Evaluating the Success of an Online System: Courts Belize Limited

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Abstract

T*hey are over 100,000 customers who are successfully using the Future Applied Computer Technology Enterprise Resource Planning for the Next Generation (FACT ERG.NG) by Software International Pte Ltd FACT ERG.NG. The software consist of* six different functions such as Financial Accounting, Warehousing and Inventory Management, Manufacturing, Fixed Assets Management and Reports. The research focus on the employee's internal experience using the software and its overall performance in areas such as system quality, information quality as well as user compatibility. The aim was to see if the software improve the overall experience or made it more complicated. In the end we should be able to determine the most favorable aspect of the software. This paper was developed to conduct a research of the effectiveness and efficiency of the management information system at a regional country based in Belize. Courts Belize is a retail company providing home appliances to the entire country of Belize. The system operated by the company to ensure communication, customer satisfaction and that work is being done is known as a CoSacs System. From the results make recommendations on what can be improve for future reference. The research was conducted at Courts Belize Limited and the participants were employees of the organization. In conclusion, the paper summarizes the outcome of the results as well as the limitation of the research.

Keywords: information systems, information systems success model, communication system, developing countries, competitive advantage, CoSacs system

Introduction

The research tested the overall performance of Future Applied Computer Technology Enterprise Resource Planning for the Next Generation (FACT ERG.NG) by Software International Pte Ltd. These internals software system that is used by Courts Belize Limited to help with the everyday running of the business. Currently many organizations have invested in software technologies in order to have the competitive advantage over other companies competing in the same market. Courts is a dynamic brand under the

Unicomer group of company where branches can be found throughout the Caribbean (site). The company can be found in eleven countries throughout the Caribbean and operated ninety three stores in total. This company is one of the first ever to offer flexible credit options on a massive scale to Belizeans. Although Belize is considered a poor country, this company had a great marketing strategy and was able to capitalize and within a short period of time branches can now be found throughout the country. Other organizations had attempted to offer the same services however due to poor investments or insufficient IS performance the company end up failing.

The IS was reviewed internally for overall performance in the area of system quality, information quality as well as user compatibility. The software allows for employees to update customer's information in real time and eliminate the error of having duplicates. It also manages the Financial Accounting, Warehousing and Inventory Management, Manufacturing and generates Management Information System reports.

The originality of this research is not only to see the overall performance of the communication system software used by Courts Belize Limited but to see how the software benefits employee's everyday productivity as well as the overall efficiency of the business. Additionally how the Information system allows the employee to improve the relationship employee and customer.

The system used by the company is known as a CoSacs System. This system is a regional system used by all Unicomer Brand stores, and in Belize it is used by the entire departments. The system lists all the necessary information as it pertains to a customer. Specifically, within the system the following details can be found: a customer name, address, contact number, reference, job location, position, monthly salary, monthly deduction, credit history, qualification of credit, number of accounts and items bought on account. The information is necessary for all areas and different departments, more importantly for the sales clerk, the credit officer and the technical services representatives. The system is a standard system, that essentially is easy to use and understand and provides employees with the proper information needed to function. Though, the system can used some updating for the

betterment of the software it is something that is very costly, but there are improvements that can make the system even better. Some other studies that can be developed in the management information system area could include to measure the most effective program used in a information system and to inquire on additional processes that can be implemented in programs. Management information systems have made work easier for organizations and this paper will demonstrate the effectiveness of thus management information systems at Courts Belize Limited.

Literature Review

FACT ERP.NG information systems makeup

FACT ERP.NG is a IS that performs six different functions such as Financial Accounting, Warehousing and Inventory Management, Manufacturing, Fixed Assets Management and Reports. Financial accounting dealing with the monetary transactions such as payrolls, and GST. Warehousing and inventory tracks the stocks in the warehouse and alerts the team if we are getting low on a merchandise. Fixed Assets Management and reports allows the company to track the location of each asset no matter the location. Manufacturing eliminates any manual work. All the serial or tracking numbers can be uploaded in the system. Finally reports are created without any external help. They are over thousand reports that you can create to suit your needs. It offers graphical reports, personalization capabilities, data security FACT ERP.NG Software is a fully functional software that can be uploaded on any current computer hardware system in the company. Its main functions are to helps reduce duplication, processes transactions in real-time and update reports immediately helping management to be updated at all times with most recent information. In the event the market changes they will be among the first ones to know. The manufactures

offers online support to ensure that the software solution features and reports are relevant to the company and country the business is located.

FACT ERP.NG Success Information Behavior

FACT have been operating since 1998 and was founded as a software solution company by a team of software engineers, banking and insurance experts. According to Mr. Arvind Agarwalla Group Founder and CEO they have helped over 100,000 companies improve the efficiency of their business with the IS software and eliminated the use of paper and pen. According to Best ERP Software Companies | ERP Software Solutions | Techpillar. (n.d.) have noted that FACT ERP.NG is racked amount the top 15 software solution when it comes to performance and efficiency. Research have shown that technology in the form of sophisticated database fed by electronic commerce, point-of sale devices, ATM's is changing the roles of marketing and managing customers. (Accelerating Customer Relationships: Using CRM and Relationship. (n.d.). Technology is the link to profit, competitive advantage and manage the changing relationship with customers. One of the main factors that allow FACT ERP.NG to stand out is that it is very easy to use and is one of the most affordable. It is also very effective and is compatible with more company hardware. Currently information system are changing the overall way of communicating and in order for a businesses to survive they must adopt to change. "There is no limit to where the importance of online communication can be ended" (Jois, 2008).

FACT ERP.NG information system in developing countries

Technology have truly change the way how society on a whole communicates. Virtual communication is now more common today than before especially since it is more affordable. Businesses are adapting to the changing environment and are now using the internet to save money by having more virtual skype meetings instead of travelling to attend a meeting. (Service transformation-managing a shift from business travel to virtual meetings. (2003, June 11). FACT solutions currently covers and serve a wide variety of industries, such as Islamic Banking, Islamic Insurance, Manufacturing, and Commercial sectors. They have now expanded globally to over different part of the Caribbean as well as in the United States. The software have allow many business to be efficient, effective and have a competitive advantage in globalization.

Research Model Hypothesis and Methodology

This research project tested the overall Information System (IS) qualities of the COSACS system. This IS was selected to study its success when using the IS Success Model implemented by William H. DeLone and Ephraim R. McLean in 1992. This systems' success was determined by evaluating the relationship between information systems on the six dimensions of the model focusing on **information quality, system quality, service quality, usage intentions, user satisfaction** and overall system benefits (DeLone & McLean, 2003) along with the two other additional models **complementary technology** and **computer self-efficacy**.In respect to such consideration, it was concluded the Management information systems are geared to better assist the operations of the day to day office duties. It is put in place to help eliminate tedious work and time. There are many different types of management information systems which can be incorporated into a company. Though costly, it helps to better increase the efficiency of work and gears to providing competition to other businesses in the same field. Courts Belize has implemented different types of management information systems which aid them in being the number retail home appliance store the county of Belize. Namely these management information systems include FACT and CoSacs. These system assist them in inventory controls and stock locations of items, in addition to providing customer history with the company.

In conjunction with historical research, this study attempted to extend the DeLone and McLean model regarding IS Success to the developing world of technology. As seen before, the research model presented

In this study was an extension to the traditional model with the modification to include complementary technology quality and computer self-efficacy as a measurable construct. These inclusion are a key dimension in assessing overall system success in developing countries where internet connections are slow and inadequate. Thus, this study focused mainly on the perspective of how effective the system are useful to Courts employee and management, and used the six dimensions of IS Success inclusive of the additional constructs, complimentary technology quality and computer self-efficacy as shown in Figure 1.

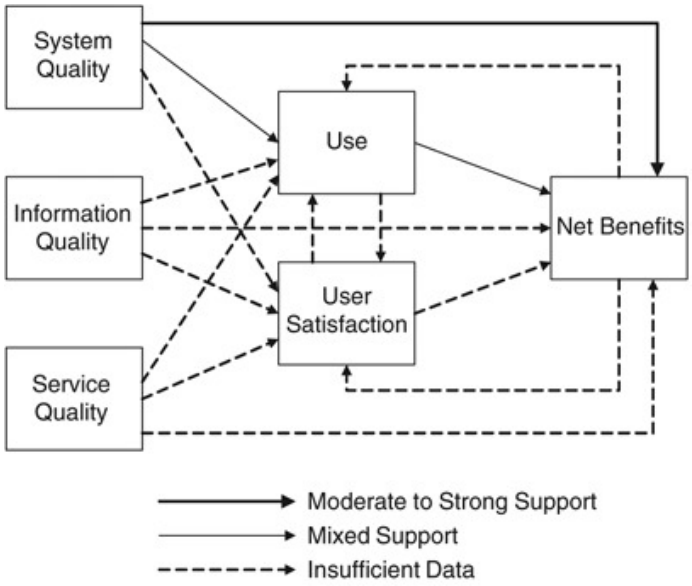


Figure 1 illustrates the six constructs of the DeLone and Mclean model inclusive of the additional construct, Complementary Technology Quality and computer self-efficacy used to validate this research study.

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

Hypothesis:

H1. Complementary technology quality will positively impact user satisfaction.

H2. Complementary technology quality will positively impact system use.

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

H4. System quality will positively impact user satisfaction.

H5. Information quality will positively impact user satisfaction.

H6. Service quality will positively impact user satisfaction.

H7. Use will positively impact user satisfaction.

H8. Information quality will positively impact use.

H9. System quality will positively impact use.

H10. Service quality will positively impact use.

H11.User satisfaction will positively impact perceived net benefit.

H12.Use will positively impact perceived net benefit.

3.1. Construct measurement

Validated measuring instruments from previously verified instruments were used in this research for the quantitative data collection.

The information quality construct was measured by a six -item scale, Service quality construct was measured using a four–item scale was adopted,). Computer self-efficacy was measured using a four- item scale adopted.

Table 1 presents the research constructs and related survey items used for measurement of each of these constructs.

Table 1. Measurement items for questionnaire

Construct	Survey Questions	Source
Information Quality	IQ1 The COSACS system provides information that is exactly what you need IQ2The COSACS system provides information you need at the right time IQ3 The COSACS system provides information that is relevant to your job IQ4 The COSACS system provides sufficient information IQ5The COSACS system provides information that is easy to understand IQ6The COSACS system provides up-to-date Information	
System Quality	SQ1 The COSACS system is easy to use. SQ2 The COSACS system is user-friendly. SQ3 The COSACS system provides high-speed information access. SQ4 The COSACS system provides interactive features between users and system.	
Complementary Technology Quality	IQ1 The software on the device (desktop computer, laptop, mobile device) used to access the COSACS system is adequate. IQ2 The device hardware (desktop computer, laptop, mobile device) used to	

	access the COSACS SYSTEM is adequate. IQ3 The speed of the Internet connection used to access the COSACS SYSTEM is adequate. IQ4 The reliability of the Internet connection used to access the COSACS SYSTEM is adequate.	
Computer Self-Efficacy	CT1 if there was no one around to assist me. CT2 if I had never used an information system like it before. CT3 if I had only the information system manuals to guide me. CT4 if I had seen someone else using the information system. CT5 if I could ask someone for help if I was having difficulties. CT6 if someone else had helped me get started. CT7 if l had a lot of time to complete the job for which the CT8 information system was provided. if I had just the built-in help ability for assistance. CT9 if someone showed me how to do it first. CT10 if I had used similar information systems before this one to do the process.	
System Quality	SQ1 The support team keeps the COSACS software up to date. SQ2 The COSACS system support staff show a sincere interest in solving when users have a problem. SQ3 The COSACS system support staff respond promptly when users have a problem. SQ4 The COSACS system support staff tell users exactly when services will be performed.	
User Satisfaction	US1 You think most users have a positive attitude or evaluation towards the COSACS SYSTEM US2 You think that the perceived utility about the COSACS system is high. US3 You think the COSACS has met your expectations. US4 You are pleased with COSACS system.	
Use	U1 The frequency of use with the COSACS system is high. U2You depend upon COSACS system. U3 You were able to complete a task using COSACS system even if there was no one around to guide me. U4 You have the adequate knowledge needed to use the COSACS system.	

Net Benefit	NB1 The COSACS system helps you improve your job performance. NB2 The COSACS system helps the organization save cost. NB3 The COSACS system helps the organization achieve goal. NB4 The COSACS system improves the assessment and training. NB5 The COSACS system at work increase your productivity. NB6The COSACS system overall, improve recruitment and performance management.	

Table 1. Measurement items for questionnaire

3.2. Sampling and data collection

The data for this study were collected from a sample of Courts employee which included Supervisors and managers. The method of the research sampling is "purposive sampling" which gives the researchers to use their own judgment to select suitable people for the sample. A total of 40 questionnaires were handed out to various members at of the Courts from different department within the organisation.

Table 2. Characteristics of respondents

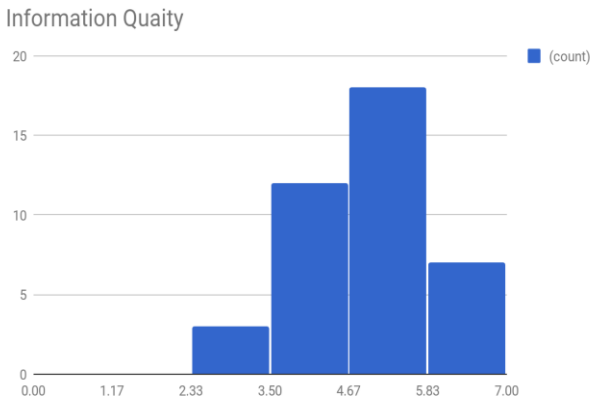
Characteristics	Number	Percentage
Gender		
Male	17	42.5
Female	23	57.5
Age		
Less than 19	3	7.5
More than 19 to 25	7	17.5
Between 26 to 32	8	20
Between 33-39	22	55
Position		

Manager	9	22.5
Supervisor / Foreman	8	20
Non- manager	23	57.5
Work Experience		
1-3	4	10
5-10.	11	27.5
10-15.	21	52.5
>15	4	10

Data Analysis and Results

Due to the small amount of sample size, hypothesis testing was not possible so the researchers analyzed the data utilizing applied research techniques.

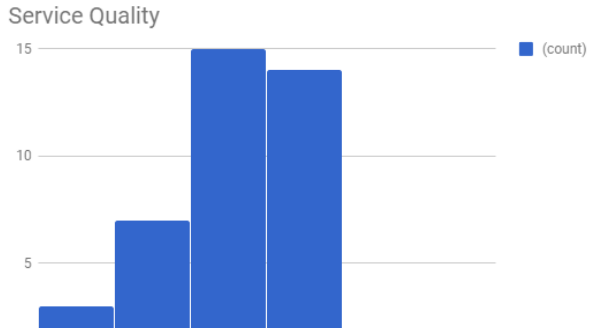
The primary purpose of the study was to compare the usage and success COSACS software Information and Collaboration system at the Courts Unicomer LTD. One comprehensive questionnaire was used highlighting the usage of this Information System based on the DeLone and McLean Model were distributed Workers at Courts Unicomer LTD. Belize City, Belize District. The results of the issued questionnaires were displayed through the use of histograms and bar charts. To allow for effective visuals, the histograms provided a better comparison of success between the two systems using the constructs of the theoretical model.



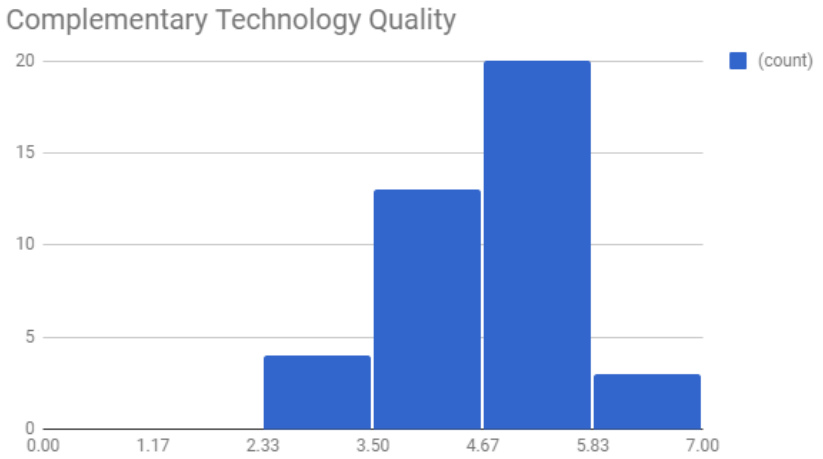
[1]

The above histogram illustrates the employee's response to the COSAC system, The chart shows that 18 individuals range between 4.67-5.83 while 7 strongly agrees. Note: There were no employee who disagree or strongly disagree with the quality of information the system provides.

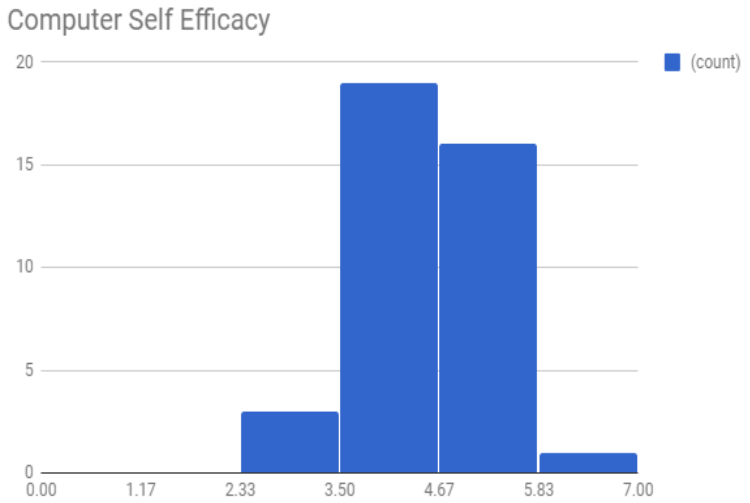
[1]



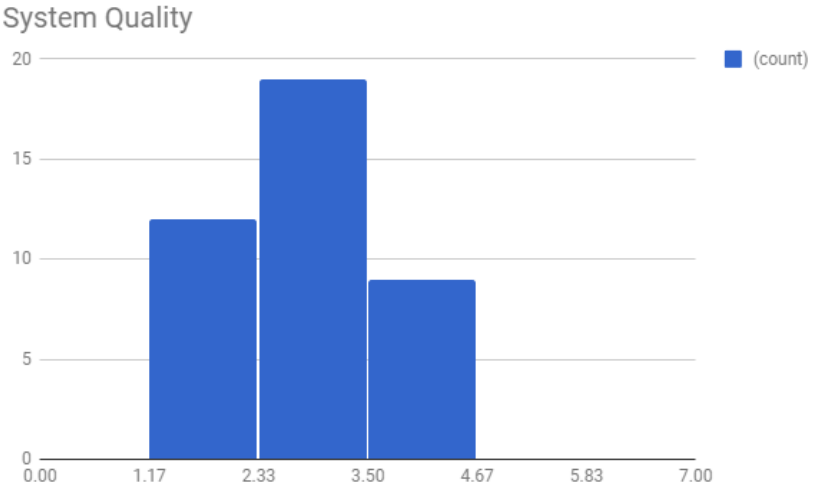
The above histogram is a representation of employees responses on Service Quality measured on COSAC system. The chart shows that more than 50% of the individuals range between 2-4.67 which is more than neutral, one individual agrees. Note: There were no individual who strongly agrees.



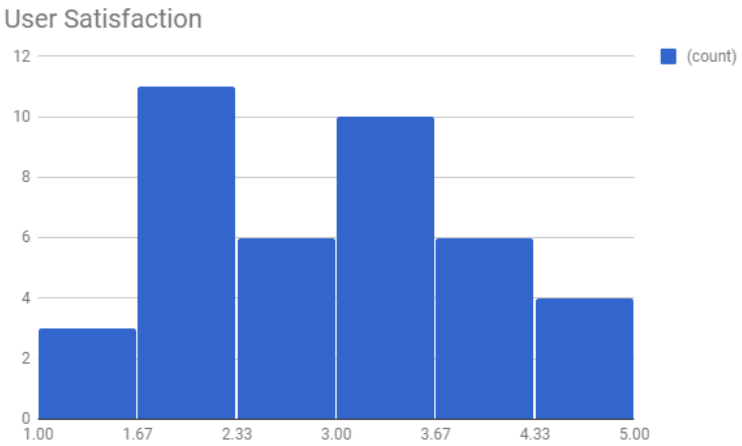
The above histogram is a representation of employees responses on Complementary Technology Quality measured on COSAC system. The chart shows that more than 50% of the individuals surveyed range between 4.67-5.83 which is neutral, 13 individuals range between 3.5-4.67. Note: There were no individual that disagree or strongly disagrees.



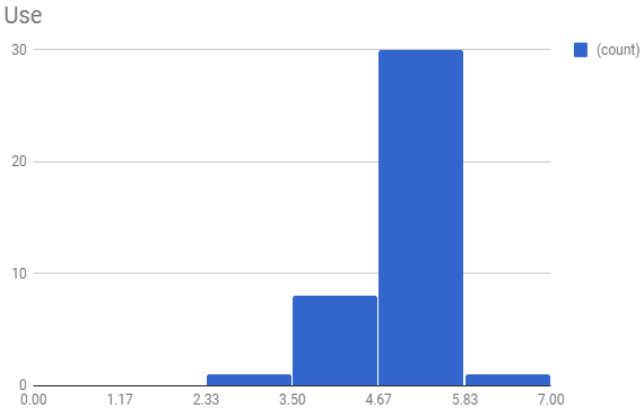
The above histogram is a representation of employees responses on Computer Self-Efficacy measured on COSAC system. The chart shows 19 individuals in the range 3-4.67, 2-4.67, 16 ranges between 4.67-5.83, 1 individual strongly agees. Note: There were no individual that disagree or strongly disagrees.



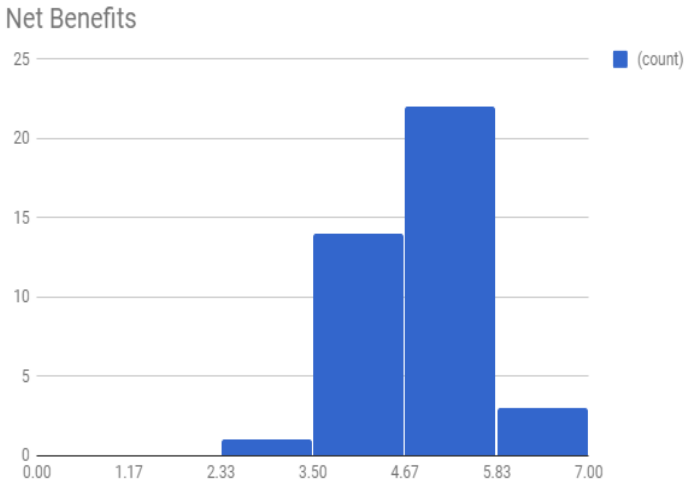
The above histogram is a representation of employees responses on System Quality measured on COSAC system. The chart shows that 19 range between 2.33-3.5, 12 ranges 1.17-2.33. Note: There were no individual who agrees,strongly agree or strongly disagrees..



The above histogram is a representation of employees responses on User Satisfaction measured on COSAC system. The chart shows that users share different views about their satisfaction by 11 individuals dissatisfy, 10 range 3-3.67, 4 satisfied, Note: There were 3 individuals who strongly disagrees.



The above histogram is a representation of employees responses on Use measured on COSAC system. From the data collected, we see that more than 75% of the individuals uses the system with a range between 4.67-5.83 which is an indication that the company cannot function correctly without it. This is more than neutral. Note: There were no individual that strongly disagrees.



The above histogram is a representation of employees responses on Net Benefit measured on COSAC system. The chart shows that most individuals range between 4-6 which is more than neutral. Note: There were no individual who strongly disagrees.

The above histogram illustrates the average score for each construct. As seen, the constructs of information quality , use, and net benefits are relatively high. On the other hand, the constructs of system quality, service quality and user satisfaction is relatively low with an average below 3.0. The reason for this is because the software is not up-to-date (service quality), the perceive utility for the COSAC system is relatively low, and the COSAC system is complex. However, employees are forced to utilize this MIS system to get their work done.Therefore, the use, information quality and the net benefits is relatively high.

Conclusion

Discussion

In essence, Management information systems are geared to better assist the operations of the day to day office duties. It is put in place to help eliminate tedious work and time. There are many different types of management information systems which can be incorporated into a company. Though costly, it helps to better increase the efficiency of work and gears to providing competition to other businesses in the same field. Courts Belize has implemented different types of management information systems which aid them in being the number retail home appliance store the county of Belize. Namely these management information systems include FACT and CoSacs. These system assist them in inventory controls and stock locations of items, in addition to providing customer history with the company. From the research undertaken it is safe to say that both these management systems are relatively geared at providing employees with the necessary information that needs to be work on from a day to day basis. It is user friendly, easy to understand and it contains the sufficient information necessary for the work to be done in

a timely manner, though it can be updated at this point it is providing the necessary materials needed. With a company as Courts Belize, who is a regional enterprise with stores located across the country it is important for them to maintain information systems in order for employees to better communicate with each other and also provide a standardized screen that anyone can see what items are available and the location of the items. The Management information systems makes it easier for the company to interact with regional counterparts when needed especially in terms of auditing purposes. It has increase the globalization and international trade for the company as items can be purchased online in from anywhere and delivered in a matter of days. Consequently the information systems have allowed for the Courts Belize to be superior in retail home appliances.

Limitations and Future Research

In carrying out the research it was a very stressful and tedious process particularly because of the time allocated for the work to be done. There was no sufficient time to fully engage and correspond the material. Another factor that hinder the process is the fact that some employees caused delay in returning back the questionnaires. This is because it was not permitted for the researcher to wait for them to answer and return. The questionnaires had to be dropped off and picked up at a later day as not to have employees disorganized from work. There was also the fact in having to choose more than one system to study which caused a delay because certain information systems which are used in the company are outdated and there is no history as to what it has been compared to or how it can effectively be used. Another limitation that caused a gap in the research is the workload it comes with aside from different assignments that must have been completed at par with this assignment. Nevertheless, the work was finished and the necessary information needed was gotten. For future research, it is recommended to start on the appropriate time as soon as possible that will ensure that enough time is allocated to the work, additionally for future research it would be recommended to not study an existing information system but to study the organization and develop a system that would be suited for the needs of the organization and discuss why the develop system would be beneficial this would ensure that researchers fully comprehend what a management information system is and how it should be use effectively and efficiently. Also for future research a newer method to collect the data should be implemented, creating questionnaires and distributing them seem to be tedious and papers get misplaced or not return which interrupts the researchers work. Nevertheless, it still provides the material needed just in a long manner.

Implications

Empirical evidence generated from applied research has shown that in determining success using the DeLone and McLean model of IS Success, Kerio Connect if a favorable given that it does yield a high net benefit. In this research, the six constructs of the model along with the two additional was tested in efforts to understand system success in developing countries. Studies from this research have shown that the inclusion of the seventh and eight construct provided results of interest to developing countries that are unable to effectively receive optimal success from the integration of information systems. The inclusion of complementary technology quality was significant because it the construct that needs the most attention. In an effort to manage any information system, a relationship between the people who uses the system, the technology to access the system and the organization in which these systems are implemented, must be satisfied.

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