

# The Success of the Registration Information System at University of Belize: Developing Country

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## Abstract

*Xenegrade is an online portal, which gives students the ease of registering from anywhere, rather than waiting in a line to do it manually. Xenegrade not only allows signing up of classes but it is a platform for the grades dissemination at the end of each semester and tracking of financial payments. While numerous researches have been conducted geared at utilizing DeLone and McLean's Information System (IS) success model, the least has been conducted to determine the success of the Registration Information System- Xenegrade at the University of Belize. Besides the six constructs available in DeLone and McLean's IS model (Information Quality, System Quality, Service Quality, User Satisfaction, Use, and Perceived Net Benefits), two more constructs were added (Complimentary Technology Quality and Computer Self Efficacy) in relation to the Belizean context, a developing country. Thirty-five questionnaires were distributed to students, to aid in the research. The responses received aided in measuring the success or failure of UB's Xenegrade System.*

**Keywords:** Xenegrade, University of Belize, Delone & Mclean IS success model

## Introduction

As of recent, many organizations have invested in information and communication technology (ICT) for the support of different business functions. The Registration Information System's functions of educational institutions are no exception. The growth and use of information management systems is a recent wonder concerned with the use of suitable information that will lead to improved planning, decision-making and results. (Adeoti-Adekeye, 1997).

The student registration system, Xenegrade is thought to be a leading student registration management application built for continuing education, workforce development, contract training, adult education, and similar educational organizations. It claims to be user responsive with simple and clean interfaces provide straightforward, quick guides to intuitive features and commands. It also allows for reliable access

to well-organized data without jargon or cryptic codes to memorize. Furthermore, Xenegrade Ad Hoc reporting generates rapid reports that meet individual information requirements effortlessly.

The student Registration Information System (IS) is a software to manage all day-to-day operations for a university. An approach allows colleges and universities to supervise a growing number of enrollments. The Student Registration System is one that radically reduces the work and costs involved by getting rid of paper (Atheer 2016). The targeted user groups are of course the students and lectures. Students are offering Xenegrade services through an intranet for use. The difference between manual registration and Xenegrade can be pinpoint as the change from manual registration services towards technological support of information on registration services.

The literature on student registration IS suggests that, overall, the goals of Computerized Automated Student Admission System are to speed up the process and for the systematic use/analysis of the students' data for various purposes (Singh, R., Singh, R., Kaur, H., & Gupta, O. P. (2016). Consequently helping registration to become more calculated, adaptable, cost-effective, and customer- friendly (Stone and Dulebohn, 2013). The Xenegrade technology supports the Registration activities to comply with the Registration needs of the organization through web-technology based channels. The Xenegrade technology provides a path, which permits managers and lecturers to view extracts, or other information which is necessary for managing the registration of the organization, access relevant information and data, conduct analyses, make decisions and communicate with others and they can do this with a click of the mouse or the tap of a screen.

Both academics and practitioners consider Registration applications to be a valuable tool. In order for Xenegrade to be utilized in an effective manner success and/or effectiveness of the system must be measured in a dependable way. This is done by measuring three major dimensions of which includes information quality, system quality, and service quality, each should be measured or controlled separately, because singularly or jointly, they will affect subsequent use and user satisfaction. This research's main intentions are to get answers by measuring these dimensions through the customer's/ students feedback on their experiences using the technology (Sabherwal, Jeyaraj, & Chowa, 2006). Other dimensions that should be considered are Computer Self-Efficacy, which measures a person's ability to use computer, and Perceived Net Benefits, which also looks at the users' perception as to the benefits of the systems. These are known to be beneficial because they may provide reasons for failure of the IS. The truth is, it is quite useless to have all the resources in the world without any knowledge whatsoever on how to use it, this study intends to provide useful feedback on how to fix these problems in every possible way.

There is a need to investigate whether traditional information systems success models can be extended to investigating Xenegrade. Therefore, the main purpose of this study is to generate and validate various aspects of the Information System success model created by DeLone and Mclean (2003). This paper is structured as followed: First, the development of the IS success model is reviewed. Secondly, based on studies done before, a Xenegrade success model and an all-inclusive number of hypotheses are suggested. Thirdly, presentation of the methods, measures, and results of the study.

## **Literature Review**

Xenegrade information system is a unique type of IS (Information system), therefore; this study will take the theoretical approach of success and reliability that Xenegrade holds based on prior IS studies. In the point of view of individual organizations, Blake Ives and Gerard Learmonth (1984) stated, recent studies demonstrate that information systems offer a unique opportunity for competitive advantages in the new business climate. Some of the benefits listed for implementing information system technology in a firm are that IS helps in lowering cost in production and can help it define and service a specially defined market niche, or can help it differentiate its product offerings from its competitors' (Ives and Learmonth, 1984).

Sabherwal, Jeyaraj and Chowa take the point of view of individual and organizational determinants of success. Their article is based on DeLone and Mclean's four constructs to examine IS success: *System quality*, *Perceived usefulness*, *User satisfaction*, and *System use*. Findings on the general success of IS

lead to a relationship among system quality, based on ease of use and system's reliability, with perceived usefulness. Perceived usefulness refers to the degree to which an individual believes that use of a system enhances the individual's productivity and job performance (Sabherwal et al, 2006). The relationships form in steps as in if the system is reliable, it allows users to be efficient because the IS meets their information requirements (User satisfaction), therefore; the IS is constantly used because it does meet users satisfaction. Brown et al, identify TAM (Technology Acceptance Model) which assesses that perceived usefulness is the primary predictor of intention and use. It affects use and intention because it is the belief that the IS will add value or will possess some benefits in being efficient.

Sabherwal et al also present that user's attributes have an important role in the success of IS. These four constructs involves user experience with IS, User attitude towards IS, User's training in IS, and User participation. To confirm the success of IS, user expectation is a key element because a user must have some sort of level in using IS. User attitude towards the IS is also fundamental. If a user dislikes IS in general then there might be no satisfaction in using it, thus; the success will never occur. However, having a positive mind towards it will lead to seeing the value of the IS (Sabherwal et al, 2006). On the other hand, User training leads to the success of ISs because it boosts knowledge and efficiency in using the system. User participation is based more on the constant or effective use of the IS.

Metsemakers et al, talks about the wealth of information gathered from a registration network of family practices. Information such as their current health status and medication are obtained and stored in databases from which the conclusion can alarm awareness or determine a research to be done in a specific topic. Apart from assisting in decision-making, the health information software also verifies if entries are complete or any erroneous entries were made. To add to this, DeLone and Mclean reference Mason (1978) relabeling of the term *effectiveness* as *influence*. They mention that this series involves the components of the actual information, the analysis, and the impact the results cause. They move on to describe the nature of information with ISs, which is as follows: "Information systems create information which is communicated to the recipient, who is then influence (or not) by the information." Information travels to many series that all lead to influence an individual's decision-making and organizational performance. The IS holds quality control to assert perceived usefulness and user satisfaction as it adds value to the tasks and the company in general.

Information systems do add value to an organization and an individual. However, risks always exist when making a huge capital investment. It is well known that executive information systems (EIS) are high-risk systems to implement and maintain (Bussen & Myers, 1997).

A system that provides on-line, summarized and many decision makers desire graphical information about a business, but attempts to deliver this type of system have often proved difficult (Bussen & Myers, 1997). The main challenges were in the beginning with the cost being too expensive and the amount of resources required operating effectively. Bussen and Myers focused on some factors, by Watson and Glover 1989, which contributed to the EIS failure: (1) inadequate or inappropriate technology, (2) The failure of the system to meet user needs, (3) a lack of executive commitment, and (4) executive resistance to technology. The article argues that if these are the causes of EIS failure then advances in technology can eliminate the inadequate technology problem, the advent of sophisticated tools used for prototyping for failure to meet users need and the arrival of the educated and computer-literate executive should reduce the possibility of EIS failure. In addition, there are often inherent risks and uncertainties associated with projects that are difficult to assess with any degree of reliability prior to the start of the projects. Those risks may include the large size of the project, complexity of the problem domain, project members unfamiliar with new technology, unstable information requirements, and difficulties in integrating different component systems into a composite system (Mensah, 1997).

Information systems are important to many organizations; some even depend on it for survival. Other firms simply depend on ISs for operational stability and for enablement of process innovation and business strategy. However, in order to maintain an efficient IS, company's management must possess information system leadership. Karahanna and Watson (2006) define IS leadership as distinctive from leadership in general because the Chief Information Officer (CIO) is expected to combine IS technical skills with an in-depth understanding of the organization across all functions from operational to strategic. They continue with mentioning that leadership research has no involvement or interest in IS. It is surprising because IS leadership involves data analytics and decision-making. The importance of IS leadership is based on the idea that CIO's (Chief Information Officers) struggle with the balance between

operational stability for seamless service delivery and innovation that drives new value streams for their organizations and according to both authors, the studies to enhance the understanding of constructs, relationships, processes, structures, and mechanisms underlie with IS Leadership concerns.

Information systems seem to add value and meet success in most organizations who clearly know how to manage it. According to Butler & Gray (2006), organizations achieve reliability even when working with fundamentally complex, fragile, and often unreliable information systems. They consider that applying individual and collective mindfulness concepts in studies of IS design, management, and use can contribute to the realization of reliable work and performance outcomes in organizations. Mindfulness based approaches hold that individuals' and organizations' are actively engaged in the present and sensitive to both context and perspective. The mindful condition is both the result of, and the continuing cause of, actively noticing new things. (Langer 2006). In other words being mindful of something refers to being attentive, therefore; being mindful of operating an Information System means to use it effectively.

Xenegrade, being a student, registration information system for Universities seeks to add value, improve education services by providing an ease of registration method for students and education centers. It is the data tool needed to meet operational excellence. Bernhardt explains that if a school wants to improve student learning, it has to use data. Using data effectively requires data tools—particularly student information systems, data warehouses, and instructional management systems. Information systems serve as tools to schools because it is a data gatherer, which will provide suggestions towards improvement. Extraction of some data analysis from a school's student data include: suggesting lessons to assist students with their learning needs; knowing where and how you need to strengthen a school's instructional systems; providing new programs; adding new or different professional development activities; offering technical assistance; or allocating resources to achieve the mission of the school (Bernhardt, 2005). Some schools are mentioned to use it only as another operational service provided to students, others seek more to improve schools in general. Either student information systems, which collect data concerning the characteristics of students, or Instructional management systems, which collect data of measurements in student performance, seek to be fundamental in assisting with decision making. Information systems can boost any individual or organization to success. The research is based on DeLone and Mclean's four constructs to examine IS success: *System quality*, *Perceived usefulness*, *User satisfaction*, and *System use*. In addition, this research will add to the knowledge of IS success by analyzing if students at the University of Belize are satisfied with the Service quality, Information quality, Computer self-efficacy, and Complementary technology quality that Xenegrade offers.

## **Methodology**

The method that was used is the Quantitative method (surveys) because it is the best for measuring, ranking, categorizing, identifying patterns, and generalizing. The research that was made asked information about UB students and the usefulness of the Registration Information System, Xenegrade. The data gathered will be analyzed to determine the success of Xenegrade at our University. The question will be answered based on the student's use of Xenegrade. The student's individual responses to the questionnaire will be strictly confidential and used solely for the research. We used a specific group to answer the questionnaire in this case only UB students were chosen randomly from different faculty and different campus. The questionnaire is divided into 9 sections and 47 questions were asked. All the items were measured using a 7- point Likert Scale with anchors ranging from strongly agree (7) to strongly disagree (1). Based on those sections the data will be collected and put in excel in a Table and in a Histogram form. Then the averages will be found and put on a histogram to see where UB students strongly agreed or disagreed. The data gathered from the questionnaire will be put on a table then the average will be calculated and put on a histogram to see which section of the nine had the most agreement.

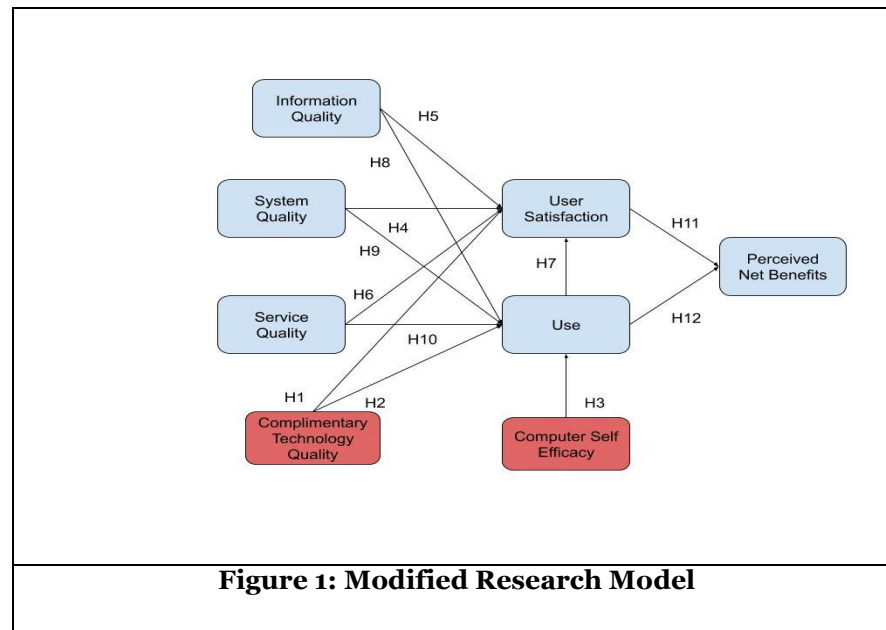


Figure 1 highlights the Delone and Mclean Information System Success Model along with the two newly included constructs (Complimentary Technology Quality and Computer Self- Efficacy).

### ***Hypotheses***

In relation to Figure 1, the following hypotheses are generated illustrating the correlation of variables from Delone and Mclean’s IS Model (2003). In altering the model to suit the Belizean context, the additions of two variables were incorporated. The following are the twelve hypotheses:

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

### ***Description of Participants***

As of this new semester, 2019- 1, the University of Belize has a population of 5170 enrolled students. This is comprised of new, returning, part time, and full time students. This survey incorporated students/ participants from each faculty (Faculty of Science and Technology, Faculty of Management and Social

Sciences, Faculty of Nursing and Allied Health, and Faculty of Education and Arts) at the Central and Belize City campuses.

### Construct Measurement

The data for this study were collected from a sample of UB students from different campus and faculty. The method of the research sampling is Simple Random sampling which is a subset of a statistical population in which each member of the subset has an equal probability of being chosen. Out of the 35 questionnaires distributed to UB students, the 35 questionnaires were returned, yielding a response rate of 100% percent, which is considered acceptable. Table 1 provides the questions used in the measurement of the constructs from the Modified IS Model (Figure 1).

<b>Table 1. Measurement Items For Questionnaires</b>		
Construct	Survey Questions	Source
Information Quality	IQ1: Xenegrade provides information that is exactly what you need. IQ2: Xenegrade provides information you need at the right time. IQ3: Xenegrade provides information that is relevant to registration. IQ4: Xenegrade provides sufficient information. IQ5: Xenegrade provides information that is easy to understand IQ6: Xenegrade provides up-to-date information.	Bailey and Person (1983).
System Quality	SQ1: Xenegrade is easy to use. SQ2: Xenegrade is user-friendly. SQ3: Xenegrade provides high-speed information access. SQ4: Xenegrade provides interactive features between users and the system.	Alshibly,(20 11).
Complementary Technology Quality	CTQ1: The computer (desktop, laptop, mobile device) you normally use to access Xenegrade is adequate. CTQ2: The computer (desktop, laptop, mobile device) you normally use to access Xenegrade has a fast and reliable internet connection. CTQ3: The speed of the Internet connection used to access Xenegrade is adequate. CTQ4: The reliability of the Internet connection used to access Xenegrade is adequate.	Teece, D. J. (1988).
Computer Self Efficacy Measure	CSE-1 .... if there was no one around to tell me what to do as I go. CSE-2 .... if I had never used a Xenegrade before. CSE-3 .... if I had only Xenegrade manuals for reference. CSE-4 .... if I had seen someone else using Xenegrade before trying it myself. CSE-5 .... if I could call someone for help if I got stuck. CSE-6 .... if someone else had helped me get started. CSE-7 .... if I had a lot of time to complete the registration process which Xenegrade provides. CSE-8 .... if I had just the built-in help facility for assistance. CSE-9 .... if someone showed me how to do it first. CSE-IO.... if I had used a similar Xenegrade system before this one to register for classes.	Compeau, D. R., & Higgins, C. A. (1995).
Service Quality	SV1: The support staff keep Xenegrade software up to date SV2: When users have a problem the Xenegrade support staff	Chang et al., (2009).

	show a sincere interest in solving it. SV3: Xenegrade support staff respond promptly when users have a problem SV4: Xenegrade support staff tell users exactly when services will be performed.	
User Satisfaction	US1: Most of the users have a positive attitude of Xenegrade. US2: You think that the utility of Xenegrade is high. US3: Xenegrade has met your expectations. US4: You are satisfied with Xenegrade.	Seddon and Yip (1992).
Use	U1: Your frequency of use of Xenegrade is high. U2: You depend upon Xenegrade for registration. U3: You were able to complete a task using Xenegrade even when there was no one around to tell you what to do. U4: You have the knowledge necessary to use Xenegrade.	Balaban et al., al., (2013) Rai et al., (2002).
Perceived Net Benefits	NB1: Xenegrade helps you improve your registration process. NB2: Xenegrade helps students save costs. NB3: Xenegrade helps you achieve your academic goals. NB4: Using Xenegrade improves estimation of students per class. NB5: Using Xenegrade at school increases your academic productivity. NB6: Overall, using Xenegrade enhances your academic performance.	Alshibly,(20 11); Tansley et al, (2001).

**Table 1. Measurement Items for Questionnaires**

### **Sampling and Data Collection**

Thirty-five questionnaires were distributed. All were returned, illustrating a 100% response rate. The respondents' characteristics are presented in Table 2. Male participants represented a slightly lower percentage of the completed sample (approximately 22%) compared to female participants (approximately 77%). 42% of the participants were aged 16-21 years. The completed sample was composed of 2<sup>nd</sup> year students, approximately 54% students. The participants were mostly on FMSS faculty; approximately 71% of the participants were from there. In addition, the participants from the Belmopan campus, approximated to 74%.

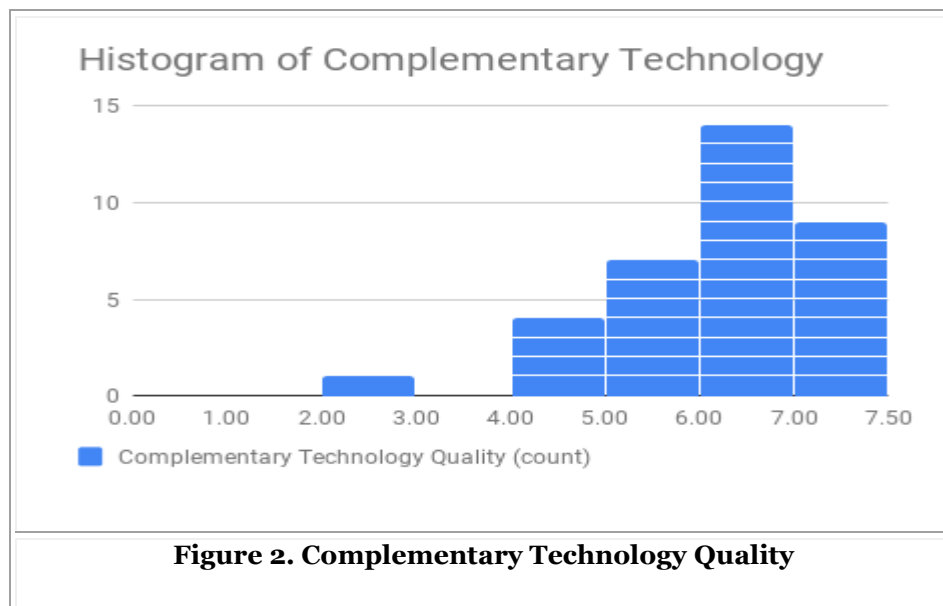
<b>Table 2. Characteristics of Respondents</b>		
Characteristics	Number	Percentage
<b>Gender</b>		
Male	8	22.9
Female	27	77.1
<b>Age</b>		
16- 21	15	42.8
22-28	12	34.3
29-34	5	14.3
35+	3	8.6

<b>Education</b>		
1 <sup>st</sup> year	5	14.3
2 <sup>nd</sup> year	19	54.3
3 <sup>rd</sup> year	7	20
4 <sup>th</sup> year	4	11.4
<b>Faculty</b>		
FMSS	25	71.4
FEA	3	8.6
FST	5	14.3
FNAH	2	5.7
<b>Campus</b>		
Belize City	9	25.7
Belmopan	26	74.3
Central Farm	0	0
Punta Gorda	0	0

**Table 2. Characteristics of Respondents**

## Data Analysis and Results

In this section of the paper, the type of research is switched as testing of the hypothesis will not be done. Here is where we will present the data collected at the University of Belize as applied research rather basic, which was previously utilized. The presentation of the data (gathered from students from the University of Belize pertaining to Xenegrade) is in the form of histograms illustrated below.

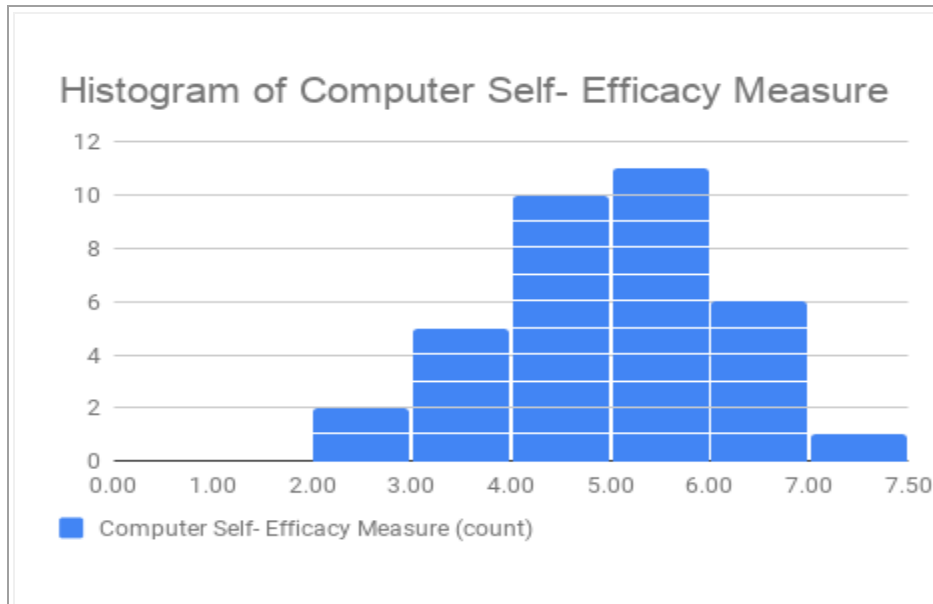


**Figure 2. Complementary Technology Quality**

Figure 2 depicts Complementary Technology Quality, which assesses the reliability of the hardware and internet speed used to access Xenegrade. Majority of the respondents do possess an adequate device and

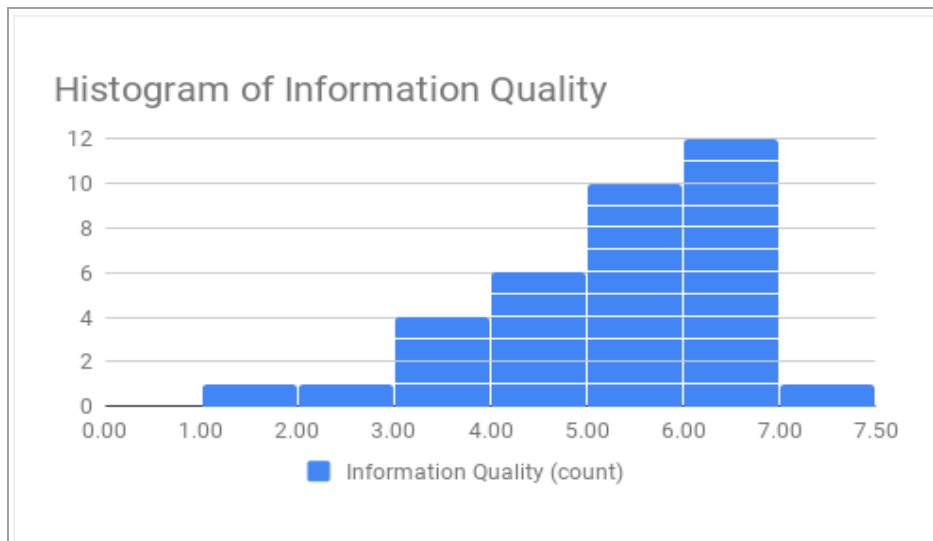


have reliable internet connection speed based on their responses being between scores 6 and 7. This is the first construct added in local context.



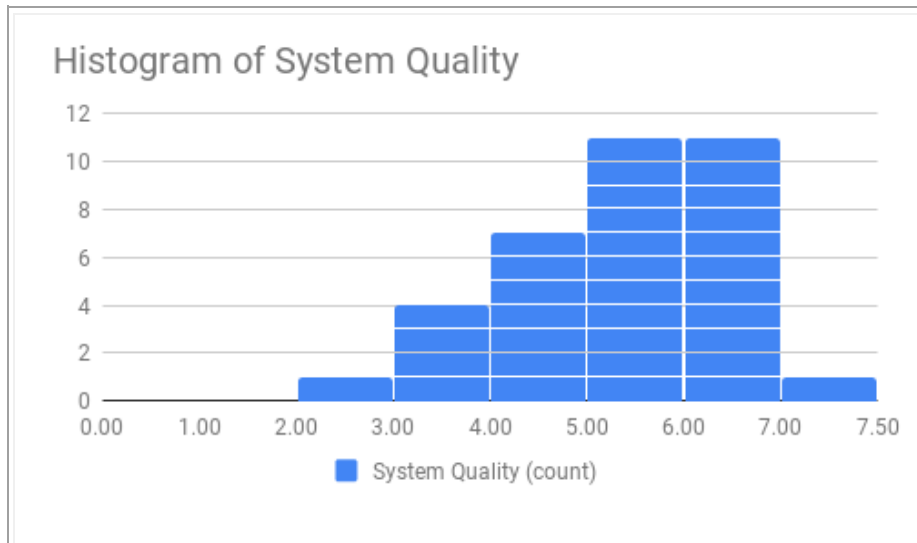
**Figure 3. Computer Self- Efficacy Measure**

Figure 3 illustrates the Computer Self- Efficacy measure, the second added construct to D& M IS success model. This construct has to do with how the students feel about Xenegrade, if they can maneuver without assistance. The responses indicate students have a neutral to positive attitude towards utilizing Xenegrade.



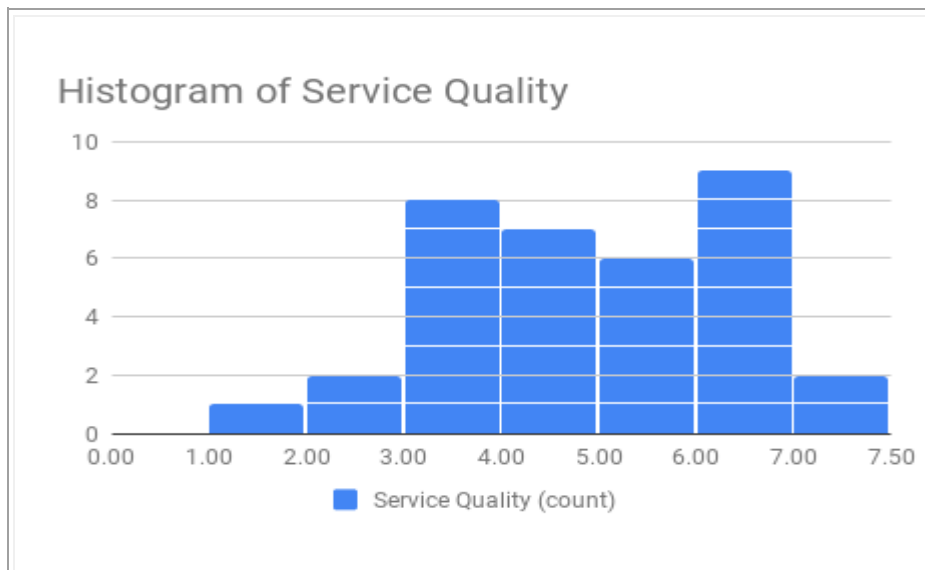
**Figure 4. Information Quality**

While variations are visible, Figure 4 indicates majority of the users (students) are agreeing that Xenegrade offers quality information they need, especially relating to registration.



**Figure 5. System Quality**

System quality is the interface that exists within the system. Figure 5 illustrates 30 respondents scored between four and seven. This means they agree Xenegrade is user-friendly.



**Figure 6. Service Quality**

Figure 6 shows 11 respondents (scoring between 1 and 3) being unsatisfied with the service received from the support staff. On the other hand, 17 are pleased with the service.

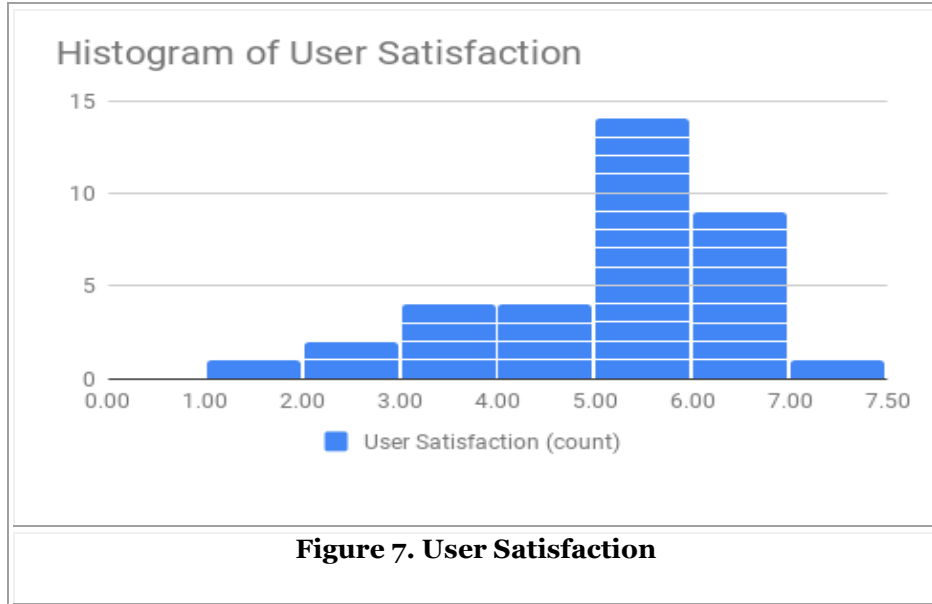


Figure 7 illustrates more than half of the respondents agrees that Xenegrade’s utility is high and that there is a positive attitude and satisfaction towards Xenegrade.

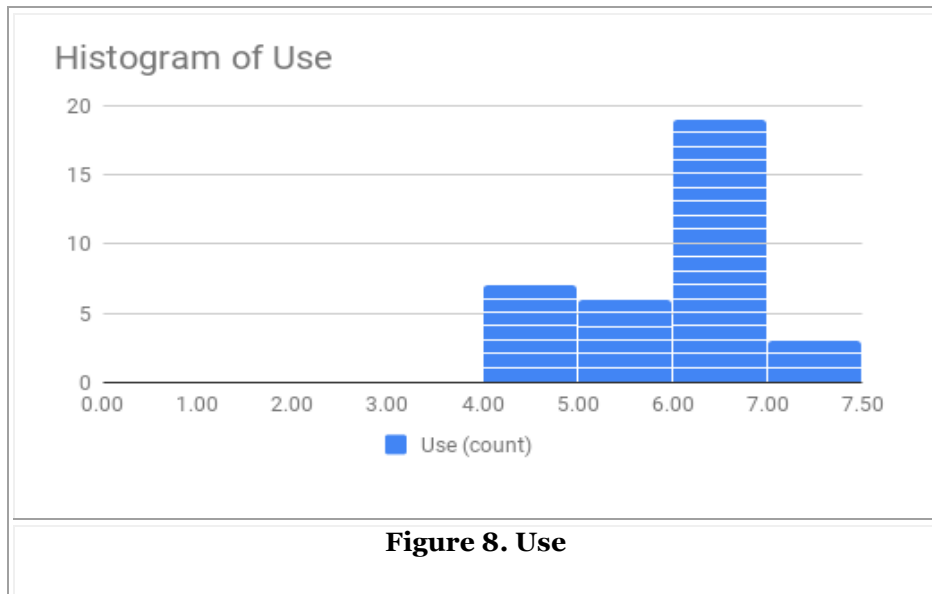


Figure 8 goes to show that the frequency of accessing Xenegrade, especially during the registration period, is high. All the respondents scored between 4 (neutral) and 7 (very often).

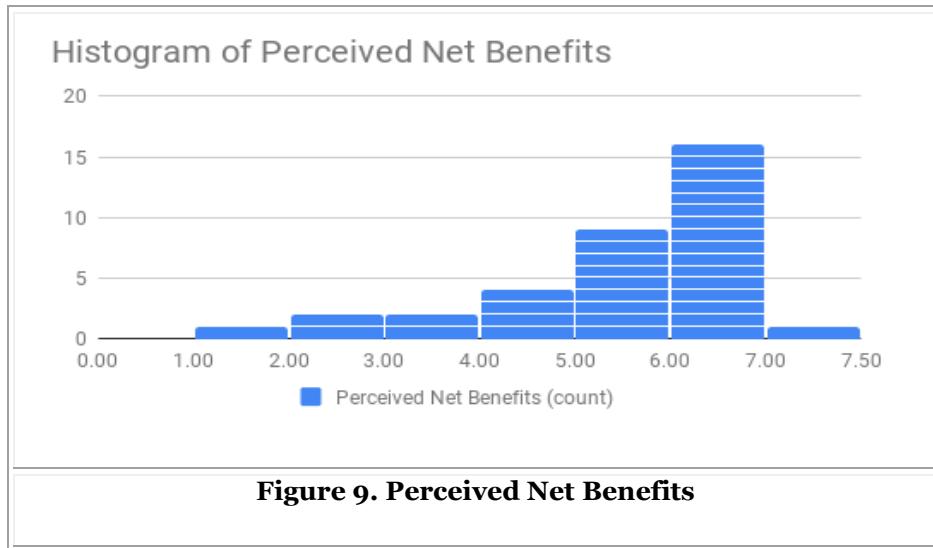


Figure 9, Perceived Net Benefit measures the success of the Information System. Again, majority of the respondents agrees that Xenegrade is cost efficient, improves the registration process and aids in productivity. The latter (five respondents), thinks otherwise as they disagreed.

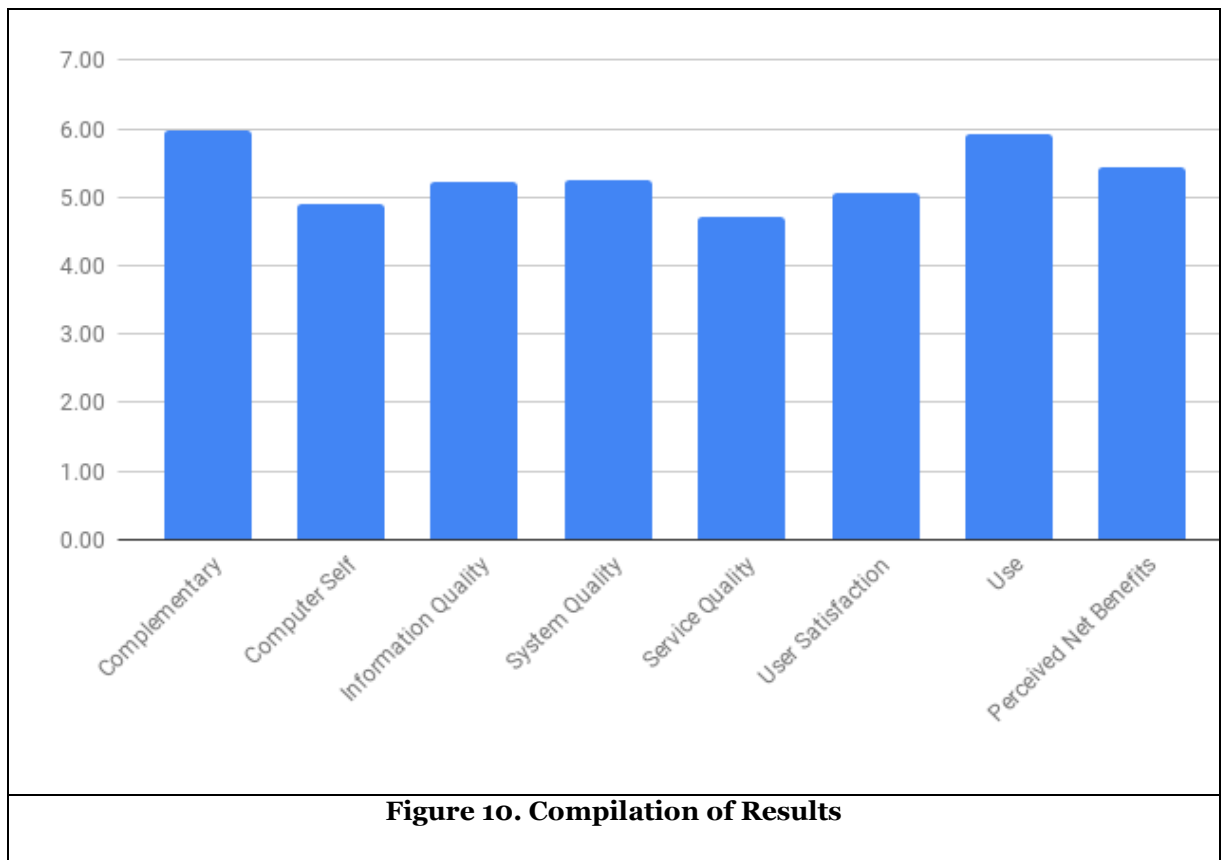


Figure 10 demonstrates all the utilized constructs that will aid in better determining the success or failure of the current Registration Information System at the University of Belize.

## **Discussion**

Based on the data gathered and its analysis, we can conclude that many variations exist within the findings. For the most part, these variations arise due to the difference in campus locations and years spent at the university (linked with age). Most of the respondents who are new comers to the institution and those who are more mature, ranked many of the questions between scores one and four, this is mainly due to them being unfamiliar with the system. Majority of the new comers are registered for their courses through their academic advisers on Orientation Day. Since the process was not self-conducted, they were not certain as to how to respond to some of the questions on the questionnaire. As mentioned, campus location played a role as well, because the results showed that Belize City respondents were not as satisfied with Xenegrade compared the central campus respondents.

The Complementary Technology Quality indicates success as only one respondent scored between one and three. This means that although both campuses have a computer lab with internet, the respondent might not be utilizing it to access Xenegrade (if they do not have a personal device). Computer Self-Efficacy on the other hand, is moderately successful, as seven respondents do not have a positive attitude in using the system. These newly added constructs do not alter the IS model as much but it can be seen how they affect other constructs.

Computer Self Efficacy Measure impacts the level of Use and User Satisfaction. Although the seven respondents are unable to maneuver knowledgeably through Xenegrade, they still scored between neutral and positively agreeing when it came to Use. We can see the opposite as it relates to User satisfaction. Yes, Xenegrade is utilized but factors such as computer self-efficacy, internet speed, and system quality (especially when the portal opens for the start of the semester; downtime) all affect the users' satisfaction; hence, the variations that exist in the User Satisfaction histogram.

The latter five respondents who scored low for the Perceived Net Benefits, more than likely took into consideration the same factors, or the fact that Xenegrade adds no value to them.

## **Conclusion**

From the data presented particularly leaning on Figure 10, it can be concluded that Xenegrade at the University of Belize is moderately successful. While the frequency of use is somewhat high as students depend on it for registration purposes, the rate of user satisfaction is lower. This is indicating that students are only utilizing it because it is easier than waiting in a line whether at the Records or Adviser's office but to say they are satisfied and have a positive attitude towards the use of Xenegrade, the answer is no! One of the reasons why students might not be as interested in learning about Xenegrade is that its use is mostly at the beginning and ending of the semester. It does not require daily access.

Although literature from previous researches were reviewed and one pertaining to Xenegrade at the University of Belize, this current survey aims to add to what was ascertained and to provide a different perspective. This research did not limit the respondents from one faculty or campus; in fact, it incorporated respondents from both Belize and Belmopan City, and from all four faculties.

The first recommendation to make Xenegrade completely successful is to provide training to the students. This includes the facilitation of trainings done during orientation (at each campus) or by the individual tasked with overseeing the computer labs. The second recommendation is to increase the system's bandwidth to accommodate numerous users simultaneously. This will reduce the number of times Xenegrade crashes during the registration period. Lastly, the institution should utilize the data gathered from Xenegrade to enhance their services and make better predictions.

## **Limitation and Future Work**

One major limitation of this research is the fact that some respondents took a long time in returning the questionnaire. In addition, some students did not understand clearly what was meant by some of the questions so we had to be there explaining to them what it meant. This also provides a disadvantage of the Likert Scale because respondents do not read the questions thoroughly, they simply tick box four because it is neutral. If open-ended questions were integrated, a better understanding and conclusion could have been drawn. Future work can utilize the limitations of this paper to better their research. They can take on a larger sample size, as the sample size used for this research is not a true representation of the university's population, from more campuses; alter the questionnaire structure if it would be possible.

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## Appendix A

### Purpose

This research is required for the CMPS3012 MIS course at University of Belize University. This questionnaire asks for information about yourself and the usefulness of the Registration Information System, Xenegrade. The data gathered will be analyzed to determine the success of Xenegrade at our University.

Please answer each question based on your use of Xenegrade. 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 is no right or wrong answers. Please tick the boxes to mark your answers.

<b>1. Background Information</b>	<b>Answers:</b>
Please indicate your gender:	Male <input type="checkbox"/> Female <input type="checkbox"/>
Please indicate your age:	16-21 <input type="checkbox"/> 22-27 <input type="checkbox"/> 28-34 <input type="checkbox"/> >35 <input type="checkbox"/>
Please indicate what year you are currently in at University of Belize:	1 <sup>st</sup> Year <input type="checkbox"/> 2 <sup>nd</sup> Year <input type="checkbox"/> 3 <sup>rd</sup> Year <input type="checkbox"/> 4 <sup>th</sup> Year <input type="checkbox"/>
Please indicate which faculty you belong to:	FMSS <input type="checkbox"/> FEA <input type="checkbox"/> FST <input type="checkbox"/> FNAH <input type="checkbox"/>
Please indicate which campus (es) you utilize:	Belize City <input type="checkbox"/> Belmopan <input type="checkbox"/> Central Farm <input type="checkbox"/> Punta Gorda <input type="checkbox"/>

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

<b>2. Information Quality</b>	<b>Disagree -----Agree</b>
IQ1: Xenegrade provides information that is exactly what you need.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
IQ2: Xenegrade provides information you need at the right time.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
IQ3: Xenegrade provides information that is relevant to registration.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
IQ4: Xenegrade provides sufficient information.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
IQ5: Xenegrade provides information that is easy to understand	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
IQ6: Xenegrade provides up-to-date information.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>3. System Quality</b>	<b>Disagree -----Agree</b>
SQ1: Xenegrade is easy to use.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
SQ2: Xenegrade is user-friendly.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
SQ3: Xenegrade provides high-speed information access.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
SQ4: Xenegrade provides interactive features between users and the system.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>4. Complementary Technology Quality</b>	<b>Disagree -----Agree</b>



CTQ1: The computer (desktop, laptop, mobile device) you normally use to access Xenegrade is adequate.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CTQ2: The computer (desktop, laptop, mobile device) you normally use to access Xenegrade has a fast and reliable internet connection.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CTQ3: The speed of the Internet connection used to access Xenegrade is adequate.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CTQ4: The reliability of the Internet connection used to access Xenegrade is adequate.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>5. Computer Self-Efficacy Measure</b>	<b>Disagree -----Agree</b>
<i>I could complete the Registration Process using Xenegrade</i>	
CSE-1 .... if there was no one around to tell me what to do as I go.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-2 .... if I had never used a Xenegrade before.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-3 .... if I had only Xenegrade manuals for reference.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-4 .... if I had seen someone else using Xenegrade before trying it myself	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-5 .... if I could call someone for help if I got stuck.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-6 .... if someone else had helped me get started.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-7 .... if I had a lot of time to complete the registration process which Xenegrade provides.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-8 .... if I had just the built-in help facility for assistance.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-9 .... if someone showed me how to do it first.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
CSE-IO.... if I had used a similar Xenegrade system before this one to register for classes.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>6. Service Quality</b>	<b>Disagree -----Agree</b>
SV1: The support staff keep Xenegrade software up to date	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
SV2: When users have a problem the Xenegrade support staff show a sincere interest in solving it	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
SV3: Xenegrade support staff respond promptly when users have a problem	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
SV4: Xenegrade support staff tell users exactly when services will be performed	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>7. User Satisfaction</b>	<b>Disagree -----Agree</b>
US1: Most of the users have a positive attitude of Xenegrade.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
US2: You think that the utility of Xenegrade is high.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
US3: Xenegrade has met your expectations.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
US4: You are satisfied with Xenegrade.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>8. Use</b>	<b>Never -----Often</b>
U1: Your frequency of use of Xenegrade is high.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
U2: You depend upon Xenegrade for registration.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>

U3: You were able to complete a task using Xenegrade even when there was no one around to tell you what to do.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
U4: You have the knowledge necessary to use Xenegrade.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
<b>9. Perceived Net Benefits</b>	<b>Never -----Often</b>
NB1: Xenegrade helps you improve your registration process.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
NB2: Xenegrade helps students save costs.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
NB3: Xenegrade helps you achieve your academic goals.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
NB4: Using Xenegrade improves estimation of students per class.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
NB5: Using Xenegrade at school increases your academic productivity.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>
NB6: Overall, using Xenegrade enhances your academic performance.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/>

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

Thank you for your participation.