

Adoption of Electronic CRM in Service Sector: Using an Integrated Model

Sameh Tebourbi Abbes¹ and Romdhane Khemakhem²

¹ Faculty of Economics and Management of Sfax. Sfax University

Received: 10 June 2021 Accepted: 30 June 2021 Published: 15 July 2021

Abstract

The main objective of this research is to develop an integrated model of significant success factors of the adoption e-CRM system by determining the intention behavior the user in the service sector. The proposed research model was constructed based on the innovation diffusion theory (Rogers 2003), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Task Technology Fit model (TTF). A quantitative study carried out with 340 respondents belonging to Tunisian companies with customer databases ?A priori judgment? sample method was chosen. We used structural equation modeling that is an adequate solution to the design of theoretical models and to test the research hypothesis Keywords: integrated model, adoption of e-CRM, the innovation diffusion theory (Rogers 2003), the Unified theory of acceptance and use of technology (UTAUT), and the task technology fit model (TTF).

Index terms— integrated model, adoption of e-CRM, the innovation diffusion theory (Rogers 2003)

1 Introduction

urrently, the solid metamorphosis of the exchange universe and the spectacular evolution of the market, lead the company to initiate systemic transformations under strong time constraints to prevent customer needs and thus develop personalized offers and superior quality (Cadiat and de Moerloose, 2002) through the electronic customer's relationship management "e-CRM system".

Many of the benefits of this system are that businesses can provide their customers with personalized service, acquire new customers, retain existing customers, and maximize their lifetime value. As a result, acquiring new customers remains a hard task due to the intense competitive environment and complex consumer behavior ??Tocquer and Langlois 1992).

Despite the advantages of information technology (IT) and its ability to perform relationship marketing tasks, there is still a lack of empirical data in the field of relationship marketing (RM), customer relationship management. (CRM) and its e-CRM application.

In the literature, studies indicate several failures in the use and adoption of the e-CRM system / The failures are mainly due to employee resistance to change, insufficient training on the e-CRM system, lack of management support, and lack of appropriate IT infrastructure.

Indeed, most of the previous research had not focused on studying user acceptance behaviors or their attitude towards e-CRM adoption. The e-CRM projects have focused more on the application of technology and not on human issues. However, and according to Volle (2003), the gains to be made from the information system no longer come from massive investments in IT infrastructure but from the strengthening of links between people, technology, and the organization.

Big data pose new challenges to traditional data processing methods, because they are not designed for the scale of the web (Chéour, 2019). Given the astronomical amount of potentially exploitable data, it is first necessary to put in place approaches to manage this wealth of information, to store and prioritize this data in an adhesive manner, with a view to their subsequent exploitation (Ghazaleh, 2020).

Many theories try to take advantage of this question by studying the conditions under which the interactions between people, technologies and, customers increase the profitability of the company's merchant portfolio. Specially, the diffusion theory of innovation.

The diffusion theory of innovations has shown relatively dominance over other models that have tried to investigate the field of perceptual characteristics of innovation (Meuter, 1999). It was criticized for its lack of specificity (Chau and Tam, 1997).

Another criticism of the diffusion of innovations theory is its omission of the vital role intention plays in the process of use (Ozdemir, Trott & Hoecht, 2008).

However, adopting an innovation involves first its evaluation by the consumer, then forming the intention demonstrating the close link between the use of technology and human performance. Yet, it does not specify how this intention is formed or how it results was used or rejected. Several studies have emphasized the role of intentions in user behavior (Anderson & Schwager, 2004; Lin, Chan & Jin, 2004).

Facing his critics, two main theories have recently emerged proposing elements of ramifications. These are the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Task Technology Fit model (TTF), which serves to better explain the adoption of IT.

UTAUT is certainly the most successful explanatory model of the individual adoption of technologies. Explain nearly 70% of the variance in intent and 50% of the variance in usage (Venkatesh et al. 2003).

In addition, there are other significant factors like technological characteristics and task characteristics that are unnoticed in the model (Khoshtinat, Bojei, Ahmadin, 2014).

To assess the successful match between the task and the information technology and character of users, many authors like (Goodhue and Thompson, 1995) suggest a relevant research model that covers most of the factors that explain the adoption decision of electronic CRM. The Task Technology Fit model (TTF), which is an organizational assessment tool for Information Systems (IS) and services (Goodhue, 1995).

Despite the importance of the task-technology adjustment model (Goodhue, 1995) in explaining the adoption of IT technological innovation, it does not consider an aspect of great importance; the interaction between the user and the task (Khoshtinat, Bojei, Ahmadin, 2014). Given the contributions but above all to overcome the limits of the theory of diffusion of innovations (Rogers, 2003), the unified theory of acceptance and use of technology and the task-technology adjustment model (Goodhue, 1995), we propose an integration of these three theoretical frameworks to judiciously explain the adoption of e-CRM in service companies.

2 In light of these findings, we can ask the following question:

What are the determinants of the use and adoption of the e-CRM system in service companies?

Based on the diffusion of innovation theories (Rogers, 2003), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Task Technology Fit model (TTF), our main objective is to develop an integrated model of the main factors of CRM adoption by determining the behavioral intention of marketing managers in the service sector.

3 II. Literature Review and Hypothesis

The unified theory of acceptance and use of "UTAUT" technology justifies using ICT essentially from four fundamental determinants of behavioral intention: expected performance, expected effort, social influence and, the facilitating conditions. These four elements make it possible to prove using ICT (Venkatesh et al., 2003). The UTAUT model (Venkatesh, 2003) will be enriched by another variable, innovativeness. This extension of the UTAUT model is recommended by .

4 a) Effort expectancy and behavioral intention

Effort Expectancy is defined as "the degree of ease associated with the use of the system" (Venkatesh, 2003). When companies adopt the e-CRM system, they traditionally compare it with existing systems. If they feel that the system is easily understood and used, their willingness to adopt it will be strengthened (Pai, Tu, 2011).

This finding is confirmed by Park et al. (2007), Tan et al. (2010) and Yu (2012) by applying the UTAUT model. Accordingly, we assume a relationship between effort expectancy and intention to use the e-CRM system in service companies.

H1: Effort expectancy affects significantly and positively behavioral intention.

5 b) Social influence and behavioral intention

This construct is defined as "the degree to which an individual perceives that important others believe that he or she should use the new system" (Venkatesh, 2003). Pai, Tu, 2011 take into consideration that behavioral intention will be enhanced when the company adopted the e-CRM system, will create a higher social impact.

H2: Social influence affects significantly and positively behavioral intention.

6 c) The facilitating condition and intention of adopting the e-CRM system in service companies

Facilitating conditions are defined as "the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system" Venkatesh et al. (2003). They are often theorized to have a direct effect on the intention and use of the information system (Venkatesh et al. 2003). The study by Venkatesh et al. (2003), and Chiu and Wang (2008) found that when users find that they have a fairly high capacity to use and support resources, this results in a more positive acceptance of information technology.

Facilitation conditions in both TAM and UTAUT are a direct determinant of adoption intention. Studies have found that the enabling conditions directly affect behavioral intention (Thompson et al. 1991, Taylor & Todd, 1995).

7 H3:

The facilitating condition positively and significantly affects the intention to adopt the e CRM system.

8 d) Performance expectancy and behavioral intention

Performance expectancy is defined as "the degree to which the user expects that using the system will help him or her attain gains in job performance" (Venkatesh et al. 2003). It has been shown by several studies to be a very significant determinant in the explanation of the intention to adopt a technology (Ouedraogo, 2011; Venkatesh et al. 2003). In general, when companies need to invest in technological innovation, the main consideration in system implementation is whether the technology or system can improve overall performance or can effectively perform the defined task (J.-C. Pai, F.-M. Tu, 2011). Indeed, the technological innovation of information systems can only be adopted within service companies if the staff perceive the gains in terms of efficiency, speed and, performance in the execution of tasks, also, if he sees these new tools as real opportunities to ensure not only professional care, but also to promote business activities. H4: Performance expectancy positively and significantly affects behavioral intention.

9 e) Innovativeness and behavioral intention

Innovativeness is defined as "the degree of adoption of innovations and highlights the extent to which the organization is receptive" (Venkatesh 2003). Authors such as Roehrich (1994) and Frini and Limayem (2001) have found a prominent positive correlation between innovativeness and the propensity of behavioral intention towards the use of innovations. H5: Innovativeness has a positive effect on behavioral intention.

10 f) Behavioral intention and intention to adopt the e-CRM system in service companies

Behavioral intention is defined as "the subjective probability that a person will engage in the behavior in question" (Fishbein & Ajzen, 1975). Indeed, previous research indicates that the user shows a greater willingness to adopt the new system when supported by the organizational or technological structure (Chiu & Wang, 2008; Venkatesh et al. 2003).

11 H6:

The behavioral intention of the adoption the e-CRM system has a positive effect on the intention to adopt it.

The testability of the e-CRM system in service companies and the intention to adopt it Testability is defined as "the degree to which an innovation can be tested over a limited field before its use" (Rogers, 2003). A new idea is generally faster to adopt than other ideas (Rogers, 2003). This possibility would allow the individual or any other adoption unit to better understand how an innovation works and its importance. Thus, an innovation that we can pre-test present less risk to the individual or organization that intends to adopt it (Rogers, 2003). Potential adopters who are allowed to experiment with the innovation will feel more comfortable and be more likely to adopt it (Agarwal & Prasad 1998) and Rogers (2003).

12 H7:

The testability of the e-CRM system has a positive effect on the intention to adopt it.

g) The observability of the e-CRM system in service companies and the intention to adopt it Observability is defined as "the degree to which the results of new information technologies are visible and accessible". The clearer the results of adopting these systems, the more easily individuals will adopt them (Rogers, 2003). Robertson (1971) points out that observability correlates positively with the adoption of a new system.

13 H8:

The observability of an e-CRM system has a positive effect on the intention to adopt it.

14 h) The perceived risk and intention of adopting the e-CRM system in service companies

Perceived risk is defined in the literature as "the perceived uncertainty in a purchasing situation that affects people's confidence in their decisions" (Im et al. 2008).

Toufaily, Daghfous and, Toffoli, 2009 confirmed that perceived risk is a determining factor adopting of a new system. The more the manager perceives a high risk in the face of innovation, the lower the adoption rate will be and vice versa.

In this same framework, Robertson (1971) approves the negative correlation between the adoption of innovations and perceived risk. Ostlund (1969) explained, for his part, that the lower the level of perceived risk, the more we see a high adoption rate. The perceived risk is thus a determining factor in the adoption of a new product.

15 H9:

The perceived risk of the e-CRM system has a negative effect on the intention to adopt it.

16 i) The characteristics of the tasks and the tasktechnology adjustment

The characteristics of the tasks are those that a user must mobilize. They are measured by the following criteria: the complexity of the task (the routine versus non-routine aspect) and the interdependence between the tasks (transversality) (Goodhue and ??hompson, 1995).

The task-technology fit "is the degree of correspondence between the functional need for the task, the individual capacities and the technical functionalities offered by the system" (Goodhue and ??hompson, 1995). In this regard Goodhue and ??hompson (1995), assert that the characteristics of the task are directly affected by the characteristics of a specific system, or the efficiency of the use of information technologies and the technical functionalities of the system. The study by Dishaw and Strong (1999) shows that the characteristics of the tasks will directly influence the task-technology fit. H10: The characteristics of the tasks positively affect the task-technology fit.

j) The characteristics of the technology and the tasktechnology fit Dishaw and Strong (1999), have shown that workgroups and characteristics of technology directly influence task-technology adjustment. Likewise, the task-technology fit will be improved when technological performance increase (Goodhue and ??hompson, 1995). The fit between the tasks to be performed and the technology used in organizations has a direct influence on the use (Dishaw and Strong, 1999), Venkatesh (2003).

H11: The characteristics of the technology positively affect the task-technology fit.

17 k) The characteristics of the technologies and the intention of adopting an e-CRM system in service companies

Research by Goodhue and ??hompson (1995) found that the user's cognition and belief determine the strength of behavioral intention, subsequently affecting the final performance of the current behavior.

18 H12:

The task-technology fit significantly and positively affects behavioral intention.

19 l) The influence of moderating variables

We retained the two demographic variables: sex and age, as two moderating variables in our study.

m) The influence of age ??ogers (1995) has shown that "adopters are usually younger". Igbaria and Parasuraman (1989) note that "older people tend to be less exposed to ICTs, therefore less flexible and more resistant to change. As a result, their anxiety about computers increases and thus reduces their likelihood of using these systems. " Zoltan and Chapanis (1981) show that "the attitudes of older people towards computers are more negative than those of younger people". Moreover, "the oldest have a weaker perception of the usefulness of personal computers" ??Igbaria, 1993).

20 H13:

The age of the user of an e-CRM system has a moderating effect on the relationship between the determinants of e-CRM system adoption and the intention to use this system.

21 n) The influence of sex

The influence of sex on the use of technologies is tested by several studies in the field of the acceptance of various technologies: the microcomputer (Igbaria and Parasuraman, 1989), e-mail, m-commerce , online banking services (Martins et al. 2013) and mobile banking services (Yu, 2012).

22 H 14:

The sex of the user of the e-CRM system has a moderating effect on the relationship between the determinants of adoption of the e-CRM system and the intention to use these systems.

The conceptual model which summarizes all the assumptions made is as follows: Figure1: Conceptual model of research

23 Research Methodology

This research was conducted in the context of the Tunisian market. A quantitative questionnaire study was used in this research.

24 a) Data collection

In CRM research in general, the sampling populations under study are companies with large customer databases operating in sectors with great competitive pressure that pushes them to differentiate themselves, in particular companies operating in the B to C sector ??Coltman et al., 2011).

Our choice focused on Tunisian companies with a customer database (Coovi 2010), particularly the service sector. "A priori judgment" sample method was chosen since the companies selected to be part of the sample are those which think, before questioning them, that they may have crucial information for the study ??Giannelloni et al. Vernet, 2012, p.284). We use the "prior judgment" sampling method when we take a sample based on certain judgments about the whole population. The assumption underlying its use is that the enumerator will select units that will be characteristic of the population. The measurement scales used have been adapted from previous research where they have shown good validity. To ensure content validity, the vocabulary of these scales has been adjusted to the context using the CRM system.

25 c) Method of data analysis

We used the method of structural equations, which are confirmatory techniques that aim to validate hypotheses using SPSS 20 and AMOS20 software.

IV.

26 Search Results

27 a) Purification and reliability of measurement scales

A confirmatory factor analysis was performed to assess the psychometric qualities of the scales for measuring latent variables and to test research hypotheses. We made the modifications by adding covariance links between the errors in order to improve the goodness of fit of our measurement model. The reliability of the scales is satisfied (? of Jöreskog and ? of Cronbach > 0.7).

The convergent validity of the scales is satisfactory (?VC > 0.5) according to the criterion of Fornell and Larcker. The results also show that the discriminant validity is satisfied. The discriminant validity of all the constructs is verified.

28 b) Testing hypotheses

To judge whether the hypothesis is supported or not, we need to move on to studying regression links.

To judge a relationship like significant, it should be checked that the CR is greater than 1.96 with a significant p (p must be less than 5%). The results show that expected effort and social influence have a positive effect on behavioral intention are rejected. These results are surprising contradict with the results of previous research, whether in the context of UTAUT (Venkatesh et al., 2003).

Also, the results of the current study show that there is a significant positive relationship between the facilitate conditions and the intention e-CRM system.

This result is consistent with the work of Venkatesh et al. 2003.

Facilitating conditions are often theorized to have a direct effect on the intention and use of SI (Venkatesh et al. 2003). Venkatesh et al. (2003) and Chiu and Wang (2008) found that when users have high utilization capacity and support resources, they show more positive acceptance of information technology.

It is recommended that marketing managers integrate the e-CRM system. Since it is easy to use, it does not require strong computer skills.

Then, there is a significant and positive relationship between expected performance and behavioral intention. This result is consistent with the work of Wang2008. Indeed, performance expectancy is one of the most powerful predictors of intention built into the UTAUT model as this system is seen as useful for marketing functions.

In addition, it is supposed to provide assistance to different managers (regardless of their level) for the analysis of daily activity and decision-making. The software is supplied monthly for weekly management of the activity (schedules and promotion).

The effect of innovativeness on behavioral intention is confirmed.

This result is consistent with the results of previous research, Venkatesh 2003, Roehrich 1994 and, Frini and, Limayem 2001. It is recommended to use the e-CRM system since it is seen as useful for marketing functions; It can manage business problems and help improve performance, it is assumed assist to various managers (regardless of their level) for the analysis of daily activity and decision-making.

The behavioral intention of implementing an e-CRM system to have a positive effect on the intention to adopt it is validated.

This result is consistent with the work (Chiu & Wang, 2008; Venkatesh and Davis, 2000; Venkatesh et al. 2003), which shows that from a certain level of experience, the intention was a better explanatory variable of the intention of use.

About this outcome, service companies must support leaders with a technology or a solid organizational structure that meets their expectations.

If the leader is well trained the e-CRM system, it will have a positive effect to adopt this system.

If the leader is well trained while the company implements the CRM system, it will produce a positive effect on the use of CRM.

The testability of the e-CRM system effects the intention to adopt the e-CRM system; it is best for marketers to test the system before adopting it.

Exploratory and confirmatory factor analysis decomposed this concept into two dimensions: The rejection of the first dimension can be explained by the fact that observability of the system by other users and observability outside the company do not affect the intention to adopt the system.

The acceptance of the second dimension is explained by the fact responds to the real needs of customers and allows the rapid flow of data.

The perceived risk has a negative effect on behavioral intention is validated. This result confirmed by previous studies (Im et al., 2008; Pavlou, 2003; Toffoli, 2009; Robertson, 1971; Ostlund, 1969).

As a result, service companies must ensure that customer personal information is not disclosed while using this system.

According to Goodhue and Thompson (1995), the characteristics of the technology are measured by the functionality of e-CRM system:

The exploratory and confirmatory factor analysis allowed us to identify two dimensions, analytical capacity and customer relationship.

The results showed that only the customer relationship determines the task-technology fit. This result is consistent with the work of (Payne 2006).

The e-CRM system integration helps marketers maintain relationships with customers and provide a single view of the customer through the match between task and technology.

The results of the current study show that there is a significant and positive relationship between task-technology intention. This result is consistent with the work of Goodhue and Thompson (1995).

The age of the marketers has a moderating effect on the relationship between the expected effort and the intention to use an e-CRM system. Our results show that the youngest respondents think that using the e-CRM systems will be easier. We can therefore conclude that older leaders are ready to use these systems, but they are more sensitive to the difficulty of learning to use these systems. This confirms the results of Venkatesh and al. (2003) Age also has a moderating effect on the relationship between social influence and intention to use an e-CRM system. Indeed, in our study, social influence was crucial for older respondents. This result is consistent with the results of Venkatesh et al. (2003), this could be a interesting, especially in the initial phase of the experience when individuals is more likely to rely on the opinions of others (Agarwal & Prasad, 1999). Moreover, they tend to be less flexible and more resistant to change (Igbaria and Parasuraman, 1989).

Age also has a moderating effect on the relationship between the use of e-CRM system and the conditions of facilitation. Our results confirm the results of Venkatesh et al. (2003) and, Venkatesh and Zhang (2010), the literature shows that the youngest are always the most interested in technologies (Rogers, 1995); on the other hand, older people tend to be less exposed to ICT (Zoltan et Chapanis, 1981; Igbaria and Parasuraman, 1989) therefore, they believe that the use of the e-CRM system requires technological resources and knowledge.

In contrast, the gender of the respondents does not affect the factors influencing intention to use. These are contradictory with the literature (Venkatesh et al., 2003; Barbarino and Strahilevitz, 2004; Sreenivas et al., 2005; Park, 2007; Ruiz et al. 2010; Jiffai et al., 2012). (Venkatesh, 2003) which assumes that men are more likely to rely on the performance expectancy of technology.

29 d) Conclusion

Based on the diffusion theory of innovation (Rogers, 2003), the innovation diffusion theory (Rogers 2003), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Task Technology Fit model (TTF), our main objective is to develop an integrated model of key success factors of adoption e-CRM system by determining the intention behavioral in the service sector in Tunisia.

The results of our research agree with those of previous research (Venkatesh, 2003; Rogers, 2003; Goodhue and Thompson, 1995), which allows us to underline the importance of the variables of the three theories in the formation of intention towards the adoption of CRM system in service sector.

This work is based only on reviewing the literature relating to the main models developed in psychology and sociology (TDL, UTAUT, TTF).

As a future way of research could attempt to invite subsequent studies to integrate other model to explain better the determinants of the adoption of the e-CRM system in service companies.

Such as the Information Systems Success Model (ISSM) (Delone, 2003; DeLone and McLean, 1992).

A second limitation, is the non-integration of certain relevant variables in our adoption model. As a future line of research, we propose to integrate the satisfaction as a variable influencing the intention of adopting the e-CRM system. The results of the work of (Bhattacharjee, 2001) show that satisfaction with the use of an IS is a powerful determinant of the intention to use the system.

We also propose to integrating the culture variable as a moderating variable that can enrich our model since it plays a primordial role in the adoption of technology that makes it possible to change individual belief systems (Venkataesh and Zhang (2010).

A final limitation, given the complexity of collecting data from service companies, we used a single survey to conduct the AFE and the AFC.

As a future avenue of research, it is preferable to use two different samples to increase the generalization of the results¹

1

	Sectors	Respondents	%
	Financial services sector	160	47,1
	Telecommunication sector	117	34,4
	Sector NTIC	63	18,5
	Total	340	100,0
Post	Member of leader	16	4,7
	Marketing Manager Sales manager	160	47,1
	Other	30	8,8
	Total	340	100,0
Number of permanent employees	Less of 20	150	44,1
	Between 20 et 49	8	2,4
	Between 50 et 99	44	12,9
	100 and more	138	40,6
	Total	340	100,0
	Experience		
	Aucune	18	34,7
	For less than 1 year	66	19,4
	For a period of between 1 and 5 years	145	13,2
	For a period between 5 and 10 years	107	31,5
	For more than 10 years	4	1,2
	Total	340	100,0
b) Measurement of variables			
All items are measured on a 5-point Likert scale.			

Figure 1: Table 1 :

¹© 2021 Global Journals

2

Concepts	Number of items	Authors
Expected effort	4items	Venkatesh et al. (2003)
Social influence	4 items	Venkatesh et al. (2003)
Facilitate condition	4 items	Venkatesh et al. (2003)
Expected performance	4 items	Venkatesh et al. (2003)
Innovatively	3 items	Jones et al. (2002)
Testability	6 items	Rogers (2003)

Figure 2: Table 2 :

3

Concepts/ Numbers of	Items eliminated	Factors	Items after ACP	Reliability
Expected effort (3items)	EE1 EE4	F1	EE2 EE3	0.645
Social influence(4items)	SI1 SI4	F1	SI2 SI3	
Facilitate condition(4items)	FC3	FC1 FC2 FC4	F1	0.633
Expected performance (4 items)		F1 F2	EP1 EP4 EP2 EP3	0.835
Innovativity (3items)	I3	F1	I1 I2	0.658
Percived risk (3items)		F1	PR PR2 PR3	0.645
Technological characteristics (2items)	practical CRM (4 items)	F1	INT1 INT2 PCRM1 PCRM2 PCRM3	

Figure 3: Table 3 :

4

Indice	Chi-deux	DL	Chi-deux/ DL	P	GFI	AGFI	NFI	TLI	RMR	RMSEA
Valeur	681.149	479	1,42	,075	0,9		0,9	,783	,90	,064
Seuil	—	—	<2	>0.05	?0.9		>0.9	>0.9	>0.9	<0.08

Figure 4: Table 4 :

5

Items	EA2	CF	EST	Variance des erreurs	Rho de Jöreskog	VME	0.871	0.772	0.695	0.533	0.915	0.801
EA3	Somme	1	1	2	0.325	0.264	0.589					
IS2	IS3	1	1	2	0.738	1.011	1.749					
Somme	CF1	1	0.475	0.026	0.14	0.21						
CF2	CF4		0.55									
Somme			2.025	0.379								
I1		1		0.236	0.881	0.787						
I2		1		0.303								
Somme		2		0.539								
O9		1		0.986	0.66	0.5						

©
2021
Global
Jour-
nals

Figure 5: Table 5 :

6

Concepts	Rho de Joreskog
Compatibility	0.73
Perceived utility	0.9
Perceived ease of use	0.63
Trust	0.79
Perceived risk	0.98

Figure 6: Table 6 :

7

Concepts	VME
Compatibility	0.7
Perceived ease of use	0.9
Perceived utility	0.64
Trust	0.89
Perceived risk	0.72

Figure 7: Table 7 :

8

	EA	IS	CF	I	O	OO	T	RP	ORCPCARC
EA	0.87 85								
IS	-0.08 4	0.73 0							
CF	0.46 8	-0.21	0.89 4						
I	0.38 8	-0.20 2	0.30 2	0.88 7					
O	0.11 9	-0.10 9	0.13 1	0.05 9	0.70 7				
OO	-0.01 8	0.13 5	0.20 5	-0.01	0.48 5	0.77 5			
T	-0.67	0.00 5	-0.09 2	-0.04 1	-0.21 6	-0.17 1	0.96 4		
RP	-0.03 3	0.11 9	0.05 5	0.01 9	0.15 1	0.11 2	- 0.15 9	0.77 4	

Figure 8: Table 8 :

9

			Estimate	S.E.	C.R.	P	H
IC	<—	EA	,019	,381	,049	,961	Not confirmed
IC	<—	IS	,067	,195	,344	,731	Not confirmed
IU	<—	CF	2,069	,544	3,802	***	Confirmed*
IC	<—	PAa	,579	,245	2,361	,018	Confirmed *
IC	<—	I	,797	,181	2,124	,001	Confirmed *
IU	<—	T	-,076	,056	-1,971	***	Confirmed *
IU	<—	Oo	-,165	,083	-1,992	,046	Confirmed *

Figure 9: Table 9 :

-
- [Igbaria and Et Parasuraman ()] *A Path Analytic Study of Individual Characteristics, Computer Anxiety and Attitudes Toward Microcomputers* «. *Omega*, vol°21, n°1, M Igbaria , S Et Parasuraman . 1989. p. .
- [Park et al. ()] ‘Adoption of Mobile Technologies for Chinese Consumers’. J Park , S Yang , X Lehto . *Journal of Electronic Commerce Research* 2007. 8 p. .
- [Tan et al. ()] ‘An evaluation of e-banking and mbanking adoption factors and preference in Malaysia: A case study’. K S Tan , S C Chong , P L Loh , B Lin . *International Journal of Mobile Communications* 2010. 8 p. .
- [Agarwal and Prasad ()] ‘Are Individual Differences Germane to the Acceptance of New Information Technologies?’. R Agarwal , J Prasad . *Decision Sciences*, vol°30, n°2, 1998. p. .
- [Fishbein and ajzen ()] *Belief, attitude, intention, and behavior: An introduction to theory and research*, M Fishbein , I &ajzen . 1975. Reading, MA: Addison-Wesley.
- [Payne and frow ()] ‘Customer relationship management: From strategy to implementation’. A Payne , P &frow . *Journal of Marketing Management* 2006. 22 (1) p. .
- [Wang et al. ()] ‘Determinants of User Acceptance of Internet Banking an Empirical Study’. Yi Wang , Yu Wang , H Lin , T Tang . *International Journal of Service Industry Management* 2003. 14 p. .
- [Rogers ()] *Diffusion of innovation*, E M Rogers . 2003. (5th Edition, Kindle edition)
- [Ozdemir and Trott ()] ‘Exploring the adoption of a service innovation: A study of Internet banking adopters and non-adopters’. S Ozdemir , P Trott . *Journal of Financial Services Marketing* 2009. 13 p. .
- [Dishaw and Strong ()] ‘Extending the Technology Acceptance Model with Tasktechnology Fit Constructs’. M T Dishaw , D M Strong . *Information & Management* 1999. p. 36.
- [Yu ()] ‘Factors Affecting Individuals to Adopt Mobile Banking: Empirical Evidence from the UTAUT Model’. C S Yu . *Journal of Electronic Commerce Research* 2012. 13 p. .
- [Chau and Tam ()] ‘Factors Affecting the Adoption of Open Systems: An Exploratory Study’. P Chau , K Tam . *MIS Quarterly*, vol°21, n°1, 1997. p. .
- [Coltman et al. ()] ‘Formative versus reflective measurement models: Two applications of formative measurement’. Tim Coltman , Timothy M Devinney , Midgley , F David , Venaik , Sunil . *Journal of Business Research* 2008. 12 (61) p. .
- [Roehrich ()] ‘innovativité hédoniste et sociale: proposition d’une échelle de mesure». Gilles Roehrich . *Recherche et Applications en Marketing* 1994. 9 (2) p. .
- [Robertson ()] *Innovatrice behavior and communication*, T S Robertson . 1971. New York, Holt, Rinehart and Winston.
- [Lin et al. (2004)] ‘Instant messaging acceptance and use among college students’. J Lin , H C Chan , Y &jin . <http://www.pacis-net.org/file/2004/S04-003.PDF> *Pacific Asia Conference on Information Systems*, 2004. 2004. February 21st. 2006.
- [Khoshtinat et al. ()] *Integration of task technology fit model and unified theory of acceptance and use of technology to explain eCRM adoption in banking industry*, B Khoshtinat , J Bojei , S Ahmadin . 2014. p. . (Advances in Environmental Biology, Vol°. 8, N°. 19)
- [Cadiat and De Moerloose ()] *L’impact d’Internet sur la gestion de la relation client. Première journée nantaise de recherche en emarketing*, A.-C Cadiat , C De Moerloose . 2002. Nantes, France.
- [Ostlund ()] *Les déterminants de l’intégration pédagogique des Technologies de l’Information et de la Communication(TIC) par les enseignants à l*, Lyman E Ostlund . 1969. 2011. Burkina Faso. Harvard University ; Université de Ouagadougou (Burkina Faso) Thèse à l’Université de Ouagadougou (Product Perceptions and Dispositional Factors as Determinants of Innovative Behavior)
- [Johnson and Rice ()] *Managing Organizational Innovation*, Bonnie M Johnson , Ronald E Rice . 1987. New York: Columbia University Press.
- [Al-Jabri and Sohail ()] ‘Mobile Banking Adoption: Application of Diffusion of innovation Theory’. I M Al-Jabri , M S Sohail . *Journal of Electronic Commerce Research* 2012. 13 p. .
- [Thompson and Spacapan ()] ‘Perceptions of control in vulnerable populations’. S C Thompson , S Spacapan . *Journal of Social Issues* 1991. 47 p. .
- [Chong ()] ‘Predicting m-commerce adoption determinants: A neural network approach’. A Y L Chong . *Expert Systems with Applications* 2013. 2013. 40 p. .
- [Chong ()] ‘Predicting m-commerce adoption determinants: A neural network approach’. A Y L Chong . *Expert Systems with Applications* 2013. 2013. 40 p. .
- [Ghazaleh and Zabadi ()] ‘Promoting a revamped CRM through Internet of Things and Big Data: an AHP-based evaluation’. M A Ghazaleh , A M Zabadi . *International Journal of Organizational Analysis* 2020.

- 387 [Chéour et al. ()] 'Recent Trends of FPGA Used for Low-Power Wireless Sensor Network'. R Chéour , S Khriji ,
 388 D El Houssaini , M Baklouti , M Abid , O Kanoun . *IEEE Aerospace and Electronic Systems Magazine* 2019.
 389 34 (10) p. .
- 390 [Rogers ()] Everett M Rogers . *Diffusion of Innovations*, (New York) 1983. The Free Press.
- 391 [Anderson and Schwager ()] 'SME Adoption of Wireless LAN Technology: Applying the UTAUT Model'. J E
 392 Anderson , P H Schwager . *Proceedings of the 7thConference of the Southern Association for Information*
 393 *Systems*, (the 7thConference of the Southern Association for Information Systems) 2004.
- 394 [Giannelloni and Vernet (2012)] 'Task-technology fit and individual performance'. Jean-Luc Giannelloni , Eric
 395 Vernet . *Études de marché*, Vuibert, D Goodhue, R L Thompson (ed.) 2012. 1995. 3 p. .
- 396 [Im et al. (2008)] 'The effects of perceived risk and technology type on users' acceptance of technologies'. I Im , Y
 397 Kim , H J Han . *Information & Management* 2008. 45 p. .
- 398 [Taylor and Todd (1995)] 'Understanding information technology usage: A test of competing models'. S Taylor , P
 399 A Todd . *Information Systems Research* 1995. 6 p. .
- 400 [Martins et al. (1999)] 'Understanding the Internet Banking Adoption: A Unified Theory of Acceptance and Use
 401 of Technology and Perceived Risk Application ». C Martins , T Oliveira , Et Popovia . *International Journal*
 402 *of Information Management* 2013. 1999. August. 34 p. . Arizona State University (Consumer Adoption of
 403 Innovative Self-Service Technologies: A Multi Method Investigation. Unpublished PhD thesis)
- 404 [Chiu and Wang (2008)] 'Understanding Web-based learning continuance intention: The role of subjective task value'.
 405 C.-M Chiu , E T G Wang . *Information & Management* 2008. 45 p. .
- 406 [Volle (2003)] *Urbaniser l'entreprise et son système d'information*, M Volle . 2003. Vuibert. (Préface pour Henri
 407 Chelli)
- 408 [Venkatesh et al. (2003)] 'User acceptance of information technology: Toward a unified view'. V Venkatesh , M G
 409 Morris , G B Davis , F D Davis . *MIS Quarterly* 2003. 27 p. .
- 410 [Zoltan and Chapanis (1981)] 'What Do Professional Persons Think About Computers ?'. E Zoltan , A Chapanis .
 411 *Behaviour& Information Technology* 1981. 1 p. .
- 412 [Frini and Et Limayem (2001)] « *Facteurs influençant les intentions d'achat à partir du Web: Etude comparative des*
 413 *acheteurs et des non acheteurs*, A Frini , M Et Limayem . 2001. p. .