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Application of Expanded Technology Acceptance Model for Enhancing the HRIS Usage in SMEs

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Rapid developments and change have culminated new applications of information technologies. This trend is reflected in the plethora of innovative studies. Literature indicates that small- to medium-sized enterprises (SMEs) perceive human resources information systems (HRIS) as complicated and time consuming, resulting in resistance from both users and employees. The purpose of this article is to identify necessary acceptance conditions for a successful implementation of the HRIS software within SMEs in Turkey. SMEs compose 99% of all companies in Turkey. Fierce rivalry within sectors gives rise to increased technology use to gain a competitive advantage. This study contributes to an efficient implementation of widely used HRIS in SMEs and offers solutions for implementation failures, including user resistance and idle system problems. This study attempts to apply the technology acceptance model to 112 SMEs that implement HRIS exclusively with all the submodules. This research analyzes success factors for an effective HRIS implementation by testing the latest integrated model of expanded technology acceptance. It concludes that there is a positive and robust correlation between acceptance and use of technology variables and user satisfaction. The results of this study are useful not only for the managers but also for the manufacturers, technical support, online support, and aftersales services as they are advised to develop strategies for user satisfaction.

Keywords: *technology acceptance model (TAM), extended TAM, the theory of planned behavior, human resources information systems*

Introduction

Change is a constant dynamic for companies employing operational technologies. To cope with these changes information systems, support the structure, organization, and the operations of a company. Human resources (HR) have recently shown an increased need for technology support. Therefore a large number of business organizations have invested in the human resources information systems (HRIS) in recent years (Brandon-Jones & Kauppi, 2018). HRIS gathers information and processing data required for planning HR issues, including management of HR, recruitment and placement, lifelong training, wage management, industrial relations, organizational health and safety, career

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planning and development, managing social services, management and organization development, performance management, trade union relations, and transferring information to entities in need of this type of information (Kavanagh & Johnson, 2017).

Storing activities related to HR digitally has many advantages in terms of cost, efficiency, speed, and competitive advantages (Bayraktaroğlu & Atay, 2016). Knowledge management can also be used to acquire, process, codify, store, distribute, and apply knowledge where they are needed (L. Zhang, Wang, Cao, Wang, & Zhao, 2012). It is beneficial for companies that handle a large amount of information to use HRIS, as the support of this system enables companies to control and use the HR data for effective performance outcomes (Bondarouk, Parry, & Furtmueller, 2017; Soja, 2015). The transformational potential lies in the integration of distributed HR information across different units and subsidies. Therefore organizations should map all HR processes as a coherent whole to enable strategic global adoption (Tansley, Newell, & Williams, 2001).

HRIS is the generic name for systems designed and implemented to store, process, and produce data and business reports as a competitive advantage tool (Tansley & Watson, 2000). Due to intense competition within most sectors, companies increased their investments in information technology. However, undeterred by this increase, there has not been enough success to make investments worthwhile, and this has led researchers and executives to focus on acceptance and usage of information system technologies (Hsiao & Yang, 2011, p. 130). Despite some increased usage of the system, the problem of the idle system still exists (Al-Dmour, Love, & Al-Debei, 2016). Low utilization rates of systems obtained by enduring substantial costs and low returns continue to be a productivity paradox (Sablok, Stanton, Bartram, Burgess, & Boyle, 2017). Therefore, it is essential to understand and explain the factors that influence the usage of HRIS in small- to medium-sized enterprises (SMEs), to eventually increase the performance of HR departments and, ultimately, the firms.

The purpose of this study is to identify necessary acceptance conditions for a successful implementation of HRIS software within SMEs in Turkey. This research sheds light on how HRIS users (HR specialists) have perceived the system as well as the degree of acceptance of the system. Additionally, this study identifies possible determinants for technology acceptance providing potential solutions to idle system problems. Enhancing the usage level and quality of HRIS will make a significant contribution to emerging economies worldwide, much like Turkey.

The employed model isolates factors affecting user satisfaction and the usage success of HRIS technology. It has been developed integrating the technology acceptance model (TAM), theory of planned behavior (TPB), and Delone and Mclean's (1992) information systems success model (ISSM). This integrated TAM model proposes to assess different dimensions of technology acceptance behavior within Turkish SMEs. There have been some barriers to technology adoption of the SMEs in Turkey, and these barriers may also be applied to the innovation capacity of the country (Demirbas, 2017). The technology diffusion and adoption problems for companies are related to factors including training and development, the support of the management, competition level, and the sectoral and international integration levels (Gries et al., 2018; Panopoulos et al., 2018). Turkey as a fast-developing country in terms of high-tech adaptation of users and a private sector that almost exclusively consists of SMEs proves to be a good environment for such a model to test.

Literature Review

This research is framed by the extended TAM, designed by the integration of the original TAM, TPB, and Delone and Mclean's (1992) ISSM. The original TAM has been criticized for lacking human factors that the integrated model attempts to compensate with widely recognized models (Joseph, 2008; Kurt & Tingöy, 2017).

Technology Acceptance Model

The TAM originated from the psychological theory of reasoned action and the TPB. TAM has since evolved to become a fundamental model in understanding the predictors of human behavior toward potential acceptance or rejection of technology (Schepers & Wetzels, 2007). TAM uses Ajzen and Fishbein's (1980) theory of reasoned action as a theoretical basis for explaining the causal relationship between variables (Davis, Bagozzi, & Warshaw, 1989). It was developed explicitly for modeling user acceptance of information systems with the goal of explaining the behavioral intention to use the system (Hsu & Lin, 2008). Variables such as intention, attitude, perceived usefulness, and perceived ease of use have been used as determinants in the model (Y. Lee, Kozar, & Larsen, 2003). Expressions that were used as behavioral determinants in the model have been expressed as perceived ease of use and perceived usefulness. Perceived ease of use refers to the degree to which an individual believes that using a particular system would be free of effort (Verkasalo et al., 2010). On the other hand, perceived usefulness refers to the degree to which an individual believes that using a particular system would enhance job performance (L. S. Huang, Quaddus, Rowe, & Lai, 2011). Furthermore, perceived usefulness has been expressed as positive or negative thoughts in regards to users' increased perceived performance as a result of using technology (Davis, 1989; C. C. Lin, 2013). SMEs emphasize perceived usefulness as a reason for technology adoption (J. Lee, Choi, & Lee, 2015). The notion of "perceived success" of enterprise systems for the decision support function is broken down further into four dimensions: decision support for individuals, decision participants working jointly, interrelated decisions, and decisions involving multiple organizations.

In the 1980s, information systems scholars were interested in exploring why individual users rejected or accepted computers as a means of technology (Davis et al., 1989, p. 982). Therefore, it became necessary for researchers to describe why a system was unacceptable and to suggest corrective measures (pp. 985–986).

Application of the TAM framework spans different areas; for example, it has incorporated new technologies into the field of learning and education (Hussain, 2017; Jan & Contreras, 2011; Taherdoost, 2018). The educational system may give an opportunity to a wide range of potential technology users in the process of knowledge transfer and acquisition (Marangunić & Granić, 2015). Among the many others, Park, Lee, and Cheong (2007) tested the application of the original TAM, whereas S. Zhang, Zhao, and Tan (2008) and Cheung and Vogel (2013) used the extended TAM in the context of e-learning. J. H. Huang, Lin, and Chuang (2007) applied the TAM framework to mobile learning. Among the many proposed technology models, TAM is the most widely used theoretical technology model (Al-Rahmi, Alias, Othman, Marin, & Tur, 2018; Razmak & Bélanger, 2018; Ukpabi & Karjaluoto, 2017).

Some authors have argued that significant variables related to both human and social change processes are omitted from this model and should be added (Legris, Ingham, & Collerette, 2003). Chuttur et al. (2009) indicated that although TAM is a highly cited model, there are mixed opinions regarding the theoretical assumptions and practical effectiveness. Furthermore, Turner, Kitchenham, Brereton, Charters, and Budgen (2010) placed the research of TAM in a context of predicting technology usage and concluded that care should be taken when using the model outside the context in which it has been validated. Despite continuous progress in revealing new factors that have a significant influence on TAM's core variables, there are still several unexplored areas of the model's potential application that could contribute to its predictive validity (Marangunić & Granić, 2015).

Theory of Planned Behavior

TPB has been designed to 'explain and predict human behavior in specific contexts' (Ajzen, 1991, p. 181). It is an improved extension of Ajzen and Fishbein's (1980) theory of reasoned action (compelled by the original theory's limitations explaining nonvolitional behaviors; Ajzen, 1991). The theory of reasoned action assumes that intention lies at the core of performing the behavior and is the sum of attitudes and subjective norms toward a behavior. Attitudes are conceived through the aggregation of beliefs about the consequences of performing the behavior and subjective norms from normative beliefs about the behavior (Ajzen & Fishbein, 1980). Intentions arise from motivational factors and the availability of opportunities and resources (due to skill, money, time, the cooperation of others). Together they form the actual control over the behavior (Ajzen, 1991). Once it became evident that not all behavior is deliberate and controlled, a behavioral control variable was added to effectuate the model in its current form as the TPB.

In its new form, the model accepts that many behaviors present difficulties of execution that may limit volitional control; therefore, perceived behavioral control (PCB) should be added. PCB can influence behavior indirectly through intention or directly, as it serves as a proxy for actual control (Ajzen, 2005). According to TPB mainly three factors steer human behavior: behavioral beliefs concerned with likely outcomes and their evaluations, beliefs about the normative expectations of valued individuals and inclination to abide by these expectations (normative beliefs), and beliefs about the presence and perceived power of factors that may facilitate or impede the performance of the behavior (control beliefs). Ajzen stated that behavioral beliefs produce a positive or negative attitude toward the behavior, normative beliefs result in perceived social pressure or subjective norm, and control beliefs give rise to a sense of self-efficacy regarding the behavior (Bandura, 1977), that is, PCB. Combined, attitude toward the behavior, subjective norm, and PBC lead to the formation of a behavioral intention and, eventually, the behavior. As stated earlier, PBC (people's perception of the ease or difficulty to perform a task) can affect the behavior not only via intention but also directly. The strength of these three determinants suggests that one will be more willing to fulfill the behavior in question (Davis, 1986).

DeLone and McLean Information Systems Success Model

Understanding factors that allow us to measure the success or effectiveness of information systems is essential to evaluate the success of the system. It has become clear that as the explanatory power of these factors increases, so will the significance and amount of investments made in information systems. Delone and Mclean (1992) developed a model by investigating the factors affecting the success of information systems, and they identified about 180 success factors derived from the publications between 1981 and 1987. In this model, system quality, information quality, user satisfaction, and usage variables have been employed. System quality refers to the ability of information systems to produce the necessary information. Ease of use, functionality, reliability, flexibility, data processing quality, portability, and compliance are critical criteria for system quality (Smith, 2016). The quality of the system shows how well hardware and software cooperate. Information quality measures the output quality of information produced by the system. Information generated by the information system is characterized by completeness, accuracy, accessibility, timeliness, consistency, and intelligibility (Poelmans, Reijers, & Recker, 2013). Usage and usage intention interact with the systems by the people who use them, and thus, the use of the system has been quantitatively measured (Niehaves & Plattfaut, 2014).

Unified Models

Although the TAM is widely accepted as an instrumental model for understanding and explaining the behavior of users when using information technology, it has been criticized for omitting human and social factors (Boonsiritomachai & Pitchayadejanant, 2017; Chopdar, Korfiatis, Sivakumar, & Lytras, 2018; Legris et al., 2003; Lucas & Spitler, 2000; Sun & Zhang, 2006). Thus, the unified models of TAM are aiming for more accurate results for technology acceptance behavior and its dimensions. Although the Unified Theory of Acceptance and Use of Technology (UTAUT) has been assessed and formulated as one of the most widely used models, there are still critiques claiming that the model has limitations and deficiencies in terms of explanatory power, compared to the integrated models (Kurt & Tingöy, 2017). Researchers have also noted in their studies that there may be deficiencies in determining the principal components (sizes) before and after the unified theory of acceptance and use of technology (Cody-Allen & Kishore, 2006; Tarhini, El-Masri, Ali, & Serrano, 2016).

Many technology acceptance studies have attempted to design integrated models by combining different theoretical models or by adding variables to find the factors that influence the use of information technology. It has been stated that these models have higher explanatory power (Agarwal & Prasad, 1997; Amaro & Duarte, 2015; Brown, Massey, Montoya-Weiss, & Burkman, 2002; Cha, 2013; Chen & Chao, 2011;Khalifa & Shen, 2008; S. Lee & Kim, 2009; Shibly, 2011; Taylor & Todd, 1995a, 1995c; Verma & Sinha, 2018 ; Wu & Chen, 2005). The literature reveals that combined models yield better results and are therefore favored (Sinha & Mukherjee, 2016). In addition, some researchers have stated that it is not possible to conclusively prove that a single model is superior to others (Gentry & Calantone, 2002; Hung & Chang, 2005; H. F. Lin, 2007; Shaw, Ellis, & Ziegler, 2018; Shih & Fang, 2004). After citing the original TAM model, several researchers simply extended it by adding variables which they thought had particular relevance to the technology they assessed. (Mital, Chang, Choudhary, Papa, & Pani, 2018; Ooi & Tan, 2016; Rahman, Taghizadeh, Ramayah, & Alam, 2017; Ramos-de-Luna, Montoro-Ríos, & Liébana-Cabanillas, 2016; Tsai, Chang, & Ho, 2016; Wang & Sun, 2016; Yoon, 2016).

As it was stated before, TAM has been criticized for not considering human and social issues. For this study, the subjective norm and PCB variables of TPB have been included to remedy this shortcoming. Similar modifications to increase TAM's explanatory power can be found in the literature (Brown et al., 2002; Fu, Farn, & Chao, 2006; Khalifa & Shen, 2008; Taylor & Todd, 1995a; Wu & Chen, 2005; Yi, Jackson, Park, & Probst, 2006). Additionally, information quality and system quality variables have been transferred from Delone and Mclean's (1992) ISSM. This new model is strengthened by the addition of belief attitude and behavioral chain variables of the TAM.

The PCB variables of TPB represent quality, information quality, utility, subjective norm, and PCB beliefs. While user satisfaction represents attitudes, usage success represents behavior. A significant number of studies indicate that the TAM is a suitable psychometric tool to assess users' acceptance of technology, determined by the individual's perception of the new technology's usefulness (Kim & Woo, 2016; Mun, Jackson, Park, & Probst, 2006). Carter et al. (2004) stated that if senior management supports the use of technology, the likelihood of its usage increases. In conclusion, the extended TAM is an innovative approach to measure and develop technology acceptance, and it has been developed by integrating different concepts from earlier models. The extended TAM has taken the perceived usefulness and success factors from the original TAM; subjective norm and PCB items from the TPB; and system quality, information quality, and satisfaction items from Delone and Mclean's (1992) ISSM.

Research Model and Hypotheses

In this section, the hypotheses will be explained and justified based on existing literature. As the usage of human resource information systems increases, it is expected that user satisfaction will also increase as it affects the success of usage in general terms. Therefore,

Hypothesis 1: HRIS use satisfaction has a positive effect on HRIS use success.

PBC refers to "people's perception of the ease or difficulty of performing the behavior of interest" (Ajzen 1991, p. 183). It includes the self-confidence, competence, and knowledge necessary to perform that behavior. The addition of PBC to the model stems from the research findings that suggest that one's own control variables will increase the success of use (Chau & Hu, 2001). Furthermore, PCB positively affects usage (Ajzen, 1991). Confidence and the ability of the user are crucial for successful HRIS applications. Therefore,

Hypothesis 2: PCB has a positive effect on HRIS use satisfaction.

Knowledge quality refers to the quality of information produced by the system. The information system is expected to produce complete, accurate, accessible, timely, consistent, and clear data to assist meaningful decision making. Unnecessary information convolutes the decision-making process and should be avoided. Previous research reveals a high correlation between information quality and user satisfaction, and that a high information quality causes high levels of user satisfaction (Rai, Lang, & Welker, 2002; Shibly, 2011). The hypothesis developed in this context is as follows:

Hypothesis 3: Information quality has a positive effect on HRIS usage satisfaction.

System quality may be defined as the ability of an information system to produce the required information. Ease of use, functionality, reliability, flexibility, data processing quality, portability, and compliance are all key criteria when evaluating system quality. Researchers in the field of traditional information systems generally consider system quality as the most crucial feature of all interactive computer systems (Rai et al., 2002). As system quality increases, user satisfaction is expected to increase (Bailey & Pearson, 1983; Shibly, 2011). The hypothesis developed in this context is as follows:

Hypothesis 4: System quality has a positive effect on the satisfaction of HRIS usage.

Perceived usefulness is either the favorable or unfavorable opinion of users about the performance gains they have made as a result of using technology (Davis, 1989, p. 320). Perceived usefulness is one of the most important explanations of intention to use and satisfaction of use (Plouffe, Hulland, & Vandenbosch, 2006; Shibly, 2011). Liao, Chen, and Yen (2007) argued that it is a considerable contribution to the level of explanation of the perceived usefulness by adding the factor of satisfaction of use in the analysis. The hypothesis developed in this context is as follows:

Hypothesis 5: Perceived usefulness has a positive effect on HRIS usage satisfaction.

Subjective norm refers to "the perceived social pressure to perform or not to perform the behavior" (Ajzen 1991, p. 188). The concept is rooted in the normative belief of how likely a referent individual or group is to approve the behavior, that is, use of technology (Ajzen, 2005). Accordingly, an attitude toward use will be attained, and a satisfaction level will be formed. Subjective norms can also affect user satisfaction in the use of perceived usefulness. Instead of using the system directly, it may be intended to use the resultant system to direct someone with an effect on the benefits of that system (Venkatesh & Davis, 2000). Many studies have found that subjective norms have an effect on perceived usefulness (Gu, Lee, & Yung, 2009; Khalifa & Shen 2008; Yi et al., 2006). The hypothesis developed in this context is as follows:

Hypothesis 6: Subjective norm has a positive effect on HRIS usage satisfaction.

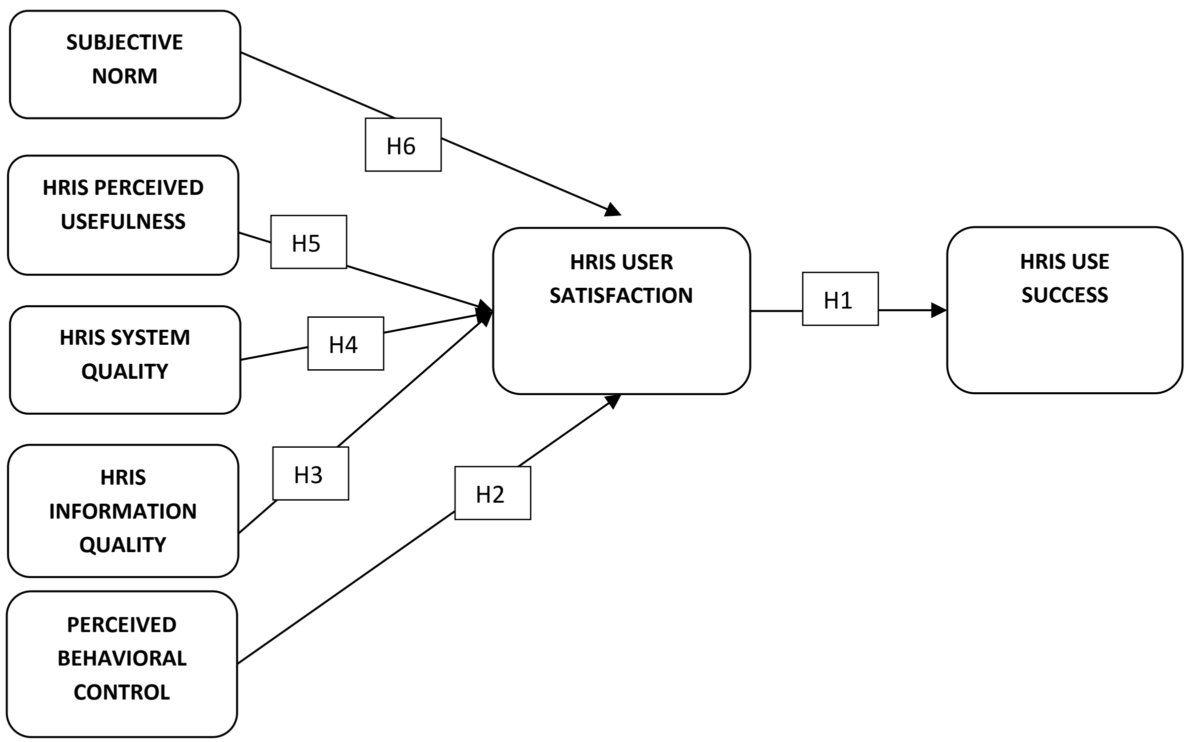

Figure 1. *Research Model. H = Hypothesis; HRIS = human resources information systems.*

Method

Quantitative research methods have been applied in this study. The survey form in the study was developed by integrating variables from three separate models. As a result, a 43-question survey with a 5-point Likert scale has been tested for reliability, and a questionnaire was used to collect the data.

Data Collection Method and Sampling

The research survey consisted of research items that were developed applying validity and reliability-tested scales from the literature. The survey is composed of 43 questions in two parts, the first part covered demographics and the second part consisted of HRIS related questions.

Questionnaires were sent to 225 companies that were randomly selected within the manufacturing sector in Turkey; 114 companies choose to participate in the survey, and 112 questionnaires were returned to the researcher. Surveys were answered by the HRIS users who are mainly HR specialists in their businesses.

Scale Development

Based on the scales used by Wixon and Todd (2005) and J. H. Huang, Yang, Jin, and Chiu (2004), a seven-item scale has been developed to measure system quality as the first factor. The second factor, information quality, has been measured by Bailey and Person (1983), with seven items according to the specific content of HRIS. The third factor has been measured by the six-item scale perceived usefulness, developed by Sun and Zhang (2006). The fourth factor, measuring the subjective norm, has been measured by a three-item scale derived from the study of Wu and Chen (2005). The fifth factor, PCB, was formed by Taylor and Todd (1995b) and Venkatesh and Davis (2000) and measured on a 7-point scale. Questions related to user satisfaction have been measured by a six-item scale, which has been formed with regards to the questions from Seddon and Yip (1992) and Sun and Zhang (2006). Questions about the use success of HRIS have been measured by a seven-item scale with consideration to the studies of Hussain, Wallace, and Cornelius (2007) and Tansley et al. (2001), as well as the recommendations of HRIS experts.

Findings

Reliability Analysis

Because the results of the study have been above the reasonable value of 0.70, it has been determined that the factors related to the variables are reliable. The Cronbach's alpha coefficient has been calculated as 0.971. According to the reliability coefficient, this value is higher than 0.70, and it has been decided that it is as reliable as the survey and therefore it should be applied in the research.

Results of Expanded Technology Acceptance Model Factor Analysis

The construct validity of the scale has been examined, and factor distributions have been found out by means of factor analysis on the data obtained from the survey prepared to measure the success of technology acceptance and utilization factors.

The obtained load values have been found as acceptable. If factor load values are 0.45 or higher, it is a good measure of choice. However, this limit can be reduced to 0.30 for a small number of substances in practice (Cramer, 2003). Seven factors have been identified according to these results. The load values of the substances in the system quality factor are between 0.648 and 0.614, the load values of the items in the information quality factor are between 0.823 and 0.511, the load values of the items in the usage satisfaction factor are between 0.734 and 0.568, perceived usefulness between 0.726 and 0.536, subjective norm between 0.667 and 0.632, PCB between 0.843 and 0.574, and success factor between 0.809 and 0.520.

The proficiency testing of sampling Kaiser–Meyer–Olkin and Bartlett tests have been applied to evaluate the appropriateness of the factor analysis and variables that have been used. The proficiency testing of sampling Kaiser–Meyer–Olkin value has been calculated as 0.923. The perceived usefulness has explained 12.816% of the required ability to be measured, 12.676% of the usage success, 12.174% of the system quality, 11.187% of the PCB, 10.117% of the user satisfaction, and 8.472 % of the information quality.

The internal consistency (Cronbach's alpha) values of the factors have been indicated in Table 1. As a result of analysis, the internal consistency (Cronbach alpha) values have been estimated as 0.934, 0.893, 0.929, 0.881, 0.903, 0.876, and 0.834. According to the Cronbach's alpha coefficient, these values are higher than 0.70, so the values are acceptable.

Table 1. *The Results of Human Resource Information Systems Success Factor Analysis*

Variable	Number of Variables	Eigen Values	Variance (%)	α
Perceived usefulness	6	49.414	12.816	0.934
Use success	7	6.267	12.676	0.893
System quality	6	5.362	12.174	0.929
Perceived behavioral control	5	3.706	11.187	0.881
User satisfaction	5	3.214	10.117	0.903
Information quality	4	2.898	8.472	0.876
Subjective norm	2	2.609	6.028	0.834
Total variance				73.470
Total alfa				0.971
Kaiser–Meyer–Olkin measure of sampling adequacy				0.923
Bartlett's test of sphericity approximate χ^2				3,936.474
p				.000

An examination of correlations between the variables shows that there are positive correlations at $p < 0.01$ significance levels. It has been found that user satisfaction and use of success are positively correlated, and the relationship is relatively strong ($r = 0.620$). When system quality, information quality, perceived usefulness, subjective norm, and PCB variables—which are expressed as technology acceptance and use variables—are related to satisfaction, the system quality between them is 0.762, information quality 0.705, perceived usefulness 0.748, the subjective norm is 0.524, PCB 0.706 positive, and relatively strong relationships have been found. See Table 1.

System quality, information quality, perceived usefulness, subjective norm, and PCB variables accounted for 65.1% of satisfaction with dependent variables. The systematic quality ($B = 0.299$, $p < .05$), perceived benefit ($B = 0.253$, $p < .05$), PCB ($B = 0.225$, $p < .05$). In this case, our Hypotheses 2, 4, and 5 have been accepted. Hypotheses 3 and 6 have been rejected. See Table 2.

Table 2. *Correlation Between Human Resources Information Systems Success and Technology Acceptance and Use Variables*

	Correlation						
	1	2	3	4	5	6	7
1. System quality	1						
2. Information quality	.792**	1					
3. Perceived usefulness	.789**	.737**	1				
4. Subjective norm	.567**	.524**	.631**	1			
5. Perceived behavioral control	.714**	.656**	.738**	.637**	1		
6. User satisfaction	.762**	.705**	.748**	.524**	.706**	1	
7. Use success	.616**	.570**	.610**	.544**	.542**	.620**	1

** $p < .01$ (two-tailed).

The results show that HRIS user satisfaction ($B = 0.620$, $p < .05$), has a substantial effect on the success of the dependent variable and this effect has statistical significance. Accordingly, Hypothesis 1 has been supported. See Table 3.

Table 3. *The effect of Human Resources Information Systems Acceptance and Use Variables on User Satisfaction*

Model	*B*	*SE*	β	*t*	*p*
Constant	–.554	.331		–1.674	.097
System quality	.324	.118	.299	2.743	.007
Information quality	.172	.113	.147	1.522	.131
Perceived usefulness	.286	.119	.253	2.397	.018
Subjective norm	–.021	.064	–.026	–.334	.739
Perceived behavioral control	.316	.130	.225	2.439	.016

Note. Dependent variable: user satisfaction. $R^2 = 0.667$, adjusted $R^2 = 0.651$, $F = 42.404$, $p < .01$.

Our analysis indicates that all the hypotheses with the exceptions of Hypotheses 3 and 6 were accepted. In conclusion, findings empirically supported the correlation between technology acceptance and user variables and usage success. See Table 4.

Table 4. The Effect of User Satisfaction on Use Success

Model	*B*	*SE*	β	*t*	*p*
Constant	1.419	.278		5.107	.000
User satisfaction	.602	.073	.620	8.294	.000

Note. Dependent variable: use success. $R^2 = 0.385$, adjusted $R^2 = 0.379$, $F = 68.798$, $p < .01$.

Conclusion

To determine correlations between technology acceptance, user variables, and user satisfaction, correlation, regression, and factor analysis have been conducted. Results indicate there is a positive and robust correlation between the acceptance and use of technology variables and user satisfaction. The regression model has yielded statistically significant results. Participants who have responded to the survey agreed that the system quality factor was the most crucial factor in user satisfaction.

In the study, a positive relationship was asserted between subjective norms and user satisfaction. Although subjective norms are positively related to user satisfaction, they were not observed to have had any effect on user satisfaction. Results revealed that users do not believe in the benefits of the system if they were informed by their managers or colleagues. However, they believed in the use of the system if they had formed the belief by themselves. The necessity of the programs used had only a small effect on the subjective norm. A statistically significant relationship was found between perceived usefulness and user satisfaction. The belief that the user will benefit from using the system has a direct effect on user satisfaction. Fusilier and Durlabhj (2005) supported the findings that as the experience grows, the perceived usefulness will increase. In addition, subjective norms have also been shown to have an effect on perceived usefulness.

There is a firm relationship between system quality and user satisfaction. In particular, the positive change in the quality of the system, (i.e., the user-friendliness of the system) will increase the satisfaction of use. Systems that are not complicated to use and have excellent design are welcomed by users, and it increases their satisfaction levels.

Although there is a positive relationship between information quality and user satisfaction, no significant results could be determined in the regression analysis. It could be argued that with a larger data set, the relationship could be assessed more accurately. In several studies, the effect of the quality of knowledge in terms of satisfaction is included in the model. Also, when the user has the right amount of information on the system, the user will have a higher chance of being more satisfied. However, in this study, information was found to have no impact on the quality of satisfaction, and when considered in this context, it is expected to affect overall satisfaction with the quality of information.

There is a strong positive relationship between PCB and user satisfaction. Users start employing the system once they believe that the source, the information, and the ability to use them are in their hands. In this study, users believed that they could control the source, the information, and they had the necessary ability. The HRIS users may be influential in enhancing the knowledge and research ability of many subjects in the process of use.

In the study, statistically significant relationships were found between user satisfaction and HRIS utilization success. The success of use is directly affected by the satisfaction of use, and the percentage of disclosure is 39.6%. Findings show that the increase in satisfaction of HRIS use also increases the success rate of use. After use, the satisfied user begins to use the system more intensively, thereby increasing the success of use. The percentage of disclosures of use success is lower than the satisfaction of use, which may be due to the fact that every user who is satisfied with the system does not use the system. The increase in use success will affect satisfaction, especially with the positive contributions to HR functions. This would eliminate idle system problems and user resistance in businesses. In conclusion, the study contributed to the literature by generating empirical evidence supporting the theories relating to HRIS user satisfaction, technology adoption and use variables, and HRIS use success.

Furthermore, it was observed that users are willing to use the HRIS due to their belief that a system is a useful tool. Therefore, the most influential factors that affect satisfaction are system quality, perceived usefulness, and PCB. Believing that the systems are really beneficial to the user and that they will improve their business performance will increase their use satisfaction and success. At this point, it is possible to get more benefits from HRIS applications.

The belief that users have the necessary resources, knowledge, and ability to use technology has also had a direct impact on satisfaction and success. If employees' deficiencies are resolved, and essential requirements are provided system installation, and use will bring success. Concomitantly, this study emphasizes the importance of training. In an effort to enhance participation of the users to the systems with higher satisfaction regular training sessions should be designed.

The results of the study are also useful for the manufacturers, technical support, and online support, and aftersales services, as they are advised to have strategies developed for the satisfaction of the users. The producers should focus on issues such as customer representatives, technical support staff, and online support for the solution.

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