A Study to Determine the Success of Digicel's MIND Billing System

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Abstract

International research has been conducted in response to the effectiveness of information systems, the MIND billing system. In Belize, however, there has been little to no research conducted in the assessment of Digicel's MIND Billing System on its Internal Users. The MIND Billing System is also used by many other large corporations. This research paper provides the first empirical test of the revision of Digicel's MIND Billing through the DeLone and McLean IS (information systems) Success framework in Belize. The model consists of six dimensions: information quality, system quality, service quality, use, user satisfaction, and perceived net benefit. In addition to the to the existing dimensions, as a developing nation, two other dimensions were utilized: Complimentary Technology Quality (CTQ) and computer self-efficacy measure. The theorized relationships between the six success variables are substantially supported by the available data. Through interviews and a questionnaire distribution to 30 Digicel's staff users of the MIND Billing system, this research was able to determine the system's success or failure. The findings provided major insight into the Success of Digi's MIND Billing System on its Internal Users. This paper concludes by discussing the limitations of the study, which will be addressed in future research.

Keywords: MIND Billing System, Success, Digicel, Internal User, DeLone and McLean

Introduction

Belize Telecommunications engagements started in 1902 with a manual line that connected Belize City with the Corozal District. The Belize Telemedia Limited (BTL) formerly known as Belize Telecommunications Limited is a telecommunications company in Belize. BTL was established in 1972 as the Telecommunications Authority and swiftly became Belize's leading telecommunication provider in the 1980s and 1990s. In 2007, the name was changed from Belize Telecommunications Limited to Belize Telemedia Limited with the wireless division of the company being called Digicell. Subsequently, Digicell has matured from a small company to Belize's largest state-owned telecommunications company, providing the latest in advanced technology by implementing and maintaining high-quality networks. Its extensive telecommunications network encompasses of landline, mobile, and broadband services throughout the country of Belize.

Digicel's success in the Caribbean region is partly attributed to a market- entry strategy of targeting small, low income countries. Digicel historically has focused exclusively on small Caribbean countries largely because moderate network investment in such countries often yielded population coverage of nearly one hundred percent. Digicel also focused on countries with recently liberalized telecommunications service markets as such markets were often characterized by high levels of latent demand and were typically served by incumbent operators offering poor service and high prices. Rather than focusing on per-capita income, Digicel also tended to target countries with large cash-based populations and high levels of remittance income.

Digicel's success in many Caribbean markets also stem from its unique business model, which adapted to reflect the demands of the Caribbean market. Catering to the region's many low-income consumers, for example, Digicel focused almost exclusively on inexpensive voice telephone service, often undercutting incumbent pricing for such services. Similarly, it offered subscribers inexpensive brand name mobile telephone handsets, often one half the price of competitors model. Digicel was also the first mobile operator in the Caribbean that offered mobile serviced via prepaid method. A move that was popular with its many cash-based subscribers. To attract low income customers, Digicel introduced several new features designed to reduce cost of making mobile telephone calls including per second billing.

The services and products provided by Digi are vast and varied and distinguished by efficiency, quality, and advanced technology. The company has expanded its mission to go beyond just providing telephone service to providing telecommunications solutions for its residential, business and government customers

Digicel invests heavily into information systems and relies on them to assist in the successful day to day operations. One such management information system is the MIND billing system. "MIND offers service providers a billing and customer care solution enabling the flexibility, scalability, and reliability they need to increase customer satisfaction, reduce time to market and operational expenses, and keep up with the often-changing market conditions" (End-to-End Billing and Customer Care, 2020). However, operating such complex software solutions may come with its difficulties that may be noticeable from the user point of view. It is imperative that the context of user satisfaction be assessed as the interaction with the system is greater with them. If an effective system is defined as one that adds value to the firm, then an effective system must have some positive influence on user behavior especially in productivity, decision making etc. It is empirical to determine if the vast investment in such system is beneficial to the success of the company.

The MIND Bill System enables Digicel's operators to transport complete solutions that suits specific needs, across telecommunication line of business: voice, data, content, video; fixed, mobile, cable, satellite; prepaid and post-paid. The system enables provisioning, mediation, support automated business

processes such as order fulfilment and billing cycles, sophisticated business models i.e. shared balance and it efficiently handle millions of subscribers and transactions.

The importance of this study is to evaluate the success of Digicel's Mind Billing system used by its internal employees. This research is an original research that wishes to produce new knowledge on the effectiveness of this system through observations, experiments, and new approaches. The study also aims at identifying any weaknesses in the system that Digicel may have not identified. With the results of this study, Digicel can develop ways to improve the system if any weakness is identified or if the system is not meeting its users need.

Literature Review

An Information system (IS) is an extremely critical tool within an organization as it provides reliable, complete, accessible, and strategic goals: operational excellence, new products, services and business models, customer and supplier intimacy, improved decision-making and competitive advantage (Laudon and Laudon, 2016). Digicell is no exception to utilizing information systems. Due to the number of customers and employees, Digicell cannot operate without information systems. As a result, Digicell employs several information systems under its umbrella to successfully keep track of all business activities. According to Matem Mostafa (2005) telecommunication companies need an effective and accurate billing system to be able to assure their revenue. Billing systems process the usage of network equipment that is used during the service usage into a single Call Detail Record (CDR). One such system is Digicel's MIND Billing and Customer Care. Though information system necessitates a large deal of investment, the success and effectiveness of the system is most accentuated. The measurement of information systems (IS) success or effectiveness is critical to our understanding of the value and efficacy of IS management actions and IS investments. (DeLone and McLean, 2003).

The DeLone and McLean Information System (IS) success model is a (IS) theory which offer a complete understanding of Information System success. The model has been quoted in a variety of research papers and it is reflected to be one of the most powerful theories in modern-day information systems research. Therefore, this theoretical framework is being utilized to carry out the research. According to DeLone and McLean, 2003, there are six dimensions of success, which are interrelated rather than independent, which have important implications for the measurement, analysis, and reporting of IS success in empirical studies. These six dimensions are systems quality, information quality, service quality, use, user satisfaction, and net benefits which measure effectiveness success. With a large amount of publications using the D&M IS Success Model as theoretical basis (Lowry et al. 2007; Urbach et al. 2009b), typical item sets for each of the constructs have emerged which have often been used in several IS success studies.

In the original formulation of the DeLone & McLean model (7), the dual dimensions of system and information quality seemed sufficient to capture the essential characteristics of information systems being delivered to users. In the dominant years, however, it became evident that a third dimension was needed, service quality. As Pitt, Watson, and Kavan observed, "Commonly used measures of IS effectiveness focus on the products rather than the services of the IS function. Therefore, there is a danger that IS researchers will mis measure IS effectiveness if they do not include in their assessment a measure of IS service quality" (32, p. 173). This demand has become even more visible with the introduction of e-business and the demand of customers for support from their Web providers. Thus, service quality was added.

The study of Chen, Ni, Kuo and Lin proposed a new billing system that "was developed using the Next Generation Operations System and Software (NGOSS) guidelines. NGOSS was proposed by the Tele Management Forum (TMF) to provide ways to help communication service providers (CSPs) manage their businesses. It also provides a development process to support developers in implementing business support systems (BSSs) and operation support systems (OSSs). Development process consists of a life cycle model that defines four perspectives, a business view, system view, implementation view, and deployment view. The business view is used to define business challenges and strategies. The responsibility of the system view is to define business solutions and the system architecture of the solutions. The third, or implementation view, is used to build business solutions. Finally, the deployment

view describes how to deploy and use business solutions. This paper focuses on the last perspective, the deployment view, and discusses the maintenance and operation of a built system. This paper presents a successfully implemented project. This success is measured in several ways, a reduction in incident occurrence and an improvement in staff service operation performance. These results were attained by using daily operations data collected from the billing system from August 2008 to December 2009." (Chen, Y., Ni, G. K., Kuo, C. H., & Lin, C. Y. 2010, June

A study of Cheng, Ngai & Au make important reference to the use of the DeLone and Mclean Information success model. The reason for choosing this approach to tackle user satisfaction of the company's information as they explained had to do with their approach. The approach used to understand user satisfaction was looking at it from an organizational and socio-technical perspective of an Information System. "Furthermore, DeLone and McLean (4) identify six dimensions of IS success, namely system quality, information quality, information use, user satisfaction, individual impact and organizational impact." (Au, N., Ngai, E. W., & Cheng, T. E. ,2002). It is through this model that the researchers were able to conduct their research in a more effective way while looking at it at the organizational and socio technical viewpoint since they are both necessary to receive a more plausible conclusion. The DeLone & Mclean framework can be used in various point of views when conducting research on user satisfaction of information systems. The study of Cheng, Ngai & Au referred to the importance of assessing how "Errors in evaluation can cause expensive mistakes in terms of subsequent modification. More importantly, it impacts on the individual user's quality of work life, the functioning of the IS department and the overall voluntary usage of the IS within the organization." (Au, N., Ngai, E. W., & Cheng, T. E. ,2002).

Despite the intricate, multidimensional nature of IS success requires meticulous attention to the definition and measurement of each dimension of this dependent variable. It is important to measure the possible interactions among these success dimensions to protect the effect of various independent variables with one or more of these dependent success factors. The updated D&M IS Success Model presents the interdependent relationships that should continue to be considered and tested.

In a recent Literature review, Urbach et al. (2009b) explore the current state of IS success research by analyzing and classifying recent empirical articles regarding their theoretical foundation, research approach, and research design. The results show that the dominant research analyzes the impact that a specific type of IS has by means of users' evaluations obtained from surveys and structural equation modeling. The D&M IS Success Model is the main theoretical basis of the reviewed studies. Several success models for evaluating specific types of IS like knowledge management systems (Kulkarni et al. 2007) or enterprise systems (Gable et al. 2003) have been developed from this theory.

While a considerable amount of research has been conducted on IS success models (DeLone and McLean, 1992, 2003; Rai et al., 2002; Seddon, 1997); Urbach et al. (2009) , little to no research has been carried out to address the success within Digicel highly expensive Information Billing Systems or on any telecommunications' billing system. In accordance with the DeLone and McLean the uniqueness of this research will determine the success of the Digicel's MIND Billing in accordance with the "DeLone and McLean 2003 update in evaluating the success of Information Systems."

Methodology

For the purposes of this applied research, Digicel's MIND Billing System was uniquely tested using the IS Successful Model implemented by DeLone and Mclean. The success of the system was determined by evaluating the information collected on six dimensions of the model focusing on information quality, system quality, service quality, user satisfaction, use and perceived net benefits (DeLone & McLean, 2003) shown in Figure 1 below.

The model's information quality focus on the quality of information the MIND Billings System produce and its usefulness for the user. This is an important success factor when evaluating the overall information system success. It also focuses on the ease of use, system flexibility, system reliability, and ease of learning, as well as system features of intuitiveness, sophistication, flexibility, and response times.

System quality consists of the measures of MIND system and considers performance characteristics, functionality, and usability.

Service quality measures the overall support related to the MIND system and services delivered by Digicell. In this context, the success dimension covers the quality of the support that MIND Billing System users receive from the IS department and IT support personnel. Characteristics such as responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff is portrayed.
User satisfaction evaluates the attitude to the MIND system from the direct users. This widely used multi-attribute instrument measures user information satisfaction (Ives et al. (1983). User satisfaction will mostly be used to evaluate and conclude this research examining its overall IS success.
The D&M model is applicable in a variety of contexts. Due to the limitations of little to no previous research being carried out in evaluating the success within Digicel exclusive Information Billing Systems for its Internal users this present research pose as a foundation for future research and for Digicel's perusal in order to enhance the system for staff use in accordance with the DeLone and McLean Information System Success Framework.

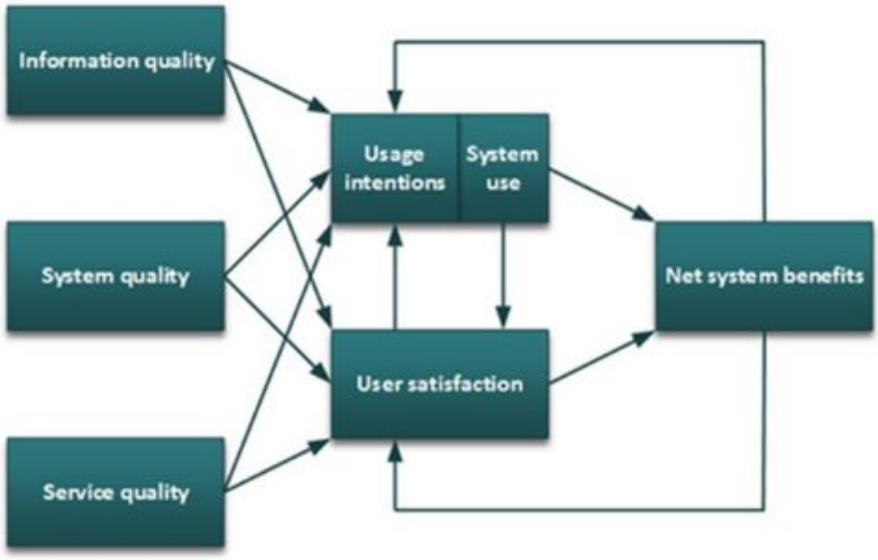

Figure 1 DeLone and McLean Information System Success Model

The researchers have decided to use a combination of two of the classic social sciences research tools, questionnaires, and interviews (Winchester, 1999; Sarantakos, 2013; Silverman, 2004; Greenfield, 2002). Utilizing the quantitative and qualitative method assist in gaining a better feedback from the Digicel employees. The questionnaires were distributed among managers and junior staff who uses the MIND Billings system to achieve some sort of daily goal. As a balancing technique, the researchers have conducted an interview with the manager and several staff users.

Questionnaires

Online questionnaires were utilized for this research because they are a reliable and a quick method to collect information from multiple respondents in an efficient and timely manner with time being a major constraint. The questionnaires were sent to a total of 30 participants. It comprised of eight sections with a total of thirty-three (33) questions. The instrument was measured using a 7-point Likert Scale ranging from strongly agree (7) to strongly disagree (1). The seven (7) point Likert scale offers distinction for the respondents, without throwing them into confusion. It is easy to use, known to be most accurate of the Likert scales, it is a better reflection of a respondent's true evaluation and it is the best solution for questionnaires such as those used in usability evaluations.(Rensis Likert) See Appendix.

Interviews

Face to face interviews were done to cover more of an intellectual aspect of the research. The interviews consisting of several in depth questions and discussions about the MIND system and its operations and uses. In a qualitative approach, interviews help in thorough and precise explanation of the features of the MIND Billing system to better understand, and explore employees' opinions, behavior, experiences, phenomenon.

The interview questions were open-ended questions so that in-depth information will be collected.

Data Analysis and Result

The purpose of this research was to Determine the Success of Digicel's MIND Billing System on its Internal User. The study analyzed the results using a 7-point Likert scale ranging from (1) strongly disagree to (7) strongly agree through the utilization of the DeLone & McLean framework. Of the thirty questionnaires sent to Digicel's Mind Billing users, twenty-seven were returned and utilized in this research. This generates a ninety (90) percent participation ratio, which is feasible.

Of the respondents, the majority were females leading with fifty-six (56) percent followed by forty four percent males. The highest age range of participants was between 45-55 years. The results highlight that majority of the participants were new to the use of the system with thirty (30) percent using the system less than one year. When it comes to work experience there is a thirty (30) percent tie between those working less than 5 years and those working between 11 to 15 years. In addition, the department where the MIND is utilized more is tied with thirty (30) percent between Marketing and Customer Service.

Table 1 : End User Characteristics		
Characteristics:	**Responses**	**Percentage**
Gender	***27 total***	
Male	12	44%
Female	15	56%
Age		
Less than 25 Years	5	19%
Between 25 - 35 years	5	19%
Between 36 - 45 years	5	19%
Between 46-55 Years	7	26%
Over 55 years	5	19%
Years using Mind Billing system		
Less than 1 Year	8	30%
1 year	7	26%
2 years	7	26%
Over 2 years	5	19%
Work experience (years)		
Less than 5 Years	8	30%
Between 5- 10 Years	5	19%
Between 11-15 Years	8	30%
Over 15 Years	6	22%
Department		
Billing	4	15%
Marketing	8	30%
Customer service	8	30%
Information System	7	26%

Table 1 Users Personal Information

The remaining results are displayed in six bar charts below which tested the hypothesis based on DeLone and McLean six dimensions of Success Model: Information Quality, Systems Quality, Service Quality, User Satisfaction, System Use and Perceived Benefits.

Information Quality

Information Quality provides the exact up-to date information the user needs at the right time. This information is relevant and sufficient to completing daily task in an understandable manner. On the numeric scale seen in Figure 2, the user believe the MIND system provides quality information with thirty-four percent (34%) rating it at five (5), Nine percent (9%) rated it at six (6) and five percent (5%) rated it at 7. Twenty-Five percent of the participants were neutral and the other twenty-seven person does not believe the system provides quality information.

Figure 2 Information Quality

System Quality

Systems quality is measured on its user friendliness, fast and reliable internet connections, adequate system make up and interactive features. Findings have revealed that quality is reasonable but not exceptional. Less than half of the participant, forty five percent (45%) agree that the system quality exist. Nine percent (9%) appraised a level of seven (7) and eighteen percent (18%) both appraised a level of five (5) and (6). Sixteen percent was neutral and the remaining thirty eight percent disagree with the MIND systems quality.

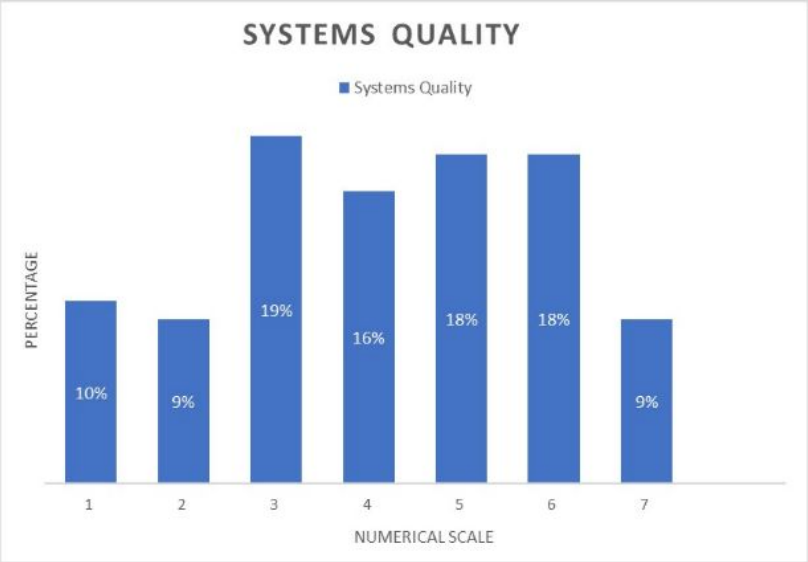

Figure 3 System Quality

Service Quality

D&M also modified their model to address some limitations of the original model. A key addition in the updated model was the inclusion of Service Quality as an additional aspect of IS success (L.F. Pitt, R.T. Watson, C.B. Kavan 1995); it was added because the changing nature of IS required the need to assess service quality when evaluating IS success. In the study conducted, Service quality is measure on how well the support staff kept the systems updated, how sincere are the support staff interest in solving user issues, how quick they responded to the users after users have reported issues, and if support staff inform users of servicing to be done. According to Figure 4, Forty-nine five (45%) agreed that support staff assisted with quality servicing: twenty-seven percent scored five (5), ten percent (10%) scored six (6) and eight percent (8%) score seven (7) on the scale. Nineteen percent was neutral and thirty-five percent (35%) disagree which is very close to the agree percentile.

Figure 4 Service Quality

User Satisfaction

User satisfaction results from the feelings and attitudes from aggregating all the benefits that a person hopes to receive from interaction with the IS (B. Ives, M.H. Olson, J.J. Baroudi 1983). Whether it be users have a positive attitude of system and its functions, users high thoughts of using the system, user satisfaction, and the meeting of users expectation, all are the characteristics of user satisfaction revealed in the findings seen in Figure 5. A total of forty one percent (41%) of the participants were satisfied with this system. Twenty-seven percent (27%) are neutral and thirty-two percent (32%) are dissatisfied with the Digicel MIND system.

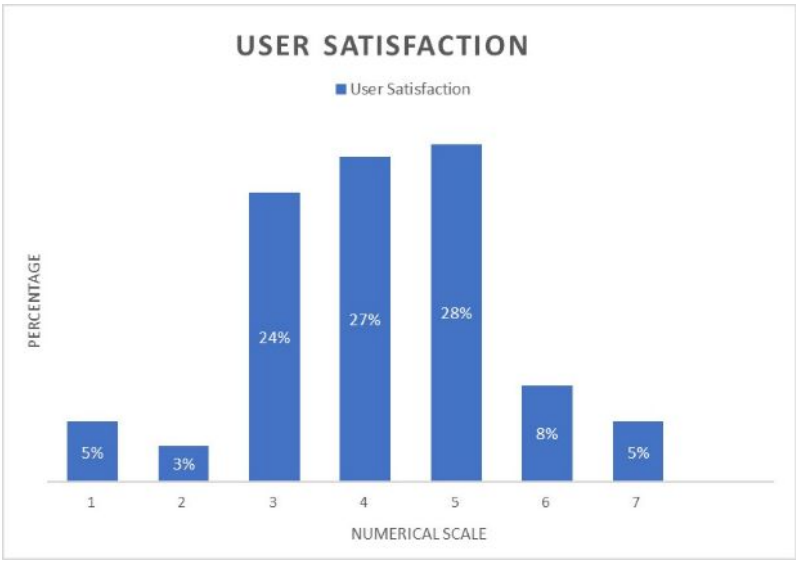

Figure 5 User Satisfaction

System Use/ Usage

System use or usage is measured by the frequency of using the system, user level of dependence upon the system, if user can complete task on the system without supervision, and overall knowledge necessary to

use the MIND system. Based on the chart produced in Figure 5 below, more than half agree with the characteristics of system usage. Twenty-three (23%) percent selected scale five (5), eight percent (8%) on scale six (6) and twenty one percent (21%) on scale seven (7). Seventeen percent (17%) was neutral, and the residual thirty two percent (32%) uses the system but not frequently.

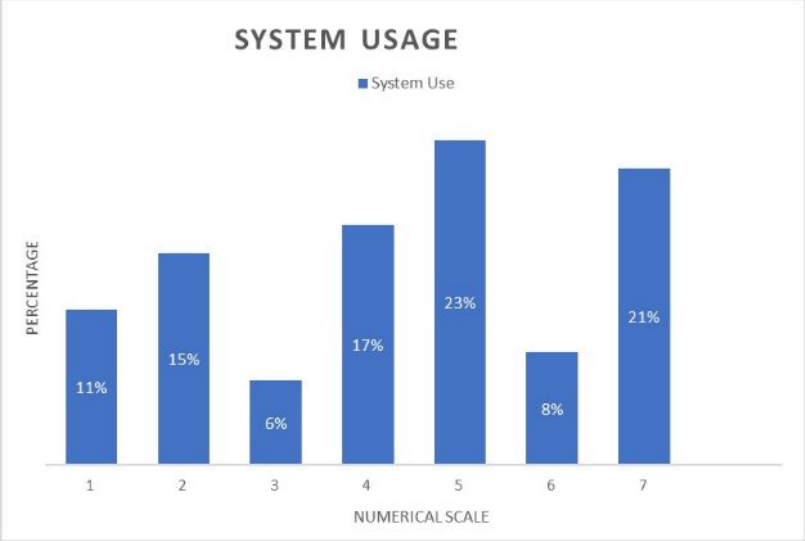

Figure 6 System Usage

Perceived Benefits

Does the system improve daily performance? Does it help customers save cost? Does it help users achieve goal and improve assessments? Does the overall use of the system aid in enhancing customer satisfaction? These questions are all answered highly under the characteristics of perceived benefits. The study revealed that there is more to be done with the system. Seen in figure 7, twenty one percent (21%) of the users rated on the scale five (5), eighteen percent (18%) on the scale six (6) and five percent (5%) on the scale seven (7) bringing the overall total of approved participants to forty four percent (44%). Twenty-one (21%) percent were neutral and the outstanding thirty six percent (36%) believe that there should be more to the success of perceived benefits.

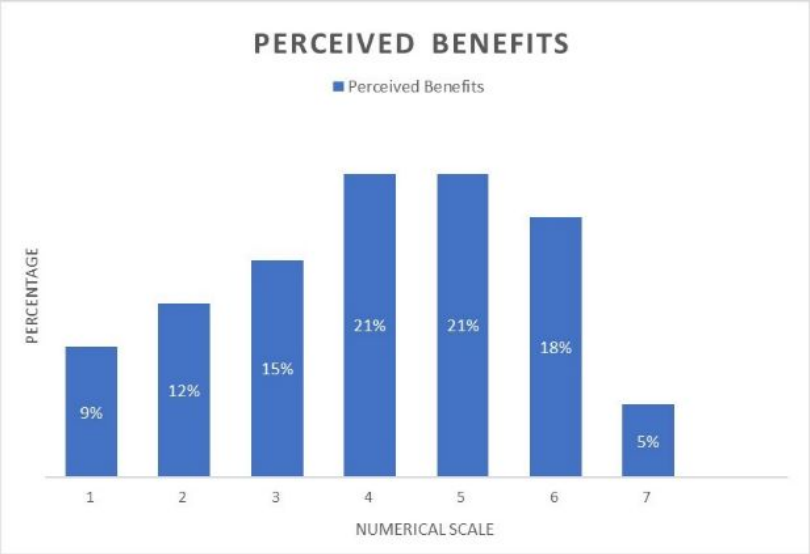

Figure 7 Perceived Benefits

Conclusion

This research has addressed and tested the success of the MIND Billing system regarding user satisfaction through the implementation of the DeLone and Mclean IS Successful Model. The results show that information quality, system quality, service quality, user satisfaction, use and perceived net benefits are valid measures of success of the Mind Billing system. The relationships between the six success variables were keenly recited and supported in the study.

In terms of Information quality, it provided the exact up-to date information the user needs at the right time. Although, in record marginally from a level of five (5) to seven (7), fifty-four percent (54%) made clear they agree on information quality of the Mind billing system. Systems quality was measured based on user friendliness, fast and reliable internet connections, adequate system make up and interactive features. The Mind billing system in this research only received forty-five percent (45%) approval of its system quality. Most importantly, user satisfaction may be compromised in this instance based on the result of the sample size. Improving in this section can result in greater efficiency in the use of the system.

In terms of Service Quality, the study measured how well the support staff kept the systems updated, how sincere are support staff interests in solving user issues, how quick they responded to the users after users have reported issues, and if support staff inform users of servicing to be done. Having received only forty-five percent (45%) approval of its service quality, it is important that Digicel refer to this section. Service quality is mostly important from the company aspect and needs urgent attention to improve these results. System use or Usage was measured by the frequency of using the system, user level of dependence upon the system, if user can complete task on the system without supervision, and overall knowledge necessary to use the MIND system. In this regard, based on a scale of five (5) to eight (8) fifty-two percent (52%) indicating use of the system in their field. This was indicative that the remainder either abstained from using or do not use it frequently to accomplish their daily task in the company.

The perceived net benefit of the MIND Billing system assessed the improvement of daily performance, customer cost saving, user achievement of goals and improvement of assessments, aid of customer satisfaction. Based on a scale of five (5) to eight (7) forty-four percent (44%) approved of the perceived net benefit of the system in the company. However, this did not mean entirely that there is no perceived net benefit since some participants were neutral and others disagreed. Much attention to this area will be key to assess the areas of improvement and achieving the ultimate benefit of this complex system. Most crucially, User Satisfaction, the study aimed to understand the user's satisfaction with the Mind Billing system. Only forty-one percent (41 %) of the users indicate satisfaction with the system reflecting the

greater need to improve in this area, especially due to thirty-two percent (32%) being dissatisfied with MIND.

This research provides several important implications for user satisfaction of Digicel's Mind Billing system. As a multimillion-dollar company, Digicel's information system is crucial in upkeeping the reputation and profit of the system. If the MIND Billing is not successful, then the company revenue will fall. Until the system is change and replaced completely, Digicel needs to improve the system. It is important to focus on external customers. However, staff are also customers internally.

The purpose of this study was greatly dependent on this key area of the survey analysis and the DeLone and Mclean model. Based on the sample size it was concluded that user satisfaction with the Mind Billing system is relatively low and needs improvement. Ultimately, the goal to understand user satisfaction of the MIND Billing system at Digicell was intensely interpreted and achieved with the aid of the DeLone & Mclean IS Success Model.

Limitations

Despite the success of this research, there were a few limitations presented. Due to Digicel's busy staff schedule and customer frequent presence, the interviews took along time and the entire user population of the MIND System could not be interview. Also, the Questionnaires were sent to 30 employees however the researcher only totaled 27 participants. Due to COVID-19 pandemic and the countries State of Emergency also prohibited other information necessary from an interview with the Information Systems Coordinator that was to be completed.

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Appendix

Table of Figures

Questionnaire

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 Digicel's MIND Billing System. The data gathered will be analyzed to determine the success of Digicel's MIND Billing System.

Please answer each question based on your use of Digicel's MIND Billing 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:	<25 ☐ 25-35 ☐ 36-45 ☐ 46-55 ☐ >55 ☐
Please indicate how long you have been using Digicel's MIND Billing System	1st Year ☐ 2nd Year ☐ 3rd Year ☐ 4th Year ☐
Please indicate your working experience:	<5 ☐ 5-10 ☐ 11-15 ☐ >15 ☐
What Department are you a part of?	Billing ☐ Marketing ☐ Customer Service ☐ IS ☐ Other ☐

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

2. Information Quality	Disagree ----------Agree
IQ1: The MIND Billing System provides information that is exactly what you need	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ2: The MIND Billing System provides information you need at the right time	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ3: The MIND Billing System provides information that is relevant to your daily tasks	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ4: The MIND Billing System provides sufficient information to execute your daily task	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ5: The MIND Billing System provides information that is easy to	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ6: The MIND Billing System provides up-to-date information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
3. System Quality	**Disagree ----------Agree**
SQ1: The MIND Billing System is easy to use	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ2: The MIND Billing System is user-friendly	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ3: The MIND Billing System provides interactive features between users and the system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
4. Complementary Technology Quality	**Disagree ----------Agree**
CTQ1: The computer (desktop, laptop, mobile device) you normally use to access MIND Billing System is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ2: The computer (desktop, laptop, mobile device) you normally use to access MIND Billing System has a fast and reliable internet connection	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
5. Service Quality	**Disagree ----------Agree**
SV1: The support staff keep the MIND Billing System software up to date	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV2: When users have a problem the MIND Billing System support staff show a sincere interest in solving it	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV3: The MIND Billing System support staff respond promptly when users have a problem	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV4: The MIND Billing System support staff tell users exactly when services w be performed	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

6. User Satisfaction	**Disagree ----------Agree**
US1: Most of the users have a positive attitude of MIND Billing System functio	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US2: You think that the utility of the MIND Billing System is high.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US3: The MIND Billing System has met your expectations.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US4: You are satisfied with the MIND Billing System.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
7. Use	**Never ----------Often**
U1: Your frequency of use of the MIND Billing System is high	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U2: You depend upon the MIND Billing System	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U3: You were able to complete a task using MIND Billing System even when there was no one around to tell you what to do	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U4: You have the knowledge necessary to use the MIND Billing System	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
8. Perceived Net Benefits	**Never ----------Often**
NB1: The MIND Billing System helps you improve your academic performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB2: The MIND Billing System helps Digicel save costs	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB3: The MIND Billing System helps you achieve your goals	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB4: Using the MIND Billing System improves your job tasks and deadlines	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB6: Overall, using MIND Billing System enhances employee performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

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

Thank you for your participation.