

Evaluating the success of online banking information system in Belmopan

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Abstract

Online banking has been a new method used to increase the effectiveness of service while improving the efficiency of time and resources, since it caters to unlimited clientele capacity. This has been considered beneficial to both the users and the banking system due to the abatement of error whilst improving security measures due to risk of fraud. The use of the internet has modified the performance of businesses in a particular manner whilst changing the way banks all over the world accomplish their tasks in a prominent method which provides with the best virtual service possible. This paper goes in depth in the evaluation of these online banking services success in the city of Belmopan. This had been considered after the evident peak of strategic alternative that has adapted its way as an essential part of their service. Through theoretical hypothesis it can be considered that online banking promotes a competitive edge, due to the rapid technological development and the need of such service.

Keywords: Online banking service, banking system.

Introduction

Online banking, also known as internet banking, e-banking or virtual banking, it is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website with the aid of their smart devices and computer systems (Suriya, Mahalakshmi & Karthik, 2012).

E-banking is a result of the growing expectations of banks customers and involves information technology based banking which has revolutionized today's banking industry by making it greener, quicker and more convenient. In addition it has now extended to mobile banking which

offers higher security, easier access and many helpful applications that may be accessed from smart phones even without the use of the internet.

Among the many benefits of online banking just to name a few and as stated by Stauble (2011): there are fewer surprises, as customers can check and monitor their balances and transactions anytime, consumers can get alerted about various situations, such as if their account is low, request transfers between accounts, and also pay bills electronically.

Internet banking has become very much popular in this technological era where most people are trying to keep updated and up to par with the revolutionizing technological services available. The internet allows banks to reach a whole new market with no geographical boundaries and gives customer the control of over nearly every aspect of managing individual bank accounts at the tip of their hands for free.

The primary objective of the study is to evaluate the success of online banking information system in Belmopan. As well as ways in which the system can be improved to increase the perceived net benefits to customers and employees. We believe that IS success model can provide a practical way to evaluate user satisfaction and impacts as well as determining the satisfaction level on the use of information system with the online banking. This system is used to make decisions that affect the society, it is important to conduct more studies on these systems because such decisions affect us directly or indirectly as a whole.

Literature Review

In 1992 Delone and Mclean published a paper in which they attempted to bring some awareness and structure of the measurement of the dependent variable in information system. According to them, the measurement of IS success or IS effectiveness is critical for understanding the value and efficacy of IS management actions and IS investments (Delone & McLean, 1992). The research was based on theoretical and empirical IS research which was conducted by a number of different researchers in the 1970s and 1980s. In this manner, this research will focus on measuring the successful use of online banking systems that are currently being utilized by financial organizations in the City of Belmopan, Cayo District. This is in accordance with the belief that the online services may not be taken full advantage of by customers due to distinct purposes. A survey will be conducted to find out if customers are making use of and satisfied with the online services provided, the best online feature and any recommendations on improving the quality of service.

Delone and Mclean proposed taxonomy and an interactive model as the frameworks for conceptualizing and operationalizing IS success which is now referred as the D&M IS Success Model. According to them there were six major categories or dimensions that are distinct but related to IS success, they are: (1) System Quality, which measures the information processing system itself, (2)Information Quality measures the quality of the information system output 3)Information use is the consumption of the output, (4)User Satisfaction is the IS user's response to the information system,(5) Individual Impact is the effect of the information on the behavior of the user and the last one (6) Organization Impact referred to the effect of the IS on organizational performance. With this taxonomy both authors tried to identify, categorize and

analyze the IS success measure that had been published in several journals between 1981 and 1988.

The updated D&M IS success model demonstrate associations among success dimension in a process sense but does not show the negative or the positive signs for those associations in a causal sense. “For example, in one instance a high- quality system will be associated with more use, more user satisfaction, and positive net benefits. The proposed associations would then all be positive. In another circumstance, more use of a poor quality system would be associated with more dissatisfaction and negative net benefits. The proposed association would then be negative” (DeLone and McLean, 2003: 24). Delone & McLean IS Success Model provides a good framework in identifying and develop different measures for important dimensions in IS success.

Once there is perceived net benefits which is interconnected to use and, user satisfaction, ultimately define success of a system. Similarly Landrum H. et la, (2009) conducted a research on Measuring IS System Service Quality with SERVQUAL - Users Perception of Relative Importance of the Five SERVPERF Dimensions. The research focuses on the service quality perceptions of professional information system users. This examines the relationship between the relative importance allocated by the system’s users to the five dimensions of SERVPERT which are tangibility, reliability, responsiveness, assurance and empathy. The findings suggested that users rate system responsiveness and reliability above other service quality dimensions.

Moderating influences in SERVPERF include gender and pressure to perform companies that provide client service and designers of information systems that interface with users should emphasize responsiveness and reliability, in cases of limited user resources, responsiveness and reliability should be emphasized. We also conclude that the use of SERVPERF is nuanced and that moderating influence may affect measurement results. As such customers benefit from the increased ease and efficiency of performing bank transactions and the choice of a faster, more convenient way to conduct transactions from any location and at any time. Craigwell et al. (2005)

The limitations of these studies are that it was not officially conducted on the technological era where most people now are connected through the internet. This meant that users were less and thus it presented an unequal sample grouping against those who were not into the digital world. Also, the systems in use were perceived and thus approached differently which obtain very different results depending on the system in contact or in use.

This research intends to target users of online banking in the 21st century that are offered the same services to gather data on how reliable online banking is to them. To gather data that allows the institution, its employees and customers to maximize the use of the services being provided.

Methodology

A quantitative research is being conducted to measure the successful use of online banking systems that are currently being utilized by financial organizations in the City of Belmopan, Cayo District. Bryman and Bell (2007) have noted that quantitative research methods investigate a particular issue through facts and a systematically approach. It involves facts and numerical data collected through interactive research tools such as surveys. Quantitative Research is used to

quantify the problem by way of generating numerical data or data that can be transformed into useable statistics. It is used to quantify attitudes, opinions, behaviours, and other defined variables – and generalize results from a larger sample population. Quantitative Research uses measurable data to formulate facts and uncover patterns in research. Quantitative data collection methods such as various forms of surveys are much more structured than Qualitative data collection methods. Therefore, for the purpose of this study, a quantitative research was selected because the researchers wanted to measure the success of the existing information system.

Saul Mcleod (2008) from Simply Psychology.org highlights that the quantitative research approach has many advantages and the following are just to mention a few: more reliable and objective, can use statistics to generalise a finding, often reduces and restructures a complex problem to a limited number of variables, looks at relationships between variables and can establish cause and effect in highly controlled circumstances, tests theories or hypotheses, assumes sample is representative of the population, and subjectivity of researcher in methodology is recognised less. The main drawbacks also stated by Mcleod (2008) declares that quantitative research is focused on a rating scale or closed questions on a questionnaire that would produce either numerical data or data that can be put into categories (e.g. “yes”, “no” answers) and findings are therefore likely to be context-bound and simply a reflection of the assumptions which the researcher brings to the investigation. Whereas, qualitative research allows for open-ended questions that would generate a descriptive response and would be useful for studies at the individual level, and to find out, in depth, the ways in which people think or feel.

Data will be gathered by issuing and completion of a questionnaire which is outlined by The University of Surrey to be a method used to collect standardized data from large numbers of people -i.e. the same information is collected in the same way. They are used to collect data in a statistical form. Questionnaires consist of the same set of questions that are asked in the same order and in the same way in order that the same information can be gathered. The main benefits of utilizing questionnaires are that it is practical and easy to use, large amounts of information can be collected from a large number of people in a short period of time and in a relatively cost effective way, can be carried out by the researcher or by any number of people with limited affect to its validity and reliability, the results of the questionnaires can usually be quickly and easily quantified by either a researcher or through the use of a software package, can be analysed more 'scientifically' and objectively than other forms of research, when data has been quantified, it can be used to compare and contrast other research and may be used to measure change, and positivists believe that quantitative data can be used to create new theories and / or test existing hypotheses.

The research will be conducted on a financial institution located in the City of Belmopan, Cayo District. A simple random sampling was selected for the quantitative research because researchers wanted to measure the effectiveness of online banking system as such the statistical population in which each member has an equal probability of being chosen. The population of the survey included 50 participants that use Online Banking System at the respective financial institution and were issued a questionnaire to be completed. The subjects were selected from an internal and external perspective of the institution; namely employees and customers.

The researchers designed a questionnaire to use as the instrument to collect data from the respondents involved. The questionnaire survey consisted of 40 questions which were subdivided among nine sections as follows: background information, information quality, system quality, complementary technology quality, complementary self-efficacy measure, service quality, user satisfaction, use and perceived net benefits. Refer to APPENDIX A. The questionnaires were hand delivered personally to individual participants. Below is the construct measurement.

Construct measurement

In order to produce relevant and reliable data, researchers ensured the face validity of the questionnaire which meant making the questions clear and appropriate to achieving the goal and also considered content validity to ensure that it was able to actually evaluate what it was intended to which in this case was to measure the success on the existing information system.

The Bailey and Person (1983) seven item scale was used with some adjustments to fit the specific context of Online Banking. Bailey and Pearson’s instrument is the standard instrument in the IS Field, because it has been widely accepted, and has been tested for reliability and validity by several researchers.

| Table 1. The measurement items for questioners. | | |
|--|---|--------------------------|
| Construct | Survey Questions | Source |
| Information Quality | IQ1: The online banking system provides information that is exactly what you need IQ2: The online banking system provides information you need at the right time IQ3: The online banking provides information that is relevant for decision making IQ4: The online banking provides sufficient information IQ5: The online banking provides information that is easy to understand IQ6: The online banking provides up-to-date information | Bailey and Person (1983) |
| System Quality | SQ1: The online banking is easy to use SQ2: The online banking is user-friendly SQ3: The online banking provides interactive features between users and the system | Alshibly, (2011) |
| Complementary Technology Quality | CTQ1: The computer (desktop, laptop, mobile device) you normally use to access online banking is adequate CTQ2: The computer (desktop, laptop, mobile device) you normally use to access online banking system has a fast and reliable internet connection CTQ3: The software on the device is adequate for online banking | Teece, D. J. (1988). |

| | | |
|--|---|---|
| <p>Complementary Self Efficacy Measure</p> | <p>I could complete the job using the online banking system CSE1: If there was no one around to tell me what to do as I go. CSE2: If I had never used an online banking system like it before. CSE3: If I had only the online banking system manuals for reference. CSE4: If I had seen someone else using the online banking system before trying it myself. CSE5: If I could call someone for help if I got stuck. CSE6: If someone else had helped me get started. CSE7: If I had a lot of time to complete the job for which the outline banking system was provided. CSE8: If I had just the built-in help facility for assistance. CSE9: If someone showed me how to do it first. CSE10: If I had used similar online banking systems before this one to do the same job.</p> | <p>Compeau, D. R., & Higgins, C. A. (1995)</p> |
| <p>Service Quality</p> | <p>SV1: The support staff keeps online banking software up to date SV2: When users have a problem the online banking system, does the support staff show a sincere interest in solving it? SV3: The online banking system support staff respond promptly when users have a problem with the system SV4: The online banking support staff tell users exactly when services will be performed</p> | <p>Change et al., (2009)</p> |
| <p>User Satisfaction</p> | <p>US1: You have a positive attitude towards online banking system. US2: You think that online banking system is useful. US3: The online banking system has met your expectations. US4: You are satisfied with online banking system.</p> | <p>Seddon and Yip (1992)</p> |
| <p>Use</p> | <p>U1: Your frequency use of online banking system is high U2: You depend upon online banking system. U3: You were able to complete a task using online banking system even when there was no one around to tell you what to do U4: You have the knowledge necessary to use online banking system.</p> | <p>Balaban et al., (2013) Rai et al., (2002)</p> |
| <p>Perceived Net Benefit</p> | <p>NB1: The online banking system helps you improve your performance at work NB2: The online banking helps the organization save costs NB3: The online banking system helps the organization achieve its goal. NB4: Using the online banking system improves the assessment and training. NB5: Using the online banking system in job increases</p> | <p>Alshibly,(2011); Tansley et al, (2001)</p> |

| | | |
|--|--|--|
| | my productivity. NB6: Overall, using the online banking system enhances recruitment and performance management. | |
|--|--|--|

This research follows the system quality model which constitutes the desirable characteristics of an IS and thus, subsumes measures of the IS itself. These measures typically focus on the usability aspects and performance characteristics of the system under examination. Information quality constitutes the desirable characteristics of IS output. Thus, it measures focusing on the quality of the information that the system produces and its usefulness for the user. Information quality is often seen as a key antecedent of user satisfaction. Service quality represents the quality of the support that the users receive from the IS department and IT support personnel such as training, hotline or helpdesk. This construct is an enhancement of the updated D & M IS Model. Use the degree and manner in which an IS is utilized by its users. Measuring the usage of an IS is a broad concept that can be considered from several perspectives. User satisfaction constitutes the user's level of satisfaction when utilizing an IS. It is considered as one of the most important measures of IS success. Measuring user satisfaction becomes especially useful, when the use of an IS is mandatory and the amount of use is not appropriate indicator of systems success. Net benefit constitutes the extent to which IS are contributing to the success of the different stakeholders. The construct subsumes the former separate dimensions individual impacts and organizational impact of the original D & M IS success model.

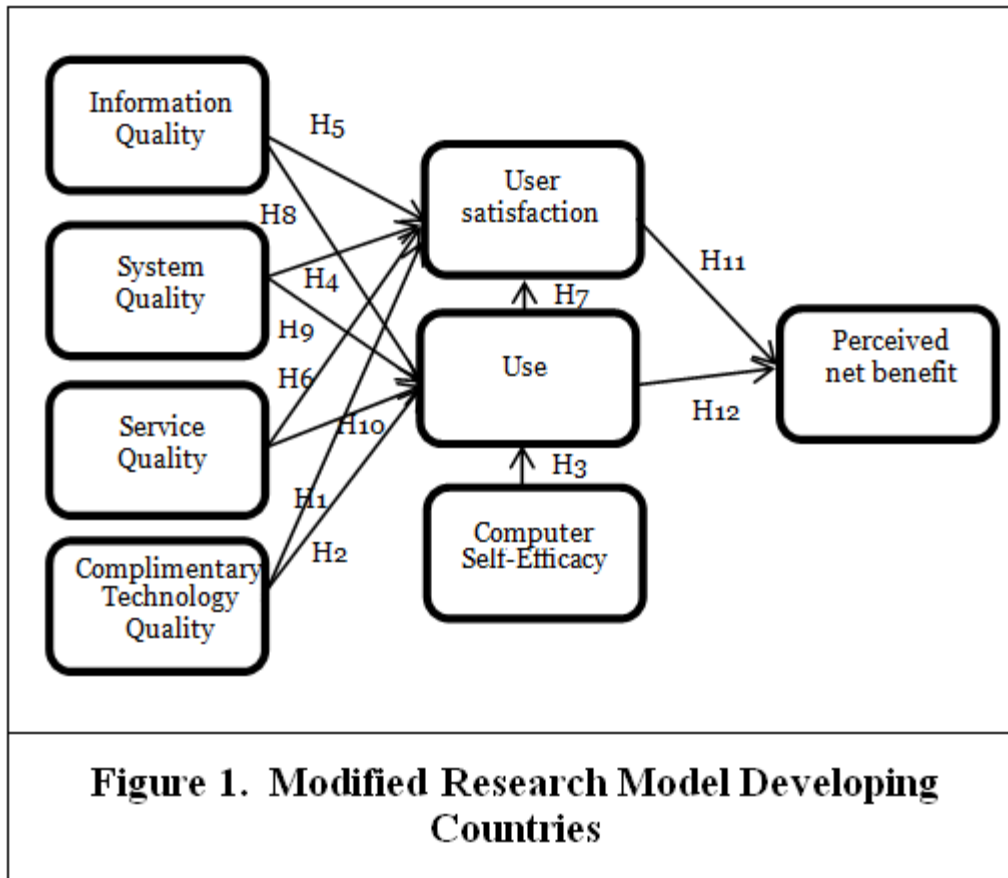


Figure 1 illustrates the six constructs of the DeLone and Mclean model inclusive of the additional construct, Complementary Technology Quality and Computer Self-Efficacy used to validate this research study.

The hypothesized efficiency of online banking and the users are based on the theoretical and empirical work reported by DeLone and McLean (2003). As they suggest, the success model needs further development and validation before it could serve as a basis for the selection of appropriate IS measures. Accordingly, the study hypothesized the following twelve hypotheses tested:

Hypothesis:

H1. Complementary technology quality will positively impact user satisfaction.

H2. Complementary technology quality will positively impact system use.

H3. Computer self-efficacy will positively impact system use.

H4. System quality will positively impact user satisfaction.

H5. Information quality will positively impact user satisfaction.

H6. Service quality will positively impact user satisfaction.

- H7. Use will positively impact user satisfaction.
- H8. Information quality will positively impact use.
- H9. System quality will positively impact use.
- H10. Service quality will positively impact use.
- H11. User satisfaction will positively impact perceived net benefit.
- H12. Use will positively impact perceived net benefit.

Sampling and data collection

The purpose of this research is to measure the successful use of online banking systems that are currently being utilized by financial organizations in the City of Belmopan, Cayo District. In addition, it is imperative to realize that online banking as stated by Calisir and Gumussoy (2008) while providing increased efficiency and ease of delivering internet banking services can lead to creating loyal customers. This research was developed from a quantitative point of view. The sample size used for this research was 50 participants from Belmopan. Data was gathered by having 50% of internal users and 50% of external users complete a questionnaire. For this proposal the following methods were used to obtain the information:

Primary data: Questioners were utilized to obtain data from the local bank employees. Participants were selected using random sampling method where each researcher distributed to individuals nearby.

Out of the 50 questioners distributed at the Local Banks all questionnaires’ were collected, which yield a responsive rate of 100 percent.

A breakdown of background information is provided on the table below.

| | | |
|---------------------------|-----------|-------------|
| TYPE | | |
| External | 25 | 50% |
| Internal | 25 | 50% |
| TOTAL | 50 | 100% |
| GENDER | | |
| Male | 27 | 54% |
| Female | 23 | 46% |
| AGE | | |
| <25 | 20 | 40% |
| 25-35 | 7 | 14% |
| 36-45 | 8 | 16% |
| 46-55 | 15 | 30% |
| EDUCATIONAL LEVEL | | |
| High School | 14 | 28% |
| Associates | 12 | 24% |
| Bachelors | 14 | 28% |
| Masters | 10 | 20% |
| WORKING EXPERIENCE | | |
| <5 | 10 | 20% |

| | | |
|-------------------------|----|-----|
| 5-10. | 11 | 22% |
| 11-15. | 25 | 50% |
| >15 | 4 | 8% |
| ACCESSING DEVICE | | |
| Desktop | 14 | 28% |
| Laptop | 13 | 26% |
| Mobile | 23 | 46% |

Table Two: Background summary of data.

Data Analysis and Discussion

This research is being conducted to measure the successful use of online banking systems that are currently being utilized by financial organizations in the City of Belmopan, Cayo District. In addition, it is imperative to realize that online banking as stated by Calisir and Gumussoy (2008) while providing increased efficiency and ease of delivering internet banking services can lead to creating loyal customers.

Information Quality:

For the seven options available on the questionnaire ranging from 1 – Highly Disagree, 2- Disagree, 3 – Moderately Disagree, 4- Neutral, 5 – Moderately Agree, 6- Agree and 7 – Strongly Agree it was noted that the options 1- 3 were not selected during any point of the questionnaire. For this reason the figures will focus on the top 4 levels of the responses ONLY.

OBS PROVIDES NEEDED INFORMATION

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| NEUTRAL | 5 | 10.0 | 10.0 | 10.0 |
| MODERATELY AGREE | 12 | 24.0 | 24.0 | 34.0 |
| AGREE | 17 | 34.0 | 34.0 | 68.0 |
| STRONGLY AGREE | 16 | 32.0 | 32.0 | 100.0 |
| Total | 50 | 100.0 | 100.0 | |

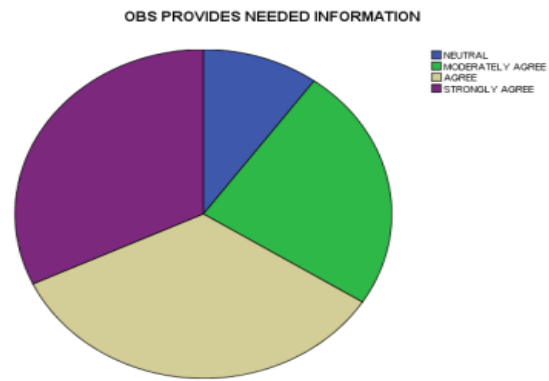


Figure 2

Table Three: Responds feedback on information quality.

E-banking can make it easier for customers to have access of information on their accounts anytime needed (Krishna, 2016) but at the same time information quality has to be in place for

customers to have access to their information anytime. According to responses gathered, most users agree at a 34% that the information provided on the online banking feature is the relevant information that users expect. It can be noted that 100% of the users have been in contact with the service while only 10% showed not much interest in the information provided maybe since they do not rely on the specific service to complete their banking transactions. The higher options were the most popular totalling 66%, meaning that users are well aware of the contents and usage of their respective online banking system and are updated with their financial stand point. They show satisfaction in the service provided and feel secure to access their data at the most convenient location and access point to them.

System Quality:

OBS IS USER FRIENDLY

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| NUETRAL | 4 | 8.0 | 8.0 | 8.0 |
| MODERATELY AGREE | 18 | 36.0 | 36.0 | 44.0 |
| AGREE | 23 | 46.0 | 46.0 | 90.0 |
| STRONGLY AGREE | 5 | 10.0 | 10.0 | 100.0 |
| Total | 50 | 100.0 | 100.0 | |

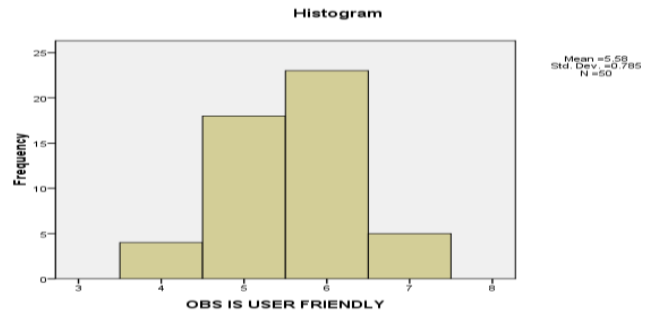


Figure 3

Table Four: Respondents feedback on system quality.

An E-banking system will allow customers to save time so they won't have to go out of their way to stay in line at the bank. Using a computer and a phone to perform direct banking makes a balance inquiry, account transfer and pay linked (Vyas, 2016). System quality

is what customers depend on in order to use any device to access direct banking and quickly conduct any transaction. 46% of users selected the agree option when dealing with the ease of access and navigation of the online banking system. It was noted that only 10% of the uses strongly agreed to have easy control of the service features to facilitate their banking needs. In comparison to the 32% who strongly agreed that the information was relevant it seems to be that many do not feel as comfortable when actually navigating the website although they do agree that the necessary information is available to them. The possible responses might be because most of the respondents (46%) asserted to using their mobile device as the access point and due to the small screens and different features of unique smart phones the actual process is slowed down or interferes with the interaction for respective users. A trend in a close proximity of neutral responses to the relevance of information as to the ease of use remains from 8% to 10%; this indicates almost the same percentage of users do not bother much or are directly affected by the online service

Service Quality:

OBS STAFF REPSOND PROMPTLY WHEN USERS HAVE PROBLEMS

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| MODERATELY AGREE | 14 | 28.0 | 28.0 | 28.0 |
| AGREE | 27 | 54.0 | 54.0 | 82.0 |
| STRONGLY AGREE | 9 | 18.0 | 18.0 | 100.0 |
| Total | 50 | 100.0 | 100.0 | |

OBS STAFF REPSOND PROMPTLY WHEN USERS HAVE PROBLEMS

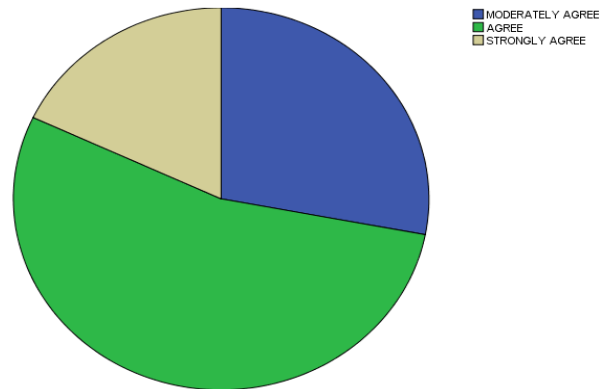


Figure 4

Table Five: Respondents feedback on service quality.

Hernandez and Mazzon (2007) suggested that customers perceive service quality in relation to distinguishing the interaction of customers availing the service delivery

and the quality of service outcomes in the case of internet banks. In addition, service quality is a major component of online banking and customers look forward to using the services as long as it is reliable. It is to be noted that for this section all respondents agreed and therefore the data is presented based on the top three options. The highest percentages of 54 was on agree which states that respondents feel that they are being assisted when needed and feel confident that help will be provided at any needed point. Again the highest option of strongly agree was the lowest percentage of 18 as compared to the other options. Although 100% of them agree, there is a gap or a gateway for improvement the quality of service for online banking at the respective financial institutions.

The system quality model helps to enforce the success rate of the information systems currently in place at the mentioned financial institutions. This is because it was noted that on the overall questions most respondents were able to agree at various level of their familiarity and usage of the online service. This clearly shows that most respondents showed agreement and positive feedback when accessing the online system. This proves the model in that once proper information quality, service quality and system quality are properly outlined and functioning users will obtain a level of satisfaction which indicates perceived net benefits for the online service in place.

While conducting the research some restraints were encountered. The most important was time, since the research was to be completed in the length of one semester which is only made up of three months. Time also played a major role in having a smaller sample group than expected

since, more respondents could have been selected. Both time and sample group size restricted the research to a nearby target location.

User satisfaction:

SATISFIED WITH OBS

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| MODERATELY AGREE | 5 | 10.0 | 10.0 | 10.0 |
| AGREE | 24 | 48.0 | 48.0 | 58.0 |
| STRONGLY AGREE | 21 | 42.0 | 42.0 | 100.0 |
| Total | 50 | 100.0 | 100.0 | |

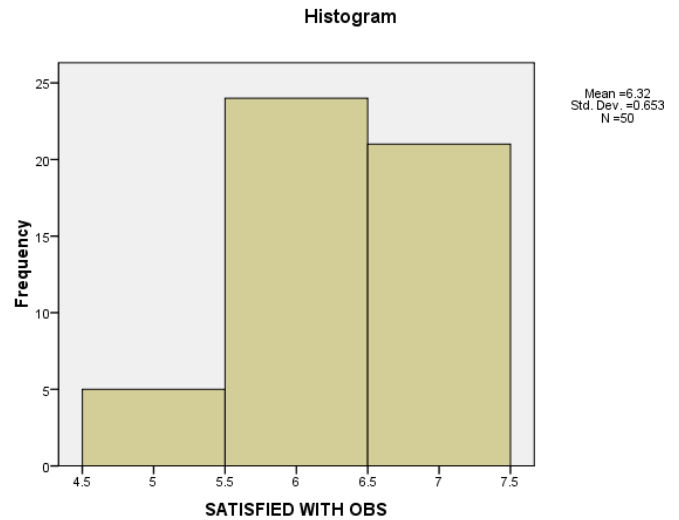


Figure 5

Table Six: Respondents feedback on user satisfaction of online banking services.

Customer/user satisfaction is a marketing tool to help measure the needs or expectations of the service being offered; in this case online banking service. This is a very important tool since it provides managers and business owners with clear data that they can use to maintain or improve their service. According to the respondents 90% of customers are highly satisfied with the services being provided while a total of 100% agree to be satisfied. This is a very positive indicator that the service is well accepted and taken advantage of by the users which leads to loyal customers, a greater competitive advantage which in turn reduces negative attention from the public. This information is very effective in ensuring to secure customers already attached to the organization and allow more time to search for new ones with good recommendations from current customers.

Customer use:

FREQUENT CUSTOMER USE OF OBS IS HIGH

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--|-----------|---------|---------------|--------------------|
| | | | | |

| | | | | |
|------------------|----|-------|-------|-------|
| NEUTRAL | 4 | 8.0 | 8.0 | 8.0 |
| MODERATELY AGREE | 24 | 48.0 | 48.0 | 56.0 |
| AGREE | 17 | 34.0 | 34.0 | 90.0 |
| STRONGLY AGREE | 5 | 10.0 | 10.0 | 100.0 |
| Total | 50 | 100.0 | 100.0 | |

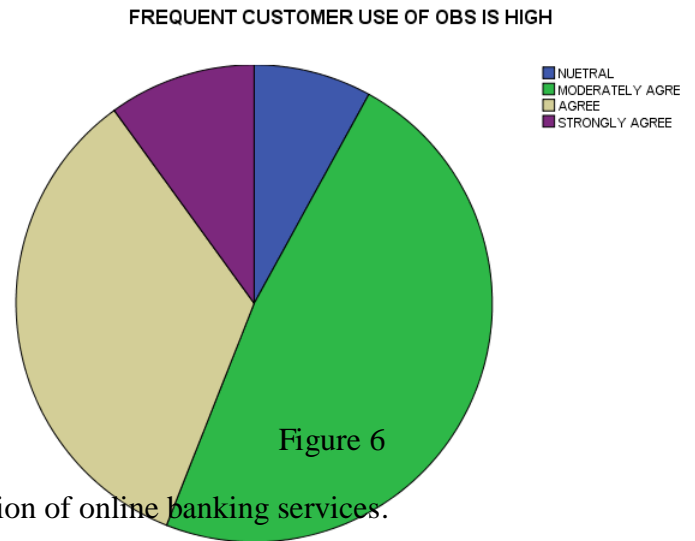


Table Seven: Respondents feedback on user satisfaction of online banking services.

According to the respondents’ feedback, 24% moderately agreed to use the online banking service feature frequently, while 17% and 5% agreed and strongly agreed respectively. This may be since many persons work either on a monthly salary or bi-weekly salary at which they rely on the online banking system to monitor their accounts and conduct their necessary banking transactions on such occasions as compared to business owners who might maintain constant monitoring of their accounts.

Net Benefits (Internal):

OBS HELPS IMPROVE JOB PERFORMANCE

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| NEUTRAL | 1 | 2.0 | 4.0 | 4.0 |
| MODERATELY AGREE | 6 | 12.0 | 24.0 | 28.0 |
| AGREE | 15 | 30.0 | 60.0 | 88.0 |
| STRONGLY AGREE | 3 | 6.0 | 12.0 | 100.0 |
| Total | 25 | 50.0 | 100.0 | |
| Missing | 25 | 50.0 | | |
| | 50 | 100.0 | | |

OBS HELPS IMPROVE JOB PERFORMANCE

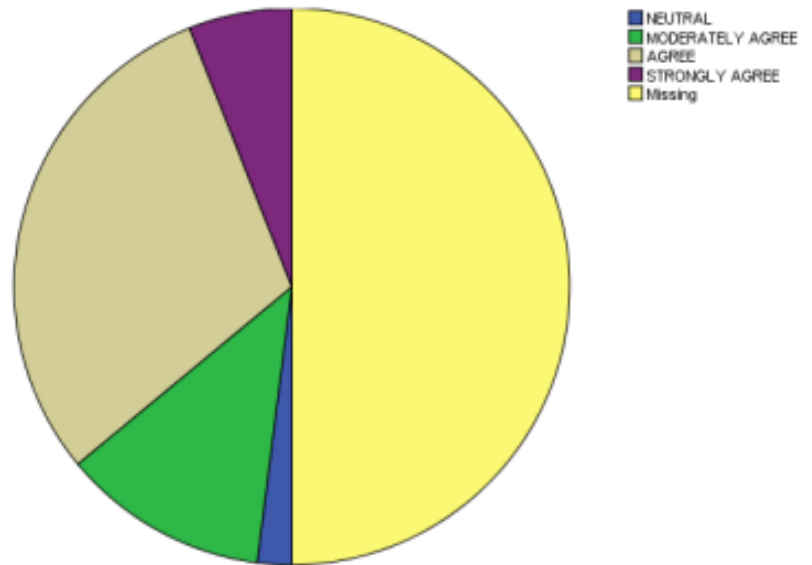


Figure 7

Table Eight: Respondents feedback on user net benefits internal of online banking services.

According to the respondents' feedback, 60% strongly agree and that online banking system helps job performance. This may be since many persons work with the system so it is important that they learn to use it efficiently. This also saves them time while conducting their duties to manage and conduct transactions.

Net Benefits (External):

OBS ENHANCES PRODUCTIVITY

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| NEUTRAL | 1 | 2.0 | 4.0 | 4.0 |
| MODERATELY AGREE | 10 | 20.0 | 40.0 | 44.0 |
| AGREE | 4 | 8.0 | 16.0 | 60.0 |
| STRONGLY AGREE | 10 | 20.0 | 40.0 | 100.0 |
| Total | 25 | 50.0 | 100.0 | |
| Missing | 25 | 50.0 | | |
| | 50 | 100.0 | | |

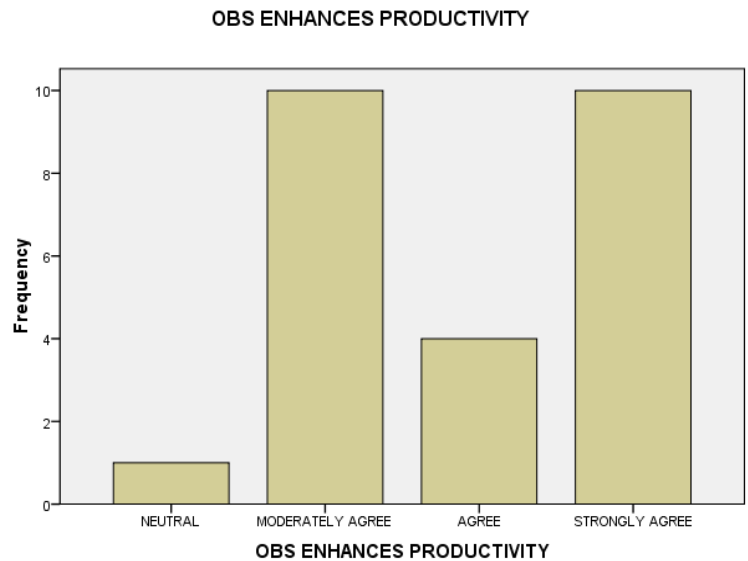


Figure 8

Table Nine: Respondents feedback on user net benefits external of online banking services.

According to the respondents' feedback, 40% moderately agreed and 40% strongly agree to use the online banking service feature frequently. Then 16% agree while 4% was neutral. This may be because customers also use the online banking and are experiencing net benefits because it is convenient.

Possible solutions through the use of Information and Communication Technology

Online information security is the protection of information systems used to transmit and store data during the series of transaction from unauthorized access and penetration. It is concerned with the protection of three characteristics of information: confidentiality, integrity and the availability through the use of technical solutions and managerial actions.

- **Device identification**

This identification model is based on physical characteristics of the user's device through which it is possible to identify the information about its origin and history.

- **Pass-phrase**

It is a security model based on information held by the user. It is usually used as a second authentication method in a transaction that involves money movement.

- **Positive identification**

It is a model where the user is required to input some secret information only known to the same user in order to identify himself.

- **Biometric authentication technology**

Biometric has been identified as one of the potential technologies to improve the security. It is an automated method to distinguish the customers through their biological characteristics and traits such as fingerprints, finger vein patterns, retina, and voice recognition. Biometric characteristics are unique for each person and difficult to forge, which is why biometric verification and authentication is commonplace in immigration control, law enforcement, and forensic studies. Consequently, banks are also moving towards the use of biometric identification technology because of its ability to offer more advanced security.

Conclusion

Online banking is among the latest information technological improvements found to be a very effective and efficient service that is currently achieving high profitability rates and low labour costs. It has generated a competitive edge on banking systems since most banks have invested on providing the complimentary service to make customer's experience satisfactory. A study was conducted in the City of Belmopan to study the gratification on its customer where 38% of participants agreed and 38% strongly agreed making a consensus of the majority who find it useful. 68% of respondents coincided that online banking provides the needed information, which makes it user friendly and easy to access which prompts an increase in the usage of the service. Furthermore, the staff seems to be well versed on the system and are swift to help users with any complications experienced and 48% of customers were satisfied with online banking. The data was gathered through survey questionnaires of 50 external and internal participants that are customers with first-hand experience and internal participants such as the employees of selected banks.

Furthermore, a review of previous literature was conducted to understand different results and perceptions towards online banking and its efficiency in the modern world. The studies clearly reveal customer were satisfied with the banking service. This implied the effectiveness of the system which makes it more reliable and usable.

The study was a success; however, there were minor time constraints due to the deadlines to gather and compile the information which led to miscommunication amongst the research team. The cooperation was effective, though it weakened on time efficiency since the researchers had different schedules. The banking system has been innovate and reliable in their service however; it was noted that not all customer and in full agreement of maximum efficiency and reliability and for this reason the following recommendations for online banking is proposed: saving all

data for future reference would allow users to check back and proper monitor as well as track changes in real time. Allow more interaction with online users which will facilitate the process and make users more comfortable when accessing the system to maximum effectiveness.

A future research can be conducted to look at specific banks individually and measure the successful use of online banking systems that are currently been utilized at financial institutions in the city of Belmopan.

Appendix 1

Questionnaire I – “Effects of Online Banking” (Employees)

Purpose

This questionnaire seeks information about your online banking experiences and how effective it is for users. The purpose

of this survey is to compare online banking services features such as effectiveness and reliability.

Thus, we will measure the uses of the services in completing banking transactions whether customers have preferences.

Please answer the questions based on your personal experiences. Your individual responses to the questionnaire will

be strictly confidential.

Instructions

This is a survey, not a test; there are no right or wrong answers. Please tick the boxes to mark your answers.

| 1. Background Information | Answers: |
|---|--|
| Please indicate your gender: | Male <input type="checkbox"/> Female <input type="checkbox"/> |
| Please indicate your age: | <25 <input type="checkbox"/> 25-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-55 <input type="checkbox"/> >55 <input type="checkbox"/> |
| Please indicate highest education level attained: | PhD <input type="checkbox"/> Masters <input type="checkbox"/> Bachelors <input type="checkbox"/> Associates <input type="checkbox"/> High School <input type="checkbox"/> Primary School <input type="checkbox"/> |
| Please indicate your working experience: | <5 <input type="checkbox"/> 5-10 <input type="checkbox"/> 11-15 <input type="checkbox"/> >15 <input type="checkbox"/> |
| I usually use a ___ when accessing online banking. (multiple) | <input type="checkbox"/> Desktop <input type="checkbox"/> Mobile <input type="checkbox"/> Tablet |

Indicate your agreement with each statement by rating it from (1) strongly disagree to (7) strongly agree.

| 2. Information Quality | Disagree ----- Agree |
|--|--|
| IQ1: The online banking system provides information that is exactly what you need | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ2: The online banking system provides information you need at the right time | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ3: The online banking system provides information that is relevant to your banking needs | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ4: The online banking system provides sufficient information | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ5: The online banking system provides information that is easy to understand | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |

| | |
|--|--|
| IQ6: The online banking system provides up-to-date information | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 3. System Quality | Disagree ----- Agree |
| SQ1: The online banking system is easy to use | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SQ2: The online banking system is user-friendly | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SQ3: The online banking system provides interactive features between users and the system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 4. Complementary Technology Quality | Disagree ----- Agree |
| CTQ1: The computer (desktop, laptop, mobile device) you normally use to access online banking system is adequate | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CTQ2: The computer (desktop, laptop, mobile device) you normally use to access online banking system has a fast and reliable internet connection | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CTQ3: The software on the device is adequate for online banking. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 5. Complementary Self Efficacy Measure | Disagree ----- Agree |
| I COULD COMPLETE THE JOB USING THE Online Banking System | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-1: If there was no one around to tell me what to do as I go. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-2: If I had never used an online banking system like it before. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-3: If I had only the online banking system manuals for reference. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-4: If I had seen someone else using the online banking system before trying it myself. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-5: If I could call someone for help if I got stuck. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-6: If someone else had helped me get started. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-7: If I had a lot of time to complete the job for which the online banking system provided. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-8: If I had just the built-in help facility for assistance. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-9: If someone showed me how to do it first. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-IO: If I had used similar online banking systems before this one to do the same job. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 6. Service Quality | Disagree ----- Agree |
| SV1: The support staff keeps online banking system software up to date | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SV2: When users have a problem with the online banking system, does the support staff show a sincere interest in solving it ? | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SV3: The online banking system support staff respond promptly when users have a problem | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SV4: The online banking system support staff inform users exactly when services will be performed to not the system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 7. User Satisfaction | Disagree ----- Agree |
| US1: You have a positive attitude towards online banking system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |

Online Banking Information System

| | |
|--|--|
| US2: You think that online banking system is useful | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| US3: The online banking system has met your expectations | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| US4: You are satisfied with online banking system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 8. Use | Disagree -----Agree |
| U1: Your frequent use of online banking system is high | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| U2: You depend upon online banking system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| U3: You were able to complete a task using online banking system even when there was no one around to tell you what to do. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| U4: You have the knowledge necessary to use online banking system. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 9. Perceived Net Benefits | Disagree -----Agree |
| NB1: The online banking system helps you improve your job performance. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB2: The online banking system helps the organization save cost. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB3: The online banking system helps the organization achieve its goal. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB4: Using the online banking system improves the assessment and training | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB5: Using the online banking system in job increases my productivity. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB6: Overall, using the online banking system enhances recruitment and performance management. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |

Please return this survey to the person who gave you the form.

Thank you for your participation.

Appendix 2

Questionnaire I – “Effects of Online Banking” (Customers)

Purpose

This questionnaire seeks information about your online banking experiences and how effective it is for users. The purpose

of this survey is to compare online banking services features such as effectiveness and reliability.

Thus, we will measure the uses of the services in completing banking transactions whether customers have preferences.

Please answer the questions based on your personal experiences. Your individual responses to the questionnaire will

be strictly confidential.

Instructions

Online Banking Information System

This is a survey, not a test; there are no right or wrong answers. Please tick the boxes to mark your answers.

| 1. Background Information | Answers: |
|--|--|
| Please indicate your gender: | Male <input type="checkbox"/> Female <input type="checkbox"/> |
| Please indicate your age: | <25 <input type="checkbox"/> 25-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-55 <input type="checkbox"/> >55 <input type="checkbox"/> |
| Please indicate highest education level attained: | PhD <input type="checkbox"/> Masters <input type="checkbox"/> Bachelors <input type="checkbox"/> Associates <input type="checkbox"/> High School <input type="checkbox"/> Primary School <input type="checkbox"/> |
| Please indicate your working experience: | <5 <input type="checkbox"/> 5-10 <input type="checkbox"/> 11-15 <input type="checkbox"/> >15 <input type="checkbox"/> |
| I usually use a ___ when accessing online banking. (multiple) | <input type="checkbox"/> Desktop <input type="checkbox"/> Mobile <input type="checkbox"/> Tablet |
| 2. Information Quality | Disagree -----Agree |
| IQ1: The online banking system provides information that is exactly what you need | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ2: The online banking system provides information you need at the right time | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ3: The online banking system provides information that is relevant to your banking needs | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ4: The online banking system provides sufficient information | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ5: The online banking system provides information that is easy to understand | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| IQ6: The online banking system provides up-to-date information | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 3. System Quality | Disagree -----Agree |
| SQ1: The online banking system is easy to use | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SQ2: The online banking system is user-friendly | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SQ3: The online banking system provides interactive features between users and the system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 4. Complementary Technology Quality | Disagree -----Agree |
| CTQ1: The computer (desktop, laptop, mobile device) you normally use to access online banking system is adequate | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CTQ2: The computer (desktop, laptop, mobile device) you normally use to access online banking system has a fast and reliable internet connection | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CTQ3: The software on the device is adequate for online banking. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 5. Complementary Self Efficacy Measure | Disagree -----Agree |
| I COULD COMPLETE THE TASK USING THE ONLINE BANKING SYSTEM | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-1: If there was no one around to tell me what to do as I go. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-2: If I had never used an information system like it before. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-3: If I had only the information system manuals for reference. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-4: If I had seen someone else using the information system before trying it myself. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-5: If I could call someone for help if I got stuck. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |

| | |
|---|--|
| CSE-6: If someone else had helped me get started. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-7: If I had a lot of time to complete the job for which the information system was provided. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-8: If I had just the built-in help facility for assistance. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-9: If someone showed me how to do it first. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| CSE-10: If I had used similar information systems before this one to do the same job. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 6. Service Quality | Disagree -----Agree |
| SV1: The support staff keeps online banking system software up to date | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SV2: When users have a problem with the online banking system, does the support staff show a sincere interest in solving it ? | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SV3: The online banking system support staff respond promptly when users have a problem. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| SV4: The online banking system support staff inform users exactly when services will be performed to not the system. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 7. User Satisfaction | Disagree -----Agree |
| US1: You have a positive attitude towards online banking system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| US2: You think that online banking system is useful | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| US3: The online banking system has met your expectations | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| US4: You are satisfied with online banking system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 8. Use | Disagree -----Agree |
| U1: Your frequent use of online banking system is high | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| U2: You depend upon online banking system | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| U3: You were able to complete a task using online banking system even when there was no one around to tell you what to do. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| U4: You have the knowledge necessary to use online banking system. | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| 9. Perceived Net Benefits | Disagree -----Agree |
| NB1: Online banking system helps you improve your financial planning | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB2: Online banking system helps you save time and costs | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB3: Online banking system helps you achieve your financial goals | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB4: Using Online banking system improves your financial budgeting | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |
| NB5: Overall, using online banking system enhances your productivity | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> |

Please return this survey to the person who gave you the form.[

Thank you for your participation.

References

Alsajjan, B., & Dennis, C. (2010). Internet banking acceptance model: Cross-market examination. *Journal of Business Research*, 63(9), 957–963.

Information System Research, University of Belize 2017

Akinci, S., Aksoy, S., & Atilgan, E. (2004). Adoption of internet banking among sophisticated consumer segments in an advanced developing country. *International Journal of Bank Marketing*, 22(3), 212-232.

Auta, E. M. (2010). E-banking in developing economy: Empirical evidence from Nigeria. *Journal of applied quantitative methods*, 5(2), 212-222.

Black, N. J., Lockett, A., Winklhofer, H. and Ennew, C. (2001) 'The Adoption of Internet Financial Services : A Qualitative Study,' *International Journal of Retail and Distribution Management*, 29, 390

Bryman, A. and Bell, E. (2007). *Business Research Methods*, 2nd ed., Oxford: Oxford University Press.

Calisir, F., and Gumussoy, C. A. (2008). Internet banking versus other banking channels: Young consumers' view. *International Journal of Information Management*, 28, 215- 221.

Craigwell, R., Coppin, K. and Moore, W. (2005) 'Financial Innovation and Efficiency in the Barbadian Banking Industry,' *Money Affairs*, 18, 83-100.

George, A., & Gireeshkumar, G. S. (2012). Risks in Internet Banking: Sample Evidence from Idukki District, Kerala. *The IUP Journal of Bank Management*, 11(3), 53-63.

Gerrard, P., and Cunningham, J. B. (2003) 'The Diffusion of Internet Banking among Singapore Consumers,' *International Journal of Bank Marketing*, 21, 16-28.

Hernandez, J.M.C., & Mazzon, J.A. (2007). Adoption of internet banking: proposition and implementation of an integrated methodology approach. *International Journal of Bank Marketing*, 25(2), 72-88.

Howcroft, B., Hamilton, R. and Hewer, P. (2002) 'Consumer Attitude and the Usage and Adoption of Home-Based Banking in the United Kingdom,' *International Journal of Bank Marketing*, 20, 111-121.

Krishna, G. (n.d.). "E-banking to improve customer base". *International Journal of Research and Computational Technology*, 2-4.

Kolodinsky, J., Hogarth, J. M. and Hilgert, M. A. (2004) 'The Adoption of Electronic Banking Technologies by US Consumers,' *International Journal of Bank Marketing*, 22, 238-259.

Landrum H. et al. (2009). , *Measuring IS System Service Quality with SERVQUAL: Users' Perception of Relative Importance of the Five SERVPERF Dimensions*, Information Science: The International Journal of an Emerging Trans discipline Vol.12.Pg.

Lockett, A. and Litter, D. (1997) 'The Adoption of Direct Banking Services,' *Journal of Marketing Management*, 13, 791-811.

McLeod, S. (2008). *Qualitative vs Quantitative*. Retrieved from Simply Psychology.org: <https://www.simplypsychology.org/qualitative-quantitative.html>

Mols, N. P., Bukh, D. and Nielsen, J. F. (1999) 'Distribution Channel Strategies in Danish Retail Banking,' *International Journal of Retail and Distribution Management*, 27, 37-47.

Moutinho, L. and Smith, A. (2000) 'Modelling Bank Customers' Satisfaction through Mediation of Attitudes towards Human and Automated Banking,' *International Journal of Bank Marketing*, 18, 124-134.

Polatoglu, V. N. and Ekin, S. (2001) 'An Empirical Investigation of the Turkish Consumers' Acceptance of Internet Banking Services,' *International Journal of Bank Marketing*, 19, 156-165.

Shao, G. (2007). The diffusion of online banking: research trends from 1998 to 2006. *Journal of Internet Banking and Commerce*, 12(2), 1-13.

Stauble, J. (2011, June 25). *The benefits of online banking*. Retrieved from BankRate.com: <http://www.bankrate.com/banking/checking/the-benefits-of-online-banking/>

Suriya, M., Mahalakshmi, V. & Karthik, R., (2012). A study on customer perception towards internet banking. *International Journal of Sales & Marketing Management Research and Development (IJSMMRD)*, 2, (3), 15-34.

Surrey, U. o. (n.d.). *Introduction to Research*. Retrieved from <http://libweb.surrey.ac.uk/library/skills/Introduction%20to%20Research%20and%20Managing%20Information%20Leicester/index.htm>

Vyas, S. (n.d.). Impact of E-Banking on Traditional Banking Services. *School of Computer Science and Information Technology*, 1-2.