

Influencing Factors for Repurchase Intention in e-Learning Sites

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Abstract

This study examines the effects of the characteristics of educational contents, brand recognition, educational management and technical support on the repurchase intention mediated by overall satisfaction, trust and commitment in e-Learning sites. A survey of experienced users was conducted to collect data. The reliability and validity of data were tested by explanatory factor analysis, Cronbach's alpha coefficient, confirmatory factor analysis and correlation analysis. Also, the structural equation mode (SEM) analysis was performed to test the usefulness of the model.

The results of the study are as follows: Educational contents, educational management and technical support were found to have positive effects on overall satisfaction. And educational contents and brand recognition were found to have positive effect on trust and commitment. And trust and overall satisfaction were found to have mediating effects on repurchase intention.

Key Word: e-Learning, repurchase intention, overall satisfaction, trust, commitment

1. Introduction

As the analog society is moved to the digital society, many coinages are created. Many coinages are accompanied by 'e' like e-Business. In the educational sector, the coinage called e-Learning(cyber education) was created. As the need for individual education without the limit of space and time is recognized, many scholars and industries are paying great attention in e-Learning.

Particularly in Korea, e-Learning is expected to address the practical issues such as ① excessive burden for private education ② lack of governmental support of lifelong education and ③ insufficient opportunity for retraining. e-Learning is being expanded to the areas such as telecommunications, computers, other than foreign languages through private institutions. Also some cyber universities are successfully attracting many students. All in all, e-Learning can be expected to influence a sizable portion of population in Korea because of its easy assess and relatively low cost.

Successful e-Learning depends on developing appropriate contents and business models for users through maximizing the use of given infrastructure as well as building new technologies and infrastructures. However, the research on the introduction and adoption of e-Learning related to these aspects of business opportunities has not been sufficiently done. In fact, there is few empirical data on the performance and potential benefits of e-Learning and relevant services for the actual users.

And as most studies were performed before the proliferation of e-Learning sites, the selection of research variables was also limited. But because Internet is becoming a part of everyday life in Korea, and e-Learning is moving from the adoption phase to the growth phase, it is necessary to reflect these changes in the research. As most of the initial studies were performed in the US and represented its circumstantial characteristics, the outcome of the research may not be directly applied to Korean situation. Hence, to overcome the limitations of prior research, it is necessary to develop a comprehensive research model and perform research with a strict research method with a big sample.

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2. Definition of e-Learning

E-Learning includes technology-based education, which includes educational CD-ROM, computer-based education using educational software, web-based education and virtual classroom digital collaboration.

Contrasting with off-line education, the commonly used term, online learning means web based education utilizing Internet, Intranet and/or Extranet. Distance learning is another term commonly used. Its meaning is more comprehensive as it includes not only online learning but also e-Learning. However, these terms - e-Learning, online learning and distance learning are used interchangeably. Learning in e-Learning means that learners look for information they need, and share it with others through the process of collecting, selecting, editing, and evaluating digital information, and making conclusions with the help of digital information (Tiffin, 1995). Therefore, we are dealing with a quite different learning paradigm compared to a traditional learning. We see more than a couple of people being together on the web. And people can study no matter when and where.

3. Research Model

This study examines the effects of the characteristics of educational contents, brand recognition, educational management and technical support on the repurchase intention mediated by overall satisfaction, trust and commitment in e-Learning sites. Numerous studies on the purchase behavior in the cyber space have been performed by several researchers (Jarvenpaa & Todd, 1997; Parasuraman, Zeithaml & Berry, 1996; O'keefe & McEachern, 1998; Donthu & Garcia, 1999; Macintosh, 1997; Garbarino & Johnson, 1999; Morgan & Hunt, 1994). This research initially selected the variables which are presumably typical characteristics of e-Learning based on these prior studies, and developed the research model by adding the factors newly recognized in e-Learning and empirically examined this model.

3.1 Independent Variables

3.1.1 Educational contents

Educational contents include 3 sub-factors - characteristics of contents information, ability of instructor and amusement. Characteristic of contents information can be explained by accuracy, authority,

currency and uniqueness. Accuracy and currency are the most widely recognized characteristics of website contents in prior studies and assumed to be most suitable for e-Learning. And currency and uniqueness are based on studies of Emma (1998), Harris (1997) and Kapoun (1998).

And it is very important that instructors must have professionalism in their own field and ability to teach. Technology is important in e-Learning, but it is more important that instructor should have technical expertise and experience in teaching. It is essential for the instructors to have the ability to communicate with other instructors, students and educational staffs. And good instructors have the ability to effectively combine off-line lectures and e-Learning in various subjects to enhance educational effectiveness.

Furthermore, as customers' needs become diverse and more segmented, e-Learning sites need to try to satisfy them by utilizing various multi-media, adding some aspect of entertainment in learning, and enhancing ease of use of hardware and software in e-Learning environment.

3.1.2 Brand recognition

Aaker (1991) asserted that customer loyalty for a specific brand of a business strongly affects searching for proper alternatives in the imperfect market, and that the stronger the loyalty, the more resistant to change. As e-Learning market is not very well defined and customers have very limited information, brand effect is very important. Customers often choose e-Learning service by off-line reputation and recognition.

3.1.3 Educational management

Because e-Learning is provided from a distance, additional services are necessary to overcome this problem. Bonk (2002) mentioned that In America, 75% of instructors expressed the need for additional services in education. Hence, this study added a variable whether or not additional services are being offered in educational management. The additional services would include many functions such as the improvement of curriculums, before/after consultations, analysis of educational effectiveness, report of educational activities, analysis services of ability gap, evaluation, and proper assignments, etc.

3.1.4 Technological characteristic

Technological characteristics include the level of technological infrastructure, characteristics of

interface and recognized risk as sub-factors. For the successful e-Learning, accessibility, proper transmission speed, the ability to solve problems quickly, and reliable system support are necessary.

The user interface should be designed for users' convenience, so that not only convenience of searching should be provided, but also consistency should be pursued to have structural browsability (Neilsen, 1997). The users should be able to easily understand the structure of websites, and feel comfortable and consistent in searching information. It means how logically the contents are organized. Bachiochi et al. (1997) maintained that the webpage for effective search have to be concise for the users to grasp the whole picture instantly. Neilsen (1997) said that website must provide identical ways of searching functions and avoid some head lines, page titles and image icons which could confuse customers. Emma (1998) also emphasized navigation so that users would be able to find the contents easily.

The studies of Jarvenpaa & Todd (1997) and Parasuraman, Zeithaml & Berry (1996) in the early days of Internet business showed that customer risk factors were not related to purchase in America at that time. But as more consumers buy through the Internet, more people are concerned about the risk – security of personal information. According to research of Internet by Hangyoreh Newspaper in 2001, research by Information and Culture Center under the Ministry of Information and Communication in 2002 and the research by the Korea Consumer Protection Board, the biggest obstacle for Internet commerce is possible leakage of personal information.

3.2 Mediating Variables

3.2.1 Overall satisfaction

Overall satisfaction includes satisfaction for products and services and also satisfaction for many other factors like physical conditions related to purchase (Oliver, 1993). Therefore, overall satisfaction appears to be developed from purchase of products and services, and through buying experiences as time passes (Berry, 1995; Dwyer, Schurr & Oh, 1997; Anderson & Weitz, 1994).

3.2.2 Trust and Commitment

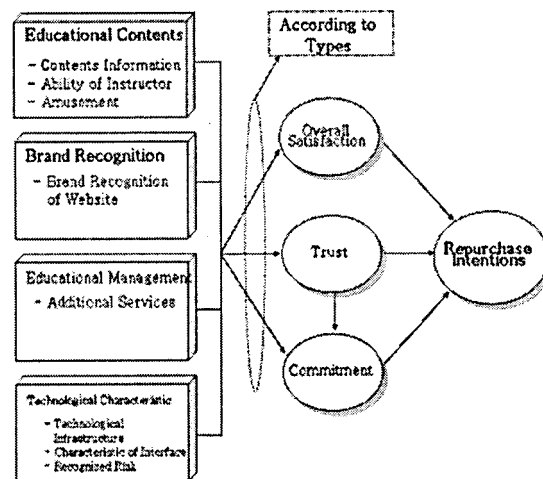
Morgan & Hunt (1994) theorized that trust and commitment are the main parameters for successful relational exchange in business relations. In this study, trust is defined as customer conviction about

service quality experienced by business transactions. And commitment is defined as psychological belonging, royalty, psychological identification with business and confidence about business. Trust and commitment are expected to be affected by independent variables, and in turn affect repurchase intention. Thus, overall satisfaction, trust and commitment are mediating variables in the model.

3.3 Dependent Variable

Prior studies about repurchase intention indicated that customer satisfaction affects attitude after purchase and this attitude affects repurchase intention (McDougall & Levesque, 2000; Oliver, 1993; Szymanski, 2001; Parasuraman, Zeithaml & Berry, 1996). Repurchase intention means that customers who bought more than once become to want to buy again. And it is very essential for the success of e-Learning. Value that was given by patronages and royalty affects directly success and failure of the business. And it is made by repurchase intention of customers.

Thus, educational contents, brand recognition, educational management and technological characteristic were chosen as independent variables, and overall satisfaction, trust and commitment were selected as mediating variables, and repurchase intention was defined as a dependent variable. The research model is shown in Figure 1.



[Figure 1] Research Model

4. Analyses

Questionnaires were distributed in several ways to collect data.

First, because the subjects of this study are the e-Learning buyers, questionnaires were distributed through the Internet. E-mail addresses were collected from cyber colleges, private e-Learning sites, and corporations using e-Learning.

Second, in order to increase response rate and at the same time to prevent bias, the researchers distributed the questionnaires directly to possible respondents in schools, corporations and private institutions and collected them at site.

Finally, a professional on-line research company was hired to increase the size of sample.

Approximately 7,000 questionnaires were distributed through the Internet and 233 questionnaires were obtained. And 193 were collected from direct distribution, and on-line research company provided 200. After eliminating incomplete questionnaires, 615 were used in analyses.

The reliability and validity of data were tested by explanatory factor analysis, Cronbach's alpha coefficient, confirmatory factor analysis and correlation analysis. Also, the structural equation model (SEM) analysis was performed to test the usefulness of the model.

4.1 Hypothesis testing through path analysis

The hypothesis testing was done using the critical ratio. The Critical Ratio is to divide the cause & effect coefficient by the standard error, and if it is above 1.96 at 95% significance level, and above 1.65 at 99% significance level, it is meaningful. The result of LISREL analysis about the modulus in the research model is shown in Table 1.

5. Conclusions

Some theoretical and practical suggestions can be offered from this study as follows.

First, we break a ground in studying e-Learning, which was not considered as an object of inquiry in relationship marketing. As e-Learning should be understood as a composite concept of education and business, there should be a plenty of opportunities of developing educational services, potential educational consumers and business opportunities. E-Learning service companies must grasp customer needs of e-Business, analyze and satisfy them. It is

necessary to provide services centrally, to support technically, to devise elaborate business strategy through benchmarking, joint service and marketing and to have the abilities to promote customer satisfaction, and brand development.

Second, even though e-Learning has been diffused so fast and so widely, e-Learning as an industry is not yet mature. E-Learning should provide some level of autonomy and freedom of choice for the users. Services should be customized and personalized for individual users so that users' satisfaction level should be enhanced.

Third, e-Learning organizations should provide proper educational services. Through survey, we found that there are many complaints about educational services such as slow/no response to various questions about subject matters and technical problems. Many e-Learning sites also need to provide individualized service as if many off-line companies are offering customer supporting services through CRM(Customer Relationship Management).

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