 in simple regression also known as c-path (β = .440, t (205) = 4.68, p = .0000) and it had increased in R-squared value to 64.5% and significant p-value 0.0000 remained significant tested using multiple regression with the influence of mediator variable of PU.

It was also found that ATC was positively related to mediator PU known as a-path (β = .535, t (205) = 5.75, p = .0000). Lastly, results indicated that the mediator, PU was positively related with ITU known as b-path (β = .789, t (205) = 17.77, p =.0000).

The bootstrapping method with bias-corrected confidence interval should be used for mediation effect, when there is significant value both the a-path and b-path (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). 5000 bootstrap resamples should be used to attain the 95% confidence interval of indirect effect (Preacher & Hayes, 2008).

The INDIRECT analysis has confirmed the role of PU as mediator between ATC and ITU (B = .4149, CI = .2661 to .6015) and when the range from the Lower Level (LL) .2661 to the Upper Level (UL) .6015 does not include zero, the indirect effect is significant (Preacher & Hayes, 2008).

In additional, results indicated that the relationship between ATC and ITU became not significant known as c'-path (β = .018, t (205) = 0.29, p =.7728) and the coefficient had reduced from (β = .440 to β = .018) when controlling by PU, it suggested as a good mediator influenced the relationship between the IV and DV. Thus, the complete result suggesting a full mediation. Therefore, reject null hypothesis 5 because PU mediate the effect of the relationship between ATC and ITU.

Hypothesis Test between CSE and ITU Mediate by PU

Research Hypothesis 6: PU will mediate the effect of the relationship between CSE and ITU.
Null Hypothesis 6: PU will not mediate the effect of the relationship between CSE and ITU.

Table 9: Indirect Analysis between CSE and ITU Mediate by PU

Dependent, Independent, and Proposed Mediator Variables:
DV = Intention to Use (ITU)
IV = Computer Self-Efficacy (CSE)
MEDS = Perceived Usefulness (PU)

Sample size
207

IV to Mediators (a paths)

	Coeff	se	t	p
PU	.6441	.0798	8.0722	.0000

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
PU	.7720	.0472	16.3602	.0000

Total Effect of IV on DV (c path)

	Coeff	se	t	p
CSE	.5542	.0818	6.7764	.0000

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p
CSE	.0569	.0619	.9190	.3592

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.6466	.6432	186.6531	2.0000	204.0000	.0000

****
*****
BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	.4973	.4973	.0000	.0780
PU	.4973	.4973	.0000	.0780

Bias Corrected Confidence Intervals

	Lower	Upper

TOTAL .3492 .6545
PU .3492 .6545
****
Level of Confidence for Confidence Intervals:
95
Number of Bootstrap Resamples: 5000

Based on the result from the table 9, multiple regression analysis was done to assess the recommended mediator. First, it was found that the total effect of CSE was positively related with ITU with the R-squared value of 18.3% and significant p-value of 0.000 in simple regression also known as c-path (B = .554, t (205) = 6.78, p = .0000) and it had increased in R-squared value to 64.6% and significant p-value 0.0000 remained significant tested using multiple regression with the influence of mediator variable of PU.

It was also found that CSE was positively related to mediator PU known as a-path (B = .644, t (205) = 8.07, p = .0000). Lastly, results indicated that the mediator, PU was positively related with ITU known as b-path (B = .772, t (205) = 16.36, p =.0000).

The bootstrapping method with bias-corrected confidence interval should be used for mediation effect, when there is significant value both the a-path and b-path (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). 5000 bootstrap resamples should be used to attain the 95% confidence interval of indirect effect (Preacher & Hayes, 2008).

The INDIRECT analysis has confirmed the role of PU as the mediator between CSE and ITU (B = .4973, CI = .3492 to .6545) and when the range from the Lower Level (LL) .3492 to the Upper Level (UL) .6545 does not include zero, the indirect effect is significant (Preacher & Hayes, 2008).

In additional, results indicated that the relationship between CSE and ITU became not significant known as c'-path (B = .057, t (205) = 0.92, p =.3592) and the coefficient had reduced from (β = .554 to β = .057) when controlling by PU, it suggested as a good mediator influenced the relationship between the IV and DV. Thus, the complete result suggesting a full mediation.

Therefore, reject null hypothesis 6 because PU mediate the effect of the relationship between CSE and ITU.

Hypothesis Test between ATC and ITU Mediate by PEOU

Research Hypothesis 7: PEOU will mediate the effect of the relationship between ATC and ITU.
Null Hypothesis 7: PEOU will not mediate the effect of the relationship between ATC and ITU.

Table 10: Indirect Analysis between ATC and ITU Mediate by PEOU

Dependent, Independent, and Proposed Mediator Variables:
DV = Intention to Use (ITU)
IV = Attitude Toward Changes (ATC)
MEDS = Perceived Ease of Use (PEOU)

Sample size
207

IV to Mediators (a paths)

	Coeff	se	t	p
PEOU	.5216	.0805	6.4832	.0000

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
PEOU	.5805	.0710	8.1742	.0000

Total Effect of IV on DV (c path)

	Coeff	se	t	p
ATC	.4399	.0940	4.6784	.0000

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p

ATC .1371 .0898 1.5267 .1284

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.3194	.3127	47.8658	2.0000	204.0000	.0000

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	.3028	.2952	-.0076	.0632
PEOU	.3028	.2952	-.0076	.0632

Bias Corrected Confidence Intervals

	Lower	Upper
TOTAL	.1928	.4478
PEOU	.1928	.4478

****

Level of Confidence for Confidence Intervals:
95
Number of Bootstrap Resamples: 5000

Based on the result from the table 10, multiple regression analysis was conducted to assess the recommended mediator. First, it was found that the total effect of ATC was positively related with ITU with the R-squared value of 9.6% and significant p-value of 0.000 in simple regression also known as c-path ($\beta = .440, t(205) = 4.68, p = .0000$) and it had increased in R-squared to 31.9% and significant p-value 0.0000 remained significant tested using multiple regression with the influence of mediator variable of PEOU.

It was also found that ATC was positively related to mediator PEOU known as a-path ($\beta = .522, t(205) = 6.48, p = .0000$). Lastly, results indicated that the mediator, PEOU was positively related with ITU known as b-path ($\beta = .581, t(205) = 8.17, p = .0000$).

The bootstrapping method with bias-corrected confidence interval should be used for mediation effect, when there is significant value both the a-path and b-path (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). 5000 bootstrap resamples should be used to attain the 95% confidence interval of indirect effect (Preacher & Hayes, 2008).

The INDIRECT analysis has confirmed the role of PEOU as the mediator between ATC to and ITU (β = *.2952, CI = .1928 to .4478*) and when the range from the Lower Level (LL) .2952 to the Upper Level (UL) .4478 does not include zero, the indirect effect is significant (Preacher & Hayes, 2008).

In addition, results indicated that the relationship between ATC and ITU became not significant known as c'-path (β = *.137, t (205) = 1.53, p =.1284*) and the coefficient had reduced from (β = *.440 to* β = *.137)* when controlling by PEOU, it suggested as a good mediator influenced the relationship between the IV and DV. Thus, the complete result suggesting a full mediation. Therefore, reject null hypothesis 7 because PEOU mediate the effect of the relationship between ATC and ITU.

Hypothesis Test between CSE and ITU Mediate by PEOU

Research Hypothesis 8: PEOU will mediate the effect of the relationship between CSE and ITU.
Null Hypothesis 8: PEOU will not mediate the effect of the relationship between CSE and ITU.

Table 11: Indirect Analysis between CSE and ITU Mediate By PEOU

Dependent, Independent, and Proposed Mediator Variables:
DV = Intention to Use (ITU)
IV = Computer Self-Efficacy (CSE)
MEDS = Perceived Ease of Use (PEOU)

Sample size
207

IV to Mediators (a paths)

	Coeff	se	t	p

```
PEOU      .7307    .0626  11.6693    .0000

Direct Effects of Mediators on DV (b paths)
              Coeff       se        t            p
PEOU     .5368    .0834    6.4391    .0000

Total Effect of IV on DV (c path)
          Coeff       se        t            p
CSE     .5542    .0818    6.7764    .0000

Direct Effect of IV on DV (c' path)
          Coeff       se        t            p
CSE     .1620    .0964    1.6798    .0945

Model Summary for DV Model
     R-sq      Adj R-sq       F          df1          df2            p
    .3210     .3144       48.2225    2.0000      204.0000     .0000

******************************************************************
****
        BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)
           Data      Boot      Bias       SE
TOTAL        .3922     .3895    -.0027     .0890
AVRGPEOU     .3922     .3895    -.0027     .0890

Bias Corrected Confidence Intervals
                Lower    Upper
TOTAL        .2246     .5821
PEOU         .2246     .5821
******************************************************************
****
Level of Confidence for Confidence Intervals:
  95
Number of Bootstrap Resamples:
  5000
```

Based on the result from the table 4.23, multiple regression analysis was done to assess the recommended mediator. First, it was found that the total effect of CSE was positively related

with ITU with the R-squared value of 18.3% and significant p-value of 0.000 in simple regression also known as c-path (β = *.554, t (205) = 6.78, p = .0000)* and it had increased in R-squared value to 32.1% and significant p-value 0.0000 remained significant tested using multiple regression of with the influence of mediator variable of PEOU.

It was also found that CSE was positively related to mediator PEOU known as a-path (β = *.731, t (205) = 11.67, p = .0000).* Lastly, results indicated that the mediator, PEOU was positively related with ITU known as b-path (β = *.537, t (205) = 6.44, p =.0000).*

The bootstrapping method with bias-corrected confidence interval should be used for mediation effect, when there is significant value both the a-path and b-path (MacKinnon, Lockwood & Williams, 2004; Preacher & Hayes, 2004). 5000 bootstrap resamples should be used to attain the 95% confidence interval of indirect effect (Preacher & Hayes, 2008).

The INDIRECT analysis has confirmed the role of PEOU as the mediator between CSE and ITU (*B = .3895, CI = .2246 to .5821*) and when the range from the Lower Level (LL) .2246 to the Upper Level (UL) .5821 does not include zero, the indirect effect is significant (Preacher & Hayes, 2008). In additional, results indicated that the relationship between CSE and ITU became non-significant known as c'-path (β = *.162, t (205) = 1.68, p =.0945*) and the coefficient had reduced from (β = *.440 to* β = *.162)* when controlling by PEOU, it suggested as a good mediator influenced the relationship between the IV and DV. Thus, the complete result suggesting a full mediation.
Therefore, reject null hypothesis 8 because PEOU mediate the effect of the relationship between CSE and ITU.

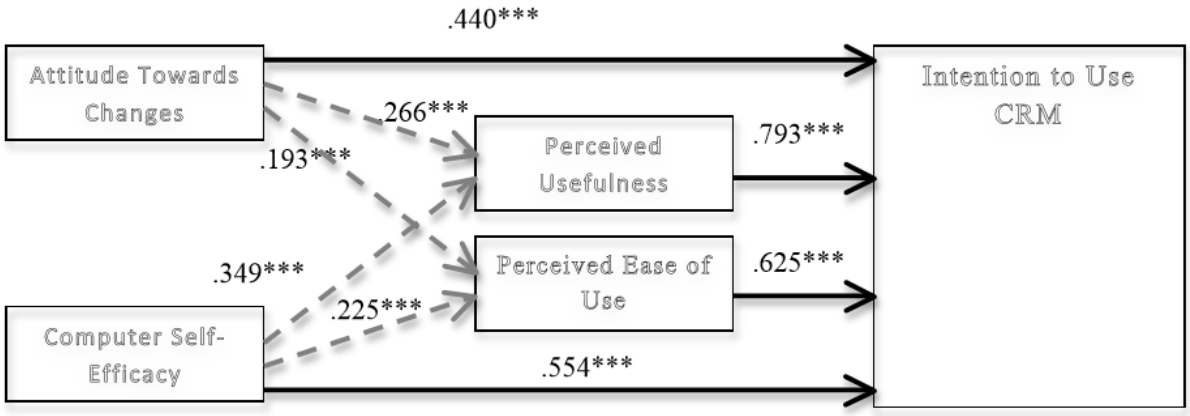
Summary of Results

Table 12: Summary of Hypotheses Results

Hypotheses	**Results**
H1 - PU is significantly related to ITU.	**Supported β=.793*** **
	R Squared = 64.5%
	Significant P Value = 0.000
H2 - PEOU is significantly related to ITU.	**Supported β=.625*** **
	R Squared = 31.2%
	Significant P Value = 0.000
H3 – ATC is significantly related to ITU.	**Supported β=.440*** **

	R Squared = 9.6%
	Significant P Value = 0.000
H4 – CSE is significantly related to ITU.	**Supported β=.554*** **
	R Squared = 18.3%
	Significant P Value = 0.000
H5 - PU will mediate the effect of the relationship between ATC and ITU.	**Full Mediate β=.266*** **
	R Squared = 64.5%
	Significant P Value = 0.0000
H6 - PU will mediate the effect of the relationship between CSE and ITU.	**Full Mediate β=.349*** **
	R Squared = 64.7%
	Significant P Value = 0.0000
H7 - PEOU will mediate the effect of the relationship between ATC and ITU.	**Full Mediate β=.193*** **
	R Squared = 31.9%
	Significant P Value = 0.0000
H8 - PEOU will mediate the effect of the relationship between CSE and ITU.	**Full Mediate β=.225*** **
	R Squared = 32.1%
	Significant P Value = 0.0000
Note: *p<.05 = Significant, **p<.01= Highly significant, ***p<.001= Very highly Significant (B, Rosner,2010)	

Figure 4. Research Model with Results



Conclusions

The results of the data analysis exhibit that, the proposed research model is effective in explaining the relationship of independent variables with dependent variable: the factors of perceived usefulness, perceived ease of use, attitude toward change, computer self-efficacy with intention to use. The first research question of this study is 'Do factors such as perceived usefulness, perceived ease of use, attitude toward changes and computer self-efficacy have an effect on the intention to use the CRM system for future adoption in firm?' Based on the test result, perceived usefulness has the strongest direct effect in explaining intention to use with 64.5% of R-squared while perceived ease of use in explaining intention to use was also significant with 31.2% of R-squared.

The attitude toward changes and intention to use relationship was found to be significant even though explained by the fact that R-squared was only 9.6%, but the majority agreed to accept changes that will ensure their job is completed effectively. Computer self-efficacy was also found significant in explaining intention to use with R-squared of 18.3% where most respondents agreed that they could complete a job using the new system if they have used a similar system previously or currently in doing their job. The result indicates that almost the entire potential user group has experience with enterprise system or system software that currently is used in their organization but the features are limited, especially in producing reports.

Therefore, the findings have answered the first research question, that the factors such as perceived usefulness, perceived ease of use, attitude toward changes and computer self-efficacy have a significant effect on the intention to use the CRM system for future adoption in a firm.

The second research question 'To what extent is the relationship between attitude toward changes and intention to use, computer self-efficacy and intention to use can be mediated by perceived usefulness, perceived ease of use?' The findings revealed that perceived usefulness

has the strongest effect as a full mediator between attitude toward changes and intention to use explained by R-squared of 64.2%. The result also found that computer self-efficacy and intention to use mediated through perceived usefulness was explained by R-squared of 64.3%. It seems the potential users are more concerned about the usefulness of the CRM system because it is important for them to improve their productivity and efficiency on their work task. Thus, the greater the perceived usefulness, the more the potential user has the intention to use the new system.

Perceived ease of use was found to have a significant influence as full mediator between attitude toward changes and intention to use explaining by R-squared of 31.3%. While, computer self-efficacy and intention to use mediated through perceived ease of use was explained by R-squared of 31.4%. It was suggested by most of the respondents that it is important to develop an easy to use and user-friendly CRM system.

The presence of perceived usefulness and perceived ease of use in relation to attitude toward change and intention to use, computer self-efficacy and intention to use had an increased in R-squared and reduced in coefficient because of the influence of strong effect of mediators.
All of the relationships between independent variables and the dependent variable are well supported with a significant value. Therefore, potential user's intention to use a CRM system in future adoption in the firm is related to perceived usefulness, perceived ease of use, attitude toward changes and computer self-efficacy.

Perceived usefulness shows the strongest relationship with the intention to use. This indicated that perceived usefulness is the main determinant factor towards intention to use a new system. Therefore, the findings have answered the second research question in that the relationship between attitude toward changes and intention to use, computer self-efficacy and intention to use can be mediated by perceived usefulness, perceived ease of use have, to a certain extent been explained by the positive indirect effect on details in chapter 4. The results found that, perceived usefulness and perceived ease of use were suggested as full mediation.

The results further indicate that the direct relationship between attitude to changes and intention to use has a significant effect and the indirect relationship between attitude toward changes and intention to use was fully mediated through perceived usefulness and perceived ease of use, which shows a significant relationship which explains that attitude toward changes has a positive effect on accepting new technology at a firm.

Limitations of the Study

There are some limitations to this study. Firstly, this study only adapted a few factors from TAM model such as external variables, perceived usefulness, perceived ease of use and intention to use. Since the complete TAM Model has other variables such as attitude towards

use and actual usage, the result is limited to what this study focused on. Secondly, the sample is drawn from the Klang Valley and Kuala Lumpur area, it may not represent the whole population of Selangor and Kuala Lumpur. The final limitation is that the external variables of attitude toward change and computer self-efficacy to explain the variation in intention to use might be limited. External variables are wide in range and some have been left out that may also influence intention to use such as subjective norms, top management support and many other variables to determine acceptance (Jones et al, 2010).

Recommendations for Future Study

TAM model that was adapted in this study was found to be valid for CRM system future adoption. However, a few variables were deleted thus these results may not reflect the accurate situation. In the future all of the variables in TAM should be included for a more accurate result. The second recommendation for future study, readiness factors and statements should be included to get an accurate measurement of potential user readiness for acceptance level.

Recommendations for Firms for CRM System Future Adoption

Most firms need to put more effort, time and costing for proper training of the new system and to learn and familiarize the system features into their strategic planning. With the proper training, potential users would be able to optimize the use of a CRM system. A CRM system is able to improve the relationship between firms and customers so that better strategic decisions are made and competitiveness improve. However, prior to implementation, firms should carefully plan the whole aspect, especially with appropriate emphasis on potential user readiness to adopt for better understanding.

Management should create more awareness, which emphasizes the importance of the latest technology and changes to maximize business productivity and profit. With the involvement of potential users for the system, feature design are able to promote acceptance for future adoption.

Contribution of the study

This study contributes information about user acceptance of technology, especially in developing countries, like Malaysia itself and specifically in the area of Klang Valley and Kuala Lumpur. The TAM model was successfully adapted for this study in order to understand the Malaysian employee's perspective on intention to use. Therefore, this research provides useful information regarding potential users in Malaysia for CRM system future adoption. Their responses are useful for a firm to critically review the prior planning to adapt a system.

It also provides a greater understanding of the adaptability of TAM in explaining the influence factors of new technology adoption for intention to use in the future.

REFERENCE

Ahmed, U., Zin, M. L. M., & Majid, A. H. A. (2016). Impact of Intention and Technology Awareness on Transport Industry's E-service: Evidence from an Emerging Economy. *산경연구논집 (IJIDB)*, *7*(3), 13-18.

Al-Jabri, I. M., & Al-Hadab, A. (2008, January). End User Adoption of ERP Systems: Investigation of Four Beliefs. In *AMCIS* (p. 104). (IM Al-Jabri & A Al-Hadab, 2008)

Alenezi, A. R., Karim, A., Malek, A., & Veloo, A. (2010). An Empirical Investigation into the Role of Enjoyment, Computer Anxiety, Computer Self-Efficacy and Internet Experience in Influencing the Students' Intention to Use E-Learning: A Case Study from Saudi Arabian Governmental Universities. *Turkish Online Journal of Educational Technology-TOJET*, *9*(4), 22-34.

Almotairi, M. (2009, July). A framework for successful CRM implementation. In *European and Mediterranean conference on information systems* (pp. 1-14).

Appelbaum, S. H., Iaconi, G. D., & Matousek, A. (2007). Positive and negative deviant workplace behaviors: causes, impacts, and solutions. *Corporate Governance*, *7*(5), 586-598.

Asnawi, A., Awang, Z., Afthanorhan, A., Mohamad, M., & Karim, F. (2019). The influence of hospital image and service quality on patients' satisfaction and loyalty. *Management Science Letters*, *9*(6), 911-920.

Al-Zu'bi, H. A. (2011). Investigating the Relationship between Corporate Culture and Organizational Change: An Empirical Investigation. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, *2*(2), 111-116.

Aydın, C. H., & Tasci, D. (2005). Measuring readiness for e-learning: reflections from an emerging country. *Educational Technology & Society*, *8*(4), 244-257.

Bagherian, R., Goodarzi, M., & Shadfar, S. (2011). Relationship Between Attitude Toward Watershed Management Programs and Level of Participation. *Middle-East Journal of Scientific Research*, *9*(3), 324-329.

Bharadwaj, A., & Arora, S. FACTOR ANALYSIS OF ATTRIBUTES AFFECTING EMPLOYEE'S ATTITUDE TOWARDS ERP IMPLEMENTATION AT WORK PLACE.

Boon, O., Corbitt, B., & Coulthard, D. (2005). A customer relationship management case study: critical success factors in action.

Burton-Jones, A., & Hubona, G. S. (2006). The mediation of external variables in the technology acceptance model. *Information & Management*, *43*(6), 706-717.

Cao, G., Clarke, S., & Lehaney, B. (2003). Diversity management in organizational change: towards a systemic framework. *Systems Research and Behavioral Science*, *20*(3), 231-242.

Chris Devonshire-Ellis, (3 June, 2014) China Briefing. Http://www.china-briefing.com/news/2014/06/03/china-asean-wage-comparisons-70-production-capacity-benchmark.html

CIA World Factbook. "Country Comparison : GDP - Real Growth Rate", , accessed 26 April 2014". Cia.gov. Retrieved 2014-04-26.

Dawson, P. (1994). *Organizational change: A processual approach*. P. Chapman.

Davis Jr, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Doctoral dissertation, Massachusetts Institute of Technology).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, *35*(8), 982-1003.

Dunham, R.B., Grube, J.A., Gardner, D.G., Cummings, L.L., Pierce, J.L. (1989), "The development of an attitude toward change instrument", paper presented at the Academy of Management Annual Meeting, Washington, DC, .

Esen, M., & Özbağ, G. K. (2014). An Investigation of the Effects of Organizational Readiness on Technology Acceptance in e-HRM Applications. *International Journal of Human Resource Studies*, *4*(1), Pages-232.

Fatah, F. A., Othman, N., & Abdullah, S. (2012). Economic growth, political freedom and human development: China, Indonesia and Malaysia. *International Journal of Business and Social Science*, *3*(1), 291-299.

Fishbein, M. & Ajzen, I. (1975). Belief, attitudes, intention, and behavior. *Mass: Addison Wesley*.

Gibbs, J. L., & Kraemer, K. L. (2004). A Cross-Country Investigation of the Determinants of Scope of E-commerce Use: An Institutional Approach. *Electronic Markets*, *14*(2), 124-137.

Glossary Trilogy, https://trilogyen.wordpress.com/trilogy-glossary-brussels

Grönroos, C. (2006). On defining marketing: finding a new roadmap for marketing. *Marketing Theory*, *6*(4), 395-417.

Gummesson, E. (2002). Relationship marketing and a new economy: it's time for de-programming. *Journal of Services Marketing*, *16*(7), 585-589.

Gumussoy, C. A., Calisir, F., & Bayram, A. (2007, December). Understanding the behavioral intention to use ERP systems: An extended technology acceptance model. In *Industrial Engineering and Engineering Management, 2007 IEEE International Conference on* (pp. 2024-2028). IEEE.

Jones, C. M., McCarthy, R. V., Halawi, L., & Mujtaba, B. (2010). Utilizing the technology acceptance model to assess the employee adoption of information systems security measures. *Journal of International Technology and Information Management Volume*, *19*(2).

Jones, T. O., & Sasser, W. E. (1995). Why satisfied customers defect. *Harvard business review*, *73*(6), 88.

Kotler, P., Keller, K. L. (2009). *Marketing management: A south Asian perspective*. Pearson Education, Inc.

Kraemer-Eis, H., & Lang, F. The importance of leasing for SME financing.

Koslowsky, M., & Zeev, U. B. (1990). Attitude profiles of anonymous responders. *The Journal of applied behavioral science*, *26*(3), 359-364.

Kwahk, K. Y., & Lee, J. N. (2008). The role of readiness for change in ERP implementation: Theoretical bases and empirical validation. *Information & Management*, *45*(7), 474-481.

Lee, Y. C. (2006). An empirical investigation into factors influencing the adoption of an e-learning system. *Online Information Review*, *30*(5), 517-541.

Li, Y., Duan, Y., Fu, Z., & Alford, P. (2012). An empirical study on behavioural intention to reuse e-learning systems in rural China. *British Journal of Educational Technology*, *43*(6), 933-948.

Lin, M. C. (2003, June). A study of main stream features of CRM system and evaluation criteria. In *Proceedings of the American Society for Engineering Education Annual Conference & Exposition*.

Lin, Y., Su, H. Y., & Chien, S. (2006). A knowledge-enabled procedure for customer relationship management. *Industrial Marketing Management*, *35*(4), 446-456.

Linstone, H. A., & Mitroff, I. I. (1994). The challenges of the 21st century. *State University of New York Press, New York, NY*.

MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate behavioral research*, *39*(1), 99-128.

Mbeba, R. D. (2014). Essence of a Flexible Organisational Culture to Influence Change in the 21st Century Organisation. *Mediterranean Journal of Social Sciences*, *5*(7), 663.

Mohd, H., Rababah, K., & Ibrahim, H. H. (2011). CRITICAL SUCCESS FACTORS (CSFS) OF THE PRE-ADOPTION AND PRE-IMPLEMENTATION PLAN OF CUSTOMER RELATIONSHIP MANAGEMENT (CRM) SYSTEM.

Oliveira, T., & Martins, M. F. (2009). Firms' Patterns of e-Business Adoption: Evidence for the European Union-27. In *The Proceedings of the 3rd European Conference on Information Management and Evaluation: University of Gothenburg, Sweden, 17-18 September 2009* (p. 371). Academic Conferences Limited.

Olajoke, A. S., & Olamide, I. (2017). Challenges and Prospects of Implementation of Teaching of English to Speakers of Other Languages (TESOL) Approaches in Nigeria. American Journal of Education and Learning, 2(2), 153-158.

Olatunji, O. E. (2017). Political Party Coalitions and Political Development in Polyglot Societies: The All Progressives Congress (APC) in Perspective. International Journal of Asian Social Science, 7(6), 469-479.

Omenka, J. I., Dickson, E., Ali, B. F., Agishi, T. V., & Coker, M. A. (2017). The Dynamics of Human and National Security in Nigeria: Lessons from the Boko Haram Insurgency. International Journal of Asian Social Science, 7(6), 505-520.

Ouma, G. O., Awuor, F. M., & Kyambo, B. (2013). E-LEARNING READINESS IN PUBLIC SECONDARY SCHOOLS IN KENYA. *European Journal of Open, Distance and e-Learning*, *16*(2), 97.

Park, S. Y. (2009). An Analysis of the Technology Acceptance Model in Understanding University Students' Behavioral Intention to Use e-Learning. *Educational Technology & Society*, *12*(3), 150-162.

Pan, Z., Ryu, H., & Baik, J. (2007, August). A case study: CRM adoption success factor analysis and Six Sigma DMAIC application. In *Software Engineering Research, Management & Applications, 2007. SERA 2007. 5th ACIS International Conference on* (pp. 828-838). IEEE.

Pham, T. Q. (2007). *Small business usage of IQMS customer relationship management application: An investigation of the extended technology acceptance model*. ProQuest.
Pituch, K. A., & Lee, Y. K. (2006). The influence of system characteristics on e-learning use. *Computers & Education*, *47*(2), 222-244.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, *40*(3), 879-891.

Rababah, K., Mohd, H., & Ibrahim, H. (2010). A unified definition of CRM towards the successful adoption and implementation. In *the 3rd Lifelong Learning International Conference (3LInC'10), Kuala Lumpur, Malaysia*.

Ramayah, T., Ma'ruf, J. J., Jantan, M., & Osman, M. (2002). Technology Acceptance Model: is it applicable to users and non users of internet banking. In *The proceedings of The International Seminar, Indonesia-Malaysia, The role of Harmonization of Economics and Business Discipline in Global Competitiveness, Banda Aceh, Indonesia* (pp. 14-15).

Ramayah, T., Yan, L. C., & Sulaiman, M. (2005). SME e-readiness in Malaysia: Implications for Planning and Implementation. *Sasin Journal of Management*, *11*(1), 103-120.

Ramdani, B., Kawalek, P., & Lorenzo, O. (2009). Predicting SMEs' adoption of enterprise systems. *Journal of Enterprise Information Management*, *22*(1/2), 10-24.

Ranjan[1], J., & Bhatnagar, V. (2008). Critical success factors for implementing CRM using data mining. *Journal of Knowledge Management Practice*, *9*(3).

Rashid, M. Z. A., Sambasivan, M., & Rahman, A. A. (2004). The influence of organizational culture on attitudes toward organizational change. *Leadership & Organization Development Journal*, *25*(2), 161-179.

Rasimah, C. M. Y., Ahmad, A., & Zaman, H. B. (2011). Evaluation of user acceptance of mixed reality technology. *Australasian Journal of Educational Technology*, *27*(8), 1369-1387.

Rebeka, Indradevi R. (2013, August). A Study on Employees Attitude towards Change A Conceptual View. INDIAN JOURNAL OF APPLIED RESEARCH, Volume 3(8).

Rosner, B. (2010). *Fundamentals of biostatistics*. Cengage Learning.

Boon, O., Corbitt, B., & Coulthard, D. (2005). A customer relationship management case study: critical success factors in action.

Rubin, M. (1997). Creating customer-oriented companies. *PRISM-CAMBRIDGE MASSACHUSETTS-*, 5-28.

Salleh, N. A. M., & Rohde, F. (2005). Firm Enacted Capabilities and Information Systems Adoption in Small and Medium-sized Enterprises. *online] http://www. iima. org/CIIMA/CIIMA*, *205*, 201.

Salleh, N. A. M. (2013). Adoption of Innovative Information Systems by SMEs: Comparing The Role of Firm's Enacted Capabilities of Active Adopters and Non-Active Adopters. *The South East Asian Journal of Management*, *1*(2), 169-190.

Schein, E. H. (1984). Coming to a new awareness of organizational culture. *Sloan management review*, *25*(2), 3-16.

Seif, M. H., Sarmadi, M. R., Ebrahimzadeh, I., & Zare, H. (2012). A Model for Predicting Intention to Use E-learning based on Epistemological Beliefs. *Life Science Journal*, *9*(2), 926-929.

Selamat, Z., & Jaffar, N. (2011). Information Technology Acceptance: From Perspective of Malaysian Bankers. *International Journal of Business & Management*, *6*(1).

Sentosa, I., Ming, C. W., Soebyakto, B. B., & Mat, N. K. N. (2012). A STRUCTURAL EQUATION MODELING OF INTERNET BANKING USAGE IN MALAYSIA. *Researchers World: Journal of Arts, Science & Commerce*, *3*(1).

Smith, I. (2005). Achieving readiness for organisational change. *Library Management*, *26*(6/7), 408-412.

Susanto, A. B. (2008). Organizational readiness for change: A case study on change readiness in a manufacturing company in Indonesia. *WWW. IB-TS. ORG*.

The World Bank. World Development Indicators. 2015. http://www.worldbank.org/

Thurstone, L. L. (1931). The measurement of social attitudes. *The Journal of Abnormal and Social Psychology*, *26*(3), 249.

Trading Economic. 2014. http://www.tradingeconomics.com/malaysia/gdp-growth-annual

Tran, Q., Huang, D., Liu, B., & Ekram, H. M. (2011). A construction enterprise's readiness level in implementing E-Procurement: A system engineering assessment model. *Systems Engineering Procedia*, *2*, 131-141.

Vazifehdust, H., Shahnavazi, A., Jourshari, M. R. T., & Sharifi, F. S. (2012). Investigation Critical Success Factors of Customer Relationship Management Implementation. *World Applied Sciences Journal*, *18*(8), 1052-1064.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research*, *11*(4), 342-365.

Venkatesh, V., & Davis, F. D. (1994, December). Modeling the determinants of perceived ease of use. In *ICIS* (pp. 213-227).

Visagie, C. M. (2010). *The relationship between employee attitudes towards planned organisational change and organisational commitment: an investigation of a selected case within the South African telecommunications industry* (Doctoral dissertation, Cape Peninsula University of Technology).

Vivoda, Jonathon (January 24, 2014). Mediation & Moderation. Behavioral and social science foundation for the health professions.

Walker, S. C., & Pearson, J. (2012). Intent to Use Technology: Facilitation Effect of Group Presence. *International Journal of Business Information and Technology (IJBIT)*, *1*(1)

Zandi, G., & Haseeb, M. (2019). The role of trade liberalization in carbon dioxide emission: Evidence from heterogeneous panel estimations. *International Journal of Financial Research*, 10 (5), 228-240.