

8-1-2011

# E-learning: Student's Perception of Online Learning in Hospitality Programs

Sungmi Song  
*Iowa State University*

Robert Bosselman  
*Iowa State University, drbob@iastate.edu*

Follow this and additional works at: [http://lib.dr.iastate.edu/aeshm\\_conf](http://lib.dr.iastate.edu/aeshm_conf)

 Part of the [Higher Education Commons](#), [Higher Education and Teaching Commons](#), [Hospitality Administration and Management Commons](#), and the [Online and Distance Education Commons](#)

---

## Recommended Citation

Song, Sungmi and Bosselman, Robert, "E-learning: Student's Perception of Online Learning in Hospitality Programs" (2011). *Apparel, Events and Hospitality Management Conference Proceedings and Presentations*. 3.  
[http://lib.dr.iastate.edu/aeshm\\_conf/3](http://lib.dr.iastate.edu/aeshm_conf/3)

This Conference Proceeding is brought to you for free and open access by the Apparel, Events and Hospitality Management at Iowa State University Digital Repository. It has been accepted for inclusion in Apparel, Events and Hospitality Management Conference Proceedings and Presentations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

---

# E-learning: Student's Perception of Online Learning in Hospitality Programs

## **Abstract**

Information technology has permeated into nearly every aspect of our life. With the advance of information technology e-learning has gradually replaced the traditional form of education. The globalized information economy and its market place are pushing educators to reshape higher education around the world. Whether they are a nation, a company, or an individual, all recognize that the real competitive advantages are likely to come from a well-educated mind in this knowledge-based economy. All these factors make higher education put efforts to redefine the measures of quality and also to better understand students' needs while being aware of a consumer-oriented concept in market places. The goal of this study was to investigate the factors that influence student satisfaction and loyalty. In doing so, this study explored the relationships among perceived quality, perceived usefulness, satisfaction, and loyalty. One of critical findings of the study is that certain types of interaction quality in online learning course have mediation effects on student satisfaction as Hiltz (1994) suggested on the Online Interaction learning Theory.

## **Keywords**

Online learning, student perception, interaction quality, relationship, interaction

## **Disciplines**

Higher Education | Higher Education and Teaching | Hospitality Administration and Management | Online and Distance Education

## E-learning: Students' perceptions of online learning in hospitality programs

Sungmi Song  
Hospitality Management  
Iowa State University

Robert Bosselman  
Hospitality Management  
Iowa State University

### ABSTRACT

*With the advance of information technology e-learning has gradually replaced the traditional form of education. In hospitality discipline, the change is noticeable. A number of hospitality programs in universities in different regions have offered web-based learning, creating ubiquitous learning environment to student in hospitality similar to other discipline. The researcher found the gap of knowledge in literatures with regard to the students' perception of online learning courses in hospitality programs. The goal of this study was to investigate perceptions of students in hospitality toward online learning courses.*

**Keywords:** online learning, student perception, satisfaction, interaction

### INTRODUCTION

Most universities worldwide are now offering web-based learning and teaching via the introduction of learning management systems that enable them to open their courses to both on-campus and off-campus students. In the midst of this trend, it is quite a right time to ask how to effectively deliver e-education to students in today's fast changing learning and teaching environment. Sigala and Baum (2003) pointed out the rise of multiple new institutions and student market as major changes that tourism and hospitality education faces. Becket and Brookes (2008) state that higher education institutions including hospitality programs have faced a growing climate of increased accountability of providing quality service as an organization serving the public.

E-learning is quite different from traditional classroom learning in many ways, causing a shift of the role of both students and teachers. Effective teaching comprises the satisfaction of students and faculty, not to mention the accomplishment of specific missions of educational institutions. For an educational institution to be sustainable and successful, it is essential to secure the satisfaction of students, which contributes to continuous retention of students and promotion of the reputation of the institution. Hiltz (1994) proposed a good framework that can guide educational institutions that offer computer mediated learning courses.

## LITERATURE REVIEW

According to Gronroos (1984) service quality is classified as functional and technical. Functional service quality focuses on evaluating the process of service while technical quality refers to evaluating the actual output of the service. In the e-learning field, functional quality focuses on the effective teaching/learning process, whereas, technical service quality in the e-learning is meeting the criteria parameters such as usability and interface of learning system, availability, content or documentation.

The online interaction model proposed by Hiltz (1994) is a framework that describes learning effectiveness in terms of three parts Inputs, learning processes. Each part is highlighted with variables along with the context of educational quality. Input variables consist of characteristics of technology, the individual student, the instructor, and the course and organizational setting. Learning processes variables introduce mediator variables. Thus, the process variables reflect the extent to which the learning experience online are/are not perceived as motivating, actively engaging, socially rich, and collaborative rather than individual in nature. The outcomes refer to learning and satisfaction. Learning processes, in turn, lead to the degree of attainment of the desired outcomes.

Information System Success model proposed by Delone and McLean (2003) has popularly been adopted as a frame to assess the success of an information system in the e-commerce environment. The model introduces six components of system quality, information quality, service quality, usage, user's satisfaction and net benefits. In the context of computer-mediated learning, several researchers (Chiu, et al. 2005; Roca, et al, 2006) empirically proved that the three dimensions of quality such as information quality, system quality, and service quality predict users' satisfaction and use.

Based on the reviews and theories discussed above, the researcher proposes five hypotheses and a model (see Figure1).

### Satisfaction

Satisfaction is the prime predictor of behavioral intention in the studies that satisfaction is viewed as an attitude. Several studies show that satisfaction is a strong indicator of continuance intention. Researchers found that there is a strong link between satisfaction and continued use of an e-learning system or an online program (Chiu, Hsu, & Sun, 2005; Roca et al., 2006; Liao et al., 2007). Furthermore, IS Success Model posits that satisfaction increases repeated system use.

### **H1: Students' satisfaction affects loyalty.**

### Perceived Service Quality

Research in the e-learning context (Chiu, et al., 2005; Roca et al, 2006) have shown that perceived quality is an antecedent of satisfaction. Chiu, et al. (2005) and Roca, et al. (2006) reported that that the perceived performance, which was decomposed into perceived quality and perceived usability, affected users' continuance intention through satisfaction. Jung, & Keel (2002) reported that instructors' active involvement in discussion and rich media content are all contributors to students' satisfaction with online learning. For this study, 1PSQ was defines as perceived infrastructure quality and 2PSQ was defined as perceived interaction quality. Overall,

perceived online service quality (PSQ) was assessed in terms of information quality, system quality, service interaction quality, and instructor interaction quality.

H2: Perception of interaction quality (2PSQ) affects student satisfaction.

H3: Perception of infrastructure quality (1PSQ) affects perception about interaction quality (2PSQ)

H4: Perception of interactions (2PSQ) affects perceived usefulness toward online learning course

### **Perceived Usefulness**

Perceived usefulness (PU) is defined as a person's salient beliefs that using the technology will enhance his or her job performance (Davis, 1989). Perceived ease of use (PEOU) is defined as people's salient beliefs that using the system will be free of effort or require little effort (Davis, 1989). Chiu, et al. (2005) and Roca, et al., (2006) found that perceived usability, which includes perceived usefulness and perceived ease of use, had significant effects on satisfaction and in turn accounted for users' continuance intention.

H5: Perceived usefulness (PU) affects loyalty.

## **METHOD**

### **Sample, Data Collection, and Analysis**

The target population is students who experienced one online learning course in the hospitality programs. Six hospitality programs participated in the study. The completed questionnaire was 271 from six hospitality programs. SEM was used to validate the proposed relationship model. After conducting Exploratory Factor Analysis, Confirmatory factor analysis was conducted to evaluate reliability and validity of the constructs. AMOS (Analysis of Moment Structures release 6.0) was used.

## **RESULTS**

### **Descriptive Statistics**

Participants in the study consisted of both undergraduate students and graduate students who experienced or were taking the online lecture in hospitality program during the period of spring 2009 to summer 2010. More than half (n=174, 64.2%) were female students and about 35 % were males. The majority of respondents were in their 20s (53.5 % of the respondents aged between 18 and 22 studying in fulltime status (n=240, 88.6%). The mean values over seven constructs ranged from 3.74 (most negative evaluation) to 5.89 (most positive evaluation). All seven variables had means at or above the above 5, suggesting that students were positive in online learning service quality and satisfied with. Students perceived the dimensions of information quality to be the most evident of the four dimensions while the service interaction to be the least. As numerous literatures have indicated, online learning satisfaction was significantly associated with online learning loyalty ( $r = 0.795, p < .001$ ).

### **Measurement Model**

All model fit statistics fell within recommended standards, suggesting adequate model fit. Convergent validity was evaluated using two criteria suggested by Fornell and Larcker. Most items exhibited loading higher than 0.73 on their respective construct, providing evidence of acceptable item convergence on the intended constructs. AVE ranged from 0.58 to 0.93 greater than the variances due to measurement errors. The square root of the AVE from a construct was greater than the correlation shared between the construct and other constructs in the model.

### **Structural Model Analysis**

SEM was used in verifying cause and effect relationships among perceived service quality, perceived usefulness, satisfaction, and e-loyalty. The overall fit indices evidenced good support for the final model fit indices: A  $\chi^2$  to degrees of freedom ratio of 1.77 ( $\chi^2 = 65.38$ ; d.f. = 37), TLI = 0.99, NFI = 0.98, CFI = 0.99 and RMSEA = 0.054. Hence, this model fitted the data very well. Table 6 presents the summary fitting results. The significance of individual paths is shown in Fig 2. The R2 value shows that the amount of variance explained by PSQ, PU, and CS together accounted for 53% of the variance of online learning loyalty.

## **DISCUSSION AND IMPLICATIONS**

### **Discussion and Managerial implications**

The presented study has several implications for education administrators, instructional designers, and instructors. As the study indicated, the perceived qualities were significant, having impact on usefulness of and satisfaction with online courses. However, this study also found that the predicting power of quality variables such as System quality and Information quality diminished, giving ways to interaction variables. Important implication is to what measures educational institution should monitor in retention/dropout. As the study indicated, perceived usefulness and satisfaction are predictors of loyalty. It implies that there exist different ways in retention of students. In one segment of students, loyalty may be driven through satisfaction, whereas in other segments loyalty may be driven by perceived usefulness as well.

### **Limitations and Future Research**

Although this study took a positive approach in reviewing previous literature and analyses of data using advanced statistical tools, there are some limitations. These include issues of representation of hospitality programs and instrument administrations. The data was collected from only six hospitality programs. So, this constraint may have impact on possible generalization of the research findings to any hospitality program. Also, since the loyalty explained was only 53 percent, it would be meaningful to adopt non-quality measures (Kandumpully & Suhartanto, 2000).

## REFERENCES

- Chiu, C. M., Hsu, M., & Sun, S. (2005). Usability, quality, value and e-learning continuance decisions. *Computers & Education, 45*, 399-416.
- DeLone, W.H., & McLean, E.R. (2003). The DeLone and McLean Model of Information Systems Success: A ten-year update. *Journal of Management Information Systems, 19*(4), 9-30.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable and measurement error. *Journal of Marketing Research, 18*. 39-50.
- Grönroos, C. (1984). A service quality model and its marketing implications, *European Journal of Marketing, 18* (4), 37-44.
- Hiltz, S. R. (1994). *The virtual classroom: Learning without limits via computer networks*. Norwood, NJ: Ablex.
- Khalifa, M., & Liu, V. ( 2002). Satisfaction with Internet-based services: The role of expectations and desires. *International Journal of Electronic Commerce, 7*(2), 31-49.
- Kandumpully, J. & Suhartanto, D. (2000). Customer loyalty in the hotel industry: the role of customer satisfaction and image. *International Journal of Contemporary Hospitality management, 12* (6), 346-351.
- Liao, C., Chen, J., & Yen, D. (2007). Theory of planning behavior (TPB) and customer satisfaction in the continued use of e-service: An integrated model. *Computers in Human Behavior 23*, 2804-2822.
- Roca, J. C. Chiu, C. M., Martinez, F. J. (2006) Understanding e-learning continuance intention: An extension of the Technology Acceptance Model. *International Journal of Human-Computer Studies, 64*(8), 683-696.
- Selim, H. M. (2007). Critical success factors for e-learning acceptance: Confirmatory factor models *Computers and Education, 49* (2), pp. 396-413.