Define the relationships among the motivations of participation affecting their quality experiencing, satisfaction and the behavioral intention

An empirical study of virtual flying experience

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Full Length Research Paper

Define the relationships among the motivations of participations affecting their quality experiencing, satisfaction and the behavioral intention - An empirical study of virtual flying experience

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This paper empirically investigates how the motivations of participations affecting their quality experiencing, satisfaction and the behavioral intention in Line-Oriented Flight Experience Course (LOFEC). A survey conducted with 155 passengers who participated in the flight simulator was analyzed by means of structural equation modeling (SEM). The results showed that the motivations of participations have a significant effect on their quality experiencing and satisfaction, respectively. Satisfaction mediates the relationship between participations’ motivations and the behavioral intention. In addition, the path “participate motivations > satisfaction > behavior intentions” was proved in this study.

Key words: Motivations; experience quality; satisfaction; behavior intention

INTRODUCTION

There are various methods to make students learn more effectively, that is, outdoor visit, role play, system simulation, or on-line operation and flight simulation. A new teaching method called Line-Oriented Flight Experience Course (LOFEC) creates a mimic simulation of real flight. The LOFEC is a kind of experienced activity that simulates the real operations of an airplane. With the Flight Simulator, one can freely choose to travel anywhere, land on any airport, and even fly under different climates. With the experience of flight simulator, the operator can work directly to the participants and explain all kind of knowledge on the plane to them at the same time. Specially, the participants can also understand more and learn directly through the demonstration given by the operator. With the demonstration, the organizing unit can also impress participants with more impression on the flying.

To impress the students with flight knowledge and the experience among flight process, a flight simulating experience course was held at a university in Taiwan. The classroom, the classroom was divided into business class and economy class in advance. The first class was for the president and professors of the university, and the economy class was for the students. Since it was an experiencing flight, the whole process were tried best to arrange the same situation as the real one of a plane taking off from Taipei to Hong Kong. For making it as real as possible, the passengers (that is, president, professors and students) must book their tickets in advance and check in on time. During the flight, the cabin crew who was played by the senior students delivered the meals. The passengers would experience a variety of training scenarios during the simulating flight. The aircraft commander would also demonstrate flight knowledge to the passengers. In this paper, we will examine how the motivations of participations affecting their quality experiencing, satisfaction and the behavioral intention during this virtual flying.

Literature review

Motivation is referred to be as a psychological need, including integral forces that integrate and arouse directly
one's behavior and activity (Yoon and Uysal, 2005). Quality experiencing is often referred to as a "total satisfaction" after experiencing some activity. Satisfaction often referred to as an emotional state of mind after exposing to the opportunity (Baker and Crompton, 2000). Behavioral intention referred to one's loyalty or attendance again. Quality, satisfaction and behavioral intentions have been discussed in previous studies. Previous studies showed that quality affects behavioral intentions (Baker and Crompton, 2000). Past research has also shown that satisfaction is an important antecedent of behavioral intention (Chiou and Cgen, 2010). It has been observed that most prior researches of satisfaction have not included motivation as a direct antecedent of quality and satisfaction. With motivation, it brings one's interests to learn and achieve a goal. Without motivation, people often lose interests in learning. Hence, different motivations can have respectively and directly influences on one's experience and satisfaction, and indirectly on behavioral intention. Understanding student' motivation of learning toward flight simulator helps create the appropriate means to enhance their efficiency of learning. To investigate the relationships among these constructs, five hypotheses of constructs are needed to be examined:

H1: Motivation has a positive impact on quality experiencing.
H2: Motivation has a positive impact on satisfaction.
H3: Quality experiencing has a positive impact on satisfaction. 
H4: Quality experiencing has a positive impact on behavioral intention.
H5: Satisfaction has a positive on behavioral intention.

**METHODOLOGY**

The constructs were incorporated into the model including the motivations of participations, quality experiencing, satisfaction and the behavioral intention. Participants’ motivation is evaluated on the basis of five questionnaire items. Quality experiencing is based on five constructs, including participation (two items), surprise (three items), learning (three items), immersion (three items) and suspense (three items); overall satisfaction is measured by means of five items; finally, behavioral intention is based on five items. Answers to all items are provided according to a five-point Likert-type scale from "strongly disagree" (1) to "strongly agree" (5) and conducted by interviewing with passengers participating in the flight simulator. Structural equation modeling (SEM) was used to test the proposed model. The SEM analysis involves two major steps. In the first stage, a confirmatory factor analysis (CFA) is performed to evaluate the construct validity related to the measurements made by the model in this study. The second step consists of estimating the structural model and testing the hypotheses.

**RESULTS AND DISCUSSIONS**

Among the 155 valid respondents, 49% were male, and the great majority of the respondents were between the ages of 21 to 40 (72%) and most of them were student (93.5%). Cronbach’s alpha was used to test the internal reliability of each construct. The Cronbach’s alphas for “motivation”, “quality experiencing”, “satisfaction” and “behavioral intention” are 0.82, 0.94, 0.84, and 0.91, respectively. The Cronbach’s alphas for these constructs were thus all satisfactory (greater than 0.7), which implies that reliable measures were obtained with all the constructs (Nunnally, 1978). Discriminant validity was used to confirm that one latent construct was not measuring the same thing as another (DeVellis, 1991). For each construct, the diagonal value is greater than all its square root correlations with other corresponding constructs, indicating that discriminant validity (Table 1).

The fit of the hypothesized structural model was tested after developing the measurement model. The final model was based on modification inducing a number of errors variances were allowed to be corrected. Table 2 shows the well fit for the model. Results of the SEM indicate that the fit is acceptable for the data.

The standard parameter estimations and the results of hypothesis testing are summarized in figure 1. Three out of the hypothesized relationships are supported in the estimated model, excepting for H3: Experience -> Satisfaction and H5: Satisfaction -> Behavior intention. The results of SEM showed that motivation directly and

<table>
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<tr>
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<td></td>
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Table 1: Discriminant validity of the scales
Figure 1: Results of structural equation modeling
Dotted lines indicate non-significant paths.
* denotes p <0.01.

Table 3: Direct, indirect and total effects

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significantly affected quality experiencing, and satisfaction while quality experiencing significantly and positively affecting behavioral intention. A mediating role of satisfaction between motivations and behavioral intention is also identified.

Table 3 reports the direct, indirect, and total effects among observed variables. Motivation directly influenced on both quality experiencing and satisfaction. Motivation has the strongest effect on satisfaction from quality experiencing directly. Quality experiencing has a significantly and directly effect on behavioral intention. Motivation has an indirectly effect on behavioral intention.

CONCLUSIONS
The results from our analysis revealed that Motivation was confirmed to have a direct influence on both quality experiencing and satisfaction. Specifically, the path appears in the estimated model "motivation > quality experiencing > behavioral intention". The results confirmed motivation affects behavioral intention through the intermediate effects of quality experiencing.

REFERENCES