Users Acceptance of Online Enrollment Processes in a Higher Education Institution

ABSTRACT

Little is known about perceptions of online enrollment processes. Satisfaction is part of the assessment, but evidence suggests that administrators are oriented to retention and graduation rates rather than to user perceptions. This study validated a model that enables the measurement of online enrollment processes by the analysis of perceptions.

Keywords: Virtualization, perception, satisfaction.

Introduction to the Study

Colleges and universities need to address the gap that exists in the operational area of online enrollment. Little is known about the acceptance of the online enrollment processes. Service evaluation is an essential component of the assessment process required for accreditation nationwide, but institutions are traditionally focused on student satisfaction, retention, and graduation rates as the main cohorts in self-studies (Noel-Levitz, 2010). A theoretical base and an adapted model is introduced and explained in this study to examine the acceptance of students as customers of a higher education institution of the online enrollment processes.

Problem Statement

Educators and administrators must understand how students perceive online enrollment processes. Little is known about the acceptance of the online enrollment processes (Noel-Levitz, 2010). Colleges and universities focus on the development of online education programs (Noel-Levitz, 2010). Even though student satisfaction is a part of the assessment process required for accreditation purposes, assessments are more oriented to the cohorts of retention and graduation rates for self-studies than consumer acceptance (Noel-Levitz, 2010). Online education is the subject of research in terms of online education (Western Cooperative for Educational Telecommunications, 2000), but enrollment and other ancillary services have received little scholarly attention because they are considered operational activities.

Colleges and universities ask their students about the services rendered by the institution. However, a standardized research model that enables the academic administrators to evaluate online enrollment processes as the business component of an online education program does not exist. An institution needs to understand how their students perceive processes in order to increase satisfaction. There is a need for increasing the understanding of online enrollment processes (Noel-Levitz, 2010). In this study, I developed a model to measure and analyze online enrollment processes on the basis of customer acceptance.

Purpose of the Study

The purpose of this quantitative study is the development of a model that enables the measurement and analysis of online enrollment processes in a higher education institution. A standardized research model that enables academic administrators to evaluate online enrollment processes as the business component of an online education program does not exist (Noel-Levitz, 2010). By the development of a model, higher education administrators would

be able to analyze the acceptance of their online enrollment processes from the perspective of their students as customers.

With this model, enrollment managers and academic administrators must be able to demonstrate the perceived ease of use and the perceived usefulness as proposed by Davis (1998) and the perceived satisfaction (PS). This proposed model can be used in the evaluation of online enrollment processes.

Research Question and Hypotheses

The following is the research question and the attendant hypotheses that were developed for this study:

RQ. Does the virtualization of enrollment processes in a higher education institution improve students' acceptance of online enrollment processes?
H_1. Acceptance increases as the student perception of ease of use increases.
H_2. Acceptance increases as the student perception of usefulness increases.
H_3. Acceptance increases as the student perception of satisfaction increases.

The research question and hypotheses were addressed by using a modified version of the technology acceptance model (TAM) adapted to fit higher education institutions. By the inclusion of the variable perception of satisfaction as a third variable to the model developed by Davis (1989, 1993) it was possible to measure students' acceptance of online enrollment processes in higher education institutions.

Concisely state the study

The research variables for this study were based on TAM as developed by Davis (1989, 1993) and one added to the model by me. The dependent variables for the research were PEU, as the degree to which the individual users perceive that their use of the target system would be mentally and physically effortless (Davis, 1989, 1993), PU, as the degree to which individual users perceive that their use of the target system would increase their work performance (Davis, 1993), and PS, as the degree to which the individual users perceive that their use of the target system would satisfy their needs.

The independent variable for this study was the acceptance of the online enrollment processes as the business component of an online education program in a higher education institution. According to TAM, there are intervening variables that should affect the PU and the PEU. The intervening variables were addressed, but were not the subject of research in this study. These variables are the attitude toward use of target and the actual system use (Davis, 1989). The attitude toward using the system refers to the persons' general feeling of favorable or unfavorable for the use of a system (Al–Gahtani, 1998). Actual system use is a behavior consisting with the number of times the systems are used (Davis et al., 1989). Actual system use is operationalized in terms of the frequency of use (Davis, 1989, 1993; Malhotra, & Galletta, 1999).

As a researcher, I used a single overall statistical test on this set of variables instead of performing multiple individual tests. To account these dependent variables, I grouped them together into a weighted linear combinations or composite variables. The research question and hypotheses were addressed by using a modified version of the TAM adapted to fit higher

education institutions. By the inclusion of the variable PS as a third variable to the model developed by Davis (1989, 1993), it was possible to measure students' acceptance of online enrollment processes in higher education institutions.

Technology Acceptance Model (TAM)

The conceptual framework for this study was based on TAM. TAM is the most valid framework for studying the user acceptance of technology and virtual processes (Ramayah & Ignatius, n.d.). Process virtualization is the creation of a virtual version, rather than an actual version, of something, such as an operating system, a process, a server, storage device, or network resources (Overby & Konsynski, 2010). In higher education, virtualization is the creation of online processes (Overby, 2008) and classrooms that emulate the functionality of the on-campus environment (Noel-Levitz, 2010).

By using TAM, educators will have a tool for better understanding the factors that influences user acceptance of the virtual processes in an online enrollment, giving the potential to improve the design and implementation of the student support component in a higher education institution (Shen, Laffey, Lin, & Huang, 2006). In addition, the TAM will enable the understanding of the acceptance of the online enrollment processes by surveying the participants and analyzing their responses based in the perceptions of the processes. TAM informs the study by providing a structure and background to develop the research question and subsequent survey.

According to the literature, the TAM, has been shown to be a valid model that enables the perception of system acceptability (Masrom, 2006). It suggests that user perceptions of a system are formed early, after only minimal exposure to the system (Al-Gahtani et al., 1998; Davis et al., 1992; Malhotra et al,. 1999). These perceptions have a powerful influence on whether users will actually use that system in the future (Davis et al., 1989, 1993., Davis, Bagozzi & Warshaw, 1992). In particular, TAM suggests that designers must consider not only the system's ease of use, but also its usefulness in order to encourage end user acceptance of that system (Morris, & Dillon, 1997).

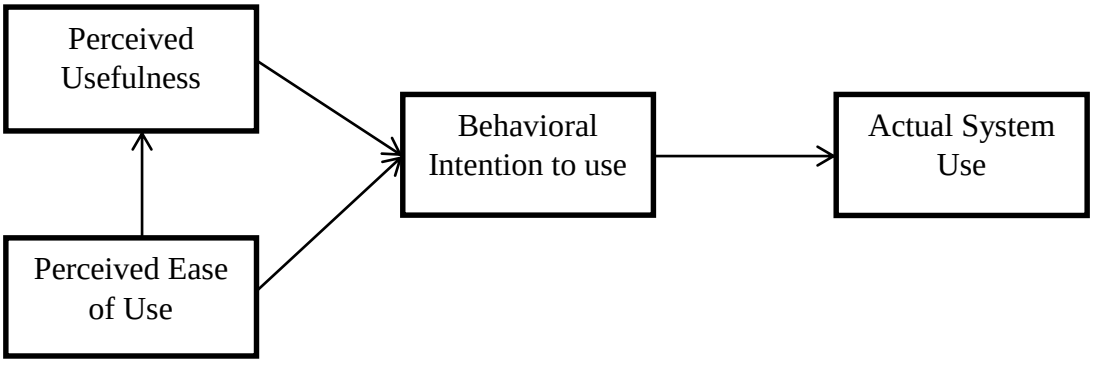

Figure 1. Technology Acceptance Model Diagram.

Despite its relative simplicity, TAM proves to be a viable and accurate model for predicting whether systems will be successful. Because of its simplicity, it offers designers a cost-effective model, which can be used to evaluating systems throughout the system design lifecycle. In addition, higher education institutions have the challenge to migrate to online education using this verified model for implementation (Kim, 2008). TAM as initially presented by Davis (1989), has a structure in which the PEU and the PU are the main variables.

The modified TAM as presented in Figure 2, is a model that enables the measuring and analysis of the perception (perceived ease of use, perceived of usefulness and perceived satisfaction) of students attending an online program about the enrollment component of an online education initiative in a college or a university. This model will fill the potential gap in the evaluation of the perception and acceptance of the enrollment processes component of higher education institutions.

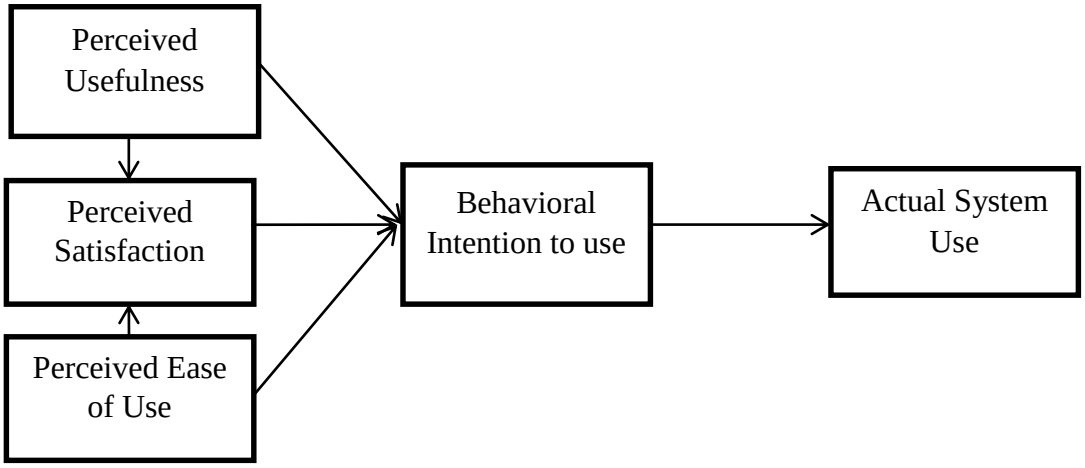

Figure 2. Proposed Modified TAM

Nature of the Study

In this study I used a quantitative method, with a survey design supported by TAM, to determine how students, as customers of a higher education institution accept online enrollment processes. Data were collected from a sample of students enrolled in a higher education institution in which the enrollment processes have been virtualized. The research design was a survey designed to test the individual's acceptance (Kelleher, O'Malley, & Oh, 2003) of a particular technology (Davis, 1989, 1993).

A survey was used to measure the acceptance of students as users of online enrollment processes as developed to serve students enrolled in a higher education institution based on the constructs PEU, PU and PS. This modified TAM will be seen by the perspective of the first step in satisfying customer needs by determining how students as customers attending a program in a HEI perceive the usage of online enrollment processes. Such a point of entry is needed because it enables the understanding of students' perception in order to study their acceptance.

Assumptions

I assumed that all participants were already exposed to and were familiar with online enrollment processes rendered by a higher education institution. I assumed that the individuals' subject of the study (participants), which is students as customers, should not be influenced by other previous studies. Also, the participants were expected to give their insights truthfully regarding their perception of the institution online enrollment processes. I assumed that, because of the anonymous nature of this quantitative study, participants express their

perceptions about the online enrollment processes from their institution without fear of retaliation.

Scope and Delimitations

Several delimitations were taken-related to the survey process and the proposed model as one used to evaluate the influence of perceptions. The first delimitation that the effect of an implementation of an initiative like an online or online education program may take years to show (Bennett, 2001). The scope of this study is delimited to the assessment of actual. To measure the effect of the initiative, it will be necessary to assess students' acceptance with alumni, even former if not graduated students. The second delimitation in this study was related to the language of the participants. For this study, a different version of the same questionnaire needed to be produced and validated (Dey, 1997).

Study Limitations

There were a few limitations or weaknesses identified in this study. The first limitation was the number of expected participants that respond to the survey. More participants would be better, but then, this is typical of almost any study. Another limitation was the number of colleges and universities participants have attended. Not all online colleges or universities were represented, given the sample and expected responses. Another limitation was the experience level the participants had with the enrollment processes. Participants with more experience or years in school may have had a different perspective than participants in the first year of school. Computer experience was another limitation as those participants with more experience with computer applications may have had a different perspective than participants will little experience.

Significance of the Study

This study provide insight to educators and administrators in understand how students perceive online enrollment processes in a higher education institution. The TAM was adapted to fit higher education institutions and represent a theoretical contribution toward understanding this problem (Havelka, 2003; Malhotra & Galletta, 1999). This study was a practical approach to the virtual business component of a higher education institution, specifically the online enrollment management area. Online enrollment should be analyzed from a customer service perspective to obtain the voice of the customer.

The assessment of the students' acceptance of online enrollment processes was addressed in this study. For this study, students/customers satisfaction was an approach based in the relationship between student perceptions and acceptances. This model could be a viable tool to assist HEIs to become efficient and effective in the enrollment area as a business by the understanding of how their students' as customers perceived and accepts their online enrollment processes. If an institution, college, or university knows how its students as customers perceive and accept their services, it may become more efficient and effective in compliance and conformity to the requirements and the expectations of the industry and their society (Brandon, 2005), thus leading to positive social change.

Research Design and Rationale

A quantitative approach, supported by a survey, was the model that best fits the needs of this study. Surveys are useful in describing the characteristics of a population (Creswell, 2007). Surveys can be administered from remote locations using the existing institutional electronic mail designated for students enrolled in a higher education institution (Western Cooperative for Educational Telecommunications, 2000). I also chose to use a survey for this study because results needed to be statistically significant, even when analyzing multiple variables (Creswell, 2007). A predesigned set of questions can be asked about a specific topic giving flexibility to the analysis of the data (Creswell, 2007).

The research method was a survey based on TAM, a model designed to test the individual's acceptance (Kelleher, O'Malley, & Oh, 2003), as users of a particular technology (Davis, 1989, 1993). Davis (1989, 1993) developed scales for two variables, which were hypothesized to be fundamental determinants of user acceptance. In addition, other researchers have been using variations of this model, obtaining reliable results, confirming that a survey based in TAM was fit to be used in this type of research (Amoako-Gyampah, & Salam, 2004; Bruner, & Kumar, 2005; Ramayah, & Ignatius, 2005). When using standardized questions, the measurement will be more precise by enforcing uniform definitions upon the participants (Kelleher et al., 2003).

A qualitative approach was initially considered for this study. An approach based in the evaluation, knowledge, and interpretation of the perceptions based on experiences lived by students with online enrollment processes and acceptance of technology as a phenomenon was considered initially. As with the qualitative approach, the mixed-methodology research begins with a qualitative observation of an event or phenomenon (Campbell, n.d.) but there was no way to establish a statistical relationship between the online enrollment processes and students' acceptance based on observations or personal interviews. Both models were rejected based on, (a) the difficulty to access the participants for observation, and (b) an interview process that was considered difficult and time consuming because the participants were spread through the US in different time zones. Neither of these concerns, geography or time, were drawbacks in a quantitative model as surveys can be done electronically.

Research Process

This study was conducted with the student population of the Latin Division of Keiser University. After the completion of the proper steps of the Walden University IRB for research approval and Keiser University IRB, the study commenced. The data analysis component includes a description of the pilot study phase, data collection, and analysis activities. Collectively, these two phases were conducted over several weeks.

Recommendations for Further Studies

I was fortunate to have worked together with a group of collaborators at the institution subject of the research who was highly qualified and well experienced in the area related to online enrollment. The following are the recommendations for further studies in the subject area of process virtualization and online enrollment in higher education institutions:

1. Promote active collaboration within the faculty in order to increase the response of the participants of the survey.

2. Implement the use of the Modified TAM survey regularly in order to have enough comparison data that helps higher education institutions to identify improvements and/or critical area.
3. Promote this tool as a standard in the higher education business in order to benchmark good practices for online enrollment processes between institutions.

Conclusions

The study demonstrated the reliability of the modified TAM tool as a viable model that enables enrollment managers and academic administrators the analysis of the acceptance of their enrollment processes from the perspective of their students. The analysis of the opinion of the student as customers regarding the perception of the online enrollment demonstrated that the students as users perceived that the online enrollment processes rendered by the institution are useful, ease to use and satisfy their needs as users.

Due the low response of the participants the results of this study did not demonstrate the correlation between the student perception of the online enrollment processes and the acceptance of the processes. This study was unable to demonstrate the assumption that the acceptance of the online enrollment increases as the student perception increases improving their usage and satisfaction due the lack of response of the participants.

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