

Effects of Personal Innovativeness on IS Managers' Intentions to Switch Toward Cloud ERP in Saudi SMEs

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Abstract: SMEs are increasingly pushed to adopt cloud-based solutions given the risks and costs associated with On-Premise ERP. Cloud ERP systems are considered to offer high scalability and flexibility since they are proposed as a service. Nevertheless, switching toward such systems remains a hard decision since cloud computing is associated to other kinds of risks such as security, data confidentiality, network dependency, vendor lock-in, amongst others. While several studies have focused on attitudes and perceptions as the main determinants of switching decisions, this research investigated the effects of personal innovativeness in the IT domain in respect of intentions to switch toward cloud ERP systems with a focus on moderating effects. The author adopted a quantitative approach based on a structured questionnaire administered to IS Managers in Saudi SMEs that actually use On-Premises ERP. Data collected from 83 firms are analyzed by Structural Equation Modelling using PLS (Partial Least Squares) technique to test the research hypotheses. Among the main results, personal innovativeness is found to significantly moderate the effects of the antecedent (information channels exposure) rather than the effects of the determinants (expected switching risks, satisfaction with current ERP). Unlike previous studies, the results of this study show that personal innovativeness is more crucial when managers develop their perceptions rather than later when deciding about switching toward cloud ERP. From a theoretical perspective, such results steer toward a greater focus on antecedents of intentions to adopt ERP systems. From a managerial perspective, the proposed research model could be used as a framework to help managers assess the opportunities to switch toward cloud ERP.

Keywords: Cloud Computing, Enterprise Resources Planning (ERP), Intention to switch, personal innovativeness, IS Managers.

1. Introduction

Cloud ERP (Enterprise Resources Planning) are beginning to emerge as an alternative solution to On-Premise ERP which is criticized for being a cost and time consumer (Mezghani, 2014). Cloud ERP involves an on-demand access to ERP modules. According to Arnesen (2013, p.47), ERP vendors "are in the process of developing hosted or cloud solutions as the market moves to a cloud environment". Cloud ERP is presented as a suitable solution for SMEs as they lack resources to implement On-Premise ERP systems. However, as a Software as a service (SaaS), cloud ERP presents several risks such as security, data confidentiality, network dependency, and vendor lock-in. Then, switching towards such systems may be a hard decision that needs particular attention. When analyzing previous studies dealing with IT switching or adoption, it is possible to note that most of the research presents attitudes and perceptions as the main determinants of IT switching (Ye et al., 2008; Gangwar, Date and Ramaswamy, 2015; Liu, 2015).

However, some recent research noted that another personal factor which can be crucial in IT switching is personal innovativeness (Bhattacharjee, Limayem and Cheung, 2012; Park and Ryoo, 2013). Indeed, in reference to Agarwal and Prasad (1998), an innovator would intend to try a new IT, given the same level of perceptions as a less innovative person. Such factors could be an important determinant in switching toward cloud ERP since this system is associated with greater uncertainty (Mezghani, 2014). In this way, when exploring switching toward cloud ERP within four Saudi SMEs which actually use On-Premises ERP, Mezghani (2014) stated that personal innovativeness could play an important role in moderating the intentions to switch. However, this result was not deeply justified due to the exploratory nature of this research. Based on these ideas and since personal innovativeness is not well studied in the IT field research in Arab countries, this research aims to deeply study and test the effects of personal innovativeness on IS managers' intentions to switch toward Cloud ERP in Saudi SMEs.

More precisely, the research motivation can be summarized as follows:

- Cloud ERP adoption is still an unexplored area and "there is limited scientific literature related to cloud ERP adoption due to lack of academic studies" (Gupta et al., 2017, p.1057). Thus, this research attempts to give more understanding to cloud ERP adoption issues.
- In general, personal innovativeness is considered to play a crucial role as a predictor of IT adoption (Xu and Gupta, 2009; Ortbach, 2015). It is theoretically presented as a factor that may determine the intentions to switch toward cloud ERP as an IT innovation (Mezghani, 2014). However, this link is not well explained, nor empirically tested.
- The Saudi context is characterized by a rapid development in cloud adoption and use. However, very few experiences about cloud adoption are reported in academic research focusing on such context (Alharbi et al., 2016). Besides, "until recently, there has been little research on cloud ERP adoption, particularly in developing Middle Eastern countries such as Saudi Arabia" (AlBar and Hoque, 2017, p.2). To our knowledge, besides the exploratory study performed by Mezghani (2014), only AlBar and Hoque (2015; 2017) examined academically the intentions to adopt cloud ERP in Saudi firms. Moreover, these researchers focused on intentions at firms' level by using the Technology-Organization-Environment framework, so less attention was provided to personal concerns linked to switching decisions. As the ERP market is moving toward cloud-based solutions, more research examining cloud ERP issues in the Saudi context are needed.

Based on a quantitative approach, this research has two objectives:

1. To develop and test a research model that presents how personal innovativeness influences the intention to switch toward cloud ERP.
2. To formulate recommendations for SMEs' managers in respect of cloud ERP adoption as an emergent technology. This research may also be useful to ERP vendors to have a clearer idea about the Saudi SMEs' readiness to switch toward cloud ERP.

2. Literature review

2.1 Personal innovativeness and IT innovations adoption

The concept of personal innovativeness emerged from studies by Rogers (1983;1995) describing "the personality trait of 'being innovative', i.e. being early at adopting innovations" and then adopted by Agarwal and Prasad (1998) "who argued that innovativeness must be domain specific rather than global and defined personal innovativeness in the domain of IT" (Ortbach, 2015, p.5). Indeed, Agarwal and Prasad (1998) posit that global innovativeness has a low predictive power when applied to the study of a specific innovation adoption decision or behaviours within a narrow domain of activity.

Thus, to study IT innovations adoption, Agarwal and Prasad (1998, p.206) developed the concept of "personal innovativeness in the domain of IT" (PIIT) and defined it as "the willingness of an individual to try out any new information technology".

These authors state that, when intending to use or adopt a new IT, personal innovativeness intervenes as a moderating factor in two links:

- The link between the perceptions of new IT and the intention to use it. So, an innovator would intend to try new IT, given the same level of perceptions as a less innovative person.
- The link between information about a new IT and the perceptions about it. Indeed, for the same mix of channels, innovators will develop more positive perceptions about a new IT.

Such assumptions are largely adopted in IS studies focusing on IT adoption and use. The PIIT concept is found to fit with different theoretical backgrounds to explain the personal intention to adopt and use new IT. Thus, Xu and Gupta (2009) integrated PIIT with the Unified Theory of Acceptance and Use of Technology, Fagan, Kilmon and Pandey (2012) used PIIT with the Technology Acceptance Model while Hwang (2012) combined this concept with the Self Determination Theory. In all this research, PIIT is found to explain directly or indirectly the intention to adopt new IT.

Nevertheless, from the PIIT-linked literature review, one can note that this concept is mainly related to switching literature. Indeed, many studies focusing on IT switching behaviour integrate PIIT to explain intentions to switch toward new IT both directly (Dernbecher, Beck and Weber, 2013; Park and Ryoo, 2013; Sanford, 2013) or indirectly (Bhattacharjee, Limayem and Cheung, 2012; Mezghani, 2014; Ortbach, 2015). In fact, switching is a challenging matter that can be evaluated both favourably and unfavourably according to perceptions (Park and Ryoo, 2013; Mezghani, 2014). So, in reference to the original ideas of Agarwal and Prasad (1998), PIIT could intervene to adjust the effects of perceptions on intentions to switch.

Thus, PIIT may have crucial effects on switching toward cloud ERP since managers may have different perceptions vis-à-vis the adoption of such systems. Such difference in perceptions can be easily noted when presenting the benefits and risks of cloud ERP.

2.2 Switching toward cloud ERP: benefits and risks

Cloud ERP seems to become a real substitute to on-Premise ERP and firms would likely be "pushed" to switch toward the cloud solution. Such a solution is presented as suitable for SMEs as they lack resources to implement on-Premise systems.

However, as a SaaS, cloud ERP presents several risks. Indeed, when ERP is on cloud, firms are very dependent on the vendor so concerns linked to data confidentiality and security may appear (Mezghani, 2014). Also, with such solution, firms are very dependent on the quality of Internet connection. Hence, when losing connectivity, employees cannot access the system or data (Arnesen, 2013).

Based on previous studies comparing cloud ERP to on-Premise ERP, Mezghani (2016) presented the main benefits and risks linked to cloud ERP implementation (Table 1).

Table 1: Benefits and risks of cloud ERP

Cloud ERP benefits	Cloud ERP risks
• Cloud ERP is a cost saver: moving to cloud ERP reduces costs linked to licensing, maintenance and upgrading (Makkar and Meenakshi, 2012). Also, Cloud ERP requires less hardware investment (Peng and Gala, 2014; Gupta et al., 2017; 2018). In general, "it is estimated that the cost of using cloud ERP was 15% lower than the traditional ERP" (AlBar and Hoque, 2017, p.1). • Cloud ERP is time saver: less time is spent in monitoring IT infrastructure. Besides, tests and trainings are conducted from the first steps of the project which can help to save time (Elragal and Elkommos, 2012). • High scalability: according to Arnesen (2013, p.49), "you can add or reduce users as your needs change, which works especially well for seasonal businesses or companies on a high-growth path". • Accessibility: "as a cloud based solution, cloud ERP modules can be accessed anytime and anywhere through the Internet" (Mezghani, 2014, p.48).	• Security: regarding cloud-based solutions, many managers perceive that the confidentiality and security of business data are not guaranteed (Benlian and Hess, 2011). • Internet connectivity: "If you lose connectivity because of a natural disaster or cyber-attack or if the vendor goes out of business, you may have no access to the system or data" (Arnesen, 2013, p.49). • Dependency: "even if choosing On-Premises ERP, firms risk becoming dependent on vendors since such systems need regular maintenance and updates. This dependency seems to be greater with cloud based ERP" (Mezghani, 2014, p.48). Indeed, according to Arnesen (2013), cloud ERP vendors retain the data and firms have to pay vendors on time or they may lose data access. • Ex ante cost intransparency: "it seems very hard to estimate cloud costs ex ante", which make it hard to decide about cloud adoption (Kratzke, 2012).

Source: Mezghani (2016)

Given such benefits and risks, SMEs are facing a true challenge of switching or not toward cloud ERP. The IS manager's intention regarding switching would be determinant as this manager is a key person in the switching decision (Mezghani, 2014). Such intention is closely linked to personal perceptions about the concerned technology. This can be noted from previous studies based on theories such as Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). So, perceived switching benefits and risks could play an important role in determining the level of intention.

However, given the same level of perceptions, PIIT can moderate the level of intention (Agarwal and Prasad, 1998). Consequently, when studying links between personal innovativeness and intention, it is important to integrate the perceptions to give better understanding of such links. This will be explained in more detail below.

2.3 Intention to switch toward cloud ERP: a two factor theory perspective

As reported below, when introducing the role of PIIT concept to explain a new IT adoption, Agarwal and Prasad (1998) integrated the perceptions about this IT to deeply understand the effects of PIIT. Nevertheless, like dominant IS theories, Agarwal and Prasad (1998) focused mainly on positive perceptions (enablers) linked to the IT to be adopted. However, according to Cenfetelli and Schwarz (2011), inhibitors may not simply be the opposites of enablers. Moreover, Park and Ryoo (2013, p.162) add that "inhibitors can hinder intentions despite the presence of enablers facilitating those same intentions". Indeed, intentions "can be simultaneously evaluated both favorably and unfavorably" (Park and Ryoo, 2013, p.162). When studying intentions to switch toward cloud ERP through a multiple-case study, Mezghani (2014) noted that the interviewed managers projected to switch toward cloud ERP because they "know" the benefits of such a system. However, these managers do not want to switch "right now" because they "give a great importance to risks considerations when talking about switching" (Mezghani 2014, p.55). This shows that both expected switching benefits (enablers) and risks (inhibitors) are closely linked to switching intentions.

This distinction between enablers and inhibitors refers to the two factor theory of motivation developed by Herzberg who states that factors leading to satisfaction may be different from factors leading to dissatisfaction. Although not largely used in IS research, the two factor theory gives a considerable explanatory power to understand the disconnection between factors leading to adoption or not of an IT service (Lee, Shin and Lee, 2009; Smaoui Hachicha and Mezghani, 2018). Accordingly, intentions can be influenced by dual-factored constructs (Liu, Guo and Lee, 2011).

From the two factor theory perspective, Park and Ryoo (2013) confirm that intentions to switch toward new IT are directly influenced by two dual factors that are the expected benefits and expected risks of such switching. Indeed, when to switch, a manager would think about both expected benefits and risks before deciding about switching. Thus, when considering both benefits and risks it would be beneficial to study more deeply the role of PIIT in IT adoption. A similar alternative was adopted by Bhattacharjee, Limayem and Cheung (2012) who found that PIIT could moderate the effects of dual factors on intentions to switch toward new IT. This means that PIIT could moderate both positive and negative perceptions about switching.

Besides perceptions about the new IT, dual perceptions about the current IT could be integrated as enabler or inhibitor (Smaoui Hachicha and Mezghani, 2018). Indeed, because this study focuses on "switching toward", as a particular form of adoption which refers to leaving an existing IT to adopt another, perceptions regarding the current system should influence the switching intentions (Bhattacharjee, Limayem and Cheung, 2012).

3. Research model and hypotheses

3.1 Personal innovativeness as moderating the effects of perceptions on intention

When developed by Agarwal and Prasad (1998), PIIT was precisely presented as a factor that moderates the links between perceptions and intentions.

3.1.1 *Personal innovativeness and positive perceptions about cloud ERP*

Regarding the effect of the positive perceptions on intentions, Agarwal and Prasad (1998, p208) affirm that "the individual with higher PIIT would require fewer positive perceptions than an individual who is less innovative". Similarly, Mezghani (2014, p51) affirms that "persons with high degree of willingness to try any new IT are more likely to perceive it positively and to intend adopting it".

In a switching perspective, it is argued that a person needs to develop more perceptions about a new IT before intending to switch. Nevertheless, PIIT remains a crucial factor as it makes "innovators" more open toward switching (Bhattacharjee, Limayem and Cheung, 2012). As a new way to deal with ERP systems, cloud ERP may generate few positive perceptions. In all cases, PIIT could play an important role in moderating the link between the expected switching benefits and the intention to switch toward cloud ERP. Thus, the first hypothesis is formulated as follows:

H1: PIIT positively moderates the link between the expected switching benefits and the intention to switch toward cloud ERP.

3.1.2 Personal innovativeness and negative perceptions about cloud ERP

Regarding the negative perceptions (risks), it is largely argued that an innovation adoption is closely associated with greater risk, uncertainty, and imprecision (Kirton 1976; Agarwal and Prasad, 1998; Xu and Gupta, 2009). This means that expected risks may make individuals reluctant to adopt and use a new IT. Nevertheless, in reference to Rogers (1995), "innovators and early adopters are able to cope with higher level of uncertainty" since PIIT characterizes "the risk-taking propensity that exists in certain individuals and not in others" (Xu and Gupta, 2009, p.141).

As already mentioned, cloud ERP adoption is related to many risks that should be considered when thinking about an eventual switch. Risks, as security or dependency, may make managers reluctant to adopt cloud ERP. However, PIIT should moderate the risks effects. Such a moderating effect was shown by Mezghani (2014) through a qualitative approach. In fact, when conducting interviews with IS managers, this author found that although the interviewees did not perceive many risks toward cloud ERP, they did not intend to switch because they prefer to wait "for results of other potential adopters" (lack of PIIT). Therefore, it is possible to formulate the following hypothesis:

H2: PIIT negatively moderates the link between the expected switching risks and the intention to switch toward cloud ERP.

3.1.3 Personal innovativeness and satisfaction with current ERP

Previous studies showed that the "switching" behaviour is not only linked to the new IT perceptions but also to the degree of satisfaction with the old one (Bhattacharjee, Limayem and Cheung, 2012; Park and Ryoo, 2013; Mezghani, 2014). Indeed, in reference to Bhattacharjee (2001), ex post expectation toward an existing IT may change with time and this would have effects on continuance or switching intention. Bhattacharjee, Limayem and Cheung (2012, p329) add that "Since IT switching requires user acceptance of the new IT and discontinuance of the old IT, constructs that are salient to users' discontinuance decisions should also be considered as key factors shaping the IT switching behavior".

Through a qualitative perspective, Mezghani (2014) found that even convinced by its benefits, some IS managers did not find it necessary to switch "now" to cloud ERP since they are satisfied with their incumbent ones.

So, besides perceptions about cloud ERP (as the new IT), perceptions about the current ERP (the on-premise one) are added as a determinant of intention to switch whose effect on intention could be moderated by PIIT (Bhattacharjee, Limayem and Cheung, 2012; Mezghani, 2014). In fact, according to these authors, it is possible to link negatively satisfaction with the current system with intentions to switch toward another system. The PIIT could play a determinant role in moderating such a link as "individuals who are highly innovative and enjoy experimenting with new products or services may be open to switching to a new IT if they see it as better than their current IT, or if they are only slightly dissatisfied with it" (Bhattacharjee, Limayem and Cheung, 2012, p.329). This leads us to hypothesize:

H3: PIIT negatively moderates the link between the satisfaction with current ERP and the intention to switch toward cloud ERP.

3.2 Personal innovativeness as moderating the effects of Information channels exposure on perceptions

In reference to the theory of Diffusion of Innovation (DOI), Agarwal and Prasad (1998) affirm that alternate channels of information are utilized to develop perceptions about an IT adoption and use. Several studies argued, from this perspective, that an individual develops perceptions about an IT innovation by synthesizing related information from a variety of channels (Rogers, 1995; Agarwal and Prasad, 1998; Rashed, 2001; Lewis, Agarwal and Sambamurthy, 2003; Mezghani and Ayadi, 2016).

As an IT innovation, perceptions toward cloud ERP can be studied from the DOI perspective. Similar to Mezghani and Ayadi (2016) who studied perceptions about cloud computing, the current study integrates the concept of "information channels exposure" that can be defined as "the knowledge accumulated by an individual about a particular technology through information channels" (Rashed, 2001, p7). Indeed, since cloud

ERP is a new IT with several benefits and risks, IS managers need to be exposed to different information channels to develop their perceptions toward cloud ERP.

Thus, to get a deep idea about the effects of PIIT when intending to switch toward cloud ERP, the effect of information channels exposure on perceptions about cloud ERP is integrated as a link that can be moderated by PIIT.

From the DOI perspective, it is argued that information channels focus on emphasizing the positive value of an innovation (Agarwal and Prasad, 1998). Similarly, since considered as a determinant of the successful diffusion and use of an IT, information channels exposure is likely to favour the positive perceptions (Rashed, 2001; Mezghani and Ayadi, 2016). The PIIT intervenes here as a moderating factor since it is argued that, for the same mix of channels, innovators would develop more positive perceptions about an innovation (Agarwal and Prasad, 1998).

From a two factor theory perspective, factors leading to satisfaction may be different from factors leading to dissatisfaction. Thus, if we consider that information channels' content can focus on both positive and negative aspects of cloud ERP, it is possible to predict that positive ones would favour expected switching benefits when negative ones would support the development of negative expectations. In this case, an innovator may be more aware of benefits as well as risks. Indeed, an innovator in an IT domain is expected to get more IT knowledge and more receptiveness to information about IT (Jeong, Yoo and Heo, 2009). By the way, such a person should collect more information (about benefits and risks) than would a lesser innovator, leading to more expectations about cloud ERP. Then, two other hypotheses could be added:

H4: PIIT positively moderates the link between the information channels exposure and the expected switching benefits.

H5: PIIT positively moderates the link between the information channels exposure and the expected switching risks.

Based on the formulated hypotheses, it is possible to present the research model as above (Figure 1):

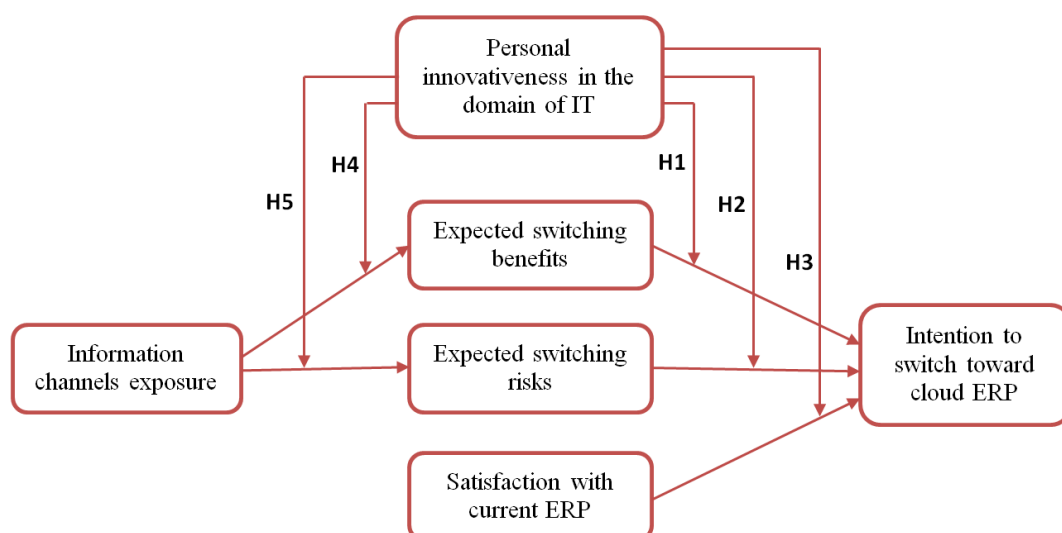


Figure 1: The research model

4. Research methodology

This research is based on a quantitative approach considered as suitable for hypothetico-deductive research. The data was collected using a questionnaire developed based on items identified from previous research (see Appendix) and measured using a 6-point Likert scale. Regarding the questionnaire structure, the questions were organized into four parts: questions linked to perceptions about the current (On-Premise) ERP, questions related to the cloud ERP (exposure to related information, expectations and intention), questions about PIIT and general details about the respondents and their firms. The questionnaire was reviewed by two academicians and then pretested by 6 respondents.

The questionnaire was addressed, directly and by email, to a sample of IS managers within Saudi SMEs that still use On-Premises ERP. The IS managers are considered as the "key informants" when conducting researches in IT fields (Kearns & Sabherwal, 2007; Mezghani, 2014).

Regarding the population, no official statistics were found about the Saudi SMEs that already implemented ERP systems. So, we referred to Mezghani, Ayadi and Aloulou, (2014) who identified 129 Saudi SMEs. In order to update the list, a snowball sampling was performed. Such a technique is suitable for sampling from hidden or hard-to-reach populations (Heckathorn, 2011). Thus, further contacts were established with SMEs in the region of Riyadh (as the capital and the main attractive region in term of the economic weight with 25% of Saudi establishments according to the General Authority of Statistics website) . A total of 180 questionnaires were distributed to those who agreed to participate. A total of 109 responses were collected but only 83 questionnaires were found usable due to missing data for dependent variables in some responses (46.11% as an overall response rate). Most responses were collected from SMEs belonging to the services (36.15%) and manufacturing (20.48%) sectors. The majority of these firms use an Oracle ERP (37.34%).

Since there are many dependent variables in the research model (figure 1), the collected data was analyzed using the Structural Equation Modelling (SEM) as the more suitable method. Because the sample size is limited, the Partial Least Square (PLS) path modeling is performed using XLstat software. PLS is suitable when applying SEM on a small sample size bounded between 30 and 100 observations (Fernandes, 2012). Factor analyses (varimax rotation) were also performed with the XLstat software to purify the measures and verify the uniqueness of each variable.

5. Findings

5.1 Findings of descriptive analyses

Based on factor analyses, two items (one measuring PIIT and another linked to intention) were deleted due to their weak factors' loadings. The structure factor of the research model was verified (Table 2).

Table 2: Cross-loadings

	Information channels exposure	Expected switching benefits	Expected switching risks	Satisfaction with current ERP	Intention to switch toward cloud ERP	PIIT
ICE1	0.734	0.334	0.459	0.211	0.275	0.139
ICE2	0.820	0.343	0.348	0.291	0.389	0.121
ICE3	0.839	0.484	0.176	0.366	0.449	0.197
ICE4	0.795	0.469	0.130	0.343	0.450	0.160
ICE5	0.743	0.283	0.241	0.122	0.255	0.060
BENEF1	0.410	0.898	0.281	0.207	0.762	0.547
BENEF2	0.494	0.940	0.351	0.244	0.798	0.555
BENEF3	0.471	0.924	0.198	0.161	0.725	0.347
BENEF4	0.423	0.914	0.284	0.134	0.767	0.354
RISK1	0.266	0.269	0.856	0.115	0.294	0.445
RISK2	0.391	0.261	0.884	0.065	0.219	0.242
RISK3	0.137	0.196	0.628	0.030	0.170	0.153
SATISF1	0.295	0.201	0.182	0.886	0.053	0.356
SATISF2	0.258	0.191	0.063	0.896	0.055	0.310
SATISF3	0.351	0.203	0.065	0.962	0.124	0.304
SATISF4	0.332	0.151	0.084	0.900	0.052	0.227
INT1	0.480	0.759	0.164	0.113	0.835	0.314
INT3	0.403	0.782	0.255	0.117	0.922	0.429
INT4	0.358	0.700	0.334	-0.004	0.890	0.466
INT5	0.418	0.718	0.289	0.098	0.914	0.398
PIIT1	0.171	0.516	0.350	0.307	0.489	0.901
PIIT2	0.181	0.405	0.325	0.248	0.314	0.887
PIIT3	0.127	0.413	0.346	0.322	0.398	0.923

The reliability of each factor was then evaluated by assessing the internal consistency of items within each factor using Cronbach's α and Dillon-Goldstein (D-G) rho. The validity was verified by analyzing the Average Variance Extracted (AVE) value of each factor. The results are summarized in the table below (Table 3):

Table 3: Validity and reliability tests

Latent variable	Cronbach's α (≥ 0.7)	D-G. rho (≥ 0.7)	AVE (≥ 0.5)
Information channels exposure	0.846	0.891	0.620
PIIT	0.889	0.931	0.817
Expected switching benefits	0.939	0.956	0.845
Expected switching risks	0.724	0.846	0.637
Satisfaction with current ERP	0.935	0.954	0.831
Intention to switch toward cloud ERP	0.913	0.939	0.794

According to Hair et al. (2010), reliability estimates values higher than 0.7 suggest good reliability, "meaning that the measures all consistently represent the same latent construct". Regarding convergent validity, these authors suggest using the AVE for the items loadings on each construct. An AVE of 0.5 or higher indicates a good convergence.

All obtained values are in the acceptance range. So, it is possible to state that the structure factor of the research model is satisfactory. This allows us to proceed to paths analyses within the structural model in order to test the research hypotheses.

5.2 Findings of explanatory analyses

To perform the explanatory analyses, the structural model is built using the PLS Path Modeling (PLSPM) module integrated in XLstat. The moderating effects were integrated within PLSPM using the "interaction" option which creates automatically interaction variables measured by the products of the items associated to PIIT and the concerned independent variables.

A first analysis of the structural model with the PLS method provided the following fitted model:

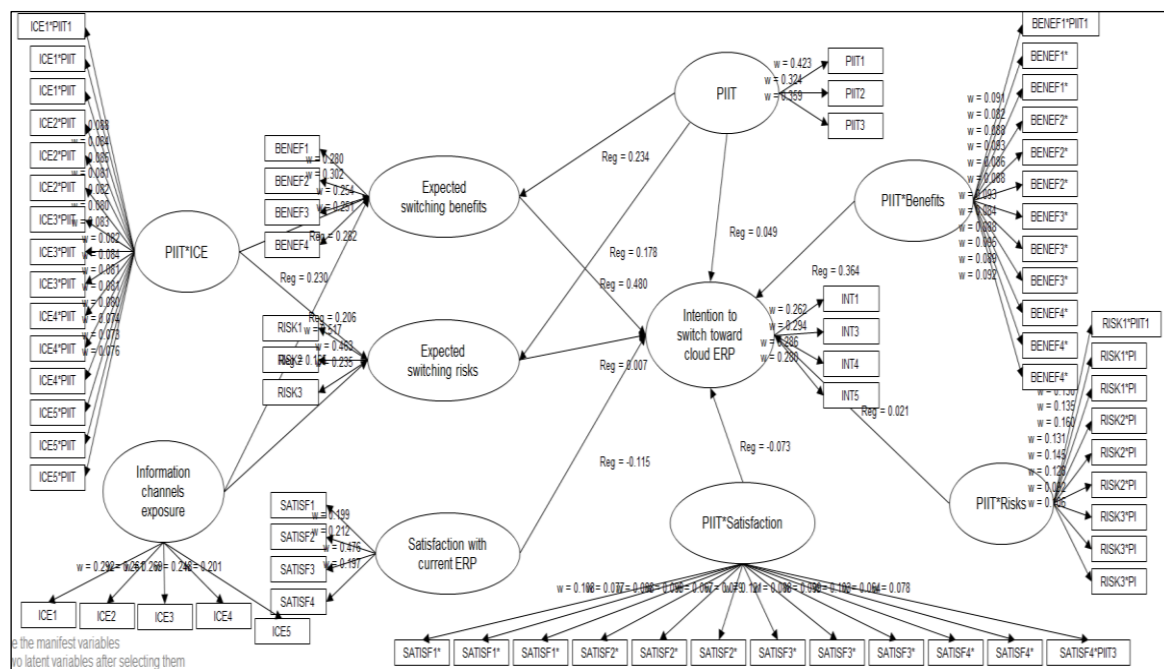


Figure 2: The fitted model (first version)

"There is no overall fit index in PLS Path Modeling. Nevertheless, a global criterion of goodness of fit has been proposed by Tenenhaus, Amato and Esposito Vinzi (2004): the GoF index. Such an index has been developed in order to take into account the model performance in both the measurement and the structural model and

thus provide a single measure for the overall prediction performance of the model" (Vinzi, Trinchera and Amato, 2010, p.58). According to these authors, "there is no inference-based threshold" to assess the statistical significance of GOF values. But Wetzels, Odekerken-Schroder and Van Oppen (2009) propose a cut-off value of 0.5.

The link between the expected switching risks and intention in addition to the associated moderating link were eliminated as very weak (respectively 0.007 and 0.021). Thus, H2 could not be supported. By doing so, we obtained a second version of the fitted model (figure 3) with a better GOF value (0.786). As stated by Hair et al. (2010), the GOF value indicates how well the specified model represents the data.

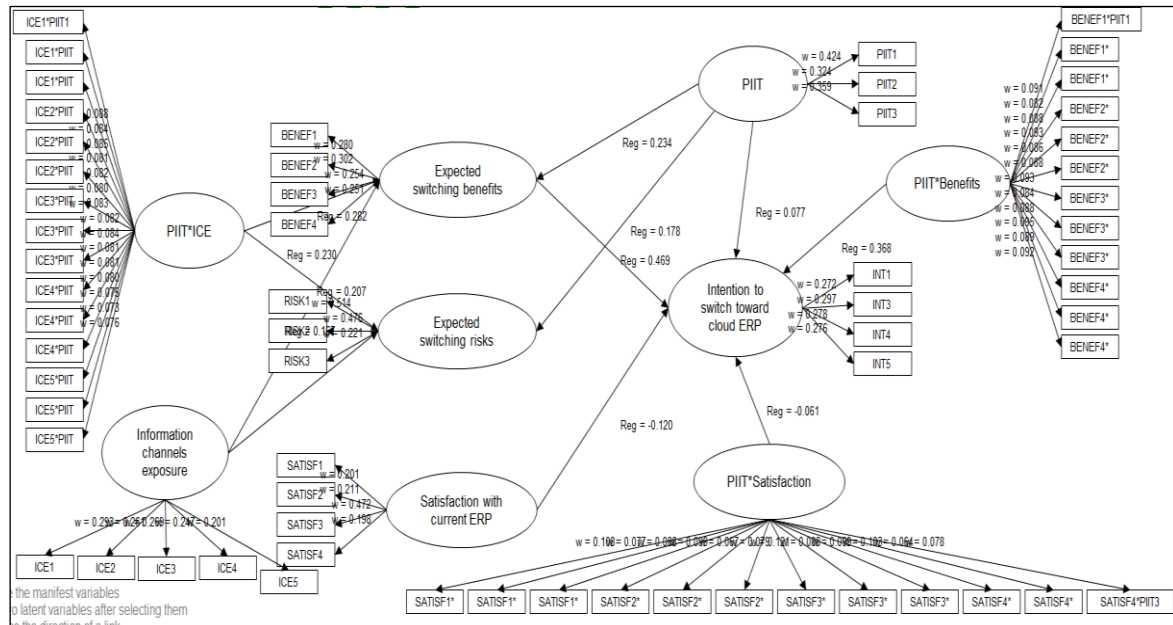


Figure 3: The fitted model (second version)

The structural paths analysis shows that the R^2 values of the dependent variables are satisfactory. Also, many regression links presented in figure 3 are significant at the level of 5% (Critical ratio (CR) > 1.96). All these results are reported in table below (Table 4):

Table 4: Summary of paths analysis results

	Expected switching benefits	Expected switching risks	Intention to switch toward cloud ERP
R² (CR)	0.399 (5.358)	0.217 (2.752)	0.685 (13.114)
Paths coefficients (CR)			
Information channels exposure	0.230 (7.770)	0.167 (3.978)	-
PIIT * Information channels exposure	0.282 (10.182) (H4)	0.207 (5.113) (H5)	-
Expected switching benefits	-	-	0.469 (12.441)
Satisfaction with current ERP	-	-	-0.120 (-2.107)
PIIT * Expected switching benefits	-	-	0.368 (15.731) (H1)
PIIT * Satisfaction with current ERP	-	-	-0.061 (-1.513) (H3)

Based on the paths analysis results, the hypotheses test can be summarized as follows:

Table 5: Results of hypotheses test

Hypotheses	Results
H1: PIIT positively moderates the link between the expected switching benefits and the intention to switch toward cloud ERP.	Supported
H2: PIIT negatively moderates the link between the expected switching risks and the intention to switch toward cloud ERP.	Not Supported
H3: PIIT negatively moderates the link between the satisfaction with current ERP and the intention to switch toward cloud ERP.	Not Supported

Hypotheses	Results
H4: PIIT positively moderates the link between the information channels exposure and the expected switching benefits.	Supported
H5: PIIT positively moderates the link between the information channels exposure and the expected switching risks.	Supported

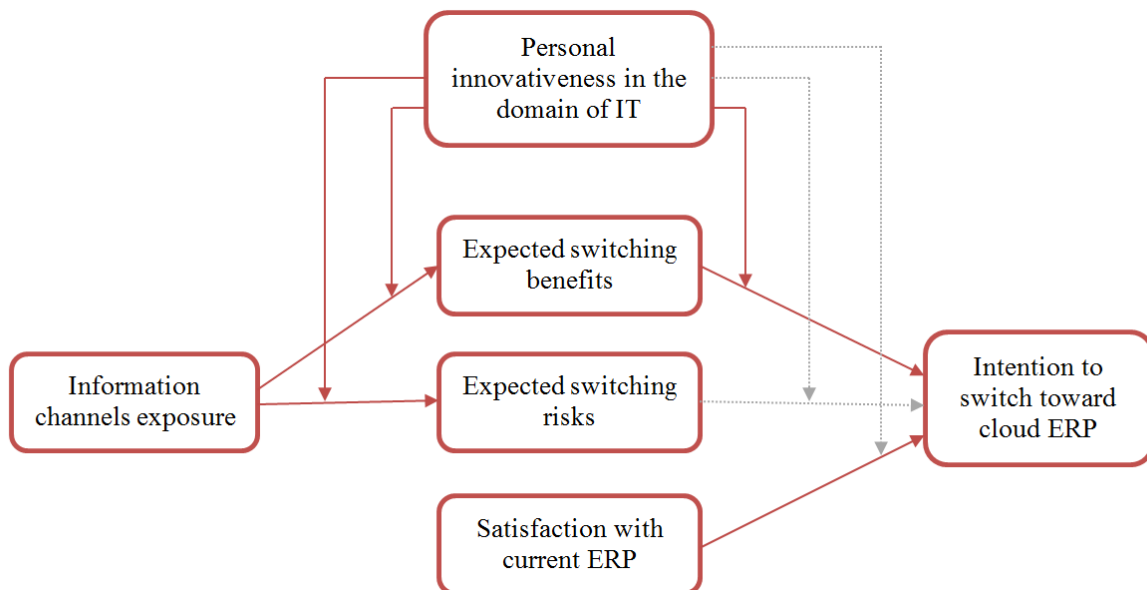


Figure 4: The research model (revised version)

A first look at Table 5 and Figure 4 shows that the PIIT's negative moderations are not empirically supported unlike positive ones. It seems that PIIT acts as an "incentive" of perceptions and behaviours rather than a "restraint".

6. Discussion

The results of means test show that the surveyed IS managers have a good level of PIIT (>4.7 for each item) that played a significant moderating role within many links presented in the research model. The details of such a role are discussed below.

6.1 The moderating effects of personal innovativeness on intention

First of all, it is necessary to note that the R^2 value of intention is high (0.685). This means that the intention to switch toward cloud ERP is largely influenced by the variables identified in this research. Thus, our research model seems to have a good explanatory power.

The results of the means test show that the surveyed IS managers have the intention to switch toward cloud ERP (>4 for each item). When several studies showed that many managers were still reluctant regarding cloud computing adoption, the present research results align with those of Mezghani and Ayadi (2016) according to which Saudi managers are developing positive attitudes toward cloud-based solutions. According to AlBar and Hoque (2015), the notion of cloud ERP "is gaining more acceptances" among the Saudi firms. Similarly, at a global level, a survey conducted by Panorama Consulting (2016) shows that the implementation of cloud ERP has increased from 11% to 27% in one year.

The results reported in Table 4 show that the most important determinant of intention is "expected switching benefits" (0.469). So, the surveyed managers expect a lot from cloud ERP and are motivated to adopt it. Like the results from previous studies, current results support the fact that expected benefits remain a key factor in deciding whether to switch or not toward cloud-based solutions (Park and Ryoo, 2013). Recent qualitative research on cloud ERP adoption puts the advantages of such a system as the key enabler of its adoption by firms (Das and Dayal, 2016). The obtained results can also be explained in reference to the nature of firms concerned by this research (the SMEs). Indeed, cloud ERP is presented as a suitable solution for SMEs "due to budget limitations" (Al-Johani and Youssef, 2013). So, it is not strange to find that the IS managers among such firms are looking at this cloud solution as a real substitute to legacy systems.

According to statistical results, the PIIT plays an important role in strengthening the link between expected benefits and intention. Moreover, the interaction between PIIT and expected benefits seems to have more significant effect ($CR=15.731$). Indeed, PIIT is considered as a crucial factor as it makes "innovators" more open toward switching (Bhattacharjee, Limayem and Cheung, 2012). This means that such individuals would pay more attention to the advantages of the considered technology.

Regarding expected switching risks, the results reported in Figure 2 show that the intention to switch toward cloud ERP is not affected significantly by risks. Although it is theoretically known that switching behaviour can be simultaneously evaluated both favourably and unfavourably, the results of the current research are not surprising. Indeed, in recent research conducted in Saudi Arabia, Mezghani and Ayadi (2016) found that IS managers do not consider cloud-linked risks when determining their attitudes toward cloud computing adoption. According to these authors, the IS managers are considered as IT specialists who would be rather influenced by the benefits of cloud-based solutions unlike other respondents in previous studies. Then, since the surveyed managers do not consider risks to determine their switching intention, their "innovativeness" would not be considered in assessing the link between expected risks and intention. This explains the non-significant moderating effect of PIIT found in this case.

A similar result is also noted for the link between satisfaction with current ERP and intention to switch. In fact, although PIIT seems to have a negative moderating effect on such a link (as hypothesized), this effect is not significant at the level of 5% ($CR= -1.513$). Before explaining this result, it is important to note that the statistical analyses reveal that satisfaction with current ERP influences negatively and significantly the intention to switch toward cloud ERP. Such a result aligns with similar previous studies, mainly Bhattacharjee, Limayem and Cheung (2012). According to these authors, "since IT switching requires user acceptance of the new IT and discontinuance of the old IT, constructs that are salient to users' discontinuance decisions should also be considered as key factors shaping the IT switching behavior". Hence, managers who are satisfied with their incumbent ERP systems would be hesitant toward cloud-based ERP. As reported above, the results of the current research indicate that PIIT would not regulate such a situation. Thus, even innovators would consider their On-Premises systems when thinking about switching. Such a result, even not supporting H2, is not totally contradicting previous studies. Indeed, it is "extremely difficult to detect significant moderating effects in small samples" (Bhattacharjee, Limayem and Cheung, 2012, p.332). Further research with a larger sample size could provide a different result.

6.2 The moderating effects of personal innovativeness on perceptions

To get a deep understanding of the PIIT role in the switching decision, its moderating effects on the links between information channels exposure and perceptions regarding cloud ERP was tested. The results reported in Table 4 show that these effects are significant.

First, it is important to note that the statistical analyses revealed the positive and significant effect of information channels exposure on, respectively, expected benefits and risks. This means that the surveyed IS managers consider different sets of information channels e.g. audio-visual, seminars, and discussions to assess the opportunity of switching. The means' analyses indicate that the surveyed IS managers are often exposed to cloud ERP related information (>3.5 for each item). So, it is possible to affirm that these managers are well informed about cloud ERP although such a system is considered, according to AlBar and Hoque (2015), as an emerging technology in the Saudi context.

From the DOI perspective, it is argued that information channels focus on emphasizing the positive value of an innovation. Nevertheless, the statistical analyses show that information channels exposure favours positively the negative expectations too. So, it is possible to state that information channels content focus on both benefits and risks of cloud ERP. This "dual" effect of information channels exposure can be explained in reference to the two factor theory. According to this theory, factors leading to satisfaction may be different from factors leading to dissatisfaction. Thus, if we consider that information channels content focus on both positive and negative aspects of cloud ERP, it is possible to estimate that positive ones would favour expected switching benefits when negative ones would support the development of negative expectations.

Regarding the role of PIIT, the obtained positive and significant moderating effects (Table 4) show that "innovators" pay more attention to information channels to build perceptions vis-à-vis cloud ERP. This means that managers who are willing to try out any new information technology would be more motivated to collect

related information. This considerable role of PIIT as an antecedent moderator was noted by Agarwal and Prasad (1998, p207) who affirm that "PIIT determines the relative use of alternate channels of information utilized for the development of perceptions". Similarly, Rogers (1995) affirms that innovators are "active information seekers about new ideas".

Thus, it is clear that PIIT can be considered as a key factor not only when determining a person's intention toward cloud ERP but also and mainly when building perceptions about such a solution. As an example, the statistical analyses reveal that PIIT intervenes to identify the cloud-linked risks but loses importance when linking these risks to intention.

7. Research implications

7.1 Theoretical implications

More and more studies are focusing on cloud ERP adoption as IS are moving toward cloud environment. However, there is still a lack of academic research related to cloud ERP adoption (Gupta et al., 2017). The current research attempted to give more understanding cloud ERP adoption issues by examining the moderating roles of PIIT in such adoption.

By combining the model developed by Agarwal and Prasad (1998) with a two factor theory perspective, a research model is proposed (Figure 1) and then revised (Figure 4) to present the PIIT as moderating the effects of both determinants and antecedents of intention to switch toward cloud ERP. Such an original combination allowed us to illustrate more effects of PIIT:

- By focusing on switching decisions, it was possible to integrate perceptions about current ERP and to analyze the effect of their interaction with PIIT on intention.
- While previous studies focused on links between PIIT and positive perceptions (usefulness, ease of use), the current research attempted to combine PIIT with negative perceptions.
- Unlike most studies in which the PIIT's moderating effect is studied directly regarding intention, the proposed research model and the linked statistical analyses showed that PIIT does play an important role in shaping the expectations regarding cloud ERP. Integration of antecedents (information channels exposure) allowed us to obtain a deep understanding of such role.

Although some links were not statistically supported, it is possible to state that the proposed research model has a good explanatory power. In fact, "it is extremely difficult to detect significant moderating effects in small samples" (Bhattacharjee, Limayem and Cheung, 2012, p.332).

The proposed research model pushes also toward more reflections about other factors that could be integrated to explain cloud ERP adoption since the ERP market is rapidly evolving toward cloud-based solutions.

7.2 Managerial implications

Since cloud ERP is considered as an emerging technology in the Saudi context, the current research may be useful for Saudi firms that are thinking about a potential switch toward such a solution. Indeed, few studies on cloud computing adoption focus on the Arab context so their results may not be so relevant for managers in such a context due to cultural differences (Mezghani and Ayadi, 2016). Thus, the proposed research model can serve as a tool for managers and consultants to identify best practices for cloud ERP adoption.

First, managers should be exposed to a set of information channels to learn about cloud ERP linked benefits and risks before deciding about a potential switch. In fact, based on interviews conducted within four Saudi firms, Mezghani (2014) affirms that "lack of knowledge about cloud offerings" is a key reason that makes firms reluctant to adopt cloud ERP.

Second, in light of the results, it appears that managers should take into account their current systems when making switching decisions since cloud ERP could not be always the right alternative due to linked risks compared to On-premises systems. Indeed, from the article's findings, it appears that the surveyed managers strongly consider their current system in switching decisions.

Third, this study showed that the most surveyed IS managers within the Saudi SMEs are considered as "innovators" and that PIIT can play a determinant role in the switching decision. Such a result can encourage Saudi managers to go forward in cloud ERP adoption.

The obtained results could be useful for cloud ERP providers too. Even not generalized, such results give providers an idea about the expectations of SMEs regarding cloud ERP. This would help them to provide the appropriate offers with the appropriate marketing efforts to push their clients toward their cloud solutions. The fact that the surveyed IS managers are influenced mainly by the cloud ERP-linked benefits in comparison to their current systems should encourage providers to focus on such aspects in their marketing discourse.

8. Conclusion

This research aimed to study the effects of PIIT on intentions to switch toward cloud ERP with a focus on moderating links. Indeed, many managers are still reluctant, regarding such solutions considered as an innovative and risky way to deploy ERP systems. Thus, this research attempted to examine if being an innovator could moderate the expectations and the intentions toward cloud ERP. To do so, a research model (Figure 1) that combines the framework of Agarwal and Prasad (1998) with a two factor theory perspective is proposed. In this model, the PIIT is considered to moderate the effects of both determinants and antecedents of intention.

While it is found that PIIT significantly moderates the effects of antecedents (information channels exposure), the results of statistical analyses showed that, among the determinants' effects, only those from expected benefits are moderated by PIIT. When previous studies focused mainly on the role of PIIT regarding the links between the intention and its direct determinants, the current research finds that the principal role of PIIT is played regarding the antecedents. This means that PIIT is more crucial in the early steps, when managers are developing their perceptions rather than later when deciding about switching. In fact, the results of this research show that the IS managers with high PIIT do not consider cloud ERP risks when switching toward such a system. Also, when satisfied with their current systems, the IS managers do not intend to switch toward another system, even being innovators.

The obtained results show that the proposed research model has a good explanatory power although it is considered that the detection of significant moderating effects is difficult in small samples. The proposed research model pushes also toward more reflections about other factors that could be integrated to explain cloud ERP adoption. Indeed, applying multiple perspectives in research focusing on cloud adoption is necessary to get a strong explanatory power (Schneider and Sunyaev, 2016).

The obtained results could also be useful for managers and providers in Saudi Arabia and other GCC countries that have similar characteristics since several studies, as those of AlBar and Hoque (2015; 2017), stated that few empirical studies focusing on cloud ERP adoption are conducted in such countries. Therefore, further studies that integrate more variables and would be extended to big firms are needed to build a deep understanding about cloud ERP adoption and strengthen the validity of findings. As the market is more and more pushed toward such ERP, it would be possible to conduct research with bigger samples and use more confirmatory techniques as LISREL (Linear Structural Relations) resulting in the possibility to generalize findings.

References

- Agarwal, R., and Prasad, J., 1998. A conceptual and operational definition of personal innovativeness in the domain of Information Technology. *Information Systems Research*, 9(2), pp.204–215.
- AlBar, A. M., and Hoque, M. R., 2015. Determinants of cloud ERP adoption in Saudi Arabia: an empirical study. In: *2015 International Conference on Cloud Computing (ICCC)*, Riyadh, 26-29 April, 2015.
- AlBar, A. M., and Hoque, M. R., 2017. Factors affecting cloud ERP adoption in Saudi Arabia: An empirical study. *Information Development*, In Press.
- Alharbi, F., Atkins, A., Stanier, C., and Al-Buti, H. A., 2016. Strategic Value of Cloud Computing in Healthcare organisations using the Balanced Scorecard Approach: A case study from A Saudi Hospital. *Procedia Computer Science*, 98, pp.332-339.
- Al-Johani, A., and Youssef, A., 2013. A framework for ERP systems in SME based on cloud computing technology. *International Journal on Cloud Computing: Services and Architecture*, 3(3), pp.1-14.
- Arnesen, S., 2013. Is a Cloud ERP Solution Right for You? *Strategic Finance*, February, pp.45-50.

- Benlian, A. and Hess, T., 2011. Opportunities and risks of software-as-a-service: Findings from a survey of IT executives. *Decision Support Systems*, 52(1), pp.232-246.
- Bhattacharjee, A., 2001. Understanding information systems continuance: an expectation-confirmation model. *MIS quarterly*, 25(3), pp.351-370.
- Bhattacharjee, A., Limayem, M. and Cheung, C.M.K., 2012. User switching of information technology: A theoretical synthesis and empirical test. *Information & Management*, 49(7-8), pp.327-333.
- Cenfetelli, R.T. and Schwarz, A., 2011. Identifying and Testing the Inhibitors of Technology Usage Intentions. *Information Systems Research*, 22(4), pp.808-823.
- Das, S., and Dayal, M., 2016. Exploring determinants of cloud-based enterprise resource planning (ERP) selection and adoption: A qualitative study in the Indian education sector. *Journal of Information Technology Case and Application Research*, 18(1), pp.11-36.
- Dernbecher, S., Beck, R., and Weber, S., 2013. Switch to Your Own to Work with the Known: An Empirical Study on Consumerization of IT. In: *Proceedings of the 19th Americas Conference on Information Systems*, Chicago, Illinois
- Elragal, A. and Elkommos, M., 2012. In-House versus In-Cloud ERP Systems: A Comparative Study. *Journal of Enterprise Resource Planning Studies*, 2012, pp.1-13.
- Fagan, M., Kilmon, C., and Pandey, V., 2012. Exploring the adoption of a virtual reality simulation: The role of perceived ease of use, perceived usefulness and personal innovativeness. *Campus-Wide Information Systems*, 29(2), pp.117-127.
- Fernandes, V., 2012. (Re)discovering the PLS approach in management science. *M@n@gement*, 15(1), pp.101-123.
- Gangwar, H., Date, H., and Ramaswamy, R., 2015. Understanding determinants of cloud computing adoption using an integrated TAM-TOE model. *Journal of Enterprise Information Management*, 28(1), pp.107-130.
- Gupta, S., Misra, S. C., Singh, A., Kumar, V., and Kumar, U., 2017. Identification of challenges and their ranking in the implementation of cloud ERP: A comparative study for SMEs and large organizations. *International Journal of Quality & Reliability Management*, 34(7), pp.1056-1072.
- Gupta, S., Misra, S. C., Kock, N., and Roubaud, D., 2018. Organizational, technological and extrinsic factors in the implementation of cloud ERP in SMEs. *Journal of Organizational Change Management*, 31(1), pp.83-102.
- Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E., 2010. *Multivariate data analysis (7th ed)*. Prentice Hall.
- Heckathorn, D. D., 2011. Comment: snowball versus respondent-driven sampling. *Sociological methodology*, 41(1), pp.355-366.
- Hwang, Y., 2012. End user adoption of enterprise systems in Eastern and Western cultures. *Journal of Organizational and End User Computing*, 24(4), pp.1-17.
- Jeong, N., Yoo, Y., and Heo, T. Y., 2009. Moderating effect of personal innovativeness on mobile-RFID services: Based on Warshaw's purchase intention model. *Technological Forecasting and Social Change*, 76(1), pp.154-164.
- Kalinic, Z. and Marinkovic, V., 2015. Determinants of users' intention to adopt m-commerce: an empirical analysis. *Information Systems and e-Business Management*, pp.1-21.
- Kearns, G.S. and Sabherwal, R., 2007. Strategic Alignment Between Business and Information Technology: A Knowledge-Based View of Behaviors, Outcome, and Consequences. *Journal of Management Information Systems*, 23(3), pp.129-162.
- Kim, H.W. and Kankanhalli, A., 2009. Investigating user resistance to information systems implementation: A status quo bias perspective. *MIS Quarterly*, 33(3), pp.567-582.
- Kirton, M., 1976. Adaptors and innovators: A description and measure. *Journal of Applied Psychology*, 61(5), pp.622-629.
- Kratzke, N., 2012. Cloud Computing Costs and Benefits. In: Ivanov I., van Sinderen M. and Shishkov B. (eds), *Cloud Computing and Services Science. Service Science: Research and Innovations in the Service Economy*. New York, NY: Springer.
- Lee, M.C., 2009. Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), pp.130-141.
- Lee, S., Shin, B., and Lee, H. G., 2009. Understanding post-adoption usage of mobile data services: The role of supplier-side variables. *Journal of the Association for Information Systems*, 10(12), pp.860-888.
- Lewis, W., Agarwal, R., and Sambamurthy, V., 2003. Sources of Influence on Beliefs about Information Technology Use: An Empirical Study of Knowledge Workers. *Management Information Systems Quarterly*, 27(4), pp.657-678.
- Liu, C. T., Guo, Y. M., and Lee, C. H., 2011. The effects of relationship quality and switching barriers on customer loyalty. *International Journal of Information Management*, 31(1), pp.71-79.
- Liu, C. H., 2015. The impact on switching intention of e-trading systems for the securities industry. *Global Journal of Business Research*, 9(1), pp.75-88.
- Makkar, G.D. and Meenakshi, B., 2012. EAAS – ERP as a service. *Journal of Information and Operations Management*, 3(1), pp.141-145.
- Mezghani, K., 2014. Switching toward Cloud ERP: A research model to explain intentions. *International Journal of Enterprise Information Systems*, 10(3), pp.48-64.
- Mezghani, K., 2016. Exploring the strategic alignment concern when switching toward cloud ERP. In: *Proceedings of the 27th conference of IBIMA*, Milan, Italy, 04-05 May.
- Mezghani, K. and Ayadi, F., 2016. Factors explaining IS managers' attitudes toward Cloud Computing adoption. *International Journal of Technology and Human Interaction*, 12(1), pp.1-20.

- Mezghani, K., Ayadi, F. and Aloulou, W., 2014. Effects of Business Managers Skills: A Study of ERP Strategic Alignment in some Arab SME's. In: Todorov, K. and Smallbone, D., *Handbook of Research on Strategic Management in Small and Medium Enterprises*. Hershey PA.: Business Science Reference.
- Ortbach, K., 2015. Unraveling the Effect of Personal Innovativeness on Bring-Your-Own-Device (BYOD) Intention-The Role of Perceptions Towards Enterprise-Provided and Privately-Owned Technologies. In: *Proceedings of the 23rd European Conference on Information Systems (ECIS)*, Münster, Germany, 26-29 May.
- Panorama Consulting, 2016. 2016 REPORT ON ERP SYSTEMS AND ENTERPRISE SOFTWARE. <https://www.panorama-consulting.com/resource-center/2016-erp-report/> (Retrieved: 15/06/2016).
- Park, S.C. and Ryoo, S.Y., 2013. An empirical investigation of end-users' switching toward cloud computing: A two factor theory perspective. *Computers in Human Behavior*, 29(1), pp.160-170.
- Peng, G. C. A., and Gala, C., 2014. Cloud ERP: a new dilemma to modern organisations? *Journal of Computer Information Systems*, 54(4), pp.22-30.
- Rashed, J.M., 2001. Perception Antecedents and Their Impact on User Acceptance of Information Technology. *Published doctoral Dissertation* (George Washington University).
- Rogers, E. M., 1983. *Diffusion of Innovation* (3rd ed). New York, Free Press.
- Rogers, E. M., 1995. *Diffusion of innovations* (4th ed.). New York: Free Press.
- Sanford, C., 2013. An Artifact Switching Model for User Acceptance of eBooks. *Journal of Organizational and End User Computing*, 25(2), pp.19-40.
- Schneider, S. and Sunyaev, A., 2016. Determinant factors of cloud-sourcing decisions: reflecting on the IT outsourcing literature in the era of cloud computing. *Journal of Information Technology*, 31(1), pp.1-31.
- Smaoui Hachicha, Z. and Mezghani, K., 2018. Understanding Intentions to Switch Toward Cloud Computing at Firms' Level: A Multiple Case Study in Tunisia. *Journal of Global Information Management*, 26(1), pp.136-165.
- Tenenhaus, M., Amato, S., and Esposito Vinzi, V., 2004. A global goodness-of-fit index for PLS structural equation modelling. In: *Proceedings of the XLII SIS scientific meeting* (Vol. 1, pp. 739-742). CLEUP Padova.
- Vinzi, V.E., Trinchera, L. and Amato, S., 2010. PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model Assessment and Improvement. In: Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (2010). *Handbook of Partial Least Squares: Concepts, Methods and Applications*. Berlin:Springer-Verlag.
- Wetzels, M., Odekerken-Schröder, G., and Van Oppen, C., 2009. Using PLS path modeling for assessing hierarchical construct models: guidelines and empirical illustration. *MIS quarterly*, 33(1), pp.177-195.
- Wixom, B. H. and Todd, P. A., 2005. A theoretical integration of user satisfaction and technology acceptance. *Information Systems Research*, 16(1), pp.85-102.
- Xu, H., and Gupta, S., 2009. The effects of privacy concerns and personal innovativeness on potential and experienced customers' adoption of location-based services. *Electronic Markets*, 19(2-3), pp.137-149.
- Ye, C., Seo, D., Desouza, K. C., Sangareddy, S. P., and Jha, S., 2008. Influences of IT substitutes and user experience on post-adoption user switching: An empirical investigation. *Journal of the Association for Information Science and Technology*, 59(13), pp.2115-2132.
- Zhou, T., 2015. An Empirical Examination of Users' Switch from Online Payment to Mobile Payment. *International Journal of Technology and Human Interaction*, 11(1), pp.55-66.

Appendix: Items

Variables	Items (adapted)	Authors
Personal innovativeness in the domain of IT	• I like to experiment with new IT. • Among my peers, I am usually one of the first to try out new IT. • If I heard about a new IT, I would look for ways to experiment with it. • In general, I am hesitant to try out new IT.	Agarwal and Prasad (1998), Lewis et al. (2003), Bhattacharjee et al. (2012)
Intention to switch toward cloud ERP	• I have considered switching from on-premise ERP to cloud ERP. • I have no intention to renew with an on-premise ERP. • I intend to use cloud ERP in the future. • I believe my interest in cloud ERP will increase in the future. • I will recommend others to use cloud ERP.	Zhou (2015), Kalinic and Marinkovic (2015)
Expected switching benefits	• Changing to new way of working with cloud ERP will enhance my effectiveness on the job than working in the current way. • Changing to new way of working with cloud ERP will enable me to accomplish relevant tasks more quickly than working in the current way. • Changing to new way of working with cloud ERP will improve the quality of the work I do than working in the current way. • Changing to new way of working with cloud ERP will increase my productivity than working in the current way.	Kim and Kankanhalli (2009), Park and Ryoo (2013)
Expected switching risks	• It will take a lot of time and effort to switch to the way of working with cloud ERP. • Switching to new ways of working with cloud ERP can result in unexpected hassles (troubles). • I will lose a lot of my work if I am to switch to the new way of working with cloud ERP.	Park and Ryoo (2013)
Satisfaction with current ERP	• All things considered, I am very satisfied with the current system. • Overall, my interaction with the current system is very satisfying. • I am very pleased with using the interface of the current system. • I am very contented with using the interface of the current system.	Wixom and Todd (2005), Lee et al. (2009)
Information Channels exposure	• I get exposed to cloud ERP related information through TV or Radio. • I read cloud ERP related information in newspapers, magazines, bulletins or other forms of literature. • I get exposed to cloud ERP related information through seminars, conferences and conventions. • I involve in cloud ERP related discussions with coworkers and associates. • I involve in cloud ERP related discussions with friends and family members.	Rashed (2001), Mezghani and Ayadi (2016)