Intention with regard to participating in a laboratory restaurant operation from the perspective of the Theory of Planned Behavior

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ABSTRACT

The present study investigated determinants of students participating in a laboratory restaurant operation in the department of Hospitality Management. The focus of the analysis is on exploring the influence of determinants as hypothesized by the theory of planned behavior (TPB)-attitudes, perceived behavior control, social norm, and personal norm on the intention to participate. The empirical research builds on a survey with a sample of 355 college students using a questionnaire. Hierarchical regression analysis showed that 55% of the variance in the intention to participate was explained by a combination of attitudes, perceived behavior control and personal norms. This finding yields teaching policy to encourage students to participate in the laboratory restaurant operation. 

Keywords: intention, laboratory restaurant operation, the theory of planned behavior

INTRODUCTION

Higher education in Taiwan has gradually expanded and is offering hospitality, tourism, and leisure related courses. Students’ employability will be enhanced by an integration of workplace learning with course curricula and by consultation about career development with teachers. Students who participate in the laboratory restaurant operation will enrich and expand their ability to prepare various culinary dishes, serve those culinary dishes in a professional manner, develop and apply various restaurant concepts, supervise front and back of house staff, and ultimately organize the operation of a business in an efficient manner. This study utilized Ajzen’s Theory of Planned Behavior to predict a student’s intentions to participate in the laboratory restaurant operation.

The Theory of Planned Behavior (TPB) has proved useful in explaining or predicting a variety of behaviors (Ajzen, 1991). The TPB is an expectancy-value model that addresses the problem of incomplete volitional control (Blue, 1995). A number of studies have provided support for the use of the TPB in predicting a wide range of behavior, including a number of meta-analyses. For example, Armitage and Conner (2001) analyzed 185 studies and found that the TPB accounted for 39% of the variance in intention.

For hospitality instructors, it is important to understand why it is beneficial for participants to have a hand in the laboratory restaurant operations. The TPB model will be used in this study as a means of evaluating the relative impact of different influences on the intentions of students to participate in the laboratory restaurant operation. The present study attempted to find out how to encourage students to participate in the restaurant laboratory operations.

Theoretical background

The present study utilized Ajzen’s Theory of Planned Behavior to evaluate the relative impact of different influences on the intentions of university students to participate in the laboratory restaurant operation. The predictive power of this theoretical model has been established in many social and health behavior studies (Kassem, Lee, Modeste, & Johnston, 2003). According to Ajzen’s (1991) theory of planned behavior, an individual’s behavior is based on the intention to perform the behavior (Norman & Hoyle, 2004); the stronger the intention, the stronger the commitment to perform a specific behavior. Intention is said to be influenced by three factors: attitude, subjective norm, and perceived behavioral control. Attitude reflects a person’s appraisal of the behavior to be performed. Perceived behavioral control reflects the perceived ease or difficulty of engaging in a behavior, which can be influenced by both past successes and foreseen barriers regarding the selected behavior. Psychologists refer to an individual’s subjective beliefs about a social
norm as a “subjective” norm and an internalized norm as a “personal” norm (Thogersen, 2009). The subjective norm reflects perceived social pressure; an individual with a strong subjective norm for a particular behavior should associate the behavior with social acceptance/rejection. On the other hand, an individual with a strong personal norm for a specific behavior should associate the behavior with a relatively large number of meaningful and positive outcomes (Thogersen, 2009). When combined, the attitude towards the behavior, the subjective norm, the personal norm, and the perceived behavioral control lead to the formation of a behavioral intention (Ajzen, 2001). The more favorable the attitude and subjective norm, and the greater the personal norm and level of perception of control, the stronger will be the person’s intention to perform the behavior (Ajzen, 1991).

METHODS

Participants and procedures

In total 355 students were recruited by purposive sampling from the department of Hospitality Management, Southern Taiwan University. The majority of the laboratory’s production is served in an on-campus restaurant and students are exposed to catering and banquet services. Upon receiving a banquet order, volunteer students are recruited via the internet. Each volunteer, based upon their level of skill and interests, was assigned a banquet position or management position. This activity provides students with a learning experience of the "how and what" of doing a professional banquet.

Participants were given a brief introduction and gave their consent to participate in this survey, conducted in the winter of 2009-2010. Of the 385, 30 questionnaires were omitted because they were answered incompletely; therefore, the survey yielded 355 usable responses. The mean age of the participants was 18.7 yr. (SD = 1.6), including 90 males (25.4%) and 265 females (74.6%).

Measures of the Theory of Planned Behavior

Participants’ intentions to participate in the laboratory restaurant operation were assessed by five items on a 7-point scale with anchors of 1: Totally disagree and 7: Totally agree (“I am planning to engage in the laboratory restaurant operation,” “I intend to participate in the laboratory restaurant operation,” “I expect I will engage in the laboratory restaurant operation in the future,” “I want to engage, deliberately, in the laboratory restaurant operation in the future”). The Cronbach’s α for internal consistency was 0.88.

Attitudes towards participating in the laboratory restaurant operation were assessed directly by eliciting responses from respondents using a 7-point semantic differential scale anchored by bipolar adjectives (e.g. pleasant/unpleasant, very worthless/very valuable). For the entire scale, Cronbach’s α was 0.90.

With respect to the direct measure of perceived behavioral control, respondents’ perceptions of their overall control were assessed using three items, rated using a 7-point scale with anchors of 1: Totally disagree and 7: Totally agree (“I would be able to participate in the laboratory restaurant operation,” “It is entirely within my control as to whether I participate in the laboratory restaurant operation,” and “For me to attend the laboratory restaurant operation on a regular basis is extremely difficult”). The Cronbach’s α for internal consistency was 0.86.

A person’s subjective norm is his or her perception that salient social referents think he or she should or should not engage in a particular behavior (Fishbein & Ajzen, 1975). In the present study, the subjective norm was assessed by asking respondents to rate three items investigating whether salient social referents think they should participate in the laboratory restaurant operation, using a 7-point scale with anchors 1: Total disagree and 7: Totally agree (“My parents would think that I should participate in the laboratory restaurant operation”, “Most of my friends would approve of me participating in the laboratory restaurant operation” and “Most people who are important to me think that I should participate in the laboratory restaurant operation”). For this sample, the Cronbach’s α for internal consistency was 0.74.

An individual’s personal beliefs about what behaviors are right or wrong have an influence on their decision with regard to defying or following a subjective norm (Davies, Foxall, & Pallister, 2002). For the present study, a personal norm was defined as an internal standard for conduct and was measured by asking respondents to rate their felt obligation to participate in the laboratory restaurant operation on two items, using a 7-point scale anchored by 1: Totally
disagree and 7: Totally agree (“I think participating in the laboratory restaurant operation would be helpful for my career development” and “I would not miss the activity if I thought good resources were available to me with regard to participating in the laboratory restaurant operation”). For this sample, Cronbach’s α is 0.79, exceeding the 0.60 cut-off value for reliability consistency.

Statistical Analysis

Survey data were analyzed statistically using the Statistical Package for the Social Sciences (SPSS, version 12.0 for Windows, SPSS, Chicago, Ill). Pearson product moment correlations were calculated as measures of relationships between the psychosocial variables and intention. A hierarchical regression analysis was used to identify psychosocial and demographic variables predictive of intention to participate in the laboratory restaurant operation. All hypotheses were tested at 0.5 level of significance.

RESULTS

Means, standard deviations, and correlations for the measured variables are shown in Table 1. Correlation analysis indicated that the antecedents of intention in the theory of the planned behavior model were associated with the participants’ intentions to participate in the restaurant laboratory operation. Attitude (R = 0.72, p < 0.01), perceived behavior control (R = 0.52, p < 0.01), subjective norm (R = 0.39, p < 0.01), and personal norm (R = 0.55, p < 0.01) were positively correlated with intention. Additionally, the high positive correlation between attitude and intentions reveals that there are few respondents with a high attitude score and low intentions.

A hierarchical regression analysis was conducted to examine the predictors of intention to participate in the laboratory restaurant operation. Regression analysis entering predictor variables from respondents’ characteristics (step 1), followed by the theory of planned behavior (step 2), showed the four predictor variables of the theory of planned behavior accounted for an additional 51% of the variance in intention (R² change = 0.51, F(3) = 99.30, p < 0.001), whereas three predictor variables in respondents’ characteristics accounted for only 5% of the variance in intention (R² = 0.05, F(3) = 5.95, p = 0.01). At step 2, respondents’ characteristics were no longer significant independent contributors to the model.

With respect to the within-model analysis, multiple regression analysis using the forward method was applied to the theory of planned behavior. This approach could ascertain the crucial factors affecting intention. For the four predictor variables of the theory of planned behavior, subjective norm was excluded from the final model. The remaining variables explained 55% of the variance in intention (R = 0.75, adjusted R² = 0.55, F(3) = 143, p < 0.001). The regression equation of theory of planned behavior was as follows:

\[
\text{Intention} = 0.76 (\text{constant}) + 0.56 (\text{attitude}, \beta = 0.56, t = 10.83) + 0.14 (\text{perceived behavior control}, \beta = 0.15, t = 3.59) + 0.11 (\text{personal norm}, \beta = 0.12, t = 2.52)
\]
**Table 2: Hierarchical multiple regression of respondents’ demographic and psychosocial variables on intention**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>P</th>
</tr>
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<td><strong>Step 1</strong></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Constant</td>
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<td>0.60</td>
<td>0.55</td>
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<tr>
<td>Year</td>
<td>0.33***</td>
<td>0.08</td>
<td>0.22</td>
<td>4.1</td>
<td>0.00</td>
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<tr>
<td>Part-time job experience</td>
<td>-0.01</td>
<td>0.09</td>
<td>-0.01</td>
<td>-0.14</td>
<td>0.89</td>
</tr>
</tbody>
</table>

**R = 0.22, R² = 0.05**

<table>
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<tr>
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<th>SE B</th>
<th>β</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
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<tr>
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<td>Year</td>
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<td>0.05</td>
<td>1.27</td>
<td>0.21</td>
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<tr>
<td>Part-time job experience</td>
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<td>0.06</td>
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<td>0.77</td>
<td>0.44</td>
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<tr>
<td>Attitude</td>
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<td>0.05</td>
<td>0.56</td>
<td>10.83</td>
<td>0.00</td>
</tr>
<tr>
<td>Perceived behavior control</td>
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<td>0.15</td>
<td>3.60</td>
<td>0.00</td>
</tr>
<tr>
<td>Subjective norm</td>
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<td>0.05</td>
<td>1.08</td>
<td>0.28</td>
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<tr>
<td>Personal norm</td>
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<td>0.05</td>
<td>0.12</td>
<td>1.85</td>
<td>0.05</td>
</tr>
</tbody>
</table>

**R = 0.75, R² change = 0.51**

*p<.05  
***p<.001

**DISCUSSION**

Numerous researchers have used the theory of planned behavior to predict performance of, or intention to perform, various behaviors, including academic performance, physical activity, and health-related behaviors. The purpose of the present study was to examine how the theory of planned behavior can explain participation in a laboratory restaurant operation. Analysis of the results shows that the theory of the planned behavior model explained a large part of the variance in the participants’ intentions to operate the laboratory restaurant. Attitude, personal norms, and perceived behavioral control were significant predictors of intention to participate in the laboratory restaurant operation and, together, explained 51% of the variance.

Attitude was found to be the major predictor of behavioral intentions (Bisonette & Contento, 2001). Behavioral attitude strongly influenced intention in other health-related studies (Rah, Hasler, Painter, & Chapman-Novakofski, 2004). The present study showed a connection between students’ positive attitudes and their intention to participate in the laboratory restaurant operation. Those students who believed participating in the laboratory restaurant operation was a helpful step reported the strongest behavioral intentions. Although this conclusion is not unexpected, it suggests that greater emphasis should be placed on the advantages of extracurricular activities. Students must believe that the extracurricular activity will provide an opportunity to show their ability and generate friendship.

This study indicated that personal norms were more significant predictors than subjective norms. People tend to be guided by personal norms rather than subjective norms in most situations as the former are more salient than the latter (Thogersen, 2009). Research on attitude structure suggests that personal norms are more accessible from memory and, therefore, more salient than subjective norms (Fabrigar, MacDonald, & Wegener, 2005). With regard to the within-model results, consistent with other research that has suggested subjective norm to be the weakest predictor of intention in the theory of planned behavior, this study found subjective norms not to be a significant predictor of intention. This conflicts with a finding of Mullan & Wong (2009), which reported that young adults are more concerned about social normative influences than their own attitudes. Thus, the decision concerning participation in the laboratory restaurant operation was mainly determined by what they perceived rather than by the influence of other people or the resources or opportunities they perceived the operation to possess.
CONCLUSION AND LIMITATIONS

The results of the study demonstrate that the TPB is applicable to the measurement of behavioral intentions with regard to participating in a laboratory restaurant operation. The TPB variables, including attitude, perceived behavioral control and personal norm are significant predictors of, and positively related to, behavioral intentions. This study provides empirical support for the adequateness of Ajzen’s TPB model.

Chinese students’ extracurricular activities

The use of self-reporting from the respondents may limit the generality of the study. Self-reporting of participation in the laboratory restaurant operation may be influenced by the expectations of the researcher. Anonymity should have reduced this bias because the students were informed that the researcher and the teacher would not know which student had completed each survey; therefore, the students should have had no particular reason to try to impress the teacher. Generalizability of the study is limited by the sample of students who participated in the research, which would include their school and region of the country. Therefore, extrapolation to the wider population remains speculative. Hence, future studies including other representative participants are recommended to validate the findings presented in this paper.

Another limitation is that there is no actual measure of behavior in our study. Because of our laboratory restaurant operation pattern, it was difficult to ask for real behavior since banquet orders were rare. Although previous research indicates that behavioral intention is highly positively correlated, other factors could influence this relationship. Future research should try to include measures of actual behavior to assess the influence of other factors.

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REFERENCES


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