EVALUATING THE EFFECTIVENESS OF THE STANDARD INTEGRATED GOVERNMENT TAX ADMINISTRATION SYSTEM PROVIDED BY THE CENTRAL INFORMATION TECHNOLOGY OFFICE

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Abstract

There has been a significant amount of research that has been conducted on information systems success models, but there has been little to no research done on Office Information System and its success within an organization. Whether or not modern Information system success models can be extended to assessing office information system success it is rarely talked about and explored. This study provides the first empirical test of an adaptation of DeLone and McLean's Information System success model in the context of the administration system. The model contains six different dimensions which all contribute to the success of information systems they include: information quality, system quality, service quality, use, user satisfaction, and perceived net benefit. Structural equation modelling techniques are applied to data collected by questionnaire from 31 CITO employees from the organization. The hypothesized relationships between the six success variables are expressively supported by the data. The findings provide several important implications for Administration systems research and practice. This paper concludes by discussing the limitations of the study, which should be addressed in future research.

Introduction

Organizations have in recent years heavily invested in information and communication technology (ICT) for the support of different business functions. (Stone and Lukaszewski, 2009; Yusliza and Ramayah, 2012). The Central Information Technology Office (CITO) is dedicated to providing efficient and effective Information Technology and Information Systems services for the Government of Belize-Wide Area Network and the wider public service as required by the Government of Belize, through the provision of state-of-the-art Information and Communication Technology (ICT) services, delivered by highly qualified and dedicated ICT professionals in a most cost-effective and responsive environment. Although a variety of definitions exist for Administration systems, ranging from this based on system functionality to those that see it as an overall approach to administration. Throughout the entire research, the term administration systems will be referred to as the system that assists government and organizations by using information technologies, aiming at creating value within and across organizations of the targeted

employees and management (Bondarouk & Ruël, 2009). Users of these systems are mainly government ministries. These types of systems aim to improve the processes within the Administration department itself (Alshibly, 2011). Belize is a developing country, and the ability to keep up with tax rates and organizations paying tax has since become difficult. The government has then implemented the tax administration system and is now regaining control over the tax income within the country. The system has allowed them to properly file through and assess those businesses that are eligible to pay tax. The system is complemented by retail management software given to businesses by the government to keep track of tax payments. The two systems working together provide accurate data. CITO is known for its state-of-the-art equipment and they also provide maintenance services and training for such equipment.

The objective of this research is to evaluate the effectiveness of the standard integrated government tax administration system provided by the central Information technology office (CITO). The goal of the research is to see if the system is used properly if they are as effective as they should be and see how CITO provides better usage and access to these systems.

Literature review

This reviews CSF studies in the e-learning literature and identifies major theoretical perspectives related to e-learning research, namely social cognitive theory, IS success model, technology acceptance model, and motivation theory. Studies that examine e-learning adoption of critical success factors (CSFs) in a single country are more common than studies that examine CSFs from multiple developing countries. This study employs the Delphi method, which is a widely used technique in the technology, education, and policy determination fields (Khan, Moon, Rhee, & Rho, 2010). The Analytic Hierarchy Process (AHP) method optimally solves problems with multiple criteria (Chen & Wang, 2010) and was used in this study to identify and rank e-learning CSFs. The AHP method complements the weakness of score ranking in the Delphi method which does not allow a participant to weigh the relative difference between item rankings (Couger, 1988). Eighty-two e-learning experts in twenty-five developing countries from Asia, the Middle East, South America, Africa, and Europe were invited to participate in this study. Thirty-nine of the eighty-two participants are faculty teaching in e-learning sites from four developing countries in Southeast Asia and forty-three of the eighty-two participants are IT specialists, IT managers, as well as researchers who have had experience and worked with e-learning issue.

In this research work, Zaied (2012) seeks the possibility of creating a new model for evaluating information systems success (ISS) by applying the concepts of both the Technology Acceptance Model (TAM) and DeLone & McLean update IS success model (D&M). An integrated model for evaluating IS success was generated using the fundamental theories of both the TAM and the D&M update IS Success Model. The proposed model for the research was adopted the assessment of the critical success factors affecting information systems in the public sector in Egypt to demonstrate how the proposed model can be applied and supporting the decision-makers in evaluating and developing the information systems. A sample of 320 participants expressed their opinions about the proposed dimensions. The IS literature provides several definitions and measures of IS success. As DeLone and McLean state, there are nearly as many measures as there are studies; obviously, there is no ultimate definition of IS success.

The literature in academic journals (Kumar et al., 2007), on the adoption of e-Government in academic journals, is, understandably, almost non-existent since this is a very young field of research. Due to the nature of the academic publication process, there is also a time lag between the time when the studies are written and when they are published. Since it could be argued that e-Government adoption not only derives from but is also a subset of Internet adoption, it is imperative to examine how the subject of adoption of Internet services has been addressed in the marketing and information systems literature. Governments worldwide have been making significant attempts to make their services and information available on the Internet. A variety of eGovernment initiatives have been undertaken to improve the efficiency and effectiveness of internal government operations, communications with citizens, and transactions with both individuals and organizations (Warkentin et al., 2002). In 1995 there were only 142 government websites; by 1998 this had increased to 2,617 (Muir and Oppenheim, 2002).

Kanjo, C. (2011), the most fundamental issue for any information system is to produce information that is relevant to organizational goals. A number of research studies have reported failures

in information systems, especially in health information systems (HIS) in developing countries. Avgerou (2010) stresses the need for IS studies to have theoretical plurality where the findings can apply to different contexts. HIS in developing countries has been designed and implemented in the same way as in developed countries in the sense that They provide routine information to higher-level health administrations. Most of this information is of a statistical nature, that is, in the form of indicators. The data from which these indicators are calculated arise in basic health facilities and hospital wards. (Krickeberg, 2007: p.9).

Ahmadian, L., et al (2014), says Hospital Information System (HIS) is considered an important tool in health care institutions for managing administrative, financial and clinical data. In general, HIS is supposed to provide immediate access to a patient's full medical history and health information, and accessibility to data that are not easily found within the traditional patient's charts. The results of this study presented the priority of main factors and challenges affecting the successful implementation of health information systems in hospitals from professionals' points of view. Prioritizing the challenges helps health care authorities to decide on their first area of focus and the importance degree of criteria within that area. In this study, the main challenge was hardware-related factors and within that area lack of powerful information, networks took the highest score. Most developing countries do have limitations inadequate and required infrastructure such as hardware, software and skilled human resources to implement health care information systems. Therefore, proper planning needs to be done to increase the productivity of existing resources.

In 1992, the DeLone and McLean (D&M Model) released the first publication of the research paper looking into the dependent variables that affect information systems (William H. Delone, 2003). The paper introduced the D&M success model with six dimensions introduced in the first publication namely system quality, information quality, use, user satisfaction, individual impact, and organizational impact. After the ten-year update, the authors made changes to the success model. These progressions are; to be specific, the expansion of administration quality to reflect the significance of administration and backing in fruitful online business frameworks; the expansion of expectation to use to gauge client mentality as an elective proportion of utilization; and the falling of individual effect and authoritative effect into an increasingly miserly net benefits build. The finalized updated model consisted of information, system, and service quality; (intention to) use; user satisfaction; and net benefits (William H. Delone, 2003).

Behavior and user satisfaction are two very important dependent variables to consider when implementing a new management information system and are tested in Leon and Ephraim's research paper on user involvement and information system implementation (Leon A. Kappelman, 1991). This study dealt with participation both behaviorally and psychological of the information system during the information development process. The user participation was tested using 23 specific questions using the 1-5 Likert scales and can be related to the Use and User Satisfaction dimension. The need to consider user engagement as something different from user participation in order to understand better user experience and, possibly, information system performance is strongly evident after testing the users and employees first (Leon A. Kappelman, 1991) In this age, technology is rapidly improving and new programs and information systems are being made to make the day-to-day task easier. This has altered many elements of the learning environment and is why E-learning is a crucial step when implementing a new information system (Ahmed, 2013). E-learning allows the user to more easily grasp the concepts of using these new systems which is something Belize struggles with and why management information system is an important subject for tertiary level students to learn. The existing e-learning literature has to this day been restricted solely to developed countries with a greater disposition to the Internet, while the growth of e-learning worldwide has demonstrated the fact that research needs to be carried out in other non-studied developing countries. With improvements to better funding, students and users of tomorrow will have better Computer Self-Efficacy using these systems. (Ahmed, 2013)

Information system success and its determinants have been a great asset to the study of information systems (Rajiv Sabherwal, 2006) (William H. Delone, 2003). The IS success is not solely determined by the senior management but the individual user of the system. These determinants used in this paper were from the D&M success model six constructs of information quality, system quality, user satisfaction, system use, perceived usefulness, and system use. The paper also looked at user participation in the information system development process. Senior management must set user adaptable conditions when implementing these information systems through user training, user experience, and the user's

attitude must be considered to achieve the success of the information system. Rajiv Sabherwal conducted a meta-analysis to test the correlation matrix of the six different constructs used in the D&M success model and concluded in excellent support of the theoretical model that looked at user support, system support, and senior executive support of the information system (Rajiv Sabherwal, 2006). For a decade Delone and Mclean have conducted various studies to find the determinants and dependent variables that contribute to the success of an information system (William H. DeLone, 1992). A systematic taxonomy is implemented to coordinate this complex research and to provide a more holistic viewpoint on the idea of information system performance. This study includes six major dimensions or achievements in information systems: quality system, information quality, use, user satisfaction, impact individual and organizational impact. The theoretical and experimental studies (a total of 180 items mentioned) are then evaluated in conjunction with these dimensions and arranged accordingly. With the studies being reviewed, the finding where collected and implemented into a new success model and set of dependent variables to test information system success. The model will be used by many more management information system practitioners in future studies and research (William H. DeLone, 1992).

Methodology

Research Model and Hypothesis

The recent Delone and McLean Information Success Model was used by the researchers to measure the effectiveness of the SIGTAS. The Model was developed by William H. Delone and Ephraim R. McLean in 1992. After its introduction, many critics uttered for an update that occurred in 2003. We studied its meanings and the performance of dimensions in regards to the D&M Information systems success model, compared them with different e-HRM properties, and combined the various points of view into a revised classification scheme. The research was conducted in a quantitative method that corresponded to 31 respondents focused on the governmental ministry of the Income Tax and General Sales Tax. This survey incorporated the following measurements from the D&M IS model:

Information Quality: It focuses on the excellence of the system formation and how reliable it is to the SIGTAS users. It also measures the availability of information to the users at the time they are ready to use it and if it is helpful at the time of performing their task.

System Quality: It is an interactive feature that reflects functionality, performance attributes, usability, user-friendliness and easy.

Complementary Technology Quality: Measure the technology adequacy and its performance when the user accesses the SIGTAS program.

Computer Self-Efficacy: Focuses on the self-efficacy of the users and the impact it causes on their expectations

Service Quality: This deals with the service provider (CITO) and their actions of support whenever a problem is encounter within the SIGTAS system. While carrying the performance it encounters properties such as employee capacity, performance, empathy, and receptivity.

User satisfaction: It tackles the nostalgic attitude of the users towards the information system which tests the user's overall satisfaction with the effectiveness of the process and its aspirations of its users.

Use: Measures smart stream and its users expected real usage.
Perceived Net Benefit: It measures productivity, job enhancement, goal achievement, and end-user goal achievement by using the SIGTAS information system. It also implements qualities such as the development of quality and job skills.

Figure 1: DeLone and McLean updated Information Systems Success Model
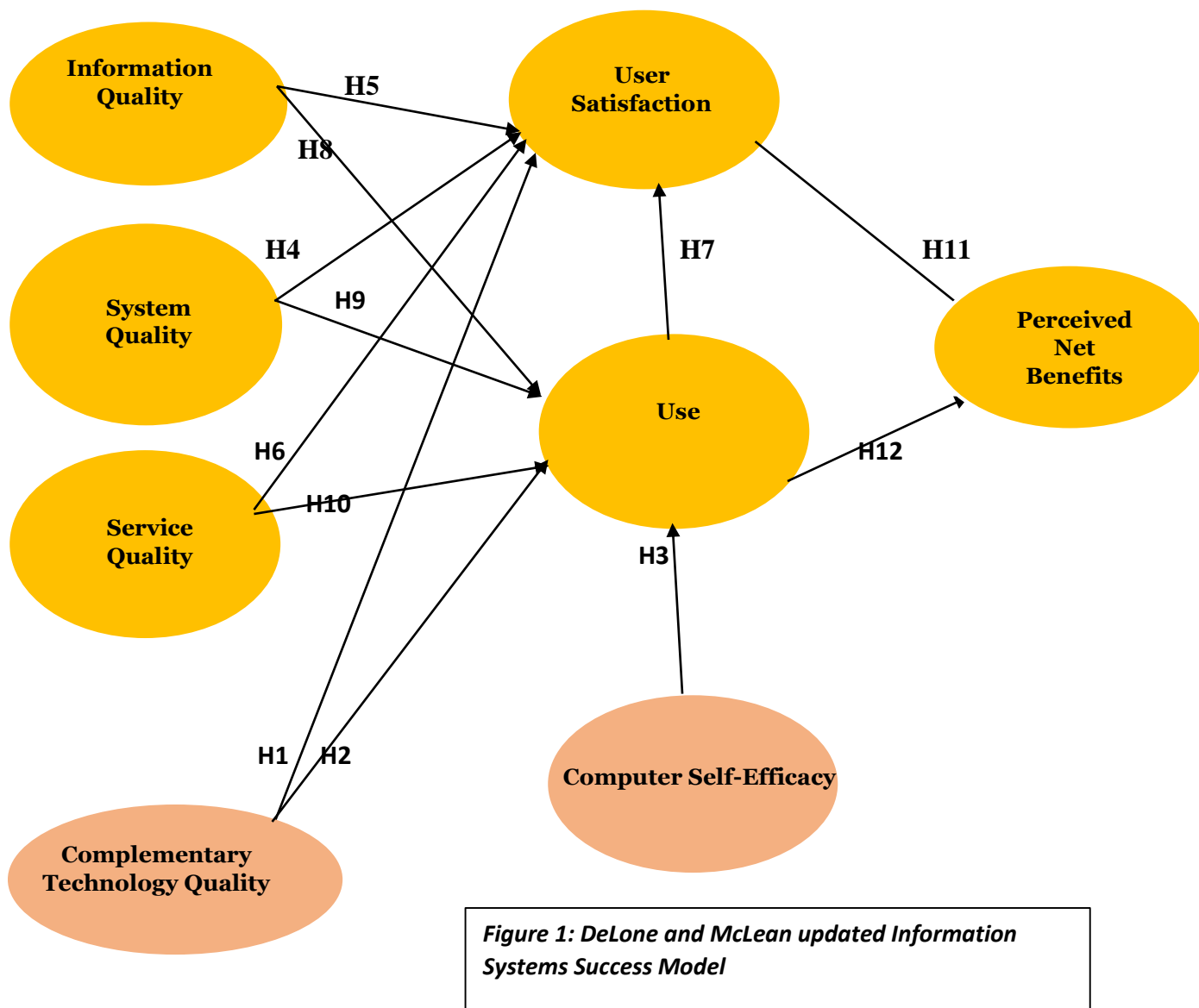
The figure provides above illustrates the model of progress. This DeLone and McLean Model (2003) creates a theoretical relationship between the SIGTAS information system and the measurement for its success. The following hypotheses were therefore determined.

Hypothesis:

H1: Complementary reliability of technology will have a positive effect on user satisfaction.

H2: Complementary value of technology will have a positive impact on the use of the device.

H3: Quality of system will positively impact user satisfaction.

H4: Quality of information will positively impact the user's satisfaction.

H5:   Service quality will positively impact the user's satisfaction.

H6: Use will impact user satisfaction

H7: Information quality will have a positive impact on its use

H8: System quality will positively impact use.

H9: Service quality will positively impact the user's satisfaction.

H10: User satisfaction will positively impact the perceived net benefit.

H11: Use will positively impact the anticipated net benefit.

Description of Participants:

SIGTAS is an information system utilized by the government of Belize under the General Sales Tax and Income Tax for its to keep track of all tax payables (Central Technology Office, 2019). The participants for this research were, therefore, employees with first- hand experience with SIGTAS in order to evaluate the effectiveness of this system and its processes. Research data was collected from CITO employees who have knowledge in operating SIGTAS.

Methodology Research:

For this research, a questionnaire was developed to collect the data. Our questions are based on the McLean and DeLone model (2003). The measurement items are as follows: information quality systems, systems quality, complementary technology quality, service quality, user satisfaction, use, and perceived net benefit.

Construct Measurement:

In order for the group of researchers to suit the framework of SIGTAS correctly, some adjustments were made to the questionnaire. The **Information Quality** was measured by a six-item scale from Bailey Pearson (1983). The **System Quality** construct was evaluated by the six-item scale previously applied by Alshibly (2011). **Complementary Technology Quality** with a four-item scale (Teece,1988**). Service Quality** was estimated using a four-item scale by Chang Etal (2009). **User Satisfaction** was measured by a four-item scale; which recognizes the attitude of CITO employees towards the SIGTAS system. **Use** was evaluated by a four-item measure adapted from previous studies (Balaban et al.,2013; Rai et al., 2002). **Computer self-efficacy** covers the ability to used to perform his or her tasks correctly Compeau & Higgins, (1995). **Perceived Net Benefits** was measured with a five-item scale (Alshibly, 2011; Tansley et al, 2001). Each of the measurement items were rated by using a 5 Likert Scale ranging from Agree (5) Disagree (1)

Measurement Items	Survey Questions	Source
Information Quality	IQ1: The SIGTAS provides information that is exactly what you need IQ2: The SIGTAS information you need at the right time IQ3: The SIGTAS provides information that is relevant to your job IQ4: The SIGTAS provides sufficient information IQ5: The SIGTAS provides information that is easy to understand IQ6: The SIGTAS provides up-to-date information	Bailey Pearson (1983)

System Quality	SQ1: The SIGTAS is easy to use SQ2: The SIGTAS is user-friendly SQ3: The SIGTAS provides high-speed information access SQ4: The SIGTAS provides interactive features between users and the system	Alshibli (2011)
Complementary Technology Quality	CTQ1: The software on this device (desktop, laptop, mobile device) you normally use to access the SIGTAS is adequate CT2Q: The device hardware (desktop, laptop, mobile device) used to access the SIGTAS is adequate CTQ3: The speed of the internet connection used to access the SIGTAS is adequate CTQ4: The reliability of the internet connection used to access the SIGTAS is adequate	Teece,(1988)
Service Quality	SV1: The support staff keep the SIGTAS software up to date SV2: When users have a problem w the SIGTAS, support staff show a sincere interest in solving it SV3: The SIGTAS support staff respond promptly when users have a problem SV4: The SIGTAS support staff tell users exactly when services will be performed	Chang Etal (2009)
User Satisfaction	US1: Most of the users have a positive attitude or evaluation towards the SIGTAS function. US2: You think that the perceived utility of the SIGTAS is high. US3: The SIGTAS has met your expectations. US4: You are satisfied with the SIGTAS.	(Seddon & Yip, 1992)
Use	U1: Your frequency of use of the SIGTAS is high U2: You depend upon the SIGTAS US3: The SIGTAS has met your expectations. US4: You are satisfied with the SIGTAS	Balaban et al.,2013;Rai et al., 2002

Computer Self Efficacy	CSE1: If there was no one around to tell me what to do as I go CSE2: If I had never used an information system like it before CSE3: If I had only the information system manuals for reference CSE4: If I had seen someone else using the information 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 information system was provided CSE8: If I had just the build-in help facility for assistance CSE9: If someone showed me how to do it first CSE10: If I had used similar information systems before this one to do the same job	Compeau & Higgins, (1995)
Perceived Net Benefits	NB1: The SIGTAS helps you improve your job performance NB2: The SIGTAS helps the organization save costs NB3: The SIGTAS helps the organization achieve its goal NB4: Using the SIGTAS improves assessment and training NB5: Using the SIGTAS increases productivity in my job or workplace NB6: Overall, using the SIGTAS enhances recruitment and performance management	Alshibly, 2011; Tansley et al, 2001

Table 1. Measurement items for the questionnaire.

Table 1 relates the various measurement items and their specific survey questions related to SIGTAS.

Data Analysis and Discussion

Demographics

The research sampling method used in this research paper was purposive or judgment sampling whereby 32 surveys were given out to the Department of Income Tax and the General Sales Department though the Central Information Technology Office. CITO gave the surveys to consumers of the SIGTAS (Standard Integrated Government Tax Administration System). The questionnaires measured the success of the information system through the DeLone and McLean Success Model that used to six dimensions of information quality, system quality, service quality, user satisfaction, use, perceived net benefits along with

two additional measures being computer self-efficacy and complementary technology quality. All surveys used the 5-point Likert scale ranging from 1(Disagree) to 5(Agree).

Table 1: Demographics Characteristics of respondents		
Gender		
Male	18	58.1%
Female	13	41.9%
Total	31	100%
Age		
<25	6	19.4%
25-35	18	58.1%
36-45	6	19.4%
46-55	1	3.2%
Total	31	100%
Education		
High School or less	5	16.1%
Undergraduate	10	32.3%
Bachelor's	15	48.4%
Master's Degree and Above	1	3.2%
Total	31	100%
Working Experience		
5>	13	41.9%
5-10	12	38.7%
11-15	6	19.4%
15<	0	0%
Total	31	100%

Table 1 illustrates the Demographics of the respondents; the majority of the respondents were males being 58.1% and females being 41.9%. Most respondents in the workforce were between the ages of 25-35(52.8%) and the least being between 36-45(13.9%). In education, the majority being 48.4% had a bachelor's degree with only one respondent (3.2%) having a Master's degree.

Information Quality

Histogram of Information Quality
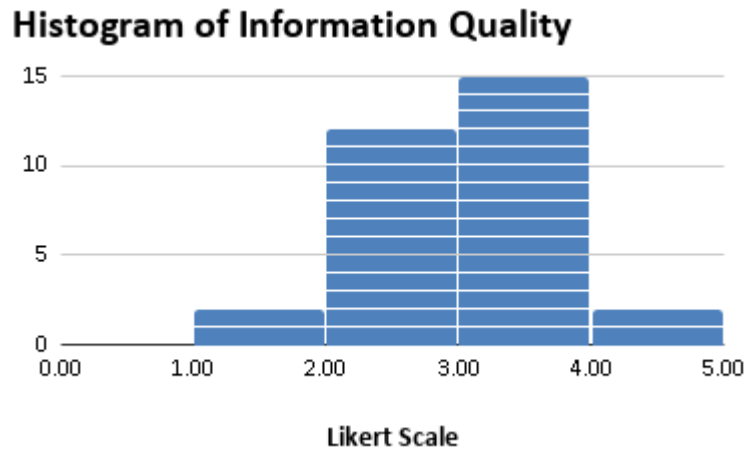
Likert Scale

Histogram 1 illustrates the results gathered for the information Quality Dimension

From a sample population of 32 workers using the SIGTAS, most felt average with 15(46.9%) giving a neutral rating of 3 using the Likert Scale. This indicates that most employees using the management information system felt the value of the information provided was satisfactory and could be improved in the future workplace with 12(37.5%) giving a rating of 2 meaning information can sometimes be inaccurate or requires additional effort in comprehending.
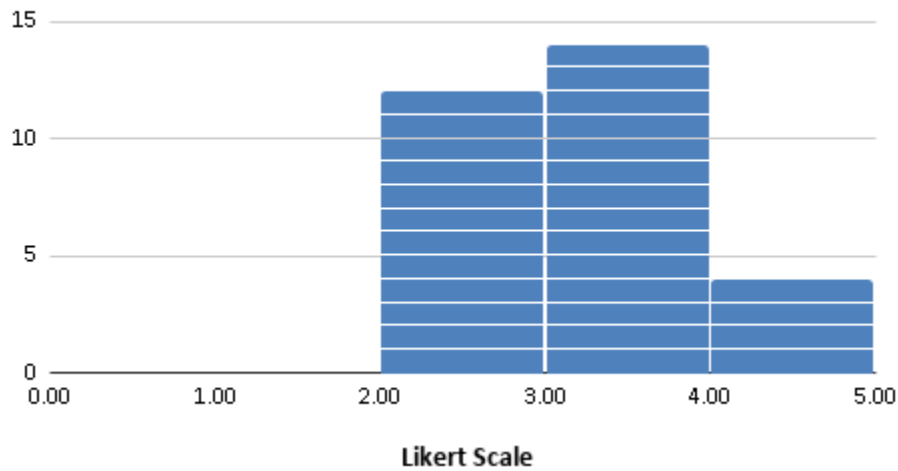
Histogram of System Quality
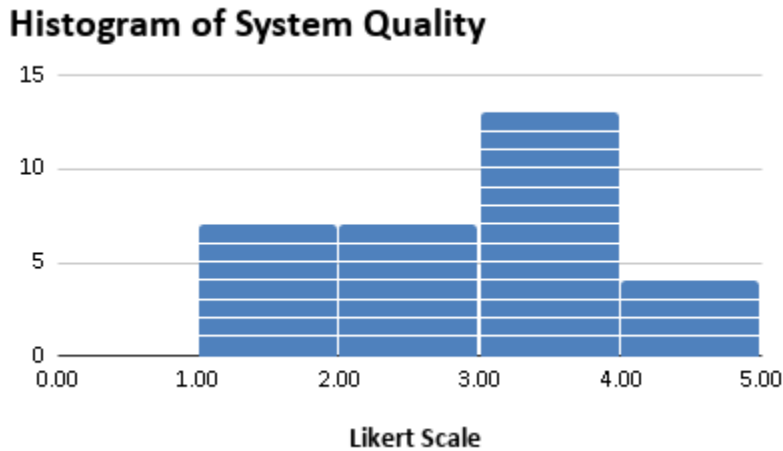
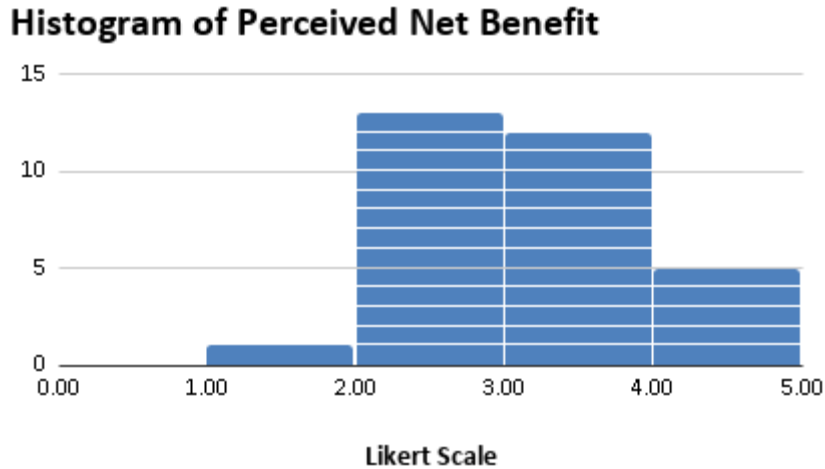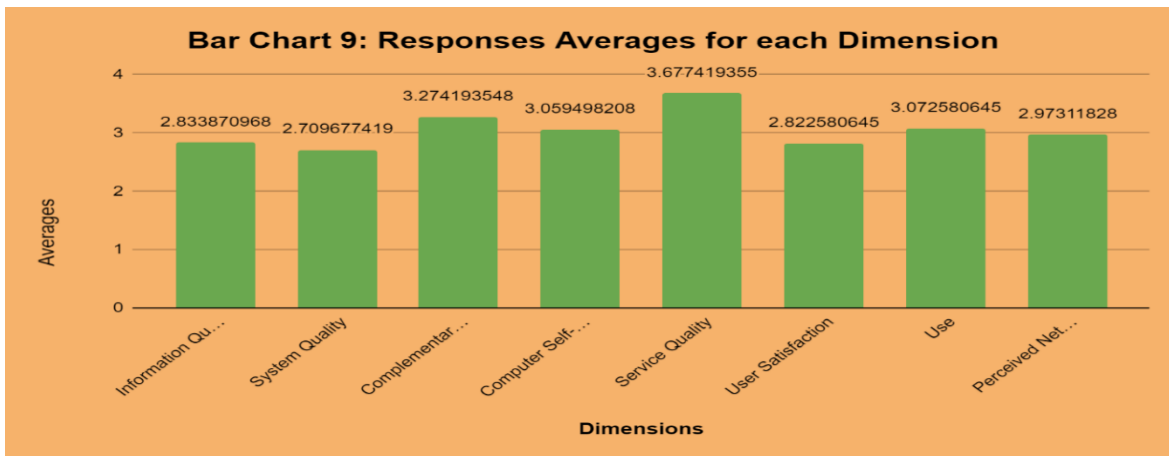*Histogram 2 illustrates the results from the System Quality Dimension*

From a sample population of 32 workers using the SIGTAS, the majority of the employees being 13(40.6%) gave a rating of 3 using the Likert scale with 15 giving a rating of 1 and 2. The result can conclude that employees evaluated the system could be more user-friendly and interactive features to use to the system in a more efficient and effective method.

Table 3 shows the average responses report of the Complementary Technology Quality

Histogram of Complementary
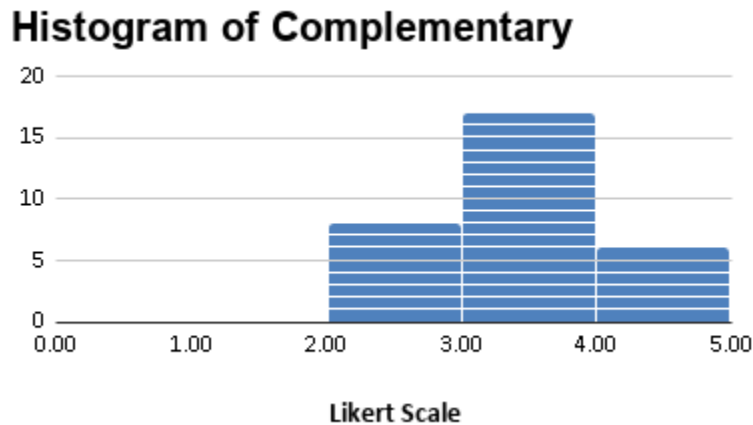
Histogram 3 illustrates the results from the Complementary Technology Quality dimension

From a sample population of 32 workers using the SIGTAS, the majority of the employees being 17(53.1%) gave a rating of 3 on the Likert scale with 9 employees giving 1 and 2 using the scale. The result can conclude that complementary technologies that support the Standard Integrated Government Tax Administration System is satisfactory but can be improved for better assistance to the employees at the Income-tax and General Sales Tax department.

Table 4 shows the average responses report for the Computer Self-Efficacy dimension

Histogram of Computer Self-Efficacy
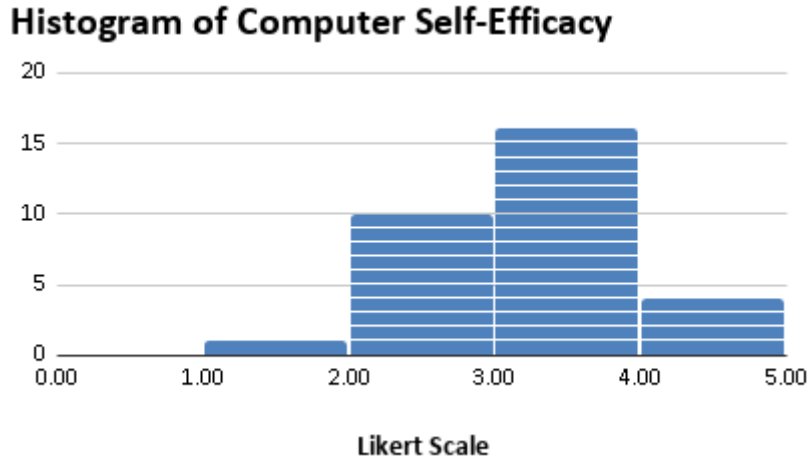
Likert Scale

Histogram 4 illustrates the average results from the Computer Self-Efficacy dimension

From a sample population of 32 workers using the SIGTAS, the majority of the employees being 16(50%) gave a rating of 3 on the Likert Scale meaning most employees have a neutral understanding and self-determination to complete the task using the SIGTAS system. Most users have an average of low self-motivation to use the system without assistance or supervision.

Table 5 shows the average responses report from the Service Quality Dimension

Histogram of Service Quality
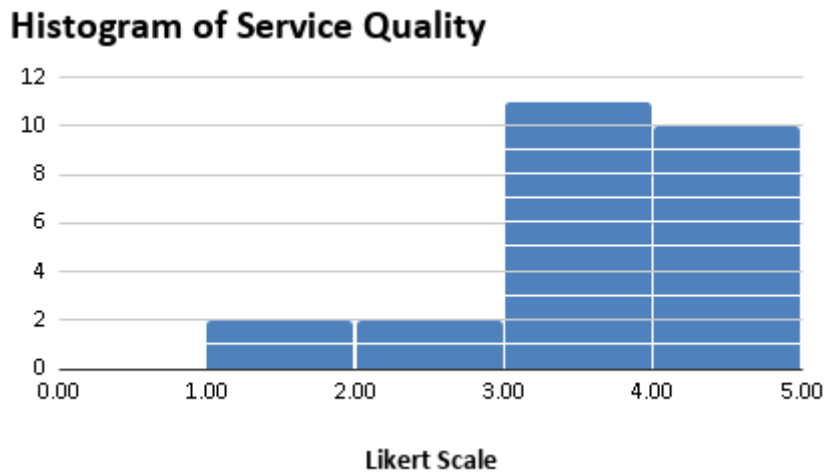
Likert Scale

Histogram 5 illustrates the average results from Service Quality Dimension

From a sample population of 32 workers using the SIGTAS, the majority of the employees being 11(34.4%) gave a rating of 3 on the Likert Scale meaning most employees have support from the operating staff managing the system with 16 employees rating 4 and 5. The service quality is great with the SIGTAS supported by up-to-date features for the management system making Service Quality the highest-rated Dimension.

Histogram of User Satisfaction
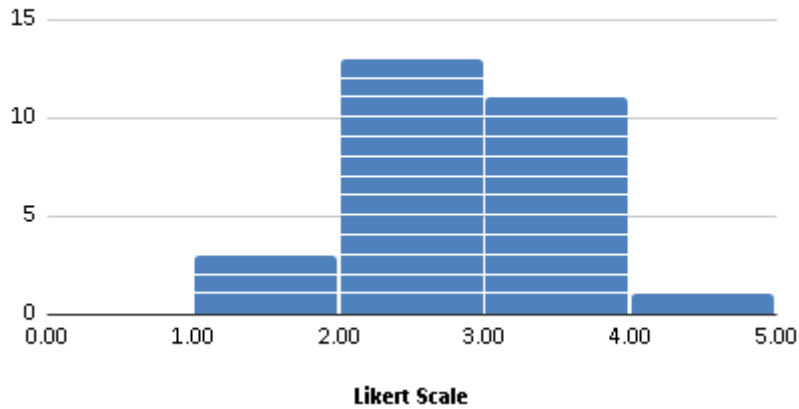
Histogram 6 illustrates the results from the System Quality Dimension

From a sample population of 32 workers using the SIGTAS, majority of the employees being 13(40.6%) gave a rating of 2 on Likert Scale with the second highest being 3 representing 11(34.4%) meaning most users of the SIGTAS are unsatisfied and that system does not meet their requirements.

Histogram of Use

Histogram 7 illustrates the results from the System Quality Dimension

From a sample population of 32 workers using the SIGTAS, majority of the employees being 14(43.8%) gave a rating of 3 on Likert Scale with the second highest being 2 represented by 13(40.6%) meaning an average amount of the employees do not highly depend of the SIGTAS system for task or may not be knowledge of how to use the system in the workplace.

Histogram of Perceived Net Benefit

Histogram 8 illustrates the average responses report for the Perceived Net Benefits dimension

From a sample population of 32 workers using the SIGTAS, the majority of the employees being 13(40.6%) gave a rating of 2 on the Likert Scale with the second-highest 3 of the scale voted by 12(37.5%) employees. From the data collected, the Generals Sales Tax and Income Tax Department does not fully utilize their system and incur benefits such as greater productivity and performance.

Overall average responses for each dimension

Bar Chart 1 illustrates the results from overall averages in the 8 different dimensions

As showcased on Bar Chart 9, the highest rating using the Likert scale from a range of 1-5 is Service Quality with an above-average rating of 3.6. The second-highest rating was the Complementary Technology Quality with a rating of 3.3 with Use being the third highest with a rating of 3.1. The two lowest dimensions were the System Quality with a rating of 2.7 and User Satisfaction with a rating of 2.82.

Discussion, limitations and further research

The data analysis above would have not been possible without using the D&M using the six dimensions of Information quality, Service Quality to test the operational excellence of the information system along with the Use and User Satisfaction to test how employees work with the Standard Integrated Government Tax Administration System (DeLone & McLean, 2003). System Use and Perceived Net Benefits also test the involvement of the information systems and brings benefits to improve productivity and serve as an asset to add value.

From the finding stated above in Bar Chart 9, most of the dimensions were little below or above the average rating of 2.5 using the Likert scale of 1-5. Service Quality was the highest-rated measure and can be interpreted as the staff providing adequate support for the SIGTAS. The other dimensions illustrate and reports that most employees do not fully utilize the system to gain the Net benefits from using the information system. The two additional dimensions being complementary technologies and computer self-efficacy both received average and above-average ratings. The conclusion drawn from the data is that the Central Information Technology Office (CITO) and the workplace provides the equipment and service needed for the SIGTAS to operate, but the employees do not really involve the system in their day-to-day task. Service Quality was the highest-rated dimension but references that past evaluations it was always proven to be the lowest. The lowest dimension observed in the data analysis was the system quality and with a great service quality rating, it was questionable. A recommendation would be to provide training and to change some processes of the system for a user-friendly interface to better use satisfaction

Some limitations and barriers encountered through the process of collecting data was the disadvantage of not giving face-to-face surveys, but CITO gave out the surveys to the users of the SIGTAS. Due to the barrio to information time was limited in completing this research and some dimensions such as Service Quality might have been positive due to preferences and Bias. For further research, a larger sample of surveys and interviews would give a better view of the information system and to also involve other country-wide users. The research was conducted solely on the Cayo District's General Sales tax and Income Tax Departments. With a greater sample, better data analysis could prove an accurate depiction of the SIGTAS to truly point out the weakness and strengths

Conclusion

System objectives broadly define the goals of the Management Information System (MIS) and embody the hierarchy of objectives for the organization, running the gamut from a single strategic statement which is quite conceptual, to detailed operational goals for the individual MIS development project. One of the primary objectives of the MIS function is to develop and operate/maintain information systems that will enhance the organization's ability to accomplish its objectives. Increased organizational dependence on information systems and losses resulting from poor Information Technology (IT) quality drive management attention toward IT quality improvement. Our findings show that all of these constructs are significant antecedents to trust in CITO's System Quality. As IT quality is a multidimensional measure, it is important to determine which aspects of IT quality are critical to organizations to effective IS quality improvement strategies with which scarce resources can be allocated more effectively. Our research explores the linkage between IS quality (system quality, information quality, service quality) and organizational impact. Our results indicate that, overall, IS quality dimensions have a significant positive influence on organizational impact either directly or indirectly. While the formal evaluation approaches may provide objective measures, informal approaches to gaining perceptions of system effectiveness was necessary and helpful for calibrating the credibility of information in the MIS evaluation of the Central Information Technology Office. The result shows that the SIGTAS system was moderately above the success average and a lot of implications must be done to better the future net benefits for both the employees and the workers.

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Appendix

Purpose

This research is required for the CMPS3012 MIS course at the University of Belize University. This questionnaire asks for information about yourself and how often you use the SIGTAS (Standard Integrated Government Tax Administration System) provided by CITO (Central Information Technology Office). The data gathered will be analyzed to determine the success of this information system in your workplace in relation to job performance.

Please answer each question based on your use of the Standard Integrated Government Tax Administration System. 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:
Please indicate your gender:	Male ☐ Female ☐
Please indicate your age:	16-24 ☐ 25-35 ☐ 36-45 ☐ 46-55 ☐ >55 ☐
Please indicate the highest level of education achieved	High School or less ☐ Undergraduate☐ Bachelor's Degree ☐ Master's Degree or Above☐
Please indicate your working experience:	<5 ☐ 5-10 ☐ 11-15 ☐ >15 ☐

Indicate your agreement with each statement by rating it from (1) strongly disagree to (5) strongly agree.

2. Information Quality	Disagree ----------------Agree
IQ1: The SIGTAS provides information that is exactly what you need	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
IQ2: The SIGTAS information you need at the right time	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
IQ3: The SIGTAS provides information that is relevant to your job	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
IQ4: The SIGTAS provides sufficient information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
IQ5: The SIGTAS provides information that is easy to understand	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
IQ6: The SIGTAS provides up-to-date information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
3. System Quality	**Disagree ---------------Agree**
SQ1: The SIGTAS is easy to use	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
SQ2: The SIGTAS is user-friendly	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
SQ3: The SIGTAS provides high-speed information access	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
SQ4: The SIGTAS provides interactive features between users and the system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
4. Complementary Technology Quality	**Disagree ---------------Agree**
CTQ1: The software on this device (desktop, laptop, mobile device) you normally use to access the SIGTAS is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CTQ2: The device hardware (desktop, laptop, mobile device) used to access the SIGTAS is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CTQ3: The speed of the internet connection used to access the SIGTAS is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CTQ4: The reliability of the internet connection used to access the SIGTAS is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
5. Computer Self-Efficacy	**Disagree ----------------Agree**

I could complete the job using the SIGTAS...	
CSE1: If there was no one around to tell me what to do as I go	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE2: If I had never used an information system like it before	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE3: If I had only the information system manuals for reference	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE4: If I had seen someone else using the information system before trying it myself	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE5: If I could call someone for help if I got stuck	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE6: If someone else had helped me get started	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE7: If I had a lot of time to complete the job for which the information system was provided	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE8: If I had just the build-in help facility for assistance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE9: If someone showed me how to do it first	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
CSE10: If I had used similar information systems before this one to do the same job	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
5. Service Quality	**Disagree ----------------Agree**
SV1: The support staff keep the SIGTAS software up to date	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
SV2: When users have a problem with the SIGTAS, support staff show a sincere interest in solving it	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
SV3: The SIGTAS support staff respond promptly when users have a problem	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
SV4: The SIGTAS support staff tell users exactly when services will be performed	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
6. User Satisfaction	**Disagree ----------------Agree**
US1: Most of the users have a positive attitude or evaluation towards the SIGTAS function.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
US2: You think that the perceived utility of the SIGTAS is high.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
US3: The SIGTAS has met your expectations.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
US4: You are satisfied with the SIGTAS.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
7. Use	**Never --------------------Often**
U1: Your frequency of use of the SIGTAS is high	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
U2: You depend upon the SIGTAS	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
U3: You were able to complete a task using the SIGTAS even when there was no one around to tell you what to do	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
U4: You have the knowledge necessary to use the SIGTAS	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
8. Perceived Net Benefits	**Never --------------------Often**

NB1: The SIGTAS helps you improve your job performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
NB2: The SIGTAS helps the organization save costs	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
NB3: The SIGTAS helps the organization achieve its goal	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
NB4: Using the SIGTAS improves assessment and training	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
NB5: Using the SIGTAS increases productivity in my job or workplace	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
NB6: Overall, using the SIGTAS enhances recruitment and performance management	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Please return this survey when completed.

Thank you for your support and participation in the survey.