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TESTING THE IMPACT OF MOBILE BANKING ON INDIVIDUAL PERFORMANCE USING DeLONE & McLEAN AND TTF MODELS

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Abstract:

Mobile banking along with the time span becoming the face of E-commerce. Researchers are getting interested in Mobile banking to explore the recent trends in E-Commerce. Most recent interest in M-banking is user satisfaction, Performance, use. This study proposes the models of DeLone & McLean IS success model and the Task-Technology Fit (TTF) to illustrate the actual impact upon individual performance. Online survey through a developed questionnaire used. 404 valid responses become the base to conduct the analysis. The study reveals that Use, User satisfaction and the moderating effect of TTF along with usage to individual performance remained effective. Study entails the particle and theoretical implications.

Keywords: Mobile Banking, DeLone & McLean model, Task-Technology Fit model, individual performance.

Introduction

Mobile banking is also known as electronic banking or SMS banking. The European company called pay box supported financially by (Deutsche bank), in 1999 started mobile banking. The mobile banking system has the plentiful key in every society's awareness. Mobile banking has been user's extensive copious influenced by online service transfer money, transfer records, balance inquiry, by CNIC, by name, and account statement view supervised checks through the online straightforward advance way. The design of this study is m-banking on individual performance are estimation in Pakistan's economy. Goodhue & Thompson (1995) evaluated the success of the develop determinants like a task, individual social, project, and organization personality on individual performance. M-banking is easier than other banking systems because of the reasons of avoiding long queues at the eve of any event at any other banking system, to save time and energy of individuals, this will help the operated by the help of the clicking buttons. Its constructive role exceptional effect the workload, on workers and ensure control over frauds resembling fights, misconducts. Whereas stunning, and fascinating access to information, the productivity of customers along with time-saving, user satisfaction, technophiles which illustrate the tracker creativity, according to customers attraction, design software, interest, convince, daytime salary, deposit, and withdrawal the money is mentioned, there is dramatic rise their performance. Corresponding, awareness own accounts all perquisites should be specifically full fill before starting the implication process. This association maintain, enhance the payments happening a row in 2008 technical expertise (IT) along with budgets keep on to grow,(kanaracus,2008). However, Organization used IS at the same time as choice hold up systems, and researcher also have the recommended and additional replica in D&M model. To there the updated D&M be success model, we arrangement this chapter at the same time as

follows the after that representation must be a part of a widespread compendium of this theory in (Delone & McLean, 2003). On the other hand, Problem identification is to determine the specific reasons to identify this innovated system has own drawback in our civilization which is mentioned below. We were still a deal of wastage of time.

The globalization singularity has augmented the communication of folks for their common profits and the expedition for healthier living standards (Hassan, Abbas, & Zainab, 2018). Sharia selection process in a nation similar Pakistan having resemblances and differences with other counties (Waris, Hassan, Abbas, Mohsin, & Waqar, 2018). Financial Shortfall has broadened the prominence of equity capital floating (Asif, Abbas, & Hassan, 2018). According to Abbas et al. (2018), to encounter the growing monetary challenges in the recent atmosphere, credit risk examination along with transformation of current practices and development of actions have become essential for persistent progress. Intellectual Capital is one of the key elements of financial performance of banking sector of Pakistan (Shehzadi, Abbas, & Hassan, 2018).

Economic development has seen different phases in which, Developing country like Pakistan is being engaged in the formulation of different tools to boost the economy (Hassan, Abbas, & Shehzadi, 2008). Even investment avenues which pool the short investment and makes an idle sector of economy active are becoming part of the economy of Pakistan (Abbas S. , 2017).

The definition also referred to the knowledge management process is intellectual capital. Abbas et al. (2018), validated through their research findings that cognitive, emotional and behavioral determinants affect consumer approach. The induction of innovation in the current practices surely helps to achieve competitive advantage (Abbas S. K., Hassan, Asif, Junaid, & Zainab, 2018); (Abbas S. , Hassan, Iftikhar, & Waris, 2018) & (Abbas S. , et al., 2018). Furthermore, the low-income level has become the reason to develop the importance of intellectual capital,

especially in underdeveloped nations (Abbas S. K., Hassan, Asif, & Zainab, 2018). It also has seen that Human capital relationship with organization performance is not only the key determinants of performance. As, Quality Education in Pakistan has become a challenging part ever (Maryam, Amen, Safdar, Shehzadi, & Abbas, 2018) . So, Human Capital impacts but not much significant. Moreover, Information sharing effects broadly to employees working behavior (Hassan, Asif, Waqar, Khalid, & Abbas, 2018) and employee engagement based on services environment of an organization (Hassan et al., 2018). It has seen that green consumption is much important now in Pakistan (Hassan H. , Abbas, Zainab, Waqar, & Hashmi, 2018). By attending bank visits, we may be able to check our accounts information as well as to draw the amount with the help of clicking the buttons. To avoid wastage of time in the shape of queues making in case of the rush of individuals on any eve, as well as salary days. No other competent were addressed so there comes the need of banking in hand. Research questions: The main question of the study is: What is the impact of mobile banking on the performance of individuals?

The objective of the study:

So far as this study is to investigate the mobile banking on individual performances have an objective on following reasons in shape of research questions about the economy of Pakistan and how to the newness and introduces impacted of mobile banking

- (1)To analyze the factors which control the mobile-banking utilize for individual performances on the customer? (2)To identify the outcome determine the TTF on available for individual performance? (3)TTF examine that moderate the make use and user satisfaction on the individual performance? (4)Has TTF direct effect on the performance of the individual customers?

Importance of this study have different banks depicts out that online mobile banking system excellent escalates the innovations of workers along with the effort on the foundation of m-banking individual performance for Sonnentage finished, and Sonnentag & Frese (2002) complete the peak level of performance, exclusive point of the M-banking setting (Venkatesh, Thong, & Xu, 2012) balance enquiry, blocking card bill payment, shopping ability, stock market status enquiry. Financial service (Shaikh & Karjaluoto, 2015) m-banking for users approach transfer fund, records of financial service at any time in a week. The overall study consists of significance for following categories. (1)Benefit for individuals, (2) Benefit for Banks, (3) Benefit for Economy of the country,(4)Benefit for User,(5)Benefit for such Students who are interesting to study mobile banking. What are the Variables? There are following dependent, and independent variables will be used in this study. Dependent variables, Individual performance are the dependent variables and Independent variables. Service quality, Technology characteristics, task characteristics, task-technology fit, use, system quality, user satisfaction, information quality, individual are independent variables of this study. The purpose of this work to the inspection was to estimate the electronic banking on the individual performance of Pakistan's thrift. The population is estimated at 50to 60 individual through online questionnaires and personal interview. The grow area we highlighted to contribute that all the researcher has missed that people who are in rural area have no access because of lack of awareness and due to uneducated.

Literature review

Literature review said that many researchers researched the act of individuals following adoption of mobile banking. Many researchers defined Mobile banking according to their attention. Mobile banking is to be a purpose or operation provides the customer's lot of help to control their

bank account at any place at any time using the mobile device through messages. Mobile banking saves the time of the user's, and they can check their bank account balance at any time, and transfer amount to another accounts a few time in any position. Mobile banking is very popular in developing countries as compared to under developing countries. M-banking is very popular in developed countries (Yu , 2009). According to the (Shaikh & Karjaluoto, 2015) mobile banking is a type of service provided by the financial institutions to their customers with the help of cell phone device, tablet or Smartphone, etc to check their account balance, transfer their money, or perform different types of task at any time any place without any wait. Information system defines that any arranged system to collect, arrange, save and deliver the information. Mostly information systems projects are not successful.

The major main of the company is to increase the increase the profit of the company and increase the sale of the company if any companies wish to increase the sale it is compulsory for that to satisfy their customer. Customer satisfaction plays a very important role in the success of the organization. Customer satisfaction is one of the elements that is used to increase the sales of the firm because due to this customer is loyal and can purchase again. Service quality is the talent or skill of the companies to meet the requirements of the customer and increase the expectations of the customers. Whose companies provide services to their customer's plays a vital role in the economy of many developed and underdeveloped countries?

Any activity or process performed by the individuals to convert the inputs of the organization into the output of the organization is called task characteristics.

When any technology helps the individuals to perform their task or work more accurately and perfectly it is called task-technology fit (Goodhue & Thompson, 1995).

The most important point is researcher has used the individual performance dependent variable which depends on the eight dimensions. It was also found the mobile banking for individuals an ease to use, low payment transactions, and vast valid of the solution should be the mobile user solution provider. Many researchers has deliberate e-banking. A innovated come near in the field of mobile commerce. The Services like billing, credit, deposit and electronic payment. Many contributors contribute in mobile banking related studies. In this model combines to TTF and IS success model. Moreover, the Deleon & McLean (Deleon & McLean, 1992, 2003) and TTF model (Goodhue & Thompson, 1995) bunch up with the element of user satisfaction and individual performance on the impacts of m-banking. Why has this modern system flopped? Why individuals visit the banks instead of adopting m-banking system? Shaikh & Karjaluoto (2015) defined mobile in this way the physical or nonphysical things provided by a financial institution using the different mobiles related device is called E-banking. In these days banking related industry face different types of challenges to retain their customer and make him satisfied with this purpose banking industry gives 24 hours service to their customers. System quality defined as they found the adorable characteristics of IS. Information quality compares the wishing characteristics of the system overcome. Service quality defines as a quality to support different types of things and measure different aspects of things that are written reliability responsiveness etc. (Deleon and McLean (1992), According to the (Goodhue & Thompson, 1995) Task-Technology Fit (TTF) will positively effect on the performance of individuals. Individual performance has a positive outcome on TTF user satisfaction, task-technology, technology characteristics, service quality, system quality, information value, and use. What factors influence use, user satisfaction, the individual performance of m-banking? What is the

effect of TTF on individual performance? TTF measured the use on the individual performance and the user satisfaction on the individual performance?

Given the above-said circumstances, certain positive, as well as the negative response of individual's performance, has been observed. To improve the E-banking system more positive steps will be adopted to facilitate the customers on an individual basis besides taking more research may be carried out towards the system based upon efficient and reliable working.

The important thing is effectiveness point is that produce in the sequence on the receiver. In this research paper D&M and is model which is a success," the system excellence "which measure that technical success, the information quality dealings semantic success, while the user satisfaction, use, entity impacts." And evaluate effective success. bad feeling with means of access given that according to Shannon and weaver's structure into1949.mason's extension within, twice come into view as an official at the moment we adopt them a decade in the past.

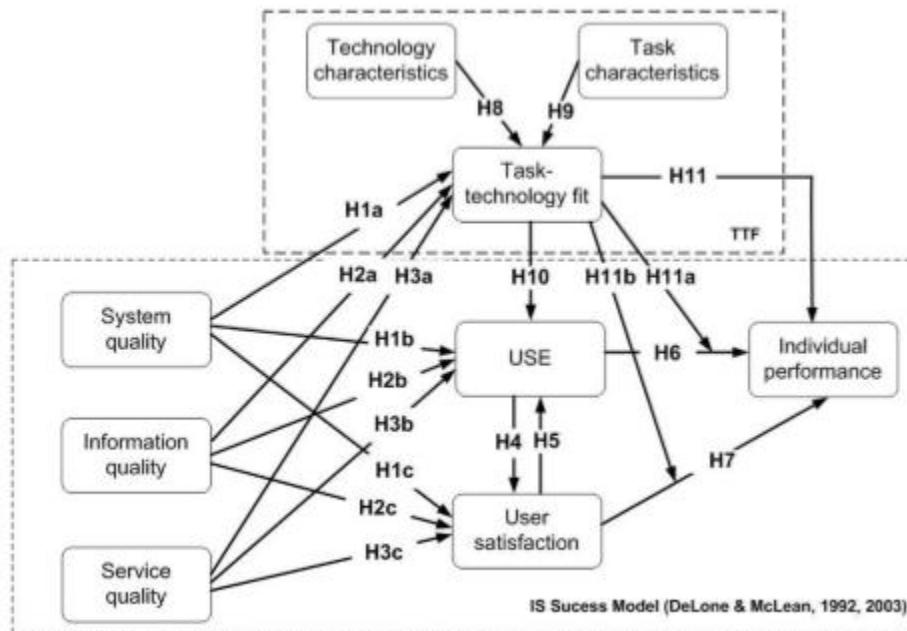
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Methodology

This study is intended to figure out the important aspect of M-Banking performance with the betterment in performance, along with the services quality updated model of D and M. It also took into consideration TTF. Theories which are backing to the model of this study are TTF. D. L. and D & M Goodhue and Thompson (1995). Following the model is under consideration to conduct the analysis and it also contains the hypothesis of the study.



To conduct the study a developed questionnaire adopted by Tam & Oliveira (2016). Scale for a construct used was Likert scale five points. The developed model took to provide the evidence from Pakistan. A study conducted with an online survey and target populations was big cities of Pakistan (Lahore, Islamabad, and Karachi, etc.). The questionnaire was distributed through online emails and social media. Target to get the sample was 385, 490 questionnaires was distributed 71 responses were inaccurate, and the response rate was approx. 97% so 404

responses were workable. Sampling technique was a merger of convenient sampling and snowball sampling.

Results

The analysis was distributed in two part one is correlation analysis, and other was tested through regression analysis.

The table below shows the correlation analysis.

	1	2	3	4	5	6	7	8	9
1.Individual_Performance	1								
2.System_Quality		.555**	1						
3.Information_Quality			.562**	.739**	1				
4.Service_Quality				.494**	.432**	.593**	1		
5.Use					.688**	.537**	.494**	.460**	1
6.User_satisfaction						.604**	.478*	.584**	.411**
7.Task_characteristics							.605**	.686**	1
8.Technology_characteristics								.706**	1
9.Task_Technology_Fit									.728*
									1

Note: Correlation is significant at the 0.01 level (2-tailed).

Correlations show the data's variables do correlate overall. IP does have a significant correlation at 1 % level of significance with SQ, IQ, SQ, U, US, TAC, TEC, and TTF. Whereas, SQ has with US at 5% level of significance whereas with others at 1% level of significance. IQ also correlates with 1% level of significance with rest of variables. SQ correlates with TEC at 5 % level of significance and with other at 1% level of significance. U with TAC correlates with a significant level of 1% whereas with other it has at 1% level of significance. US and TAC are also having significant correlations at 1% level of significance with rest of variables. Whereas, TTF with TEC having correlations at significance level at 5%. It gave the idea of correlation with rest of the variables. Data do correlate significantly. It could let the study upon interesting results. The second part of the study results contains the regression analysis. As data contains the dependent variable of same nature along with independent variables, so OLS regression analysis conducted. Moreover, the model contains the moderating effect analysis too.

Sr No	Hypothesis	Results	Beta's
H1b	System quality ->Use	Y	0.276***
H2b	Information quality->Use	Y	0.262***
H3b	Service quality->Use	N	0.052
H5	User satisfaction ->Use	Y	0.655***
H10	TTF ->Use	Y	0.382***
H1c	System quality->User satisfaction	Y	0.173***
H2c	Information quality->User satisfaction	Y	0.592***
H3c	Service quality ->User satisfaction	Y	0.037*

H4	Use ->User satisfaction	Y	0.377***
H1a	System quality->TTF	Y	0.139**
H2a	Information quality->TTF	Y	0.235***
H3a	Service quality->TTF	N	0.024
H8	Technology characteristics ->TTF	Y	0.214**
H9	Task characteristics->TTF	Y	0.190***
H6	Use->Individual performance	Y	0.314***
H7	User satisfaction ->Individual performance	Y	0.132***
H11	TTF ->Individual performance	N	0.054
H11a	Use x TTF ->Individual performance	Y	0.423***
H11b	User satisfaction x TTF ->Individual performance	Y	-0.240***

Note: *p < 0.10; **p < 0.05; ***p < 0.01 Y=Yes Supported, N= Not supported

Model explained 51% in model 1, 79% in model 2, 70% model in 3 and 74% model explained in model 4.

Findings of all hypothesis are summarized in the above table. It can be seen that Service quality at use and TTF don't have significant effect whereas, TTF doesn't explain effectively to Individual performance. Whereas moderation of user satisfaction and TTF do have a significant negative relationship with individual performance. Moreover, use moderating TTF has a significant positive relationship with individual performance. SQ, US, TTF and IT has a significant positive impact at use. System quality, TTF, Service Quality, and use has significant positive impact on user satisfaction. SQ, IT, TEC and TAC impacts positively and significantly

to TTF. Use, User Satisfaction, Use moderating TTF having a significant positive impact on individual performance. Study Results are consistent with Tam & Oliveira (2016).

Conclusion, Discussion, and Limitations

Mobile banking adoption and intention to use impacts directly by individual performance to use mobile banking. This study comes with the distinct models of post-adoption stage, this is an effort to figure out the potential adopters of M-banking. User Satisfaction, Use, Individual performance and TTF's drivers were the main focus of the study. User behavior development could be enhanced after proceeding with the study's findings. This study having the implication for the Mobile banking users, Mobile banking providers and Aid to the mobile banking. Developing country like Pakistan, could enhance its productivity by using mobile banking. It can lead to the country economy to boosted areas. Time savings, cost-effectiveness and usefulness of M-banking is quite different and fast, which, is observed during individual performance response. Banks manager could enhance the leverage to M-Banking users. Moreover, this study follows a few limitations. Interviews are not conducted due to the short time span of the study. Future researchers could interview management, it could let them to explore more interesting findings on Mobile banking future.

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