Success of E-Services at a Utility Company in a Developing Country: Customer's Perspective

Completed Research Paper

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Abstract

Globally, there has been substantial amount of research conducted on the success of information systems. However, in developing country such as Belize, limited research has been conducted. To a certain degree, research has been conducted to determine if the E-Service at a utility company in Belize is successful or not. Therefore, it is very important to understand the success of the E-Service, because it will assist the company in its aim for success, especially being the only electricity provider of the country. The E-Service is known to offer flexible and convenient services to its customers. This research has been conducted to determine the success of the E-Service at the prospective utility company. A random sample of 50 E-Service customers was chosen for the research study. The findings of the research study are to determine if the E-Service is assisting the company to accomplish its' organization goals in order to become successful.

Keywords: E-Service, information system success, Developing Countries, Delone and Mclean

Introduction

In this modern age, organizations are continually investing a lot of their resources in information and communication technology (ICT) in order to facilitate with the different company functions. With the latest information system, E-Service changes the traditional practices of how businesses facilitate its customers with services they offer. The E-Service is an online system carried out by a utility company for its customers throughout the entire country of Belize. This information system was provided to meet customers' needs and provide excellent service. It also accommodates their customers without having them visit any of the

offices/showrooms. E-Service is simply defined as web services delivered through the Internet. (Zeithaml and Bitner, 2003) Mentioned that "an E-Service is an activity or series of activities that take place during the interaction between a provider and a customer through an electronic channel". The importance of E-Service in the self-service environment via the Internet. Researchers have used different explanation for E-Service; but they all agree about the role of technology in simplifying the transfer of services. Therefore, E-Services defined as the provision of interactional, content-center and electronic-based service over electronic networks.

The purpose of the research is to investigate how effective and beneficial the use of the E-Service System is to its customers. This study also helps to identify the level of satisfaction brought about by its user's base on their services provided on the E-Service online system.

This research was conducted by four students of the University of Belize. This research was aimed to provide a better understanding of whether the E-Service is a success and if the customers consider the internet system to be a positive or negative influence. In order for us to achieve our objective of this research, the DeLone and Mclean Information System Success Model was modified and utilized. Questionnaires were distributed and returned to us by E-Service Customers of the utility company within the Belize City district.

The primary objective of this research is to determine the success of the E-service at a utility company and to know the level of satisfaction for the users. It is also to identify successful factors for the E-Service using a research model developed from DeLone and McLean's Information System success model (DeLone and McLean, 1992, 2003).

The utility company has invested large sum of financing in order to accommodate their customers with the E-Service system. With this being said they hope to bring forth satisfaction and convenience to its customers. Most corporations in this era rely heavily on the advanced technology provided to enhance businesses operation and competitive advantages. The goal of this study is to provide information on whether the financial investments made are good or bad.

Literature Review

W. Delone and E. Mc Lean Success Module

Following a sharp increase of information systems in the latter 1980's, W. Delone and E. McLean completed a research paper, in an attempt to understand how to evaluate Information System's success. This paper formed the foundation of analysis of information systems globally. Delone and McLean utilized a six-dimensional model focusing on information quality, system quality, service quality, usage intentions, user satisfaction and overall system benefits (Delone & McLean, 2003). Since introducing the Delone and McLean success module in 1992, it has been imperative for organizations to determine the successfulness of the systems they have implemented (Petter, DeLone, McLean, 2012). According to McLean and Petter (2009), the relationship of these six variables identified in the model have been studied and examined by researchers. Petter, DeLone and Mclean (2009) states that, "Some studies found high correlations among the variables while others found either low or no significant correlations." These findings are discovered amidst an evolving world, therefore, their success module must adapt to fit changing times (Delone & Mc Lean, 2003). Successive researchers have composed research papers further developing the success module, for instance, "The research Evaluating E-HRM success: A Validation of the Information Systems Success Model Information quality". This research paper concentrates on the quality of Information Systems, the system's output, and its overall worth/importance to the owner. Information quality has been shown to be an important success factor when investigating overall Information System success (Alshibly 2014).

Technology and E-service in Less Developed Countries

If businesses are to maintain a competitive edge, they most focus on providing services that interact with customers for better communication and the provision of new technological services. As shown in

Delone and McLean (2003), and Otiso,Chelangat and Bonuke (2012), a successful e-service IS system service quality is determined by the assurance and responsiveness of customers. Therefore, a successful service would equate to a satisfied customer and a closer relationship between the parties.

Being in a developing country, as in Otiso, Chelangat and Bonuke (2012), limitations include the level of computer illiteracy, financial constraints, and the frequency of power disruption, power networking, and also the lack of training of employees when dealing with customer complaints. Research shows that these limitations may stem from a western-inspired information system design being implemented within a developing country's context. This eliminates the consideration of local conditions in developing countries and may lead to failure of the information system. Nevertheless, we are moving in an era of modernization, which involves new innovation in developing countries (Heeks, 2002). Therefore, as innovation increases customers will gradually start to use the e-service. Non- users of the e-service may become new users' overtime, as they eventually become experienced users with time (King& Burgess, 2007). New users may also receive benefits by using the e-service, such as the ability to make transactions easier, however other benefits such as easier payments, cost effectiveness, convenience and efficiency, time saving, and facilitating customer services were also present (Otiso, Chelangat and Bonuke, 2012). If positive benefits are not present, it will likely cause a decrease in the use of the e-service, and eventually the IS will need to be discontinued (DeLone and McLean, 2003). However, as in Kings and Burgess (2007), if failure is predicted, different courses of actions can be explored to run a successful IS, such as improving the quality of the project team or improving the training of new users.

Determinants of the success of IS in developing countries

Centralized planning, management, and decision making is continuously increasing in importance in many developing nations, as a result of increasing pressures from overpopulation, depletion of natural resources, and financial instability (Todaro, 1994; Gillis, et al., 1992). Although substantial empirical research has been done, results on the relationships among constructs and the determinants pertaining to information system success are very much unreliable. As DeLone and McLean (1992) and Rai et al. (2002) propose, the observed empirical relationships among the constructs related to IS success might be due to the exclusion of other factors affecting them. This problem could be amended by studying IS success as well as its potential determinants. Seddon (1997) used theoretical principles to adjust DeLone and McLean's (1992) six construct model. Sife, Lwoga, and Sanga (2007) stated that, across the globe, developing countries were operating with technology that was restricted and were not as skilled or equipped with the basic capability of operating technological applications. Because Belize is a young, developing country, research is almost nonexistent. As a result of corruption, and political biasness, gathering accurate research about Belize is tedious, and time-consuming. The equipment, expertise, and resources required to conduct nation-changing research is beyond Belize's horizo

Methodology of the Study

This goal of this research study is based on the effectiveness of the Information System (IS) which is the E-Service at a utility company in Belize. The Delone and Mclean 1992 and 2003 was the IS System model used to construct this study. This model is known to be one of the most studied IS model. This IS Research study was to evaluate the interrelationship between 8 success categories for the E-Service which includes: System Quality, Information Quality, Use, User Satisfaction, Perceived Net Benefits, Complementary Technology and Computer Self-Efficacy (DeLone and McLean, 1992). The Complementary Technology Quality was used to determine if lack of internet access or lack of personal computers in a household would affect the usage of the E-Service. The system and service quality focuses on the quality and the strength of the E-Service that is offered at the respective utility company.

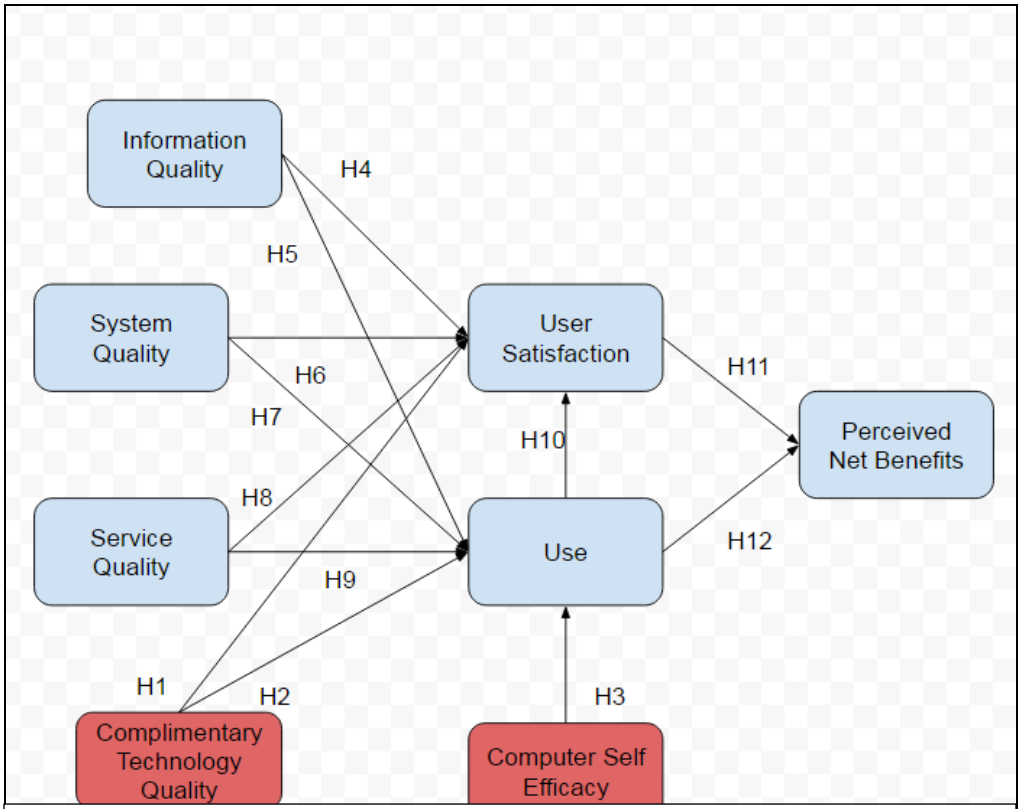

Figure 1. Modified Research Model

The figure (1) above the DeLone and McLean IS success model

Development of Hypothesis

The hypothesized relationship between E-Service success variables are based on the theoretical and empirical work reported by DeLone and McLean (2003). As they suggest, the success model need further development and validation before it could serve as a basis for the selection of appropriate IS measures. Accordingly, the study hypothesized the following ten (10) hypothesis tested:

H1. Complementary technology quality will positively impact user satisfaction.
H2. Complementary Technology will positively impact use.
H3. Computer Self Efficacy will positively impact use.
H4. Information quality will positively impact user satisfaction.
H5. Information quality will positively impact use.
H6. System quality will positively impact user satisfaction.
H7. System quality will positively impact use.
H8. Service quality will positively impact user satisfaction.
H9. Service quality will positively impact use.
H10. Use will positively impact user satisfaction.
H11. User satisfaction will positively impact perceived net benefit.
H12.Use will positively impact perceived net benefit.

Table 1. Construct and Source	
Construct	**Source**
Information Quality	Bailey and Person (1983)
System Quality	Alshibly (2011)
Service Quality	Chang et al, (2009)
User Satisfaction	Seddon Yip (1992)
Use	Balaban et al., (2013) Rai et al, (2002)
Perceived net Benefits	Alshibly (2011); Tansley et al (2001)
Complementary Technology Quality	*Teece, D. J. (1988).*
Computer Self-Efficacy Measure	*Compeau, D. R., & Higgins, C. A. (1995).*

Construct Measurement

Measurement scales for the quantitative data collection were mainly elicited from previously verified instruments to ensure that our research information validity. The information quality construct was measured by the Bailey and Person (1983) seven item scale along with some adjustments to fit the specific context of the E-Service. Bailey and Pearson's instrument is extensively accepted in the IS Field because it has been tested for reliability and validity by several researchers.

Table 2. The measurement items for questioners.		
Construct	Survey questions	Source
Information Quality	IQ1: The company's E-Service website provides you with information on exactly what you need. IQ2: The company's E-Service provides you with information at the right time. IQ3: The company's E-Service website has sufficient information. IQ4: The information on the company's E-Service website is easy to understand. IQ5: The company's E-Service website provides up-to-date information.	*Bailey and Person (1983)*
System Quality	SQ1: The company's E- Service website is easy to use. SQ2: The company's E- service website is user-friendly. SQ3: The company's E-service website provides information that is relevant to your job. SQ4: The company's E-service website provides interactive features between users and system.	*Alshibly, (2011)*

Service Quality	SV1: The support staff keeps the company's E-Service website up to date. SV2: When users have a problem with the company's E-Service website, the support staff shows a sincere interest in solving it. SV3: The company's E-Service website support staff responds promptly when users have a problem. SV4: The company's E-Service website support staff tell users exactly when services will be performed.	*Chang et al.,(2009)*
User Satisfaction	US1: Most of the users bring a positive attitude or evaluation towards the E-Service system. US1: You think that the perceived utility about the E-Service system is high. US1: The E-Service has met your expectations. US1: You are satisfied with the E-Service system.	*Seddon and Yip (1992)*
Use	U1: You use the E-Service system frequently. U2: You depend upon the E-Service system. U3: You are able to complete a task using the E-Service even if there was no one around to tell you what to do as I go. U4: You have the knowledge necessary to use the E-Service.	*Balaban et al., (2013)* *Rai et al., (2002).*
Perceived Net Benefits	NB1: The company's E-Service aids in improving my efficiency of transactions. NB2: The company's E-Service aids me in saving cost. NB3: The company's E-Service aids me in making timely payments. NB4: Using the company's E-Services identifies to me the breakdown of my bill. NB5: Using the company's E-Service allows me to meet my payment deadlines easier. NB6: Using the E-Service cuts my overall expenses.	*Alshibly, (2011); Tansley et al, (2001)*
Complementary Technology Quality	CTQ1: The software on the device (desktop computer, laptop, mobile device) I use to access the E-Service is adequate. CTQ2: The device hardware (desktop computer, laptop, mobile device) I use to access the E-Service is adequate. CTQ3: The device (desktop computer, laptop, mobile device) I use to access the E-Service has an adequate internet connection in regards to speed and reliability.	*Teece, D. J. (1988).*
Computer Self-Efficacy Measure	CSM1: I can use the company's E-Service if there was no one around to tell me exactly what to do. CSM2: I can use the company's E-Service even though I had never used an information system like it before. CSM3: I can use the company's E-Service only if I had the manual for reference. CSM4: I can use the company's E-Service if I had seen someone else using it before trying it myself. CSM5: I can call someone for help if I got stuck using the company's E-Service. CSM6: I can use the company's E-Service if someone else helps me get started. CSM7: I can use the company's E-Service if I had a lot of time to complete the job at hand. CSM8: I can use the built-in help facility for assistance when navigating the E-Service. CSM9: I can use the E-Service if someone showed me how to do it first. CSM10: I had previously used a similar E-Service to do the same job.	*Compeau, D. R., & Higgins, C. A. (1995).*

Data Analysis and Discussion

The purpose of this research is to evaluate the effectiveness of the E-Service at the prospective utility company and base on the findings, assumptions were to be made if the users find the system as effective. The 50 random customers of the company who use the E-service was used as the sample size. Out of the 50 questioners distributed all 50 were recollected which resulted in 100% response rate.

Primary data: This is obtained from the results of the questionnaires given to random customers of the prospective utility company who utilized the E-Service. Convenience random sampling was used to obtain the data for the research study.

Secondary data: These are reviewed sources obtained through the internet such from google scholar or Ebscohost.

Table 3. Characteristics of the respondents (N=50)

Characteristics	Number	Percentage
Age		
18-25	13	26%
26-30	14	28%
31-50	15	30%
>50 years	8	16%
Years as a customer		
<2 years	8	16%
2-4	15	30%
5-10	11	22%
> 10 years	16	32%
Gender		
Male	21	42%
Female	29	58%
Education Level		
PhD	2	4%
Master	6	12%
Bachelors	14	28%
Associates Degree	22	44%
High School	5	10%
Primary School	1	2%

Below are Histograms showing the results of the questionnaires collected from the respondents concerning the success of Belize Electricity Limited E-Service. The questions were based on Information Quality, System Quality, Service Quality, User Satisfaction, Use, Perceived Net Benefit, Complementary Technology Quality, and Computer Self-Efficacy Measure.

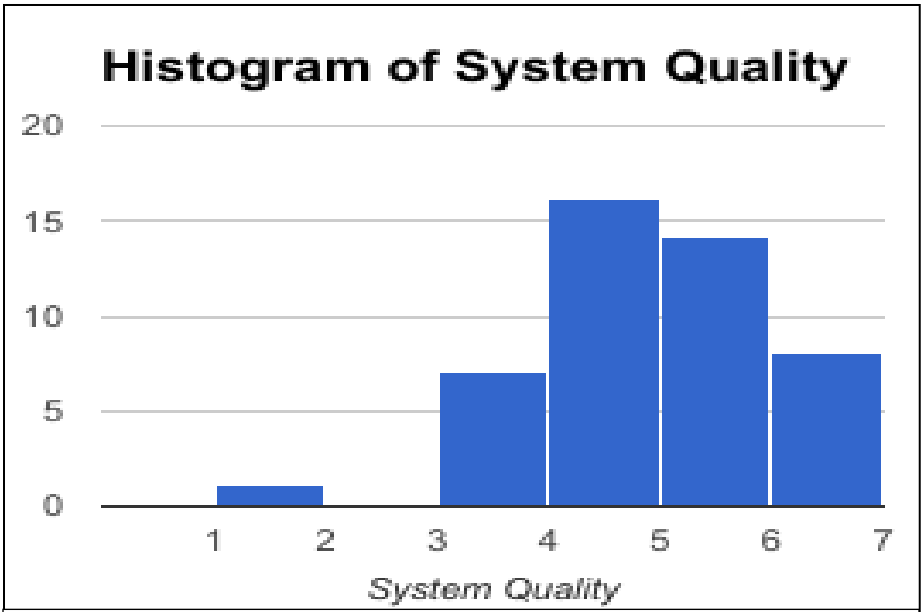

Figure 1: Information Quality

Fig. 1 illustrates that Information Quality is higher than average for the E-Service.

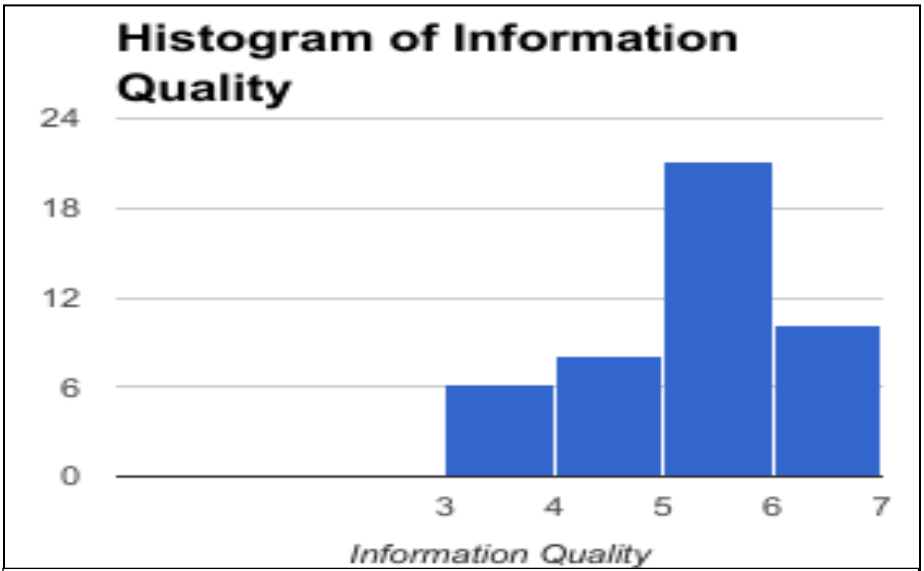

Figure 2: System Quality

Fig. 2 illustrates that most customers are satisfied with the system quality.

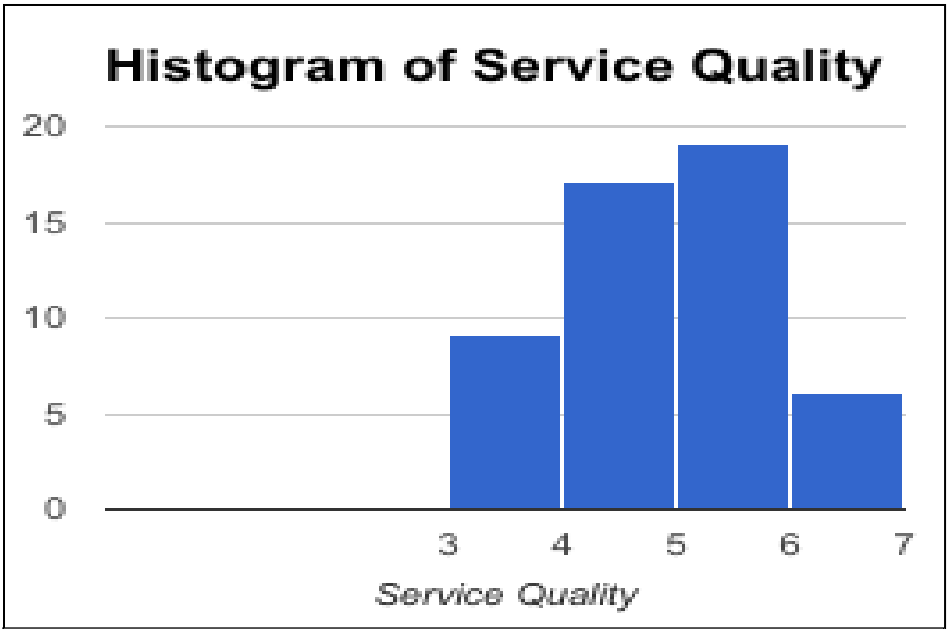

Figure 3: Service Quality

Figure 3 illustrates that most customers are satisfied with the service quality of the E-service.

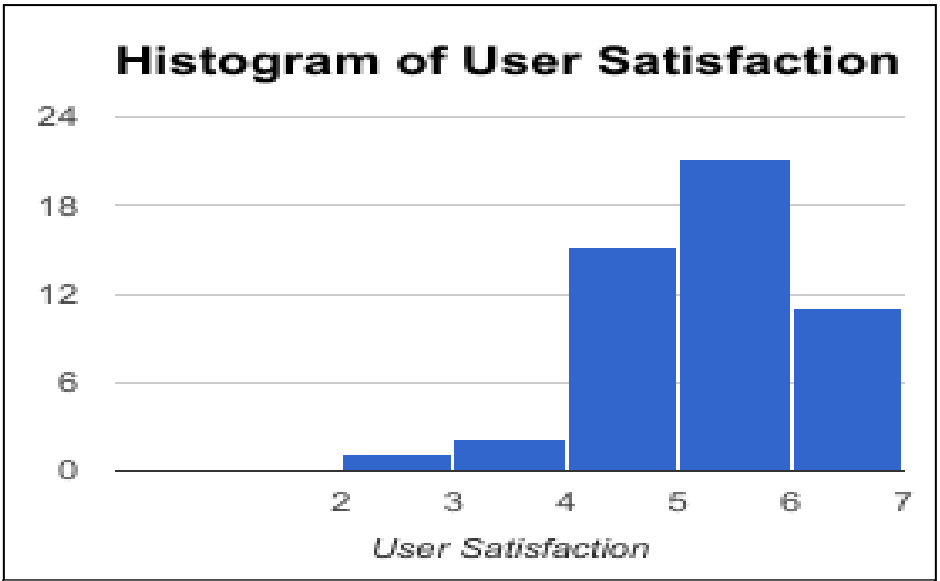

Figure 4: User Satisfaction

Fig. 4 illustrates that majority of the users are satisfied with the E-service.

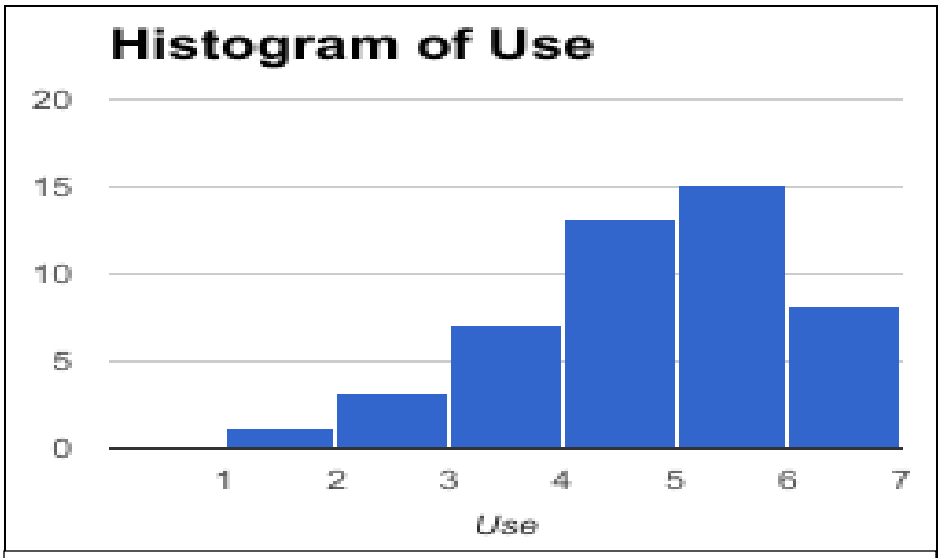

Figure 5: Use

Figure 5 illustrates that more than 50% of customers are familiar with how to use the E-Service, while 50% may not use the E-service as often for various reasons.

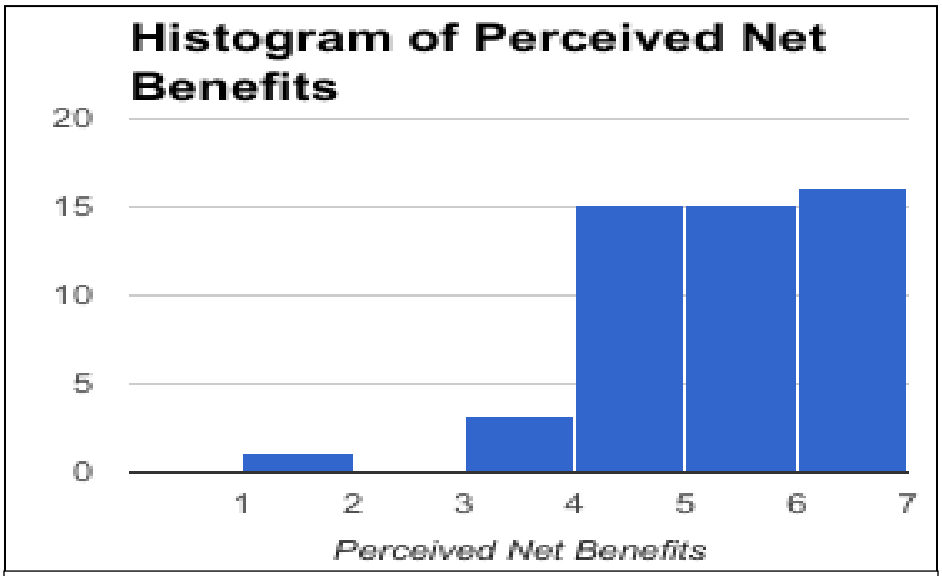

Figure 6: Perceived Net Benefits

Figure 6 illustrates that majority of the respondents agree on the perceived net benefits for the E-Service.

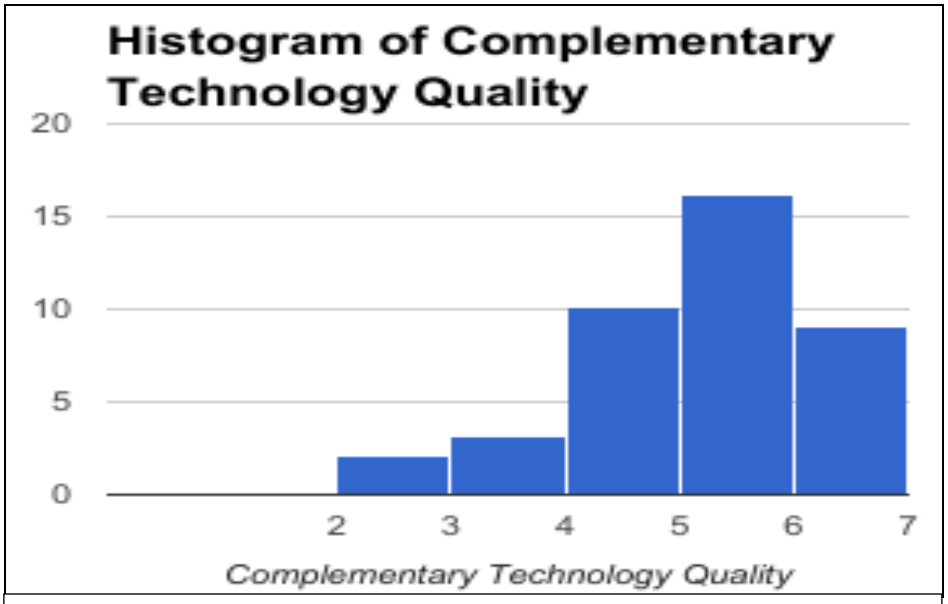

Figure 7: Complementary Technology Quality

Figure 7 illustrates that technological quality for the use of the E-Service is high, however a small percentage of customers have technological difficulties.

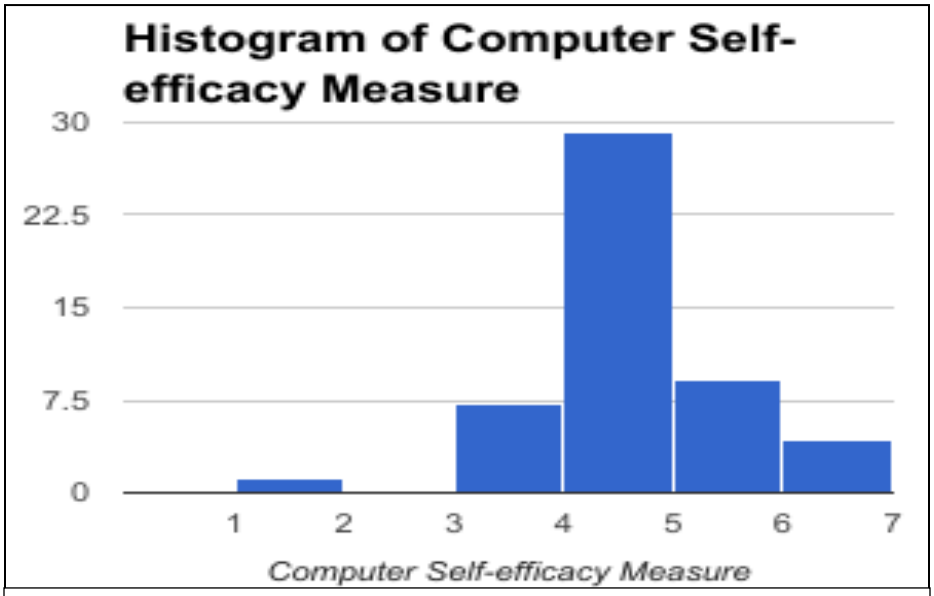

Figure 8: Computer Self-Efficacy Measure

Figure 8 illustrates that the computer self-efficacy measure is average, however a small percentage of customers may not be verse with using computers.

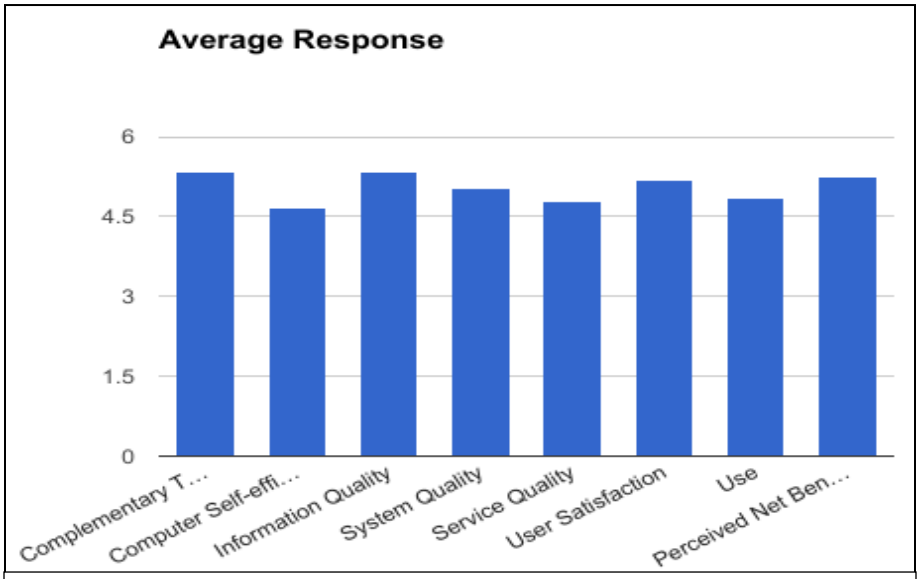

Figure 9: Average Response

Figure 9 illustrates the overall average responses of the Information System construct. This shows that use, service quality and computer self- efficacy are contributing factors for customers not receiving the maximum benefits of the E-Service.

Discussion

The Information System research study was conducted to evaluate if the E-Service is assisting the company achieving its goals and objectives. Because of the purpose of the study, the E-Service success model was created based on the DeLone and McLean (2003) IS Success Model.

Based on the findings, it present that information quality, system quality, service quality, user satisfaction, use, perceived net benefit, complementary technology, and computer self-efficacy measure are rational factors to evaluate the success of the E-Service at Belize Electricity Limited. The researchers rationalized that by including two additional constructs, complementary technology, and computer self-efficacy, along with DeLone and McLean's initial six constructs, the model would be fully accurate and complete. Furthermore, the researchers considered that in developing countries the population may encounter limiting factors outside of their control. Computer self-efficacy focuses on the degree to which a population of a developing country may lack the technical skills to fluently access and navigate web browsers and e-services. Complementary Technology focuses on how likely the population may also lack a steady, reliable internet connection, or possess outdated technology that cannot access web browsers/load specific web pages.

As results show, "computer self-efficacy" received the lowest average response of 4.7, which supports the notion that the population of developing countries lack the technical computer skills to traverse a webpage, and use the e-service's many features. "Service Quality" also received a low average response, signaling that the e-service is not always readily available. Although there is a maintenance team that upkeeps the servers, the support staff don't show a genuine interest to get the e-service running as quickly as possible. The support staff does not routinely notify users when a maintenance, or system downtime will occur. As a result, users will log on, only to stumble upon an e-service under maintenance. Not only does this anger customers, but they are forced to hastily choose an appropriate action. Occasionally, the server might not respond, or the webpage may not be available, preventing customers from accessing the e-service. Thirdly, "use" accumulated a low average response of 4.8, lending to the idea that customers may not use the e-

service as their first option for payment, or they may have difficulty maneuvering the website without personal assistance. It may also suggest that the population do not possess the necessary knowledge to use the e-service.

On the contrary, "Information Quality", and "Perceived Net Benefits" received the highest average responses. A high average response in "Information Quality" suggests that the e-service provides timely, pertinent, and reliable information to aid customers in completing their desired transaction. The information provided by the e-service is easily comprehendible, and is up-to-date on meter readings, and payment transaction history. Moreover, a high average response in "Perceived Net Benefits" indicates that customers agree that the e-service saves transportation cost, aids them in making timely bill payments, and overall improves transaction efficiency, and cost incurrence.

Overall, the results would suggest that the population do possess updated technology that can easily navigate web browsers (Complimentary Technology Quality, 5.3), however, the population simply do not have the knowledge to use the e-service, which is reflected in a low average for "Use" (4.8). A low response in computer self-efficacy (4.7) further supports the notion that the population possess an updated technological device that is able to access the e-service, but they lack the technical skills to fluently navigate the e-service and its many features. This is reflected by a high average response in Complimentary Technology Quality (5.3), but a low average response in Computer Self-Efficacy (4.7).

Conclusion

The purpose of this research study is to evaluate the success of the E-Service of a utility company in a developing country. Based on the findings of the research study, we can arrive at a conclusion that the E-Service of the utility company is classified as successful. The overall ratings of the E-Service were a little above average but overall, the E-Service needed improvements. The study has shown that computer self-efficacy is one of the lowest ranking constructs when compared with the other construct. This construct might be ranked as lower than the other construct because Belize is a developing country whereby individuals do not have access to adequate equipment and technology. As a result of not having adequate access to equipment and technology, this construct then influences the use of the E-Service to be at a lower rate since both of these constructs relate to each other. Upon carrying out this research, based on the findings, the researchers concluded that the E-Service was successful. Therefore, the E-Service is indeed assisting the company in achieving its goals and objectives. With respect to Figure 9, an overall average response of the Information System Construct shows few factors receiving minimal benefits of the E-Service. The DeLone and McLean (2003) IS Success Model assisted in the successful analysis of this study. The eight constructs made it possible to identify the E-Service deficiency and how improvements can be made in the future.

Recommendations

Prior to further updating the technicality of the e-service's features, the Information Technology Department at the utility company should focus on better preparing customers to navigate the different services and features offered on the e-service. They can produce a tutorial video for the general public to learn, and eventually master the art of the e-service, which will ultimately increase the number of customers utilizing the service. The utility company can also offer public training sessions, or a small-scale training seminar for customers, that will improve their competency, confidence, and mastery of the e-service; an area that is currently lacking, which if reflected in low averages of "Computer Self-Efficacy", and "Use". Additionally, the researchers recommend the I.T. Department regularly accommodate, and focus on the e-service customer support option, as well as update customers on possible network, or server errors that would prevent them from successfully navigating the e-service. To conclude, future researchers studying a similar topic can collect empirical evidence over a longer period of time, and various geographical locations. The researchers can acquire more convincing, and accurate results while conducting the study.

Limitations

The main limitation that the researchers developed was the lack of time. The researchers were only able to distribute limited questionnaires since the time frame is only one semester. If the time frame was longer,

the researchers could have distributed more questionnaires and further expand the research to evaluate how effective is the E-Service for the entire country of Belize and not particularly Belize District. You will be able to analyze trends, and patterns to make the most beneficial course of action.

Another limitation was the size of population sample; whereby larger amounts of data will allow you to get a more accurate representation of the data at hand. Due to the lack of time, and resources, only 50 participants were selected. This will give you a confidence interval of 13%, which is too high.

References

Alshibly, H. H. (2014). Evaluating E-HRM success: A Validation of the Information Systems Success Model. International Journal of Human Resource Studies, 4(3), 107. doi:10.5296/ijhrs.v4i3.5929

Brown, I., & Jayakody, R. (2008). B2C e-Commerce Success: a Test and Validation of a Revised Conceptual Model. The Electronic Journal Information Systems Evaluation, 11(3), 167-184. Retrieved February 05, 2017.

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. Journal of Management Information Systems, 19, 9-30. doi:0742.1222.2003.9.50.0.00

DeLone , W. H., & McLean, E. R. (1992). Information Systems Success: The Quest for the Dependent Variable. Information Systems Research 3, 60-95.

Gillis, M., Perkins, D., Roemer, M., and Snodgrass, D. (1992). Economics of Development (Third Edition). New York: W. W. Norton. Goodrich, J.N

Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. / Journal of Strategic Information Systems, 19, 207-228. Retrieved February 05, 2017.

Heeks, R. (2002). Failure, Success and Improvisation of Information Systems Projects in Developing Countries. Development Informatics, (11), 1-17. Retrieved February 05, 2017.

Norfazlina, G., Akma, A. S., Adrina, S. N., & Noorizan, M. (2016). Customer Information System Satisfaction and Task Productivity: The Moderating Effect of Training. Procedia Economics and Finance, 37, 7-12. doi:10.1016/s2212-5671(16)30085-5

Otiso K.N., Chelangat, D. & Bonuke R.N. (2012). Improving the Quality of Customer Service through ICT Use in the Kenya Power and Lighting Company. Journal of Emerging Trends in Economics and Management Sciences (JETEMS) 3(5): 461-466.

Petter, S., DeLone, W., & McLean, E. (2008). Measuring Information Systems, Success; Models, Dimensions, Measures, and Interrelationships. European Journal of Information Systems, 17, 236-263. Retrieved February 05, 2017.

Petter, S., Delone, W., & McLean, E. R. (2012). The past, present, and future of "IS success". Journal of the Association of Information Systems, 13(5), 341-362.

P, T. M. (1994). Economic Development. Social Indicators as Alternative Measures of Development: The Physical Quality of Life and Human Development Indexes, 5. Retrieved February 05, 2017.

Ruyter, K. D., Wetzels, M., & Kleijnen, M. (2001). Customer adoption of e-service: an

experimental study. International Journal of Service Industry Management,184-207.

Sedera, D., & Tan, F. T. (n.d.). User Satisfaction: An Overarching Measure of Enterprise System Success. 963-976. Retrieved February 05, 2017.

Sife, A., Lwoga, E. & Sanga, C. (2007). New technologies for teaching and learning: Challenges for higher learning institutions in developing countries. 3. Retrieved February 05, 2017.

Taherdoost, H., Sahibuddin, S., Ibrahim, S., Kalantri, A., Jalaiyoon, N., & Ameri, S. (2012).Examination of Electronic Service Definitions in International Conference on Advanced Computer Science Applications and Technologies. Kuala Lumpur, Malaysia: IEEE, 73-77.

Todaro, M. P. (1994). Economic Development (5th ed.). New York, London: Longman.

Torkzadeh, G., & Dhillon, G. (2002). Measuring Factors that Influence the Success of Internet Commerce. Information Systems Research, 13(2), 187-204. doi:10.1287/isre.13.2.187.87

Wilson, M. (Ed.). (1998). Information Technology Security Training Requirements: A Role-and Performance-Based Model. National Institute of Standards and Technology:Gaithersburg.

Zeithaml, V. and Bitner, M. (2003) Service Marketing: Integrating Customer Focus across the Firm, McGraw-Hill, New York.

Questionnaire (Belize Electricity Limited E-Service Website Evaluation)

Purpose

This questionnaire asks for information about yourself and your experience concerning the use of the company's E-Service website. We will use the information gathered to make recommendations on how the website can be improved so that you can receive maximum benefits when using company's E-Service Website.

Instructions

Please understand that answers to this survey are anonymous and confidential, and participation is voluntary. We plan to use the results to improve job satisfaction and any problems or to find possible improvements. When formulating your responses, please answer honestly and thoroughly. Thank you for your time!

Sincerely,
University of Belize MIS Research Team

Background Information	Answers:
Please indicate your age range:	18-25 ☐ 26-30 ☐ 31-50 ☐ >50 ☐
Please indicate the number of years you have been a customer of this company.	< 2 ☐ 2- 4 ☐ 5- 10 ☐ >10 ☐
Please indicate your gender:	Male ☐ Female ☐
Please indicate highest education level attained:	PhD ☐ Masters ☐ Bachelors ☐ Associates ☐ High School ☐ Primary School ☐

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

Information Quality	Disagree ----------Agree
The company's E-Service website provides you with information on exactly what you need.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service provides you with information at the right time.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service website has sufficient information.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The information on the company's E-Service website is easy to understand.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service website provides up-to-date information.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
System Quality	**Disagree ----------Agree**
The company's E- Service website is easy to use.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E- service website is user-friendly.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-service website provides information that is relevant to your job.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

The company's E-service website provides interactive features between users and system.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Service Quality	**Disagree ----------Agree**
The support staff keeps the company's E-Service website up to date.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
When users have a problem with the company's E-Service website, the support staff shows a sincere interest in solving it.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service website support staff responds promptly when users have a problem.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service website support staff tell users exactly when services will be performed.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

User Satisfaction	**Disagree ----------Agree**
Most of the users bring a positive attitude or evaluation towards the E-Service system.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
You think that the perceived utility about the E-Service system is high.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The E-Service has met your expectations.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
You are satisfied with the E-Service system.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Use	**Disagree ----------Agree**
You use the E-Service system frequently.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
You depend upon the E-Service system.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
You are able to complete a task using the E-Service even if there was no one around to tell you what to do as I go.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
You have the knowledge necessary to use the E-Service.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Perceived Benefits	**Disagree ----------Agree**
The company's E-Service aids in improving my efficiency of transactions.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service aids me in saving cost.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The company's E-Service aids me in making timely payments.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Using the company's E-Services identifies to me the breakdown of my bill.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Using the company's E-Service allows me to meet my payment deadlines easier.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

Using the E-Service cuts my overall expenses.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

Complementary Technology Quality	**Disagree ----------Agree**
The software on the device (desktop computer, laptop, mobile device) I use to access the E-Service is adequate.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The device hardware (desktop computer, laptop, mobile device) I use to access the E-Service is adequate.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
The device (desktop computer, laptop, mobile device) I use to access the E-Service has an adequate internet connection in regards to speed	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

Computer Self-Efficacy Measure	**Disagree ----------Agree**
I can use the company's E-Service if there was no one around to tell me exactly what to do.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the company's E-Service even though I had never used an information system like it before.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the company's E-Service only if I had the manual for reference.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the company's E-Service if I had seen someone else using it before trying it myself.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can call someone for help if I got stuck using the company's E-Service.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the company's E-Service if someone else helps me get started.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the company's E-Service if I had a lot of time to complete the job at hand.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the built-in help facility for assistance when navigating the E-Service.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I can use the E-Service if someone showed me how to do it first.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
I had previously used a similar E-Service to do the same job.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐