An Analysis of Information system based Organizational learning in Banking Sector: A Case Study of Allied Bank Limited in Pakistan

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ABSTRACT

Due to rapid and unexpected development in Information technology, information system based Organizational learning is gaining popularity at individual and organizational level is developing. It is one of the cost effective, efficient, productive, flexible, convenient and personal methods of learning. The study was based on Information System Success Model and assessed employee's overall performance in Allied Bank Limited (ABL). Data from three hundred and eighty employees of ABL was gathered who used information system based Organizational learning systems at their workplace and then analyzed the gathered data with Partial Least Square (PLS). Results indicated that information quality was in accordance with their perception and users are more satisfied with the quality of information. The significant relationship between perceived quality, system quality and user satisfaction influence the adoption of an information system based Organizational learning system. And In the case of system adoption, this behavioral intention is claimed to be a powerful determinant.

Keywords: Information system, organizational learning, Information System Success (ISS) model, Partial Least Square (PLS), Average Variance Extracted (AVE)

INTRODUCTION

Information system based Organizational learning is a networked and interactive mean of learning and training over distributive technologies (Epignosis LLC, 2014; Ghirardini, 2011). it is based on range of instructional and pedagogical hardware and software which include but not limited to text, audio, video, images, animation, simulation, satellite technologies, TV, CD/DVD and other web-based technologies. It goes beyond traditional learning environment, timing, boundaries and limitation and can occur everywhere, every time, totally at the disposal of learner. (Epignosis LLC, 2014; Ghirardini, 2011; Noesgaard & Ørngreen, 2015). In a competitive and time-constrained environment information system based Organizational learning remain flexible and adoptable option with a learner to get and share learning and training to develop human skills and turn them into an asset. It is equally applicable to the new and expert learner, at individual and organizational level (Samarasinghe, 2012). It is more flexible, independent, learner-centered, personal and different from traditional learning. (Ghirardini, 2011).Most of the organizations due to cost-effectiveness and efficiency prefer information system based Organizational learning for their employees and to develop their domain needed skills. Information System Success (ISS) Model combine both human and

information system by providing theoretical base and investigate worker's learning from information system based Organizational learning system (DeLone & McLean, 2002; Petter, DeLone, & McLean, 2008). In this study ISS was used to check and measure employees' performance and productivity in the banking system of Pakistan. The focus of the study was to find out significance of information system based Organizational learning in banking sector and determine its impact on employees' overall job performance with the help of information systems success model (ISS) in Allied Bank Limited (ABL) in Pakistan.

PROBLEM STATEMENT

Organizations are losing learning habits while breathing in knowledge economy and information technology age (Packirisamy, Meenakshy, & Jagannathan, 2017; Cooperrider & Srivastva, 2017). Research confirms that organizations are failing in achieving their set targets and objectives, loosing market, money and customers and even their existence due to lake of continuous improvement and learning (Apontea & Zapata, 2013). All these have resulted in losses of key knowledge workers, losses of money and competencies (Gino & Staats, 2015). To be successful and highly competitive, most organizations recognize their need for continuous updating of human resources to gain competitive advantage. To maintain competitive edge organizations, need to have employees that can keep track of fast changing and vast amount of available knowledge. Information Based learning and training plays a vital role to promote knowledge within the organizations. Therefore, Researcher suggests that with the help of information system suggest that organizational learning dilemma can be betterly tackled via appropriate use of information and communication technologies (Argote, 2013; Belle, 2016; Alhabeeb & Rowley, 2017).

OBJECTIVES

Main objectives of the study the impact of Information based learning and training on employee's performance at different management levels in terms of their job competency, satisfaction, attitude, self-growth, perceived usefulness of the information based learning system and the level of motivation and acceptance in the employees. It also studied the relationship of employee's perception and usefulness of information based system.

LITERATURE BACKGROUND

First time information system based Organizational learning were initiated and implemented by University of Illinois in Chicago in 1960's (Belle, 2016). They linked classroom activities on computer networked for specific courses. In 1970s and 1980s New Jersey Institute of Technology USA and in mid 1980s University of Guelph in Canada developed computer based courses and upload reading and training materials (Nicholson, 2007). In 1993, Garside portrayed an online framework conveyed address; lesson and assessment extend by methods for email. By 1994, CALCampus exhibited its first online educational programs as Internet ending up plainly more open through real media communications frameworks (Arkorful & Abaidoo, 2014). CALCampus is the place where online-based school initially began which permitted the advance of continuous classroom guidelines. The Open University in Britain and the University of British Columbia started an upheaval of utilizing the Internet to pass on learning, fabricating overwhelming utilization of electronic preparing and online separation learning and talks between understudies. Harari (1995) and Garside (1997) put overwhelming accentuation on the utilization of learning systems and portrayed criteria for assessing items and creating innovation based courses incorporate sensible, replicable, versatile, economical, and having a high prospect of long haul cost-adequacy (Kidd, 2010).

INFORMATION SYSTEM BASED ORGANIZATIONAL LEARNING SYSTEM AS A TOOL FOR EMPLOYEES' TRAINING

In this competitive working environment, all organizations particularly banking sector strives to improve their edge in the market. The demands of the skills and knowledge is changing rapidly, therefore every organization was to develop their human assets to make organization robust (Zimková, 2006). Today's industry is breathing in information age, which make it incumbent to get and processes information in the right way, at a right stage and in aright quantity. And continuous learning can bring sustainability and maintainability in the 21 centuries, otherwise it will be an uphill task to sustain service sector industry without right information and skilled full workers. During the last century, we have moved from the industrial age to information age and now, to the knowledge age. And these learning can be done in the best possible way in this busy world with the help of information technology and information system based Organizational learning is a best tool for it. There are number of factors pushes workers towards information system based Organizational learning system. The information system based Organizational learning environment needs to more conducive to learning. Availability of the required resources, facilities, highly friendly and less threatening environment and other supporting materials should provide for the best occurring of training and teaching. Planning for information system based Organizational learning should be sound to overcome all possible hurdles and barriers. Motivation and support from the top management, back up from the company and all other social, moral and ethical support are needed for the information system based Organizational learning and training as in conventional training system. (Olson, et al., 2011).

With the emergence of information technology, many of the organizations are shifting their learning and training system on it because of its suitability. It is cost effectiveness, beyond the limits of timing and boundaries and can be repeated many times. (A. S. Sife & Sanga, 2007). Organization should be more cost effective, for this task information system based Organizational learning successfully breaks restrictions of time and space. It also creates benefits including reduced costs, strict compliance, fulfilling business requirements, retraining of employees, low recurring costs, and customer-support expenses (Caudill, 2015). Employees are remaining at their ease because they can better judge and evaluate their selves, know their needs and deficiencies and according adjust their selves to the training modules. One other major factor is of independence, that a learner is free to get training and lesson at their disposals. Some-times motivation factor may arise during information system based Organizational learning but it can be overcome with the availability of motivated leadership and trained staff. And with the help of information system based Organizational learning workers expect a lot. They expect better knowledge and skills acquisition, increase in performance and to cover up the gaps between their deficiencies and organizational demand. (Epignosis LLC, 2014; Overton & Hills, 2010). Other-wise it may lead towards conflict, if it is not betterly configured with the individual needs and organizational objectives (Arkorful & Abaidoo, 2014).

INFORMATION SYSTEM SUCCESS MODEL

The model deciphers that, system quality and data quality uniquely and together influence both user and client fulfillment. Framework utilize can adjust the level of client fulfillment decidedly or adversely and the other way around will likewise be valid. Utilize and client fulfillment are immediate antecedent of individual effect and ultimately this effect on individual execution ought to in the end have some hierarchical effect (DeLone & McLean, 2002).

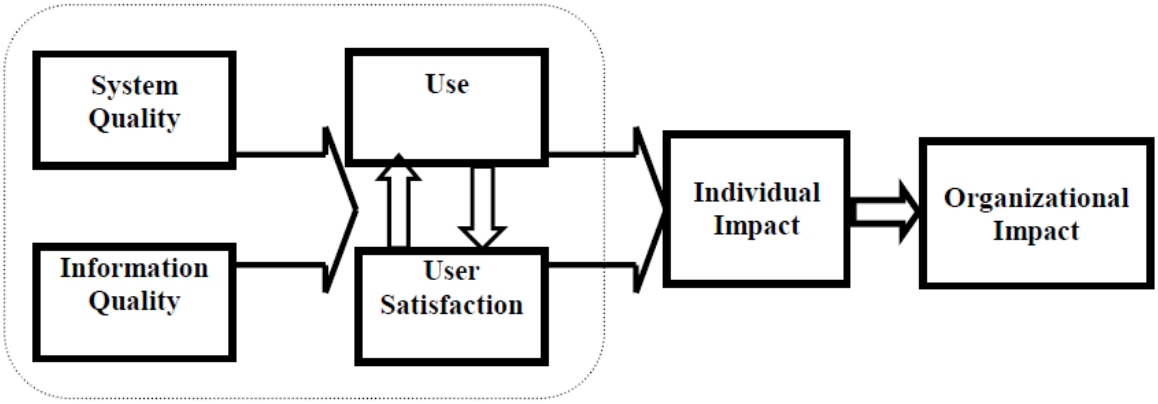

Figure 1: Source: (DeLone & McLean, 2002)

Ten years later, they proposed an updated IS success model recognizing ecommerce atmosphere, and the essential composition is very similar to that of its actual model (DeLone & McLean, 2002). Though, to clarify the collective process and causal explanations of the IS success model proposed another adaptation of the model. He obtained part of the model into the procedure and variance model, the partial behavioral model of IS use and the IS success model and then connected the two models with a construct i.e. the individual, organization, and societal consequences of IS use.

PARTIAL BEHAVIORAL MODEL OF IS USE

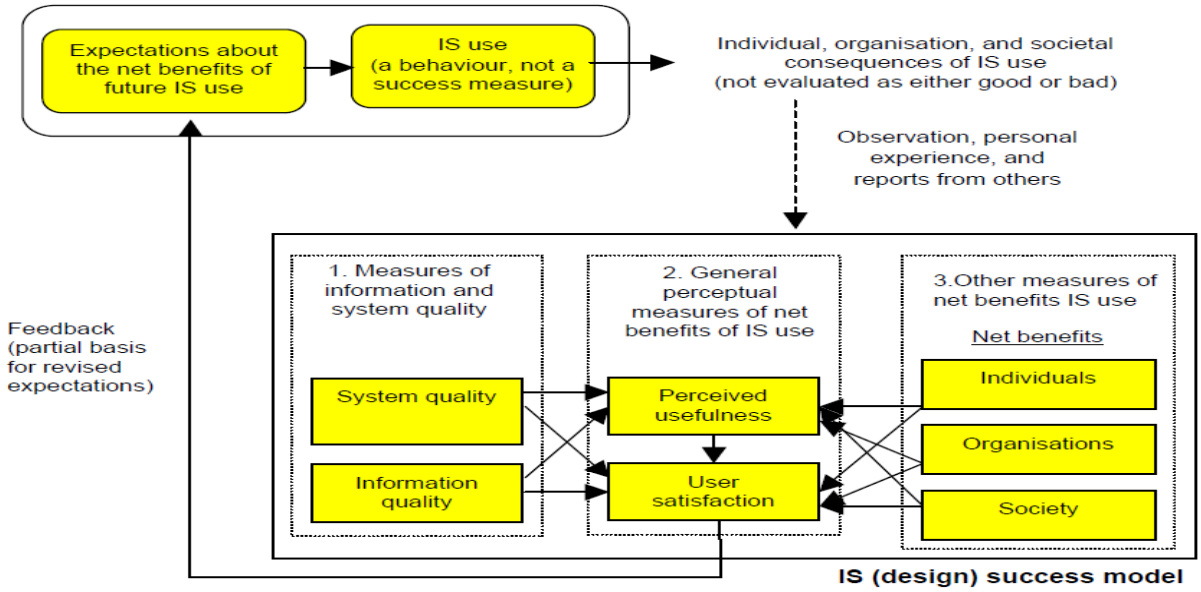

Figure 2: The re-specified IS success model of Seddon (1997)

The revised IS success model by Seddon explains the connection between the process and variance models in the original IS success model, but still it replicates the significant values of the original model by and add new values like perceived usefulness, reflecting users' supposed influential value of information systems, and shows the possibility of other constructs to improve the use of the system through perceived usefulness and user satisfaction (DeLone & McLean, 2002). "Service Quality" was added as a new dimension of the model due to its applications in business and commerce field shown in the following figure (Delone & Mclean, 2003). This model includes both human and technological prospective, cater for human motivation, independent learning and organizational objectives.

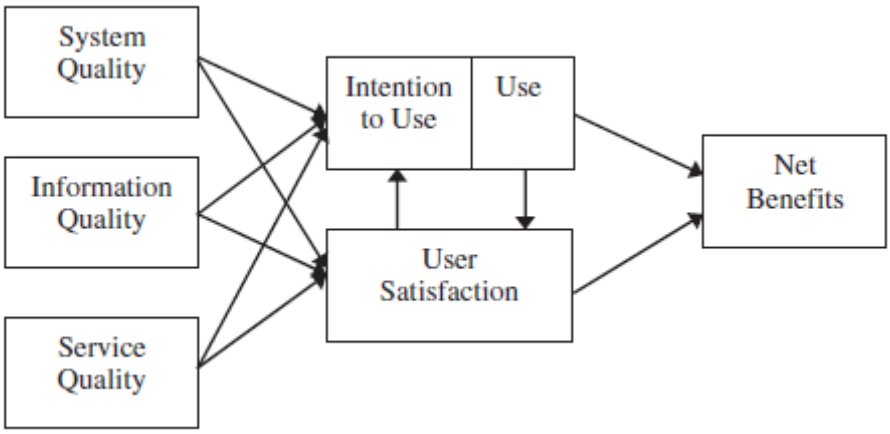

Figure 3: Updated **(Delone & Mclean, 2003)**ISS model (2003)

THE IMPORTANCE OF LEARNING MOTIVATION IN EMPLOYEES' INFORMATION SYSTEM

Motivation determines human roused needs that drive people to act, keeping in mind the end goal to address those issues. It additionally uncovers an individual anticipated an incentive for a movement i.e. higher the anticipated esteem is more grounded the degree that prerequisites can be met by playing out that action. Learning motivation additionally drives a grown-up's deliberate learning and dynamic support in learning/preparing exercises (Caudill, 2015).

In working environments, information system based Organizational learning frameworks are relied upon to give general standards to match representatives' internal mental structure for preparing. Workers can then utilize the information system based Organizational learning frameworks to learn self-management and furthermore to settle on when to utilize them to finish their learning goals. When they offer significance to the encounters, their inward passionate structure changes and learning happens. Therefore, if representatives are prepared to acknowledge frameworks and take responsibility of their trainings, the adjustment in their inward mental structure helps their preparation/learning. Considering the data framework achievement show this review means to clear up the effect of information system based Organizational learning on representatives' employment execution.

RESEARCH HYPOTHESIS

Usually information based systems incorporate quite a few system boundaries, including: electronic blackboard, slides of course content, the sound of the instructor's course presentation etc. By sitting at computers or other electronic devices and studying through these systems, users learn and get training information by themselves. Since the learning process is free of additional personnel therefore system quality and information quality are very important to users, because good system quality assists learning by reducing conflict to the systems and good information quality allows for better understanding of course content. They both increase perceived system usefulness and user satisfaction of users (Chen, 2010). From the socio-technical viewpoint, both the technological dimensions (system quality and information quality) and the human dimensions (such as perceptions of usefulness and user satisfaction)

should be captured in the IS success model (Wu & Wang, 2006). Hence, based on the re-specified IS success model (Seddon, 1997; Wu & Wang, 2006), the following hypotheses for the study is proposed.

H1: Employees' perception of information quality is associated with their perceived usefulness of information system based Organizational learning systems.

H2: Employees' perception of information quality is associated with their user satisfaction with information system based Organizational learning systems.

H3: Employees' perception of system quality is associated with their perceived usefulness of information system based Organizational learning systems.

H4: Employees' perception of system quality is associated with their user satisfaction of information system based Organizational learning systems.

H5: Employees' perceived usefulness is associated with their user satisfaction of information system based Organizational learning systems.

H6: Employees' perceived usefulness of information system based Organizational learning systems and their use are significantly interrelated.

H7: Employees' user satisfaction of information system based Organizational learning and their use are significantly interrelated.

H8: Information system based Organizational learning system use of employees is positively associated with their overall job performance.

H9: Employees' learning motivation is positively associated with their perceived usefulness of information system based Organizational learning systems.

H10: Employees' learning motivation is positively associated with their user satisfaction of information system based Organizational learning systems.

H11: Employees' learning motivation is positively associated with their use of information system based Organizational learning systems.

The conceptual research model for this study is shown in Fig. 4.

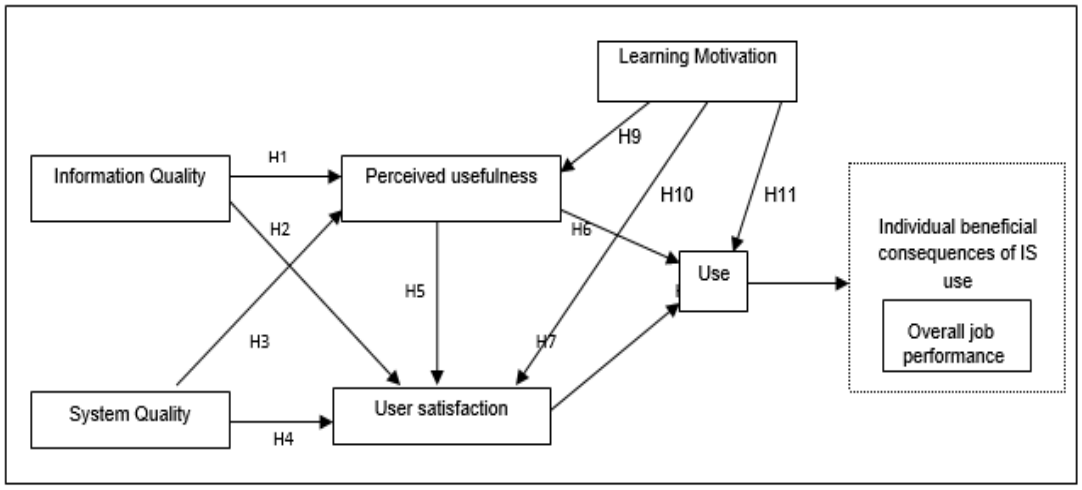

Figure 4: Conceptual Framework

RESEARCH METHODOLOGY

The study is based on the primary data collected from the officer cadre employees who have access to the online information system based Organizational learning portal of Allied Bank Limited (ABL). Variables included for the present study are information quality, system quality, perceived usefulness, user satisfaction, system use, learning motivation and job performance. All construct measures and operational definitions were based on already available literature. All the aspects were reported by employees using a seven-point Likert scales ranging from (1) strongly disagree to (7) strongly agree.

DATA COLLECTION

Online questionnaire was used to collect data from the. All the officer cadre employees are valid respondents as the entire employees of ABL have attempted online compulsory quiz which indicate that all the respondents, used information system based Organizational learning systems and were valid respondents. A total of three hundred and eighty-five questionnaires were collected. Among them, five questionnaires were left due to the incomplete responses. Sample size is at 95% confidence level with having confidence interval at 5 indicates 369 desired sample sizes (www.surveysystem.com). The online questionnaire response of 380 is well above the required sample size which is a true representative of total population (Ottawa, 2010; Ramayah & Lee, 2012).

Table 1: Demographics of the study

Demographics		Frequency	Percent
Gender	Male	317	83.42%
	Female	63	16.58%
Age	Below 30 years old	157	41.32%
	Between 30 to 39 years old	112	29.47%
	Between 40 to 49 years old	84	22.11%

	Over 50 years old	27	0.07%
Educational Background	High School	12	0.03%
	Bachelor	119	0.31%
	Master	172	0.45%
	MPhil/MS	74	0.19%
	PhD	03	0.01%
Years of computer use	Below 1 year	19	0.05%
	1 to 3 years	37	0.09%
	3 to 5 years	145	0.38%
	5 to 7 years	85	0.22%
	7 to 10 years	50	0.13%
	Over 10 years	44	0.11%
Organizational position	Senior Management	54	0.14%
	Middle Management	130	0.34%
	Junior Management	196	0.52%
Years of experience	below 1 year	48	0.13%
	1 to 3 years	107	0.28%
	3 to 6 years	124	0.33%
	6 to 9 years	52	0.14%
	over 9 years	49	0.13%

Table 1: Descriptive statistics of the demographics (N=Number of respondents)

The frequent standard of usage of information system based Organizational learning systems by users is five (5.67) on a 7-point Likert scale as shown from in (Table 2). The outcomes demonstrate that these respondents were involved in utilizing information system based Organizational learning frameworks in work environments and were legitimate respondents for this review.

Table 2: Workers' use of information system based Organizational learning systems

Response	Frequency	Percent
1.Strongly Disagree	08	2.11%
2.Disagree	17	4.47%
3.Slightly Disagree	35	9.21%
4.Neutral	68	17.89%
5.Slightly Agree	117	30.79%
6.Agree	92	24.21%
7.Strongly Agree	43	11.32%

7-point Likert scale; N=380)

DATA ANALYSIS

A total of three hundred and eighty were valid respondents. Having a limited sample size, the study used SmartPLS 2.0for data examination. The dimension and structural models both were evaluated and each construct is modeled to be included in the data analysis. Including a limited sample size, PLS (Partial Least Square) is adopted for data analysis as it is less demanding on sample size. The sample size of this study is three hundred and eighty and the largest path number of the model is eleven. Therefore, it is satisfactory to adopt PLS for data analysis for the present study. The dimension and structural models were both calculated and each construct was modeled to be reflective in data analysis.

MEASUREMENT VALIDITY

Construct convergent and discriminate validity were both provided to authenticate the construct measures (Komiak & Benbasat, 2006). The underlying factor structure was also justified.

CONVERGENT VALIDITY

Convergent validity describes the stability with which numerous items calculate the same variable. Unidimensionality, the average variance extracted (AVE), and the composite reliability (CR) are sufficient indicators in accepting convergent validity of measurements (Steenkamp & Van Trijp, 1991). Table 3: Average variance extracted (AVE), composite reliability (CR), Cronbach Alpha and factor loading/weight of construct measurement.

Table. 3: AVE, CR and Alpha for the Construct

Constructs		AVE	CR	Alpha	IQ	SQ	PU	US	LM	U	JP	t-values
Information Quality	IQ 1	0.78	0.84	0.76	**0.95**							48.04
	IQ 2				**0.92**							20.83
	IQ 3				**0.88**							25.03
	IQ 4				**0.84**							16.94
	IQ 5				**0.94**							38.99
System Quality	SQ 1	0.82	0.84	0.75		**0.81**						12.26
	SQ 2					**0.82**						12.12
	SQ 3					**0.91**						47.95
	SQ 4					**0.83**						28.23
	SQ 5					**0.81**						16.85
Perceived Usefulness	PU 1	0.90	0.97	0.97			**0.94**					31.77
	PU 2						**0.96**					34.42
	PU 3						**0.95**					42.27

	PU 4						**0.94**					32.97
	PU 5						**0.96**					34.42
	US 1	0.75	0.88	0.82				**0.92**				27.73
User Satisfaction	US 2							**0.90**				18.35
	US 3							**0.88**				24.24
	US 4							**0.94**				22.35
	US 5							**0.89**				27.85
	LM 1	0.69	0.86	0.76					**0.94**			34.35
Learning Motivation	LM 2								**0.92**			27.53
	LM 3								**0.91**			18.75
	LM 4								**0.94**			47.62
	U 1	0.73	0.87	0.81						**0.94**		59.11
Use	U 2									**0.77**		51.21
	U 3									**0.83**		76.17
	U 4									**0.79**		88.93
	U 5									**0.95**		69.60
	JP 1	0.68	0.81	0.76							**0.75**	22.40
Job Performance	JP 2										**0.78**	46.19
	JP 3										**0.86**	35.34
	JP 4										**0.81**	71.08
	JP 5										**0.74**	41.77

Regarding Unidimensionality, factor loading (>0.5) and t-value (>1.96) of items were both essential. The results of factor loading, AVE, CR and Cronbach alpha, are also provided in table 3. The results indicated that all the constructs had AVE values greater than 0.5, and all CR values were higher than 0.7 (Chin, 1998; Hair *et.al.*, 2003). All question items had adequate loadings (>0.5) and t-value (>1.96) as shown in table 3 and showed the commonly acceptable convergent validity of the measurements.

DISCRIMINANT VALIDITY

In validating discriminant validity, the correlation between constructs must be lower in comparison with their own extracted variance. The average variance extracted (AVE) and cross loading could be implemented to understand discriminant validity (Kerlinger & Lee, 2000). Also, the correlation between various constructs should be lower than the square root of the variance extracted from the individual construct (Chin, 1998). In addition, the factor loadings of the same construct should also be higher than those of different constructs (Chin, 1998). For all the constructs the square root of AVEs was higher than the correlation coefficients of other

constructs. The results of the (AVE) are shown in table 3. Besides this every item loaded greater on its principal construct than on the other constructs. Overall the results indicated good measurement properties for all the constructs.

CRONBACH ALPHA

Cronbach α (alpha), a coefficient of reliability commonly used as a measure of the internal consistency or reliability of a score, were applied to examine to internal consistency or average correlation of items in a survey instrument and to gauge its reliability. The results in table 3 indicated that all the constructs Cronbach alpha values were higher than 0.7 which validate the reliability of all the measurements.

Table 4: Construct correlations and square root of average variance extract (AVE)

Constructs	IQ	SQ	PU	US	LM	U	JP
IQ	1a						
SQ	0.734	1a					
PU	0.753	0.638	1a				
US	0.818	0.742	0.889	1a			
LM	0.632	0.505	0.795	0.703	1a		
U	0.748	0.815	0.687	0.855	0.526	1a	
JP	0.552	0.447	0.346	0.453	0.299	0.406	1a

a: indicates the square root of average variance extracted (AVE) of the construct.

PATH ANALYSIS

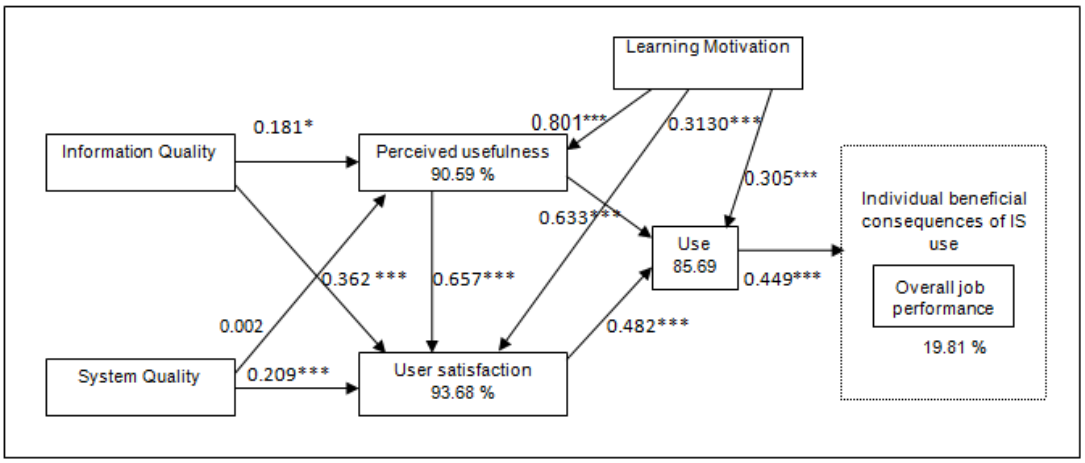

Figure 5: PLS Results

*** |t|>1.96, p<0.05; ** |t| >2.58, p<0.01; ***: |t|>3.29, p<0.001**

HYPOTHESIS TESTING RESULTS

After having appropriate convergent and discriminant validity, the hypotheses for the study were empirically tested. The results of the *SmartPLS* analysis are shown in Figure 5. The results of this study depicted that excluding H3, all other hypotheses were accepted. The results also showed that employees' use of information based systems had a significantly positive impact on their overall job performance so H8 was accepted. The result indicated that employees gained individual beneficial consequences while using information based system to execute their jobs. Further to this perceived usefulness and user satisfaction of information based system showed significant influence on system usage, while perceived usefulness had significant impact on user satisfaction. Therefore, H5, H6 and H7 were accepted. Moreover, learning motivation was shown to have a significant impact not only on perceived usefulness and user satisfaction but also on use of system so, H9, H10, and H11 were also accepted. The results also depicted that, perceived information quality has influenced perceived usefulness and user satisfaction of information based system so H1 and H2 were accepted. Result also showed that system quality and user satisfaction were associated with each other positively, while perceived usefulness was not influenced by the system quality thus, H4 was accepted but H3 was rejected. Another reason behind the rejection of H3 was that, the information based system was newly adopted by ABL so the quality of systems as expected by the employees is not as per their expectations. H5 was accepted as user satisfaction was associated with perceived usefulness of information based system. The results of the study validate the influence of other net benefits information system success (ISS) model. Results clearly showed that the learning motivation is what organization wanted, to enhance their employees' overall job performance. The validation signified the association of information based systems with organizational objectives as indicated by employees' overall job performance.

DISCUSSION

The information based system is designed for learning/training, and training progress will not possible if users were not motivated to use the systems. The results showed significant positive relationship of employees' perception of information and system quality with their perceived motivation for the use of information based systems perceived usefulness and user satisfaction had a significant impact on the motivational level of employees. This showed the importance of human dimensions for employees' use of information based systems. Based on the IS success model, the study makes an empirical connection between the information based system use among employees and perceived beneficial consequences of information system use in terms of overall job performance. The results indicated a valid link between information based system use and employees overall job performance. The results also indicate employees' gaining of knowledge, skills and work attitudes through information based systems use. The information based system is linked with training transfer, which facilitates overall job performance and employee satisfaction. The information based systems are designed to implement the process of online learning. In the virtual learning context, the results show that users gain from the use of information based systems. Use of information based system among employees facilitate them to transfer their acquired knowledge, skills and work attitudes from the training period to their jobs which helps in problem solving and enhancing overall job performance. The results of this study are in line with the IS success model: users gain beneficial results from information systems use (DeLone & McLean, 1992, 2003). The results clarify the objective of organizations' investment in employee information based training that is the implementation of information based system at workplace and enhance their overall job performance.

COMPARISON WITH THE PREVIOUS STUDIES

S. No	Hypothesis	Accepted /Rejected	Literature support
1	Employees' perception of information quality is associated with their perceived usefulness of information system based.	Accepted	(Arkorful & Abaidoo, 2014)
2	Organizational learning systems. Employees' perception of information quality is associated with their user satisfaction with information system based Organizational learning systems.	Accepted	(Coetzer, Kock, & Wallo, 2017)
3	Employees' perception of system quality is associated with their perceived usefulness of information system based Organizational learning systems.	Rejected	(Luciana, 2015)
4	Employees' perception of system quality is associated with their user satisfaction of information system based Organizational learning systems.	Accepted	(Petter, DeLone, & McLean, 2008)
5	Employees' perceived usefulness is associated with their user satisfaction of information system based Organizational learning systems.	Accepted	(Arkorful & Abaidoo, 2014)
6	Employees' perceived usefulness of information system based Organizational learning systems and their use are significantly interrelated.	Accepted	(Arkorful & Abaidoo, 2014; Luciana, 2015)
7	Employees' user satisfaction of information system based Organizational learning and their use are significantly interrelated.	Accepted	(Noesgaard & Ørngreen, 2015)
8	Information system based Organizational learning system use of employees is positively associated with their overall job performance.	Accepted	(Apontea & Zapata, 2013)
9	Employees' learning motivation is positively associated with their perceived usefulness of information system based Organizational learning systems.	Accepted	(Sanderson, 2012)
10	Employees' learning motivation is positively associated with their user satisfaction of information system based Organizational learning systems.	Accepted	(Boxall & Purcell, 2016)
11	Employees' learning motivation is positively associated with their use of information system based Organizational learning systems.	Accepted	(Zimková, 2006)

CONCLUSION

Employee's perception of information quality is associated with their user satisfaction. Results indicated that information quality was in accordance with their perception and users are more satisfied with the quality of information. The significant relationship between perceived quality, system quality and user satisfaction influence the adoption of an information based system. According to the previous research, this study shows that perceived usefulness is affected by external variables, such as system characteristics. Result showed that, system quality against perceived usefulness is insignificant due to the reason that, employees are expecting much better quality of technological supportive systems availability but actual position was not according to their expectations on the other hand system quality is significantly associated with the user satisfaction which shows that users are fairly satisfied with the system quality. In the case of system adoption, this behavioral intention is claimed to be a powerful determinant.

Information based systems were adopted for learning/training, and transfer will not take place until and unless users were not motivated to use the information based system at their workplaces. The results depicted the considerable positive connection of employees' perception of information quality and system quality with their perceived motivation for their use of information based systems, for their perceived usefulness and user satisfaction that motivated them. In this era of high competition, it is very important to create learning/training environment for employees' adaptation or use of information based systems was imperative to organizations which have adopted information based systems for human resources management. The results indicated that employees' use of information based systems improved their overall job performance. The employees also gained beneficial consequences through information based system and transferred what they get through their training to their tasks.

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