Analysis of Perceived Usefulness and Perceived Ease of Use in Relation to Employee Performance

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Abstracts: The adoption of electronic customer relationship management (E-CRM) is an important consideration for communication and collaboration companies. Several research efforts have focused on studying the success variables that contribute to the effectiveness of E-CRM systems. This study investigates whether enhanced Technology Acceptance Model (TAM) and TAM3 can be used to understand employee adoption of E-CRM. The present study evaluates the scale on two key variables: perceived value and ease of use, are considered the main predictors of acceptability. The results show that perceived usefulness significantly affects 3.83 values out of 5.0, with a confidence interval of 839. Additionally, the employee performance rating is 0.886, which is above the acceptable limit of 0.70. The results indicate that the data fits the extended TAM model effectively. Performance measurement is heavily influenced by perceived ease of use and user satisfaction.

Keywords: Employee Performance, Perceived Usefulness, Perceived Ease of Use, TAM3, Performance Measurement.

1. INTRODUCTION

Since Electronic customer relationship management (E-CRM) is a complete system of services that contribute to an organization's satisfaction, purchase, intent, and performance. Security awareness in E-CRM is a major issue to be addressed in the community (Anaam et al., 2022; Bagul & Barve, 2021). The impact of community and behavioral factors on website quality in e-CRM has been studied extensively. E-CRM aspects of employees have really been highlighted to effectively apply E-CRM (Amara & Subramanian, 2020; Anaam, Magableh, et al., 2021; Zakuan et al., 2018). The importance of many social aspects of website quality for profitable E-CRM is an important point of discussion. By grouping customer engagement hierarchically, E-CRM improves the combination of user data, organizational needs, and utility. Several previous studies on the methods and acceptability of information and communication technology (ICT) focused only on a specific approach used as a hypothesis of effectiveness (Azmi et al., 2018; Olayah, Anaam, Yahya, et al., 2022). This study aims to investigate the impact of perceived usefulness and ease of use on employee satisfaction by focusing on E-CRM adoption and personal performance. After discovering the key predictive aspects that significantly influence individual satisfaction and performance, recommendations can be made on how users can properly and effectively customize the E-CRM system. In addition, this research can help influence other industries that are working with or related to the adoption of E-CRM in their organizations. This document provides important information with a comprehensive understanding of the usefulness and use of simplicity, data security, performance and personalization.

2. RECOMMENDATION TECHNIQUES

2.1. Theoretical Gap

The Technology Acceptance Model (TAM) model is a few widely mentioned theories and concepts for predicting businesses' acceptance and adoption of innovative knowledge management (software and information systems). In this approach, systems utilization is recommended primarily by perceived behavioral control to use that is impacted by individuals' behavior towards utilizing the system and its perceived usefulness. On the other hand, perceived ease of use generally influences behaviors and user satisfaction (Song et al., 2017; Teixeira et al., 2017; Weil et al., 2017). Perceived service quality is measured by the degree to which an individual feels that using a particular system will improve employee satisfaction. In contrast, perceived behavioral control is defined as the extent to which an individual feels

they are navigating an E-CRM (Chang & Ho, 2017; Lin, 2017; Mohammed Al-Nashmi, 2016; Rodriguez & Trainor, 2016).

2.2. Perceived Usefulness

Satisfaction has better knowledge of source material and build reliability than other conventional success metrics, such as perceived usability and usefulness (Brockman et al., 2017) . (Brockman et al., 2017) indicated that satisfaction is a general measure of success rather than an individual component of it. Perceived usefulness, perceived ease of use and user satisfaction are common requirements that continuously influence the desire to use telecommunications. The importance of perceived ease of use in understanding perceived usefulness and use of technology has been discovered. It has also been determined that perceived usefulness is an important predictor of system performance. Theory has been supported as the factor of E-CRM acceptance; User satisfaction with usage, adaptability and public factors are positively and significantly correlated.

2.3. Ease of Use

The cognitive effort the system needs in navigating the network usability is the ease of usage (Al-Mamary et al., 2015; Grabarics et al., 2017; Howes et al., 2017; Kilsby et al., 2017). (Anaam et al., 2020; Anaam, Magableh, et al., 2021) indicated that to examine the consequences of an individual's personal impact on technology acceptance and improvement, is to confirm the significant favorable impacts of E-CRM on ease of use as a form of personal impact in technology acceptance (Olayah, Anaam, Yahya, et al., 2022). A significant difference among perceived utility and user satisfaction of use highlighted is fundamental to the relationship between perceived job satisfaction and performances.

2.4 Employee Performance

Employee performance is one of the crucial factors influencing organizational effectiveness in the business environment (Anaam et al., 2020; Azmi et al., 2018; Haw et al., 2022). Companies that invest in the correct level of staff training can increase employee productivity(Abdollahpouri et al., 2019; Bagul & Barve, 2021; Haw et al., 2022) and competencies. Furthermore, training is considered to be a good technique of addressing shifts that occur because of technology, business environment, and organizational architecture, and, most significantly, it impacted on enhancing the performance of employees(Colombo-Mendoza et al., 2018; Hinduja & Pandey, 2018; Olayah, Anaam, Yahya, et al., 2022). Employee satisfaction is indeed increasingly difficult for businesses, especially a few in the smartphone industry. The key concern in employee happiness would regard its individuals as securities and the important determinant and doorway to performance and massive profits (Amara & Subramanian, 2020; Anaam, Magableh, et al., 2021; Hassan & Hamada, 2019; Liang, 2023; Zakuan et al., 2018). In conclusion, the most recent research investigated the impact of employee job satisfaction as a dependent factor, in addition to organizational characteristics (Jangizehi et al., 2023; Parapar et al., 2013; Shambour et al., 2016). Therefore, the present study focuses on the impact of employee performance as the dependent variable, as well as organizational factors (management support, training) and technological factors (information quality, system quality and service quality) to assess the impact of direct and indirect effects on the success of a E-CRM system.

3. RESEARCH METHODOLOGY

3.1. Assessment Theory

Azmi et al. (2018) developed a TAM3 model that uses two parameters to assess individual behavior for system use: ease of use and perceived usefulness. When consumers believe that using a system has increased their work performance, this is considered useful. The extent to which an individual thinks that using a certain technology will be free of physical and mental effort is perceived ease of use. In addition, also reported that perceived usefulness is essential to intention to use and is important for understanding and defining this construct. Furthermore, the effect changes with increasing experience using the system.

(anaam et al., 2023) determined that E-CRM issues included both individual behavior and organizational pervasiveness. In addition, complexity, compatibility, trialability, and observability influence an individual's attitudes and behavior towards the use of E-CRM. The self-efficacy of IT also improves predictability and improves E-CRM system usage. Most of the researchers focused on the important factors related to the success of E-CRM promoting the use of E-CRM (Olayah et al., 2022).

Many studies on E-CRM focus on analyzing the organizational factors related to the success of E-CRM (Anaam et al., 2022; Anaam, Bakar, et al., 2021; Olayah, Anaam, Bakhtan, et al., 2022; Olayah, Anaam, Yahya, et al., 2022). Despite all the global attention given to the adoption of E-CRM by various researchers, the failure rate of E-CRM efforts remains high. We observed that previous studies applied certain theories to study on one-sided elements of E-CRM. For example, research conducted by (Anaama et al., 2022) used TAM theory as a guide for practitioners to effectively support the dissemination of E-CRM in organizations. There is also a clear gap for the application of theories to study elements from three aspects: technological, organizational and personal factors affect employee performance (Chang & Ho, 2017; Mohammed et al., 2014; Song et al., 2017). Fig. 1 depicts the TAM model employed in our study.
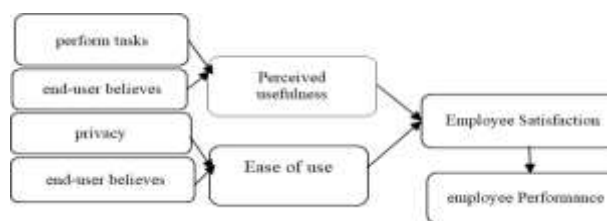

Fig. 1. TAM model

3.2. Questionnaire Design

A questionnaire set was used to collect data for determining employees' views and validating the study's variables. The questionnaire also simplifies data analysis and is more scientific and purposeful than other forms of research (Ang and Sellappan, 2022). Furthermore, questionnaires can also be used to identify respondents' perceptions of a theory, allowing researchers to evaluate and compare previous investigations. Both closed and open inquiries were used to create the survey form, allowing respondents to submit accurate results to every topic. The survey is designed to allow respondents to respond more accurately to each item. All items in the questionnaire were derived from the work of previous studies related to the context of each factor. Five Likert scale methods (strongly disagree, disagree, partly agree, strongly agree) were used for this questionnaire to determine respondents' agreement as proposed to measure respondents' attitudes. Data were collected by questionnaire method. In a study, a survey is the main data collection tool. It is a standardized series of questions, sometimes referred to as items, that follow a five-step process to collect only individual information about a single or perhaps more specific topic (Cambra-Fierro et al., 2017; Šebjan et al., 2016).

3.3 Evaluation by Experts

The survey was validated using a two-stage method before being distributed to the samples to ensure that the questions were error-free and easy to understand. The first phase distributed 30 questionnaires to 30 mobile company employees to validate items. In the second phase, the questionnaires were validated by experts (university teachers) about the usefulness, ease of use, and staff performance. The authors have constructed measurement items following the procedure recommended by (Abdul-Muhmin, 2012; Brockman et al., 2017; Mahmoud Alshourah, 2012; Varajão et al., 2013). First, to create the items, the researcher writes the items. Second, questions from three academic experts in the fields of information systems and information technology were examined in the survey.

4. RESULTS AND DISCUSSIONS

4.1. Pilot Study

A pilot study consisted of small data collection from the target population. The advantage of survey questions in experimental research is that it is easy for respondents to understand - applied experimental research ensures that respondents can answer the question without difficulty. (Anaam et al., 2020, 2022) mentioned that the size of the pilot study is good to keep within between 25 and 100. A total of 30 questions were built in this study for employees working in E-CRM, the questionnaire is designed based on 5 scales Likert 1=disagree 2=disagree, 3=slightly agree, 4= agree, 5= totally agree. Respondents should circle the most correct answers. The pilot study lasted about 15 to 30 minutes. The pilot study was analyzed using SPSS software. The purpose of the pilot study is to confirm that the framework is suitable for testing before conducting formal testing. (Anaam, Magableh, et al., 2021; Hassan & Hamada, 2019; Olayah, Anaam, Yahya, et al., 2022; Zakuan et al., 2018) indicate that all questionnaires should be checked to confirm that the questionnaire is clearly written. Therefore, the survey was distributed to affiliates of three companies: A, B, and C. The total number of distributed questionnaires is 35 and only 30 returned. The pilot study sample size was 30 responses and could be considered appropriate according to the recommendations of (Liang, 2023; Shambour et al., 2016; Zakuan et al., 2018). The demographic profiles of the participants are shown below in Fig. 2 and Fig. 3
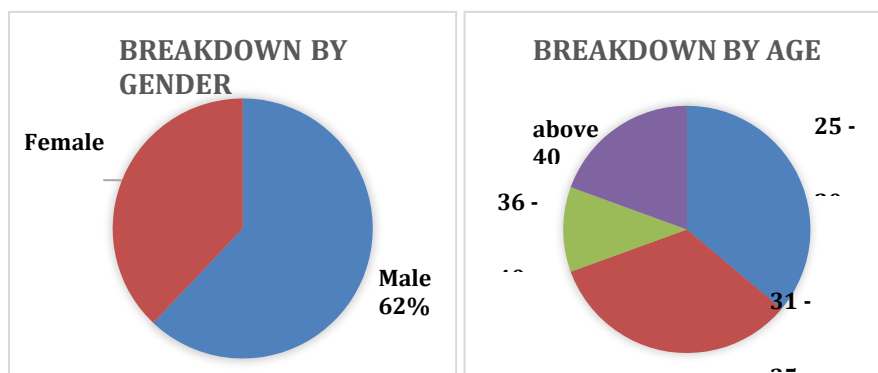

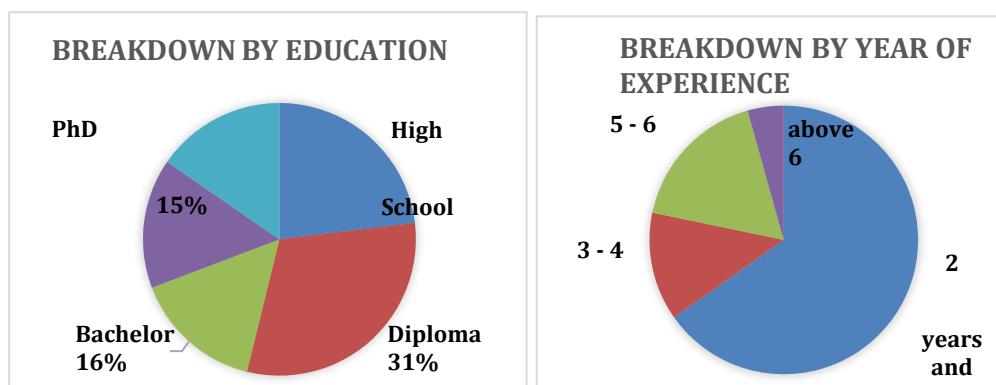**Fig. 2.** Demographics Information by Gender and Age

Fig. 3. Demographics Information by Education Level and by Year of Working Experience

4.2. Linearity

The basis of the recommendation investigates whether or not the connections between two regression coefficient (dependent and independent) are linear. The connections between the independent variables should be linear. Fig. 4 depicts plots for perceived usefulness, employee satisfaction, and employees' performance, allowing us to infer thatregression analyses indicate moderate correlation.
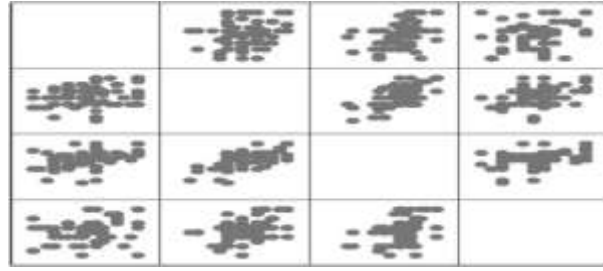
Fig. 4. Linearity

4.2. Absence of Multicollinearity

A number of issues experienced while using panel data methods is the existence of multiple linear regression. Coefficient of determination refers to a relationship among elements. When a few variables are substantially associated (r=.90 or above), there is correlation between the independent variables (Amara & Subramanian, 2020) asshown in Fig. 5.
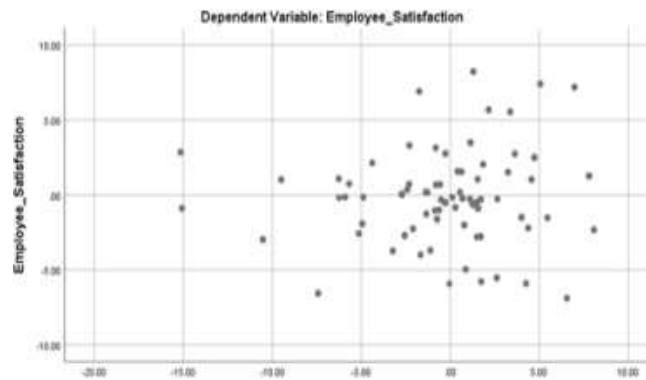

Fig. 5. Absence Multi-collinearity

4.3. Descriptive Statistics

Maximum average score for the Perceived Usefulness (PU) variable is 3.83 out of 5.0 values, with a confidence interval (SD) of.839. As a result, the Skewness 2 and Kurtosis two variables (see Table 1) reveal that all functionalities of Perceived Usefulness (PU) are within reasonable parameters. In summary, the data demonstrate that the existing average evaluation system for Perceived Usefulness (PU). Workers must give their opinions on the Moderator in theconnection and the Focused component.

Based on the results in Table 2, the employee satisfaction shows that the average value for Employees' job satisfaction in the latest study is 3.69, with a standard deviation of 0.958, Additionally, the Skewness 2 and Kurtosis 2 results indicate that a allowable norm, with the maximum weighted mean of 3.78 out of 5.0 points and a t - statistics of.942. According to Cronbach's Alpha, all independent contractor Validation (ES) element is more than 0.70. Additionally, the Overall Dependability for Employees' performances (ES) rating is.886, that becomes above than the acceptable limit of 0.70. Coefficients and multi-collinearity statistics, as illustrated in (see Table 3) indicate that there is no suggestion of substantial multicollinearity between the research predictor variable (perceived usefulness). From the results in Table 3, it indicated that there is a strong and statistically significant relationship between perceived usefulness (the independent variable) and employee performance (the independent variable). Overall, the regression results suggest that a third model is accepted, encouraging the main model of the present study to be continuous.

Table 1. Frequency, Mean, Standard Deviation, Skewness And Kurtosis, And Reliability For Perceived Usefulness Items

	Items of Perceived Usefulness (PU)	1 n %	2 n %	3 n %	4 n %	5 n %	M	SD	Rank	Skewness ≤ 2	Kurtosis ≤ 2	Corrected Item-Total Correlation ≥ 0.30	Cronbach's Alpha if Item Deleted ≥ 0.70
1	E-CRM system helps me to work more quickly (PU1).	6 / 2.0	20 / 6.7	85 / 28.3	113 / 37.7	76 / 25.3	3.78	.98	6	-.520	-.084	.517	.834
2	E-CRM system helps my job performance (PU2).	3 / 1.0	8 / 2.7	93 / 31.0	129 / 43.0	67 / 22.3	3.83	.89	1	-.355	.086	.552	.828
3	E-CRM system helps me to increase productivity (PU3).	7 / 2.3	6 / 2.0	96 / 32.0	142 / 47.3	49 / 16.3	3.73	.89	7	-.625	1.090	.567	.826
4	E-CRM system helps my effectiveness (PU4).	11 / 3.7	13 / 4.3	60 / 20.0	155 / 51.7	61 / 20.3	3.81	.94	3	-1.019	1.32	.620	.818
5	E-CRM system increase the quality of the work I do (PU5).	12 / 4.0	10 / 3.3	75 / 25.0	132 / 44.0	71 / 23.7	3.80	.91	4	-.869	.885	.698	.805
6	E-CRM system allow me to do tasks more correctly (PU6).	3 / 1.0	29 / 9.7	73 / 24.3	114 / 38.0	81 / 27.0	3.80	.97	5	-.485	-.451	.604	.820
7	E-CRM system increase the efficiency at work (PU7).	8 / 2.7	8 / 2.7	97 / 32.3	101 / 33.7	86 / 28.7	3.83	.95	2	-.553	.160	.630	.816
	Overall Mean Score						3.79	0.92		Overall (Cronbach's Alpha)	Reliability		.843

Table 2. Frequency, Mean, Standard Deviation, Skewness And Kurtosis, And Reliability For Employee Performance Items

	Items of Employee Satisfaction (ES)	1 n %	2 n %	3 n %	4 n %	5 n %	M	SD	Rank	Skewness ≤ 2	Kurtosis ≤ 2	Corrected Item-Total Correlation ≥ 0.30	Cronbach's Alpha if Item Deleted ≥ 0.70
1	I am satisfied on E-CRM system because of the E-CRM system meets my information processing needs (EC1D).	12 / 4.0	26 / 8.7	61 / 20.3	152 / 50.7	49 / 16.3	3.67	.93		-.867	.544	.681	.870
2	Data provided by the E-CRM system is quickly updated (ES1).	2 / .7	27 / 9.0	109 / 36.3	108 / 36.0	54 / 18.0	3.62	.95		-.120	-.518	.728	.862
3	The E-CRM system achieve task ssuccessfully (ES1A).	5 / 1.7	24 / 8.0	97 / 32.3	107 / 35.7	67 / 22.3	3.69	.96		-.346	-.319	.702	.866
4	The E-CRM system iseffective (ES1B).	3 / 1.0	23 / 7.7	86 / 28.7	113 / 37.7	75 / 25.0	3.78	.94		-.393	-.397	.730	.862
5	D - The E-CRM system efficiency ishigh (ES1C).	6 / 2.0	10 / 3.3	96 / 32.0	123 / 41.0	65 / 21.7	3.77	.89		-.491	.353	.821	.848
6	Overall, I am satisfied with E-CRM system (ES2).	10 / 3.3	33 / 11.0	79 / 26.3	106 / 35.3	72 / 24.0	3.66	1.03		-.508	-.361	.568	.890
	Overall Mean Score						3.69	0.958		Overall Reliability (Cronbach's Alpha)			.886

Table 3. Coefficient And Collinearity Statistics

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.781a	.610	.609	2.87579

a. Predictors: (Constant), Perceived Usefulness
b. Dependent Variable: Employee Satisfaction

	Model	Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	3851.768	1	3851.768	465.742	.000b
	Residual	2464.512	298	8.270		
	Total	6316.280	299			

a. Dependent Variable: Employee Satisfaction

4.5 Convergent Validity of Mediating and Dependent Variables

Fig. 6 presents the findings, which the path coefficients and R2 exceeded the adequate standard (0.70/0.50), despite the fact that it is correlated to perceived usefulness (PU), and the value is lower than 0.70. Numerous researchers agree that the perceived usefulness (PU) with confirmatory factor components evaluating the concept of perceived usefulness (PU).

CONCLUSION

The conclusions of objectively perceived usefulness and employee performance have a significant influence. Because this gain a deeper understanding is statistically significant, it confirms because instead of refusing to accept its assumption. The regression analysis is 0.447, which indicates an encouraging connection between the individual configurations and user satisfaction. The reliability of independent variables such as ease of use, abilities, technological competence, and computer can all make individuals more relevant. The confirmed assumption determined the effect by categorizing the primary criteria that affect the link between components; E-CRM is sometimes improved. It needs to complete jobs satisfactorily, indicating that individuals are completely comfortable and believe the E-CRM system is highly useful. Additionally, the overall dependability for performance evaluations score is .886, which is greater than the allowable level of 0.70.
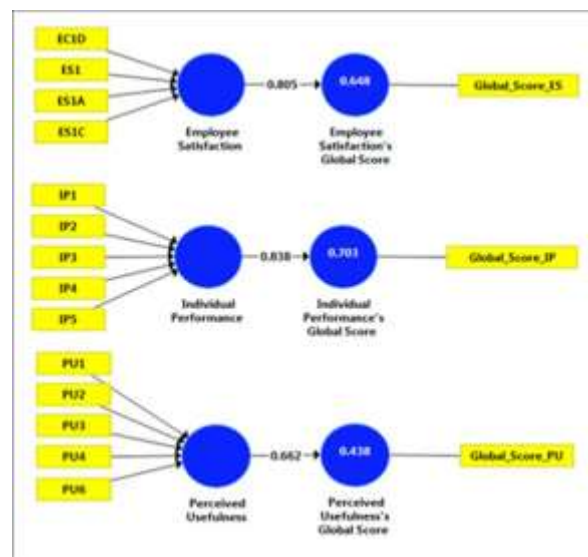

Fig. 6. Convergent Validity of Mediating and Dependent Variables

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