Human Resource Information System (HRIS): An Evaluation of Net Benefits Based on the Perception of HR Practitioners

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ABSTRACT

In this day and age, the use of information systems (IS) in workplaces is indispensable. IS has been an effective tool in enhancing operational efficiency and for empowering the workforce. Human Resource Information Systems (HRIS) have been recognized as one of the major modern human resource (HR) tool (Jahan, 2014). HRIS handles the processes and transactions involved in managing human resources such as recruitment, training, benefits administration and employee records-keeping (Laudon & Laudon, 2014). With the strategic role that IS delivers to organizations nowadays, it is imperative that IS be evaluated on its effectiveness especially in the area of human resource management. The objective of this study is to evaluate the factors that affect the net benefits of human resource information systems

(HRIS) in the business process outsourcing (BPO) industry in the Philippines. Using the updated DeLone and McLean IS success model, the study will investigate the factors that contribute to the implementation of HRIS based on the perception of HR practitioners. These factors are: system quality, information quality, service quality, use, user satisfaction and net benefits. Moreover, the relationships between and amongst these factors will be studied and how these factors affect the net benefits that HRIS delivers to organizations particularly in the BPO industry in the Philippines. A total of 214 respondents (n=214) who are HRIS users were asked to answer an online-based survey questionnaire. The research revealed that use and user satisfaction have positive effect on HRIS net benefits. In addition, the study has validated and confirmed the D&M IS success model in the context of HRIS use in the BPO industry in the Philippines. These findings offer valuable insights to HRIS implementers and business owners on how to strengthen the effectiveness of HRIS and maximize its potentials for the delivery of fast, quality and efficient HR services in the BPO industry.

INTRODUCTION

For many years now, companies and organizations have adopted information systems (IS) designed to empower their workforces in addressing most, if not all, of their informational and transactional requirements. Various forms and types of IS were deployed and are in operation to give companies the ability to collect, process and store large amounts of data such as from

customers, suppliers, regulators and from different operating units in the business organization. IS becomes inevitable in today"s information age as it has the power to bring massive benefits to businesses, organizations, and the whole society (Chuma, 2020).

In the era of big data, the efficiency of companies is now measured through the quality of the actions and decisions that they make relevant to how they operate and compete in their respective industries. Data analytics, artificial intelligence (AI) and blockchain are among the technologies that are explored to transform companies into knowledge-capable business organizations and make them more successful and profitable in today's highly competitive market environment. For instance, AI has been gaining significance in the workplaces and its benefits are felt in many areas of application. AI is in sustainable development and its impact continues to grow (Liu et.al, 2018). These modern capabilities are indispensable and are now within reach. Like any other technologies, IS is becoming synonymous to business success. The integration of IS with the processes of the organization has progressed over the decades and has evolved into the backbone of many organizations (Bourgeois et. Al, 2019). One of the many indispensable IS is the human resource information systems (HRIS) which plays an important role in managing human resource (HR) data and processes.

By understanding the factors that influence the benefits of using HRIS, organizations will be able to address the issues that encourage or hinder the effective use of HRIS in the company. Managers and those in-charge of IS implementations can fine-tune the functions and features of the HRIS and make these systems fully responsive to the functional and transactional requirements of the organization particularly those needs that are focused on HR management. The introduction and implementation of technology will bring changes to the organization. Adopting new technology,

including its effective implementation, necessarily implies changes in the definition and reformulation of tasks inside the organization (Ouedraogo & Tiemtore, 2021).

The main objective of this study is to determine the factors that influence the net benefits of human resource information system (HRIS) using the perceptions of HR practitioners working in the BPO industry in the Philippines. Specifically, the study attempts to determine and rank the factors that influence the net benefits of HRIS and identify the relationships of system quality, information quality and service quality with system use. Likewise, this research also aims to understand the relationships of system quality, information quality and service quality with user satisfaction, and finally, validate the research model in measuring the success of HRIS in the BPO industry in the Philippines.

The findings of this study are expected to generate insights and recommendations to organizations on how HRIS can best respond to the functional and transactional requirements of HR practitioners. The effectiveness of HRIS in the organization particularly in the BPO industry can be addressed by looking into the study results and introducing measures that can enhance the net benefits of HRIS and make it fully responsive to the needs of the HR practitioners. The insights derived from the study can be imparted to business owners and executives with the objective of strengthening their automation systems such as HRIS and use it as a strategic tool for enhancing competitive advantage. Evaluating the efficiency and effectiveness of HRIS will provide important insights to both mid-level managers and top management. For organizations, system success is a growing challenge especially for firms that deploy an expanding array of enterprise systems and require employees to use them (Yen et.al, 2015). Technology capability and technology level evaluation is necessary as it connects with the technology development strategy

of the organization and it contributes to the creation of strategic decisions (Lee & Kim, 2020).

Finally, HR managers together with HRIS implementers/designers can identify and create HRIS functions and features that will increase the quality of HRIS (in terms of system quality, information quality and service quality) and strengthen HRIS so it can support HR planning and governance.

THEORETICAL FRAMEWORK

This study adopts the DeLone and McLean information system success model (D&M model). This model has been extensively used by researchers in various areas of human endeavors (Halawi, McCarthy & Aronson, 2007; Hu, 2003; DeLone & McLean, 2004; Molla & Licker, 2001; Tilahun, 2015; Wang & Liao, 2008; Shahibi et al., 2016; Ojo, 2017). Introduced in 1992, the D&M model presents six dimension of information systems (IS) success, as follows: system quality, information quality, use, user satisfaction individual impact and organizational impact.

In 2003, the model has been updated to include the additional factor known as service quality. It also introduced the variable "net benefits", which integrates the two factors: individual impact and organizational impact. Thus, the updated D&M model has the following constructs: system quality, information quality, service quality, system use, user satisfaction and net benefits.

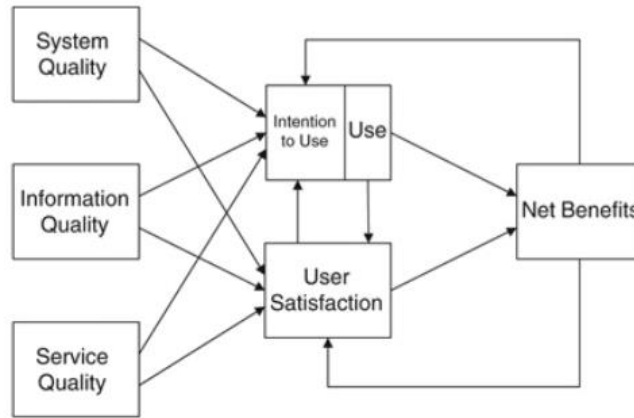The updated D&M model is shown below:

Figure 1. The Updated DeLone and McLean IS Model.

REVIEW OF RELATED LITERATURE

Human Resource Information System (HRIS)

As companies embrace various forms and types of information systems, the challenge of meeting all sorts of organizational needs continuously grows. The reason is clear- more and more transactional and record-keeping requirements are being used to bring efficiency to the workplace, empower the organization and strengthen the core competences of businesses and work organizations. Information became an indispensable commodity that whoever is in possession of such information wields power and enormous decision-making capabilities. In contrast, if information is not accurate or complete, poor decisions can be made by organizations that may cost thousands or even millions of dollars (Stair & Reynolds, 2014).

One of the most important information systems acquired and deployed by business organizations is the Human Resource Information System (HRIS). HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute information

regarding an organization's human resources (Kavanagh, M.J. & Johnson., 2017). This system consists of functions and features that handle and manage HR data and information- from recruitment to the delivery of post-employment benefits. HRIS also delivers management reports and oftentimes, provide users with decision-support tools that are essential to HR planning and decision-making.

Benefits of HRIS

According to Beckers and Bsat (2002), HRIS can deliver to business organizations the following benefits: provide a comprehensive information picture as a single, integrated database, increase competitiveness by improving HR operations and management processes, collect appropriate data and converting them to information and knowledge for improved timeliness and quality of decision making, produce greater number and variety of accurate and real-time HR-related reports and improve employee satisfaction by delivering HR services more quickly and accurately. This is a type of an information system that will continue to change businesses and the way that people live (Stair & Reynolds, 2014).

Studies on HRIS

Various studies were conducted in assessing the success of HRIS in companies, workplaces and in many business organizations. Undoubtedly, the effectiveness and efficiency of HRIS drew a lot of attention amongst researchers focused on business and HR management. This attention is influenced largely by the interest of many business organizations and business owners who strongly recognized the value of HRIS in managing human resources and how it impacts the business in general. HRIS has been adopted by many companies as it contributes to the

development and profitability of the organization by reducing costs, facilitating information flow and thereby helping the HR managers to take effective decisions and gain a competitive advantage (Nawaz, 2014).

The DeLone and McLean Model

The importance of information systems (IS) to organizations has grown exponentially in the last decade and through the years, research on the IS domain remains unabated. Cognizant of the increasing value of IS in many business organizations, research works have been pursued on how to measure IS success in the organization. Researchers have employed a number of frameworks measuring IS success and one of the most popular and widely used IS success models is the DeLone and McLean (D&M Model). Figure 2 shown below captures the conceptual D&M framework.

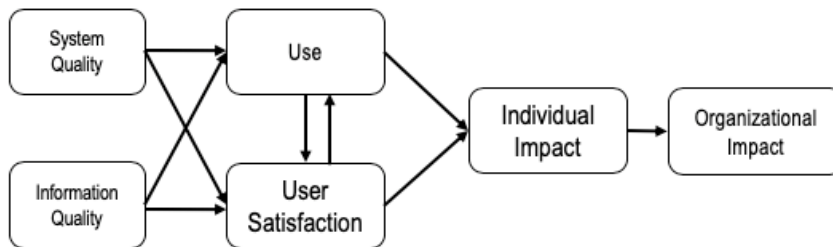Figure 2. The DeLone and McLean IS Model.

In 1992, DeLone and McLean found six major categories for measuring IS success, as follows: system quality, information quality, use, user satisfaction, individual impact, and organizational impact. The authors opined that these six categories/components are both interrelated and interdependent and are the bases for measuring success of information systems.

The D&M model was updated in 2003 and a new category of IS success is added in the framework: service quality. Three (3) major quality dimensions are included in the updated D&M model: systems quality, information quality and service quality. In addition, "Individual Impact" and "Organizational Impact" were removed and these were replaced by a single component/category named as "Net Benefits".

According to DeLone and McLean (1992), system quality refers to the overall performance of the information system and this performance is based on the perception of users. As a measure of system quality, it can refer to metrics that describe usability, reliability, response time (such as the time spent for downloading data/contents), availability and adaptability (DeLone and McLean, 1992). In addition, information quality is also another important factor in the evaluation of HRIS. This refers to the desirable attribute of the outputs generated by the system, such as outcome reports (Petter, William & Ephraim, 2008). In the D&M model, service quality is another factor that influences system use and user satisfaction. This refers to the quality of support that users receive from staff (e.g. IS department or support personnel) tasked to assist them in matters related to maintaining the system (Petter et al., 2008).

Understanding the effectiveness of information systems is an ongoing area of interest amongst researchers, practitioners and management stakeholders (Ojo, 2017). The same interest is seen in the area of human resource management (HRM). A significant number of studies has been conducted to validate the updated D&M model in various areas of HRM specifically in the implementation of HR information systems: in IT organizations (Boora, 2022), oil industry (Ramezan, 2009), food and beverage sector (Panjaitan, 2023), healthcare (Kamaludin & Kamaludin, 2017), small-and-medium enterprises (Noutsa et al., 2017), public

higher education (Davarpanah & Mohamed, 2013), public organizations (Sancoko, et.al, 2022), and in local government (Shibly, 2011), among others.

HYPOTHESIZED MODEL

The study will use the research model shown below:
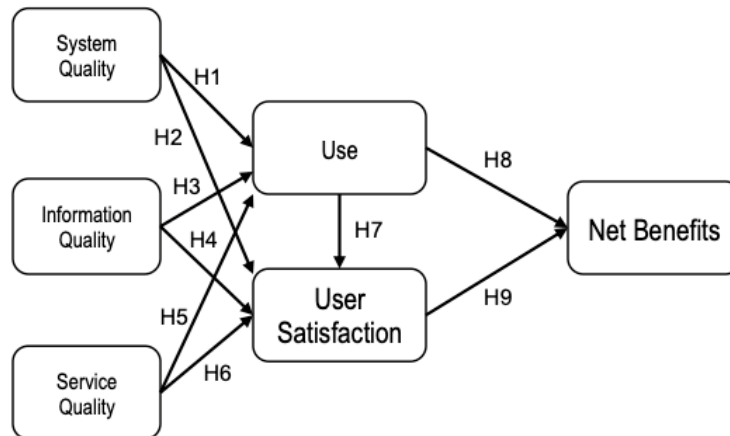
Figure 3. The Hypothesized Model

Based on the above hypothesized model, the following research hypotheses will be tested:

H1: System quality of HRIS will positively affect the use of HRIS.
H2: System quality of HRIS will positively affect user satisfaction on HRIS.
H3: Information quality of HRIS will positively affect the use of HRIS.
H4: Information quality of HRIS will positively affect user satisfaction on HRIS.
H5: Service quality of HRIS will positively affect the use of HRIS.

H6: Service quality of HRIS will positively affect user satisfaction on HRIS.
H7: Use of HRIS will positively affect user satisfaction on HRIS.
H8: Use of HRIS will positively affect perceived HRIS net benefits.
H9: User satisfaction on HRIS will positively affect perceived HRIS net benefits.

METHOD

Design
This study employed a quantitative data analysis by utilizing the Structural Equation Model using Partial Least Squares (SEM-PLS). The data were analyzed using the software SmartPLS Version 3.2.8 developed by Ringle, Wende, and Becker (2015) to determine the model's goodness-of-fit. This is the first test carried out to run the required confirmatory test. After which, the paths' coefficients were examined using the collected research data. Finally, hypothesis testing and structural modeling were done to establish the research premises and confirm the study's hypothesized model.

Sample and Study Site
This study collected data from employees of various BPO companies in the Philippines. These respondents are Human Resource (HR) practitioners and were requested to answer an online/web-based Likert-scale questionnaire designed to measure the responses of the survey participants. A sample of more than 200 was required based on the number of available parameters found in the model (Kline, 2011). The ideal sample size-to-parameters ratio is said to be 20:1. Thus, a model with 6 parameters would require a minimum sample size of 120. Finally, the total number of HR practitioners invited to answer the online

survey was 230; out of this number, 214 respondents completed the questionnaire.

Instrumentation

The survey instrument used in this study was the result of adapting instruments from similar articles, research works and literatures. Key studies that contributed to the formulation of survey instrument are Shibly (2011), Ojo (2017) and Monika & Gaol (2017). The online survey instrument consisted of seven categories of questions: Demographics, System Quality, Information Quality, Service Quality, Use, User Satisfaction and Net Benefits. All these variables were measured using a 5-point Likert Scale ranging from 5 (Strongly Agree) to 1 (Strongly Disagree). On the other hand, the demographics portion of the instrument consisted of questions related to gender, age, civil status, highest educational attainment, number of work experience, job level, and industry type. The online survey instrument was created and distributed using Google Form, an online survey tool provided by Google LLC.

A pilot test was conducted to simulate the online distribution of the survey instrument as well as to finetune and correct errors in the survey instrument. Finally, the total number of HR practitioners who were invited to answer the online survey was 230 and out of this number, 214 respondents successfully accomplished the survey questionnaire.

Data Gathering Procedure and Ethical Consideration

The study took into consideration the ethical aspects of the research work. Permissions were secured from various intellectual property (IP) owners and a list of references was prepared to include all the research and literary works referred to in this paper. Moreover, the online survey instrument was designed such that

permissions are explicitly requested from the respondents assuring them of the integrity and confidentiality of all the data and information are observed throughout the research process.

Data Analysis

In this research, descriptive statistics were used to process and summarize the demographic profile of the respondents. More importantly, the research data were analyzed using Structural Equation Modelling (SEM) using partial least squares and the software adopted for this study is the SmartPLS Version 3.2.8 which was developed by Ringle, Wende and Becker (2015). The functions and features of the software provided the necessary tools to process the structural equation model using a graphical user interface or GUI.

The study employed various data analysis tools. The internal consistency reliability of the research model was measured using the composite reliability (CR) estimates. It also utilized the convergent validity test and was carried out by analyzing the average variance extracted (AVE) values. The AVE values showed the "goodness-of-fit" of the research model. On the other hand, the validity of the research model including its constructs were established by examining the discriminant validity.

RESULTS

Demographics

A total of 214 respondents participated in the survey. These respondents came from different business process outsourcing (BPO) companies in Metro Manila. Out of the survey population, 142 are female while 72 are male and out of these numbers, 192 are single, 19 are married or are living with a partner and 3 are either separated, widow or widower. The age brackets of

respondents, on the other hand, are as follows: 132 are between 20 and 25 years old (61.7%), 61 are between 26 and 30 years old (28.5%), 5 are between 36 and 40 years old (2.3%), 2 are between 41 and 45 years old (0.9%), 6 are between 31 and 35 years old (2.8%), and there were 8 respondents who are 46 years and older (3.7%). The majority of the respondents belong to the rank and file (65%) while the rest are supervisors (19.6%), managers (13.%) and executives/top managers (2.3%). These respondents are all degree holders and 191 of them are college graduates (89.3%), 3 have MA/MS degrees (1.4%), 16 have earned MA/MS units (7.5%), 2 have PhD units (0.9%) while the remaining 2 respondents have earned their doctorate degrees (0.9%). Table 1 below shows the summary demographics of the survey participants.

Table 1. Demographic Characteristics of Respondents (n=214)

Variables	n	%		n	%
Age			Industry Trype		
20-25 years old	132	61.7	Private	204	95.3
26-30 years old	61	28.5	Public	10	4.7
31-35 years old	6	2.8	TOTAL	214	100.0
36-40 years old	5	2.3			
41-45 years old	2	0.9	Years Employed		
46 years and older	8	3.7	1 year	110	51.4
TOTAL	214	100	3 years	28	13.1
			4 years	20	9.3
Marital Status			2 years	24	11.2
Single	192	89.7	5 years	7	3.3
Married/living with a partner	19	8.9	More than 5 years	25	11.7
Separated/ widow/widower	3	1.4	TOTAL	214	100
TOTAL	214	100			

Educational Attainment			Job Level		
			Rank and File	139	65.0
College Graduate	191	89.3	Supervisor	42	19.6
MA/MS units	16	7.5	Manager	28	13.1
MA/MS Graduate	3	1.4	Executive/Top Mgt	5	2.3
PhD units	2	0.9	TOTAL	214	100
PhD graduate	2	0.9			
TOTAL	214	100	Gender		
			Female	142	66.4
			Male	72	33.6
			TOTAL	214	100

Reliability and Validity of the Measurement Model

In this study, the measurement model was examined prior to the process of testing the research hypothesis. The first test conducted is on the reliability of the indicators as specified in each of the constructs namely information quality (IQ), net benefits (NB), service quality (SERQ), system quality (SQ), system use (SU) and user satisfaction (US). Table 2 below presents the indicator reliability values of the constructs. A total of 26 indicators were included in this study.

Table 2. Indicator Reliability Values for the Constructs

Indicator	Information Quality	Net Benefits	Service Quality	System Quality	Use	User Satisfaction
IQ1	0. 767					
IQ2	0.775					
IQ3	0.824					
IQ4	0.810					
IQ5	0.788					
NB1		0.843				

NB2	0.852				
NB3	0.849				
NB4	0.774				
NB5	0.838				
SERQ1		0.736			
SERQ2		0.814			
SERQ3		0.748			
SERQ4		0.791			
SERQ5		0.678			
SQ1			0.771		
SQ2			0.732		
SQ3			0.714		
SQ4			0.734		
SQ5			0.746		
SU1				0.887	
SU2				0.904	
SU3				0.935	
SU4				0.875	
US1					0.950
US2					0.959

The indicators' reliability values were established by the square of each indicator loading (Hulland, 1999). If said value is 0.70 or higher, then it is regarded as most preferred and values that are 0.4 or higher, on the other hand, are considered acceptable.

Table 3 shows that all the values are higher than 0.4. Thus, the indicators of each of the constructs were established to be acceptable. In addition to the reliability of the construct indicators, the second test performed in this study is the internal consistency reliability test (Bagozzi and Yi. 1988) and this measures the extent to which indicators in the model are measured through different

aspects of the same construct (Revicki, 2014). The composite reliability is examined by measuring its values and if it is 0.70 or higher, the construct is established to be highly reliable. On the other hand, a value of 6.0 or higher is acceptable if the study involves variables which have relationships with other variables that are not known- i.e. exploratory (Bagozzi and Yi, 1988).

Moreover, the study also established the Cronbach's Alpha to measure the internal consistency reliability of the model. Cronbach's Alpha measures the degree in which the indicators of latent variables manifest convergent validity. As such, according to Garson (2016), convergent validity represents overall reliability of the model's constructs. A 0.70 or higher value of Cronbach's Alpha is considered acceptable while a value of 0.60 or higher is considered "good" in studies which are exploratory. Table 4 below shows the Cronbach's Alpha and Composite Reliability (CR) values.

Table 3. Cronbach's Alpha, Composite Reliability (CR) and Average Variance Extracted (AVE) values.

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Information Quality	0.852	0.894	0.629
Net Benefits	0.888	0.918	0.691
Service Quality	0.813	0.869	0.570
System Quality	0.793	0.858	0.547
Use	0.922	0.945	0.812
User Satisfaction	0.902	0.953	0.910

The above table also shows the Average Variance Extracted (AVE) values which represent convergent validity of the model's constructs. According to Bagozzi and Yi (1988), an AVE value that is equal to 0.50 or higher indicates that the construct is of high

reliability. Examining the AVE values shown in Table 4, the model is said to be acceptable as all the AVE values are higher than 0.50. The model has been confirmed on the basis of convergent reliability.

The final test performed in this study is to examine the discriminant validity of the constructs and this was accomplished by computing the square roots of the AVE values for each of the model's constructs. A comparison is then made between the AVE values and the correlation values of the latent variables. In order to establish the discriminant validity of the model, the square root of the AVE value of each latent variable must be higher than its respective correlation values. The analysis was made by examining the square roots of the AVE values and the correlation values, as shown in the Table 4.

Table 4. Discriminant Validity for the Model.

Constructs	Information Quality	Net Benefits	Service Quality	System Quality	Use	User Statisfaction
Information Quality	0.793					
Net Benefits	0.759	0.831				
Service Quality	0.755	0.718	0.755			
System Quality	0.800	0.696	0.745	0.740		
Use	0.709	0.812	0.665	0.634	0.901	
User Satisfaction	0.745	0.827	0.692	0.733	0.731	0.954

In the table above, the Fornell-Larcker (1981) criterion analysis which is used for measuring discriminant validity is shown. The diagonal values represent the square roots of each of the latent variables and by examining these values and comparing it with the correlation values, the discriminant validity was then established. In Table 5, no value (i.e. square roots of AVE values) is higher than the correlation values. Therefore, the model is said to have passed the discriminant validity test as performed in this study.

Hypotheses Testing and Structural Model

Hypotheses testing and the examination of the structural model were performed in this study by first examining the coefficients for each relationship in the model (path) and by determining the constructs' R-Square values. The former represents the weights of the paths that exist between 2 latent variables and the latter represents the overall size measure of the effect that one latent variable has on the other latent variables (Garson, 2016).
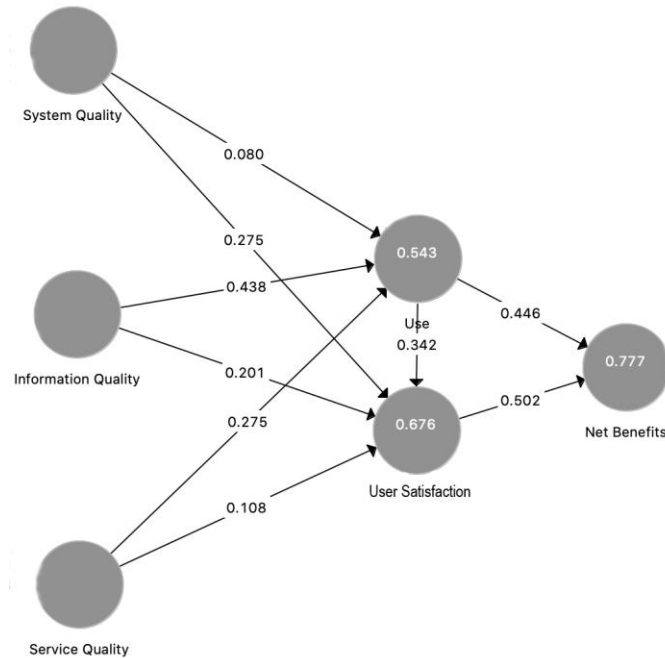

Figure 4. R-Squares and Path Coefficients

The weights closest to the absolute value of 1 manifest the strongest paths and thus, is considered to have a positive effect. On

the contrary, the weights closest to 0 represent the weakest effect and is therefore considered to have a negative effect on the subject latent variable. Figure 4 shows the R-Square values (inside the circles) and the path coefficients.

Structural Model

In Figure 4, the study has revealed that the R-Square values are all positive and these represent the positive effect of the latent variable towards the other variables in the model. Table 5 below shows the list of R-Square values.

Table 5. R-Square values representing the Structural Model.

	R Square	R Square Adjusted
Net Benefits	0.78	0.78
Use	0.54	0.54
User Satisfcation	0.68	0.67

Based on the paper of Moore, Notz & Flinger (2013), the value of R-Square represents "no or very weak effect" if it is less than 0.3. However, if the value of R-Square is higher than 0.3 but less than 0.5, then this denotes "weak/low effect" while a value that is greater than 0.5 but less than 0.7 indicates "moderate effect". Finally, a "strong effect" is manifested if the R-Square value is greater than 0.7.

In this study, the following R-Square values were established: System Use has a R-Square value of 0.54 which denotes "moderate effect", User Satisfaction has a R-Square value of 0.68 which also represents "moderate effect" and lastly, Net Benefits has a R-Square value of 0.78 which represents "strong effect". Thus, the latent variables System Quality, Information Quality and Service Quality have moderate effect on System Use (since R-Square value

is greater than 0.5 but less than 0.7). Moreover, System Quality, Information Quality and Service Quality likewise have the same moderate effect on User Satisfaction. Finally, it can be shown that System Use and User Satisfaction have strong effect on the latent variable Net Benefits (since the R-Square value is greater than 0.7).

Path Coefficients

Presented in Figure 4 is the graphical results after running the SEM using partial least squares. The analysis on the model showed that User Satisfaction has the highest effect on Net Benefits (0.5) while the effect of System Use on Net Benefits comes second (0.45). This is followed by Information Quality on System Use at 0.44, System Use on User Satisfaction at 0.34, System Quality on User Satisfaction and Service Quality on System Use are relationships that are similar at 0.28. On the other hand, Information Quality registered to have minimal effect on User Satisfaction (0.2) while Service Quality has the same minimal effect on User Satisfaction (0.11). Finally, System Quality has the least effect on System Use (0.08).

The analysis on the path coefficients showed that Information Quality and Service Quality are predictors of System Use while System Quality, Information Quality, Service Quality and System Use are all predictors of User Satisfaction. Furthermore, System Use and User Satisfaction are predictors of Net Benefits. On the other hand, only System Quality has failed to serve as predictor of System Use as the path coefficient posted only a value of 0.08 which is lower than 0.1. This analysis has established that majority of the latent variables are significant using the research model adopted in this study.

Hypotheses Testing

A confirmatory factor analysis (Jöreskog, 1969) was performed

to test the hypothesized measurement model. The standard deviation, T-statistics and P values are shown in Table 6.

Table 6. Structural Equation Modeling using Partial Least Squares.

Path	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P	Remarks
Information Quality -> Use	0.11	4.1	0.000	Supported
Information Quality -> User Satisfaction	0.09	2.18	0.030	Supported
Service Quality ->Use	0.11	2.51	0.012	Supported
Service Quality ->User Satisfaction	0.08	1.43	0.153	Not Supported
System Quality ->Use	0.12	0.69	0.491	Not Supported
System Quality ->User Satisfaction	0.09	3.07	0.002	Supported
Use -> Net Benefits	0.07	6.72	0.000	Supported
Use -> User Satisfaction	0.09	3.87	0.000	Supported
User Satisfaction -> Net benefits	0.07	7.55	0.000	Supported

By employing the 2-tailed t-test with 5% significance level, the t-statistics is examined and if the value is greater than 1.96 said path coefficient is considered significant (Wong, 2013). The analysis of the values presented in Table 6 revealed that 7 out of 9 hypotheses are supported while 2 of the hypotheses are not supported. Thus, the relationships that are found to be supported are as follows: Information Quality -> Use, Information Quality->User Satisfaction, Service Quality->Use, System Quality->User Satisfaction, System Use->Net Benefits, System Use->User Satisfaction and User Satisfaction->Net Benefits. On the contrary, the relationships Service Quality->User Satisfaction and System Quality->System User are not significant.

DISCUSSION

This paper aims to establish the factors that affect the net benefits of human resource information systems (HRIS) in the business process outsourcing (BPO) industry in the Philippines. It is evident from the results of this study that many of the latent variables in the model have a direct effect on the net benefits that organizations derive from HRIS. Research data have also revealed that Service Quality is not a factor that impacts User Satisfaction neither does System Quality affects Use. It is noteworthy that 9 of the 11 hypothesized premises were supported by the results of this study and the DeLone and McLean (D&M) model has been validated in this research.

In this study, it was shown that several factors influence the delivery of efficient HRIS services to workers in the BPO companies in the country. The net benefits that HRIS delivers to organizations can only be realized if the system, information and services quality are fully experienced by workers in the BPO industry. User satisfaction delivers more importance than system use in so far as realizing the net benefits of HRIS. In turn, managers and HRIS implementers must recognize that workers put value on the quality of information that HRIS delivers as well as the quality of the system. These are factors that positively affects the satisfaction of users which in turn, increases the net benefits of HRIS. These findings were affirmed by the studies of Ojo (2017) and Kerta & Suryawan (2013). The study showed the success of HRIS in the country's BPO industry and there is little doubt that the importance of HRIS to business organizations will continue to be recognized as an effective tool that can empower the workforce and its use can strengthen and sustain business competitiveness.

CONCLUSION

This paper has achieved the objectives of the research as it was able to determine the factors that influence the net benefits of HRIS and rank these factors according to its impact on net benefits. By analyzing the data collected from various employees in the country's BPO industry, this study has established the relationships of system quality, information quality and service quality to system use. Similarly, the study has determined the relationships of system use and user satisfaction to HRIS net benefits. Moreover, the updated DeLone and McLean IS Model has been validated in establishing the success of HRIS in the BPO industry. The efficiency of HRIS was shown by the positive influence of system use and user satisfaction on net benefits.

Cognizant of the results of this study, it is clear that the quality of the information, service and the system itself are all contributory to the net benefits that HRIS delivers to workers. The effectiveness of HRIS in the organization particularly in the BPO industry can be addressed by closely looking into the study results and introducing measures that can enhance the net benefits of HRIS and make it fully responsive to the needs of the HR practitioners.

HR managers together with HRIS implementers/designers can identify and create HRIS functions and features that will increase the quality of HRIS (in terms of system quality, information quality and service quality) and strengthen HRIS so it can support HR planning and governance.

Further studies can be made to cover the other industries in the country and similarly, research works can be carried out to include other vital information systems that are prevalently used in various business organizations such as financial information and management systems (FMIS), customer relationship management

(CRM) systems and executive information systems (EIS), among others. Alternatively, other factors that affect the efficiency of employees in workplaces can also be explored to generate ideas, insights and recommendations that are crucial to bringing success to businesses and work organizations.

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