

Investigating the User Satisfaction and Effectiveness of the Sharetec System at St. John's Credit Union.

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Abstract

According to Inc. Management Information System (MIS) is known as computerized database of financial information organized and programmed in such a way that it produces regular reports on operations for every level of management in a company. (Unknown, 2020). The main purpose of the Management Information System (MIS) is to give managers feedback about their own performance; top management can monitor the company as a whole. (Unknown, 2020). Finally, information displayed by the MIS typically shows "actual" data over against "planned" results and results from a year before; thus, it measures progress against goals. The aim of this study was to access and investigate the effectiveness of the Sharetec system when it comes to the employees carrying out their duties within St. John's Credit Union (SJCU). The research study was conducted using both qualitative and quantitative data. The primary data was collected through questionnaires from 30 participants who were employed at SJCU for over two years in different departments. Also, an interview was held with the IT Technician at SJCU to determine the effectiveness of Sharetec against the credit union previous system Emortelle. Results of the study showed that most staff were able to adapt to the change in the new Management Information System; however, user satisfaction was 3.7 % which focused on how employees felt about the implementation of Sharetec within the organization. Results also showed that Sharetec is more effective than Emortelle. The findings of this study can assist the Management and Staff of St. John's Credit Union in measuring the importance and effectiveness of Sharetec and its impact on the organization.

Keywords: Sharetec, Emortelle, St. John's Credit Union (SJCU), DeLone and McLean, Information Quality, User quality, Complementary Technology Quality, System Quality, Service Quality, User Satisfaction, Use, Perceived Net Benefits

Introduction

St. John's Credit Union Ltd. (SJCUC) is one of the leading financial institutions in Belize. SJCUC was established on November 8, 1946 immediately after World War II. Initially the credit union had a closed membership to parishioners only; but after 20 years of growth and existence, decided to open its membership to members outside of the parish, based on request made from the community. After this change in membership on June 17, 1978 the Credit Union was formally re-registered. SJCUC has grown significantly over the years and eventually outgrow their first office which is now part of Anglican Cathedral College. After acquiring land on Basra Street the new building was constructed and officially opened for business in January 1984. (St.John's Credit Union, 2013) SJCUC started business with a small staff but as the credit union grew so was the need for more staff members to assist members. SJCUC now has an employee base of forty-nine (49) personnel's which consists of twenty-nine (29) employees at the main branch in Belize City, five (5) employees at the Dangriga Branch; six (6) employees at the Belmopan Branch and the new North Side Branch which have nine (9) employees.

SJCUC is a not-for-profit organization and therefore can offer member-owners benefits at low or no cost to them, competitive savings rates, rebate bonuses, dividend and personal service from a trusted staff that are members themselves. SJCUC is a financial cooperative which is owned and directed by its member-owners and whose primary goal is to enhance the growth and development of member owners' financial well-being. (St.John's Credit Union, 2013)

According to Person Education Ltd. Management Information System: Information Systems in Business Today, The Role of Information Systems in Business Today stated that Firms invest heavily in information systems to achieve six strategic business objectives: Operational excellence; New products, services, and business models; Customer and supplier intimacy; Improved decision making; Competitive advantage; and Survival (Person Education Ltd, 2019).

Each one of these six-business objective plays a major role in the growth and success of an MIS system within an organization. It provides organization to reach their goal and objective through evaluation and implementation of new changes within the business. As years progress Management Information System has grown throughout generation and has made many successes.

Banking System all over the world are changing and adapting to the era of information technology. (World Finance, 2018). SJCUC strives when it comes to adapting to these changes. Due to the large number of members, and the need to continue producing quality, effective and efficient service to their members. SJCUC upgraded from Emortelle to Sharetec System with the intention that they will be able to reach an even larger populace with the amazing level of service they provide to their members and staff.

According to Micro Software Design, Emortelle was known as a fully integrated online multi-user application that is designed to manage the front end and back end processing of financial institutions. (Unknown, MSD, 2020). Some feature in which Emortelle provided at the moment was Automatic Teller Machine (ATM) Card Management [ISO 8583 compliant];Electronic Bank Reconciliation; Human Resource Management; Member Identification and Digital Signage Capture; Online Member Ledger Processing; Online General Ledger Processing; Payroll Processing. (Unknown, MSD, 2020)

It was explained that Emortelle was brought onboard to the credit union in 1996 and provided similar features as Sharetec such as teller processing, loans processing and administrative processes; however, there was a major problem with Emortelle as it was unable to provide an accurate reporting on delinquency which they just could not get to resolved. Another one of the major downfalls versus Sharetec is that Emortelle lacked advancements in technology as the system was not advanced enough for online banking and home banking to take place. Therefore, SJCUC moved to Sharetec addressing these issues and is now able to report delinquency and engage in online and home banking without any problems.

The Sharetec system is a developed core processing solution with two goals: make it smarter and keep it simple (Linked In, 2018). This system is designed specifically for Credit Unions, originally in the United States but over recent years have been branching out internationally including the Caribbean. The system is designed to use technology to simplify day to day processes of the Credit Union. Improvements that have been experienced has stretched across from simplifying Teller Operations to Back Office Duties and Reporting. It is designed to provide more accurate and detailed reporting's especially in the area of delinquency. It also provides better documentation and record keeping which is a major improvement for future access. The system is designed to store all forms used throughout the Credit Union. (Linked In, 2018). Some services which Sharetec offers are Eservice, Member Service, Accounting, Reporting, Lending, and Back office. Each one of the services that Sharetec offers has its own features which helps in the improvement of the Credit Union productivity. This research is geared towards evaluating the newly implemented Sharetec Information System at SJCU; how effective the system is to the employees and how satisfied they are with the system. SJCU is one of the largest growing credit unions in Belize, therefore their database is vastly expanding. (St.John's Credit Union, 2013)

The implementation of the Sharetec system improved the effectiveness and brought about system satisfaction for the employees of SJCU. The purpose of this research is to access and investigate the user satisfaction and effectiveness of the Sharetec system.

Research Questions / Objectives

How effective is the Sharetec system to St. John's Credit Union's business processes?

How satisfied are the employees with the Sharetec system?

Is Sharetec more effective than Emortelle?

Literature Review

According to DeLone and McLean (1992), the extent of IS success is critical for understanding the worth and effectiveness of Information System (IS) management activities and IS investments. One of the most significant and prevalent works on IS success model is the DeLone and McLean model (D&M IS success model). DeLone and McLean projected in 1992 a classification and a collaborating model as the contexts for abstracting IS success. Motivated by the necessity of a process to comprehend IS and its influences, they established a multi-dimension combined view of IS success model. DeLone and McLean (1992) widely studied IS success procedures and resolved with a model of correlation between six IS success variable classes which are system quality, information quality, information system use, user satisfaction, individual impact, and organization impact.

Enterprise Resource Planning Key Role in a Growth of a Company

According to the Business Process Management Journal, information technologies are becoming an inseparable part of a competitive business strategy (Nah and Kuang, 2001). Therefore, enterprise resource planning systems (ERP) are promptly making their way into the functioning of enterprises. Today's business world, they have become an important instrument to majority of enterprises that without them could no longer function. Under the present-day economic conditions, ERPs are the principal infrastructure of information systems for an organization to prosper (Nah and Kuang, 2001).

Nah, F. F. H., Lau, J. L. S., & Kuang, J. (2001) states that successfully implemented enterprise resource planning systems create organizational synergy, which provides a stimulus for the development of particularly efficient processes necessary for the success of an organization. However, implementation of an enterprise resource planning system does not justify the expectations of an enterprise, too costly, and its implementation usually is for a longer period of time than planned.

Based on variety of results from implementation of ERP it is necessary to analyze the process for a successful implementation. Implementation of enterprise resource planning systems is a highly complex process which is influenced not only by technical, but also by other factors. The problem of successful implementation of ERP is analyzed in the majority of works considering the process of implementation and the factors determining a successful or unsuccessful result of this process.

Successful Implementation of Information System

There have been numerous studies on implementation success in information systems in general. Success has been described in terms of factors. Lists of factors can be misleading in that they ignore the relationship between the factors and organizational and cultural contexts (Bussen and Myers 1996). They also present a static perspective of success and do not capture the processes by which they operate and their interrelationships (Nandhakumar 1996). However, factors can be usefully combined with approaches which focus on understanding broader contextual and process issues to explain how and why factors and outcomes are related (Bussen and Myers 1996). First, the implementation of customized information systems, then implementation of packaged systems in general, and finally implementation of large, integrated packaged systems.

Another alleged factor which leads to successful IS implementation is user participation in system design. In the 1960s, researchers considered user participation to be the key to the achievement of system quality, use and acceptance. Although the belief in the centrality of user participation in system design was strong, Ives and Olsen (1984) reviewed the relevant studies and found that strong evidence for its benefits had not been demonstrated.

“In the last two decades, Information Technology (IT) has entered in the world distressing our personal, social and public life and has made a momentous impact on the quality of life”, O’Brien, J., Markas, M. G. (2007). The survival of businesses in today’s world demands the involvement of Information Systems so it allows them to be competitive. This is the reason why organizations over the past few decades and at present continue to commit fully in information systems. Organizations focus on developing, using, and evaluating practical IS.

Information System Success Management

Tallon PP, Kraemer KL and Gurbaxani V (2000) states that they build up a process-oriented model to assess the impacts of IT on critical business activities within the value chain. The model integrates corporate goals for IT and management practices as key determinants of IT payoffs. They also found that corporate goals for IT can be classified into one of four types: unfocused, operations focus, market focus, and dual focus. The analysis confirms that these goals are useful indicators of payoffs from IT in executives’ firms with more focused goals for IT perceives greater payoffs from IT across the value chain. In addition, they found that management practices such as strategic alignment and IT investment evaluation contribute to higher apparent levels of IT business value. The relationship between information quality and user satisfaction is strongly supported in the literature (Iivari, 2005; Wu & Wang,

2006). The studies illustrated that it has a consistent relationship between DeLone and McLean (1992) information quality and user satisfaction at the individual unit of analysis.

Methodology

Sharetec System is accessible to all employees at SJCU. The staff use Sharetec System to make critical decisions and operations within the Credit Union. The study was done to access and investigate the user satisfaction and the effectiveness of the system.

The research study was conducted using both qualitative and quantitative data. Additionally, an interview was conducted with Mr. Barry Smith the IT Technician at SJCU that oversee and manage the Information system. The IT Technician was asked whether the new information system (Sharetec) was as effective as the previous information system (Emortelle).

The study focuses the level of user satisfaction from the employees and managers by using the six dimensions of the information system success model, with addition to seventh and eighth dimension shown in figure 1 below.

The hypothesized relationship between Sharetec system satisfaction variables are based on the theoretical and empirical worked reported by DeLone and McLean (2003). Accordingly, the study hypothesized the following ten hypotheses tested:

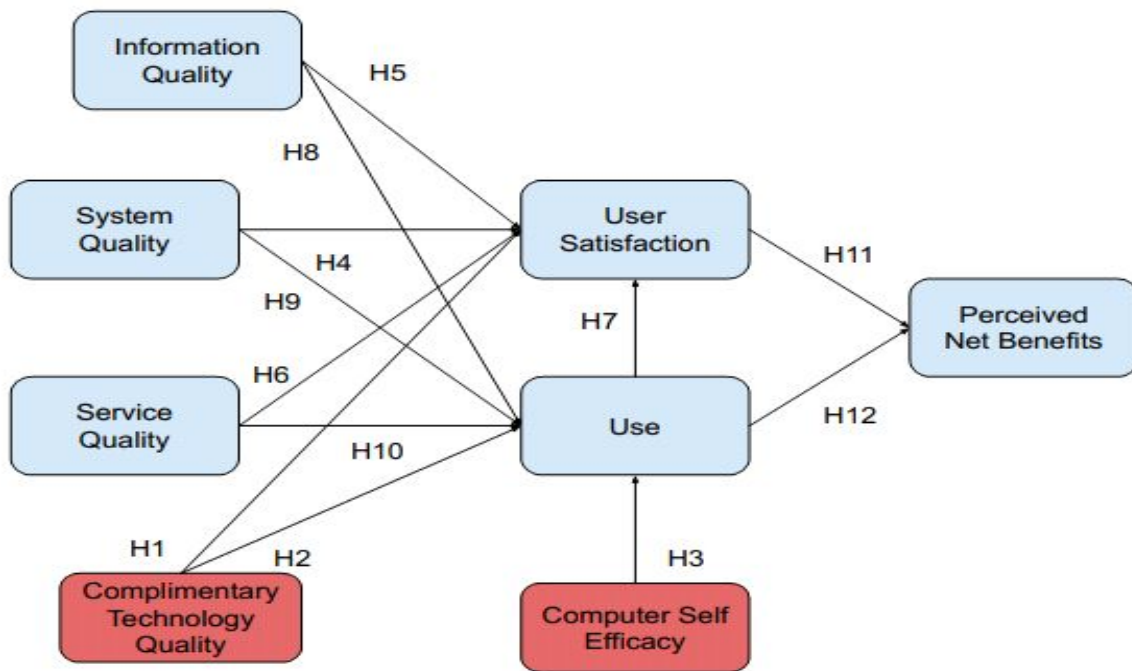


Figure 1. Modified Research Model for DeLone and McLean (2003)

Hypothesis

H1. Complimentary technology quality will positively impact system quality.

- H2. System quality will positively impact user satisfaction.
- H3. Information quality will positively impact user satisfaction.
- H4. Service quality will positively impact user satisfaction.
- H5. Use will positively impact user satisfaction.
- H6. Information quality will positively impact use.
- H7. System quality will positively impact use.
- H8. Service quality will positively impact use.
- H9. User satisfaction will positively impact perceived net benefit.
- H10. Use will positively impact perceived net benefit

Construct Measurement

To ensure the content validity of the scales, measurement scales for the quantitative data collection were mainly elicited from previously verified instruments. This research was conducted using a seven-item scale from Bailey and Person (1983), to measure the following constructs:

Table 1: Measurement Items for Questionnaire		
Construct	Survey Questions	Source
Information Quality	IQ1: SJCUC Sharetec system provides information that is exactly what you need IQ2:SJCUC Sharetec system provides information you need at the right time IQ3:SJCUC Sharetec system provides information that is relevant to your field of work IQ4:SJCUC Sharetec system provides sufficient information IQ5:SJCUC Sharetec system provides information that is easy to understand IQ6: SJCUC Sharetec system provides up-to-date information	Bailey and Person (1983)

<p>System Quality</p>	<p>SQ1:SJCU Sharetec system is easy to use</p> <p>SQ2:SJCU Sharetec system is user-friendly</p> <p>SQ3: SJCU Sharetec system provides high-speed information access.</p> <p>SQ4: SJCU Sharetec system provides interactive features between users and the system</p>	<p>Bailey and Person (1983)</p>
<p>Complementary Technology Quality</p>	<p>CTQ1:The device (desktop, laptop, mobile device) you normally use to access SJCU Sharetec system is adequate</p> <p>CTQ2:The device (desktop, laptop, mobile device) you normally use to access SJCU Sharetec system has a fast and reliable internet connection</p> <p>CTQ3: The speed of the Internet connection used to access SJCU Sharetec is adequate.</p> <p>CTQ4: The reliability of the Internet connection used to access SJCU Sharetec is adequate.</p>	<p>Bailey and Person (1983)</p>
<p>Service Quality</p>	<p>SV1: The support staff keeps SJCU Sharetec system software up to date</p> <p>SV2: When users have a problem SJCU Sharetec system support staff show a sincere interest in solving it</p> <p>SV3: SJCU Sharetec system support staff respond promptly when users have a problem</p> <p>SV4: SJCU Sharetec system support staff tell users exactly when services will be performed</p>	<p>Bailey and Person (1983)</p>
<p>User Satisfaction</p>	<p>US1: You have a positive attitude towards SJCU Sharetec system</p> <p>US2: You think SJCU Sharetec system is useful</p> <p>US3: SJCU Sharetec system has met your expectations</p> <p>US4: You are satisfied with SJCU Sharetec system</p>	<p>Bailey and Person (1983)</p>

<p>Use</p>	<p>U1: Your frequency of use of SJCUC Sharetec system is high</p> <p>U2: You depend upon SJCUC Sharetec system</p> <p>U3: You were able to complete a task SJCUC Sharetec system even when there was no one around to tell you what to do.</p> <p>U4: You have the knowledge necessary to use SJCUC Sharetec system.</p>	<p>Bailey and Person (1983)</p>
<p>Perceived Benefits</p>	<p>Net</p> <p>NB1: SJCUC Sharetec system helps you improve your job performance</p> <p>NB2: SJCUC Sharetec system helps you save time and costs</p> <p>NB3: SJCUC Sharetec system helps the organization achieve its goal</p> <p>NB4: Overall, using SJCUC Sharetec system enhances your productivity</p> <p>NB5: Overall, using the Sharetec enhances recruitment and performance management</p>	<p>Bailey and Person (1983)</p>

<p>Self- Efficacy</p>	<p>I could complete my job using the SJCU Sharetec systems:</p> <p>CSE1: if there was no one around to tell me what to do as I go.</p> <p>CSE2: if I had never used information system likes it before.</p> <p>CSE3: if I had only the information system manuals for reference.</p> <p>CSE4: if I had seen someone else using the information system before trying it myself.</p> <p>CSE5: if I could call someone for help if I got stuck.</p> <p>CSE6: if someone else had helped me get started.</p> <p>CSE7: if I had a lot of time to complete the job for which the information system was provided.</p> <p>CSE8: if I had just the built-in help facility for assistance.</p> <p>CSE9: if someone showed me how to do it first.</p> <p>CSE10: if I had used similar information systems before this one to do the same job.</p>	<p>Bailey and Person (1983)</p>
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Table 1: Measurement Items for Questionnaire

Description of Participants

The participants were employees from SJCU, Belize City branch who use Sharetec daily.

Instrument

The questionnaire (See Appendix II) composed of eight sections as follows: Background Information, Information Quality, System quality, Complementary technology quality, and Service quality, User Satisfaction, Use and Perceived Net Benefits.

The questionnaire distributed comprised of 34 questions. A Likert scale of Disagree/Never (1) to Agree/Often (7) were used. To ensure content validity and reliability of the information, questions were connected to the topic being investigated.

Sampling and Data Collection

The data for this study were collected from a sample of employees from the Loan, Accounts, Credit Control, and Legal Departments at SJCU. The research method used was “random sampling” which allowed the researchers to select 30 employees from the 150 employees at SJCU.

Out of the 30 questionnaires distributed to SJCU employees, 30 usable questionnaires were returned, yielding a response rate of 100 percent. The respondents' characteristics is presented in Table 2 below. Female participants represented a higher percentage of the completed sample (approximately 66.66%) compared to male participants (approximately 33.33%). Approximately, 50% of the participants were aged 25-35 years. The completed sample was composed of educated individuals, approximately 63.66% of whom were associates graduates. The participants were mostly experienced, approximately 40% of the participants had between 11 to 15 years' work experience at SJCU.

Table 2: Characteristics of the Respondents		
Characteristics	Number	Average in Percent
Gender		
Female	20	66.66%
Male	10	33.33%
Total	30	100%
Age		
Less Than 25	4	13.33%
From 25 to 35	15	50.00%
Over 35 to 45	9	30.00%
Over 45 to 55	2	6.66%
Older than 55	0	0.00%
Total	30	100.00%
Work Experience		
<5	4	13.33%
5-10	8	26.66%
11-15 years	12	40.00%
>15 years	6	20.00%
Total	30	100%
Level of Education		
Diploma	1	1.00%
Associate	19	63.66%
Bachelor	10	33.33%
Masters	0	0.00%
Total	30	100.00%

Table 2: Characteristics of the Respondents

Data Analysis and Results

The research was geared toward accessing and investigating the user satisfaction and the effectiveness of the Sharetec system using the constructs: information quality, system quality, complementary technology quality, service quality, user satisfaction, use, and perceived benefits at SJC. The data received from the survey was weighted in Microsoft Excel.

In Excel, each question was weighted for a percentage result using histograms. This research addressed the concern of measuring the success of Sharetec use by the SJC. For this purpose, technology success measurement model was developed based on DeLone and McLean (2003) updated IS success model, which captures the multidimensional nature of Sharetec success. The results showed that the constructs are valid measures of Sharetec success. The hypothesized relationships between the six success variables were significantly supported.

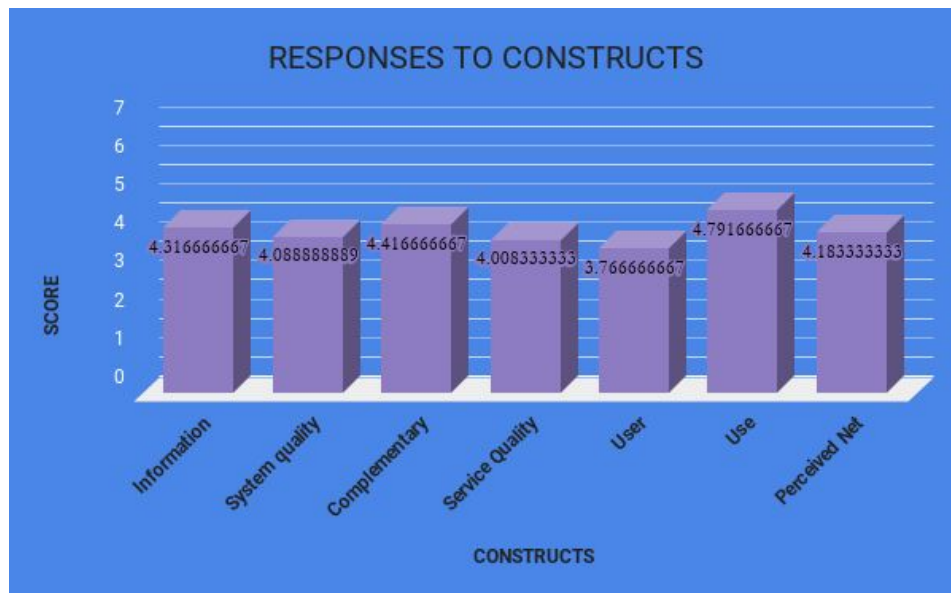


Figure 2: Average Response to the Constructs

Figure 2 is a presentation of the average employees' response to the Construct use to measure the success of Sharetec within SJC.

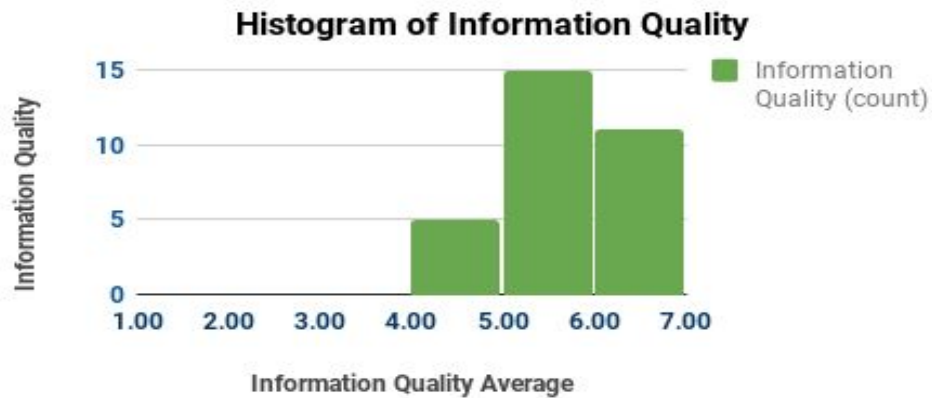


Figure 3: Information Quality

Figure 3 shows employees' response to the Information Quality of Sharetec. The responses range from 4.0 to 7.0 with the majority clustered between 5.0 and 6.0 which can be classified as a positive response. It can be concluded that the employees agree that the information quality provided by Sharetec is generally satisfactory.

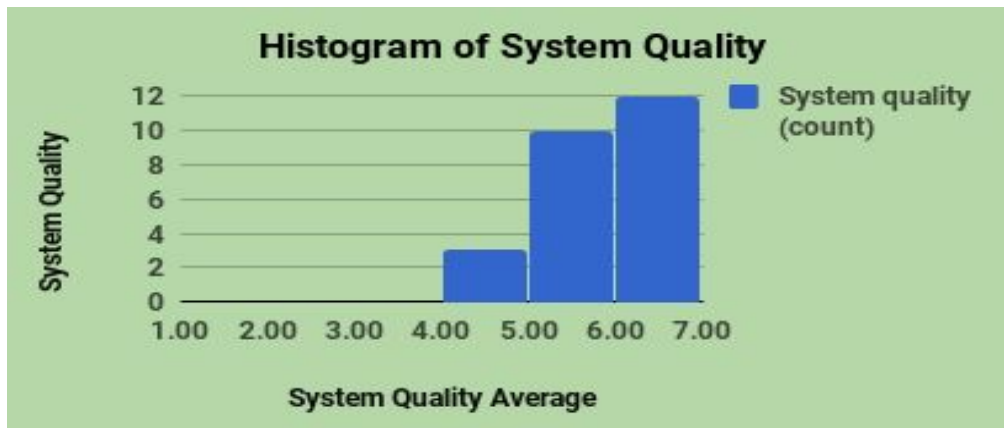


Figure4: System Quality

Figure 4 is a presentation of the employees' response to the System Quality of Sharetec. The responses range from 4.0 to 7.0 with the majority ranging from 5.0 to 7.0 classified as a positive response. It can be concluded that the employees agree that the system quality provided by Sharetec is very satisfactory.

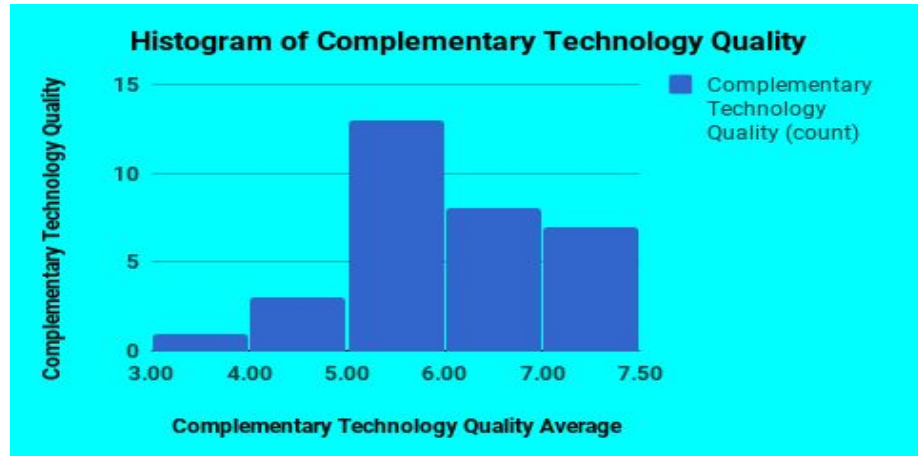


Figure 5: Complementary Technology Quality

Figure 5 is a presentation of the employee's response to the Complementary Technology Quality of Sharetec. The responses range from 3.0 to 7.5 with the majority being between 5.0 and 6.2 which can be classified as a positive response. It can be concluded that the employees agree that the complementary technology quality provided by Sharetec is satisfactory.



Figure 6: Service Quality

Figure 6 shows employee's response to the Service Quality of Sharetec. The responses range from 2.5 to 7.5 with the majority clustered between 3.6 and 5.50 which can be classified as a positive response. It can be concluded that the employees agree that the Service Quality provided by Sharetec is satisfactory.

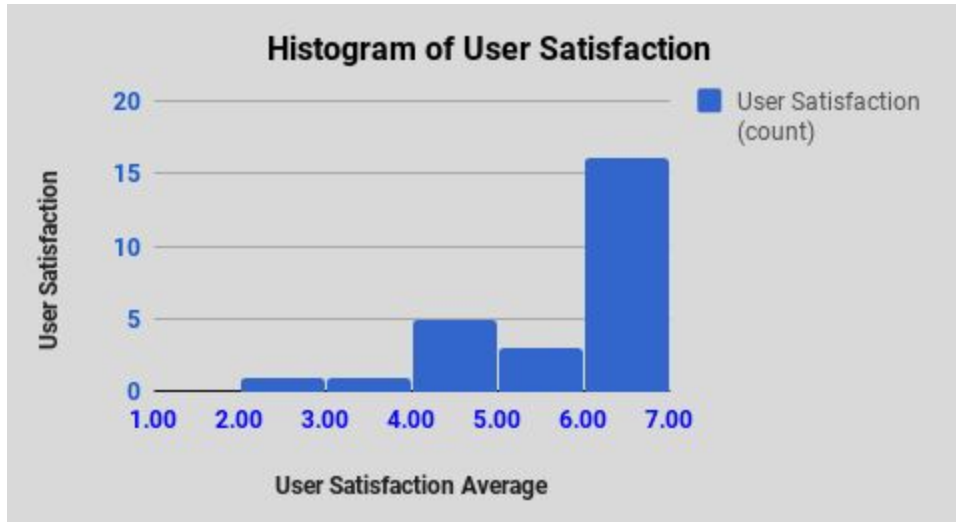


Figure 7: User Satisfaction

Figure 7 is a presentation of the employees' response to the User Satisfaction Use of Sharetec. The responses range from 2.0 to 7.0 with the majority clustered between 4.0 and 7.0 which can be classified as a positive response. It can be concluded that the employees agree that the User Satisfaction Use provided by Sharetec is generally satisfactory.

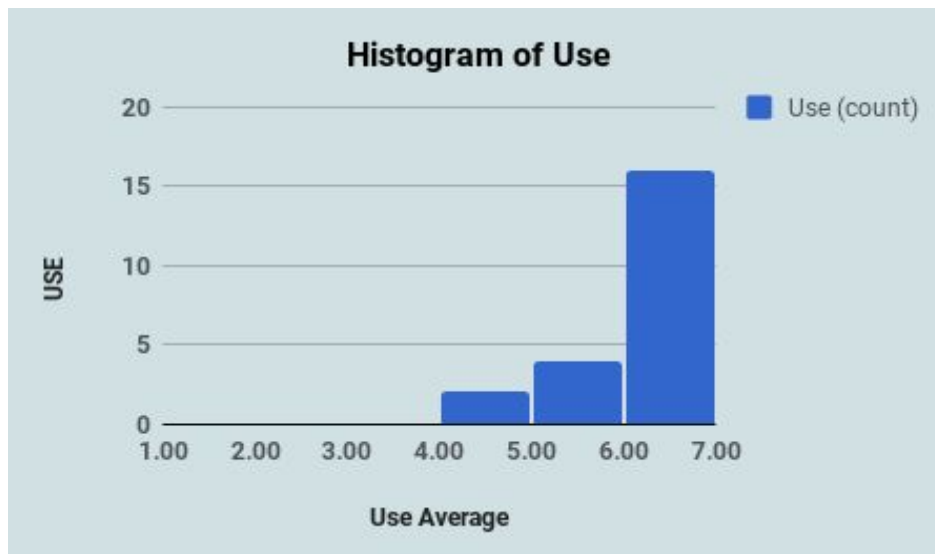


Figure8: Use

Figure 8 is a presentation of the employees' response to the Use of Sharetec. The responses range from 4.0 to 7.0 with the majority clustered between 6.1 and 7.0 which can be classified as a positive response. It can be concluded that the employees agree that the Use of Sharetec is very satisfactory.

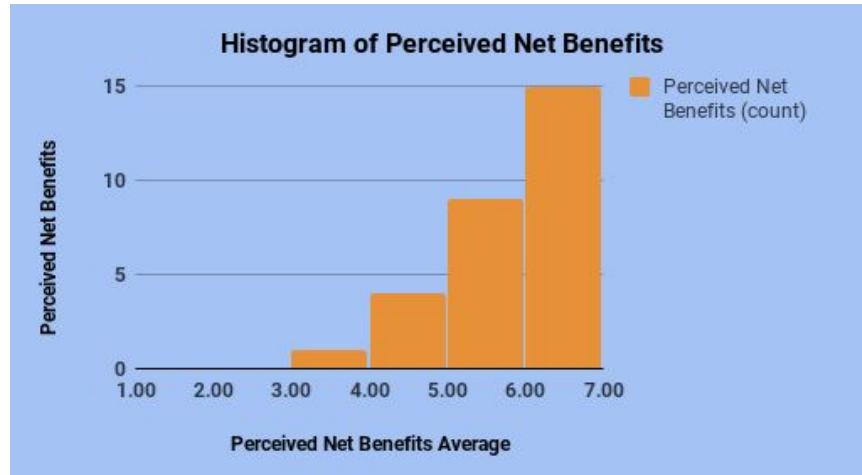


Figure9: Perceived Net Benefits

Figure 9 is a presentation of the employees' response to the Perceived Net Benefits of Sharetec. The responses range from 3.1 to 7.0 with the majority clustered between 6.0 and 7.0 which can be classified as a positive response. It can be concluded that the employees agree that the Perceived Net Benefits provided by Sharetec is generally satisfactory.

Conclusion

The purpose of this research was to assess and investigate the effectiveness and the user satisfaction of the newly implemented Sharetec system to the employees on SJCUC using the above listed constructs. After the investigation was completed using surveys, the results were positive for each construct that was used.

The results for the information quality construct range from 4.0 to 7.0 with the majority clustered between 5.0 and 6.0 which can be classified as a positive response. Based on the results, it can be concluded that the employees are satisfied with the information the system produces and processes. It can be further concluded that the Sharetec system produces the exact information that the employees need to complete their tasks and the information provided are accurate and enough.

For the system quality construct, the survey responses range from 4.0 to 7.0 with the majority clustered between 5.0 and 6.0 which can be estimated as a positive response. The results can therefore suggest that the employees of SJCUC are satisfied with the quality of the Sharetec system meaning that the system conducts high quality processing, which allows them to complete their assigned tasks. It can be further determined based on the results, that the system is very user-friendly and is easy for the employees to use.

The averages for the Complementary Technology Quality of Sharetec range from 3.0 to 7.5 with the majority being between 5.0 and 6.2 which can be graded as a positive response. With the majority expressing a positive response, it can be concluded that the amenities used for the successful functioning of the Sharetec system such as the desktop, laptop and internet connection are enhancing the use of the system.

For the service quality construct, the results range from 2.5 to 7.5 with the majority clustered between 3.6 and 5.5 which can be categorized as a positive response. Based on the positive responses, it can be concluded that Sharetec system's service team is very effective when it comes to solving any problems that may arise with the system. It can also be presumed that they respond to queries in a timely manner and ensure that communication is done during the time of resolving the queries.

The results for the User Satisfaction Use of Sharetec range from 2.0 to 7.0 with the majority grouped between 4.0 and 7.0 which can be ranked as a positive response toward this construct. This positive response for user satisfaction it can be concluded that the employees at SJCUC have a positive attitude towards the Sharetec system and that the system helps them achieve their targeted goals.

For the Use construct, the responses range from 4.0 to 7.0 with the majority gathered between 6.1 and 7.0 which can be rated as a positive response. With the positive responses toward the use construct, it can be settled that majority of the employees at SJCUC use the Sharetec system daily to carry out their functions. It can also be determined based on the results; the system allows the employees to perform tasks independently due to the knowledge of the system.

The results for the Perceived Net Benefits of Sharetec range from 3.1 to 7.0 with the majority assembled between 6.0 and 7.0 which can be grouped as a positive response. Due to the positive results gathered, it can be decided that the Sharetec system assist the employees to improve their job performance and productivity therefore assist the organization to achieve its goals.

An interview was also concluded with Mr. Barry Smith the IT Technician at SJCUC to compare the Sharetec system to the Emortelle system which was used before the implementation Sharetec. Based on the interview with the IT Technician it was discovered that the Sharetec system is more effective than the Emortelle system. This is mainly because the Sharetec system can run more complex reports and is more advanced allowing the Credit Union to embark on online and housing banking in which the Emortelle system could not (Smith,2020).

After the investigation and assessment of SJCUC and the implementation of the Sharetec system we believe that the implementation of the Sharetec system was a great investment done by the SJCUC. The implemented Sharetec system to SJCUC improved the effectiveness and brought about system satisfaction for the employees of SJCUC.

Recommendations

In order to get a true representation of the effectiveness of the implementation of Sharetec it is recommended that an in-depth research analysis needs to be conducted on users from all SJCUC branches. Also, a recommendation would be that a larger sample population be taken to provide a more realistic analysis of the data used for the study. To provide a more quantitative finding within the research, it is seen that direct participation from other organizations in Belize that uses Sharetec will show a more beneficial perspective to the study

Limitations

Time constraint prevented us from using a larger population to conduct our research and provide an in-depth investigation of Sharetec.

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References

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(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>

Kokemuller, N. (2019, July 29). Why Is Technology Important in Business? Retrieved from <https://bizfluent.com/about-6320228-technology-important-business-.html>

- Lin, P., 2019. Design and implementation of financial accounting information management system of shipping companies based on ERP. In: Gong, D.; Zhu, H., and Liu, R. (eds.), Selected Topics in Coastal Research: Engineering, Industry, Economy, and Sustainable Development. Journal of Coastal Research, Special Issue No. 94, pp. 470–474. Coconut Creek (Florida), ISSN 0749-0208.
- Manole, I. and Dragomir., 2017. Computer systems technologies uses in tourism activities. pp. 239-242
- Nah, F. F. H., Lau, J. L. S., & Kuang, J. (2001). Critical factors for successful implementation of enterprise systems. *Business process management journal*.
- O'Brien, J., Marakas, G. M., Hills, T. M. G., & Lalit, M. R. (2006). Management information systems.
- ÖZDEMİR, L. (2012). Developing Information Technology Activity System For Effective Management: A Study In Inonu University. *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 17(2).
- Petter, S., DeLone, W., & McLean, E. (2008). Measuring information systems success: models, dimensions, measures, and interrelationships. *European journal of information systems*, 17(3), 236-263.
- Tallon PP, Kraemer KL and Gurbaxani V (2000) Executives' perceptions of the business value of information technology: a process-oriented approach. *Journal of Management Information Systems* 16(4), 145–173
- St.John's Credit Union. (2013). Retrieved from <http://www.sjcu.com.bz/index.php/about-us/history/>
- Unknown. (2020, 5 20). Management Information System. Retrieved from INC: <https://www.inc.com/encyclopedia/management-information-systems-mis.html>
- World Finance. (2018). Retrieved from <https://www.worldfinance.com/banking/how-leading-banks-are-adapting-to-a-constantly-evolving-financial-sector>

Appendix I



Hummingbird Avenue
P. O. Box 340, Belmopan
Belize, Central America

To: St. Johns Credit Union Ltd

From: Kieran Ryan

cc: Mr. Steven Lewis
Chair, MPIT Department UB

Date: 1/28/2020

Re: University of Belize Research

Dear Ms. Daisy Dawson (Manager),

Good day, my name is Kieran Ryan. I am an Assistant Professor at the University of Belize, Faculty of Science and Technology and I teach business students a course called Management Information Systems. The course requires students to complete a research paper as their final project.

The research is to measure the success of a functional information system at an organization. It asks users of the system about their attitudes towards the system utilizing a survey. No confidential information will be collected. Students need to collect between thirty and fifty surveys. The feedback of the research can be presented to you or your organization. It would inform your organization if the users believe the system is successfully meeting their needs and if not, how it can be improved.

Thank you for your time.

Sincerely,



Kieran Ryan
Assistant Professor
University of Belize

Appendix II

Purpose

This research is required for the CMPS3012 MIS course at University of Belize University. This questionnaire asks for information about yourself and how often you use the Sharetec System. The data gathered will be analyzed to determine the success of Sharetec System at St. John's Credit Union Ltd.

Please answer each question based on your use of Sharetec System with in your department. Your individual responses to the questionnaire will be strictly confidential and used solely for this research.

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:
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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 your level of education:	Diploma <input type="checkbox"/> Associates <input type="checkbox"/> Bachelors <input type="checkbox"/> Masters <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"/>

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

2. Information Quality	Disagree -----Agree
IQ1: The SHARETEC 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 SHARETEC 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 SHARETEC system provides information that is relevant to your job responsibilities.	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 SHARETEC 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 SHARETEC 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 SHARETEC 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"/>
IQ7: The SHARETEC 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"/>
3. System Quality	Disagree -----Agree
SQ1: The SHRETEC 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 SHRETEC 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 SHRETEC 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 SHRETEC 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 SHRETEC 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"/>
5. Service Quality	Disagree -----Agree
SV1: The support staff keep the SHARETEC 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 the SHARETEC system 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 SHARETEC 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 SHARETEC system support staff tell users exactly when service will be performed.	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. User Satisfaction	Disagree -----Agree
US1: Most of the users have a positive attitude of SHRETEC. the Moodle system function.	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 the utility of the SHARETEC 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"/>
US3: The SHARETEC 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 the SHARETEC 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. Use	Never -----Often
U1: Your frequency of use of the SHARETEC 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 the SHARETEC 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 SHARETEC 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 the SHARETEC 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. Perceived Net Benefits	Never -----Often
NB1: The SHARETEC system helps you improve your work 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 SHARETEC system helps the Credit Union to save 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: The SHARETEC system helps you achieve your goals of the institutions.	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 SHARETEC system improves Management and Employees 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"/>
NB5: Using the SHARETEC system at work it increases 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"/>
NB6: Overall, using SHRETEC enhances your work 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"/>

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

Thank you for your participation.