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Factors Affecting User's Continuance Intention of Using Travel Apps in Guangdong

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Shanhe Huang[1] and Napawan Kananurak[2]
[1] International School of Management, University of the Thai Chamber of Commerce
[2] School of Business, University of the Thai Chamber of Commerce
126/1 Vibhavadi Rangsit Rd., Dindang, Bangkok 10400, Thailand
[1]shanheyep@gmail.com, [2]jum_nap@yahoo.com

Abstract

Exploring factors affecting users' continuance intention of using travel apps has profound theoretical and practical significance for improving the relationship between travel app companies and user groups and for enhancing the competitiveness of companies. On the basis of Expectation Confirmation Theory, Expectation Confirmation Model and relevant literature, this study selects perceived usefulness, confirmation, satisfaction, continuance intention, and introduces trust and habits to propose hypothesis and research model. Reliability and validity analysis, factor analysis and Structural Equation Model analysis were carried out. Finally reveals factors affecting user's continuance intention of using travel apps in Guangdong, and the relationships between variables.

Keywords: Travel App, Continuance Intention, ECT, ECM

Introduction

Smart-phone users feel comfortable to plan trips by using mobile devices. For travelling brands, it takes everything to attract and retain mobile users. Although the download volume in China's apps market is considerable, many users uninstall after using only once, and the ratio is up to 35%, its continuance usage situation is not optimistic (iiMedia Ranking China's APP, 2018). Even if the popularity of online travel is getting higher and higher, the scale of the entire

tourism market is no more than 20%. More than 70% of customers still choose offline orders, purchases, and consumption (Yi, S., 2019). Ctrip has 50% of negative emotions compared to Qunar and Fliggy (Yang, Z. (Ed.), 2019). Therefore, the factors influencing continuance intention of using travel apps is necessary to study.

Literature review

Expectation confirmation theory (ECT)

ECT was proposed by Oliver (Oliver, R. L., & Richard, L., 1980), it is a well known theory for explaining customer's satisfaction after purchasing a product (Kim, H. S., Bae, H. J., & Jeon, M. H., 2019). After customer purchased a product, perceived performance is generated (Chen, S., Yen, D., & Hwang, M., 2012). Satisfaction depends on confirmation, confirmation depends on perceived performance and expectation (Oliver, R. L., & Richard, L., 1980). ECT explains the relationship between consumer satisfaction and purchase, and the behavior after purchase (Oliver, R. L., & Richard, L., 1980). Usually consumers will compare the expected and actual performance before purchasing the product, and to judge whether they are satisfied with the products (Chen, S., Yen, D., & Hwang, M., 2012).

Expectation confirmation model (ECM)

Bhattacherjee (Bhattacherjee, A., 2001b) put forward ECM-IS by integrating TAM (Davis, F. D., 1989) and ECT. In information system, continuance intention was believed to be affected positively by satisfaction, confirmation, and perceived usefulness (Bhattacherjee, A., 2001b). In ECM, satisfaction is determined by confirmation and perceived usefulness. Perceived usefulness is affected by confirmation. Satisfaction and perceived usefulness directly influence user's continuance intention. If an information technology can meet users' expectations, users prone to be satisfied and consider the technology to be useful, thus they will probably continue to use the technology (Bhattacherjee, A., 2001a).

Trust and habit

In the process of using travel apps, user's information security, financial security will be involved, as well as the, these will lead to user's trust towards travel apps (Yang, C., 2018). Wang and Lin (Wang, E. S.T, & Lin, R. L., 2016) indicated that trust affects user's continuance intention of using location apps. Habit is considered as an important influencing factor in the research of continuance intention. In the study of travel apps, habit can encourage users to generate willingness and promote user's continuance intention (Yang, C., 2018). Therefore, trust and habit are added to the conceptual framework.

Conceptual framework

Based on existing research and theory, this study proposes research model with 6 variables and 8 hypotheses. The possible relationships are shown in Fig. 1, perceived usefulness, confirmation, trust and habit are antecedent independent variables. Satisfaction is a mediator variable. Continuance intention is a outcome variable affected by perceived usefulness, trust, habit, and satisfaction.

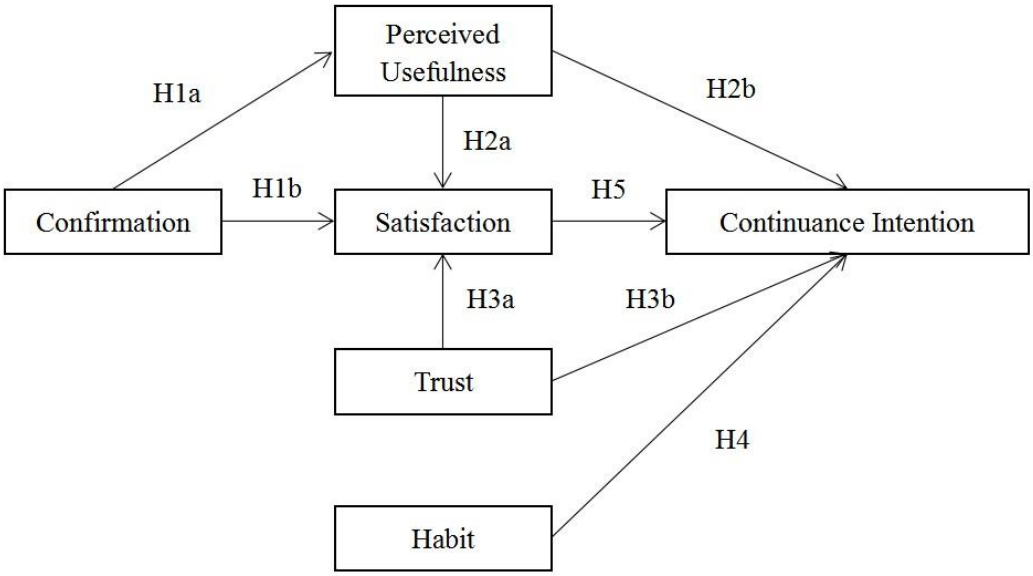

Figure 1 Research model

Methodology

Quantitative method is adopted. The sample size is 385, and it is conducted within people who have travel apps using experience in Guangdong. The questionnaires will be collected on "Wen Juan Xing" website. Based on the proportion of population in each city in Guangdong, this study uses stratified random sampling survey method to select sub-samples. Finally, a total of 298 valid questionnaires were collected. Descriptive statistical analysis will be conducted by SPSS23. Original data will be analyzed to test reliability and validity. Structural equation model (SEM) will be carried out as it has the advantage of testing the relationship between multiple variables simultaneously. The path and hypothesis of the model will be verified through AMOS23.0.

Data analysis

Descriptive statistical analysis

71.81% are female, 28.19% are male. The age between 18-25 years old is accounted for 66.11%, users of travel apps are mainly young people. The proportion of undergraduates and above is the largest, reach to 68.12%. The most prominent group is student, accounting for 53.02%. The monthly income of 3,000 yuan and below accounted for the largest proportion (53.02%). Ctrip occupied the highest proportion (44.63%) of the total. 58.72% chose to travel with friends and 55.37% choose independent travel.

Reliability analysis

In the research model, Cronbach's Alpha of confirmation, perceived usefulness,

trust, habit, satisfaction, and continuance intention are 0.840, 0.852, 0.839, 0.762, 0.876, 0.786 respectively, all variables are greater than 0.8, indicating the reliability of all variables is in line with expectation. CITC value of all variables are greater than 0.5, and Cronbach's Alpha of latent variables is greater than Cronbach's Alpha If Item Deleted, which means the internal consistency and reliability of the data is good, and the model has strong reliability.

Validity analysis

KMO value of confirmation, perceived usefulness, trust, habit, satisfaction and continuance intention are 0.808, 0.814, 0.800, 0.752, 0.802, and 0.737 respectively. The KMO values of all variables reach the standard of factor analysis. Except for HA2, all the factor loadings has reached a significant level as they are higher than 0.7. CR of confirmation, perceived usefulness, trust, habit, satisfaction and continuance intention are 0.893, 0.900, 0.892, 0.850, 0.915 and 0.863 respectively. AVE of confirmation, perceived usefulness, trust, habit, satisfaction and continuance intention are 0.677, 0.693, 0.675, 0.587, 0.731, 0.613 respectively. It can be concluded that the validity of the research model is quite good.

Confirmatory factor analysis (CFA)

Accord with the analysis of reliability and validity, the HA2 does not meet the requirements, therefore it is deleted. After revision, Habit is composed of 3 items, and the remaining latent variables are composed of 4 items. In accordance with the modified exponential, the confirmatory factor analysis model of antecedent latent variables is shown in Fig. 2.

The goodness-of-fit indices of antecedent latent variables: CMIN/DF=2.794, TLI=0.933>0.9, GFI=0.925>0.9, NFI=0.928>0.9, CFI=0.952>0.9, RMSEA=0.072<0.08, which meet the evaluation standard, and the variables all fit well. To conclude, the model has good construction validity.

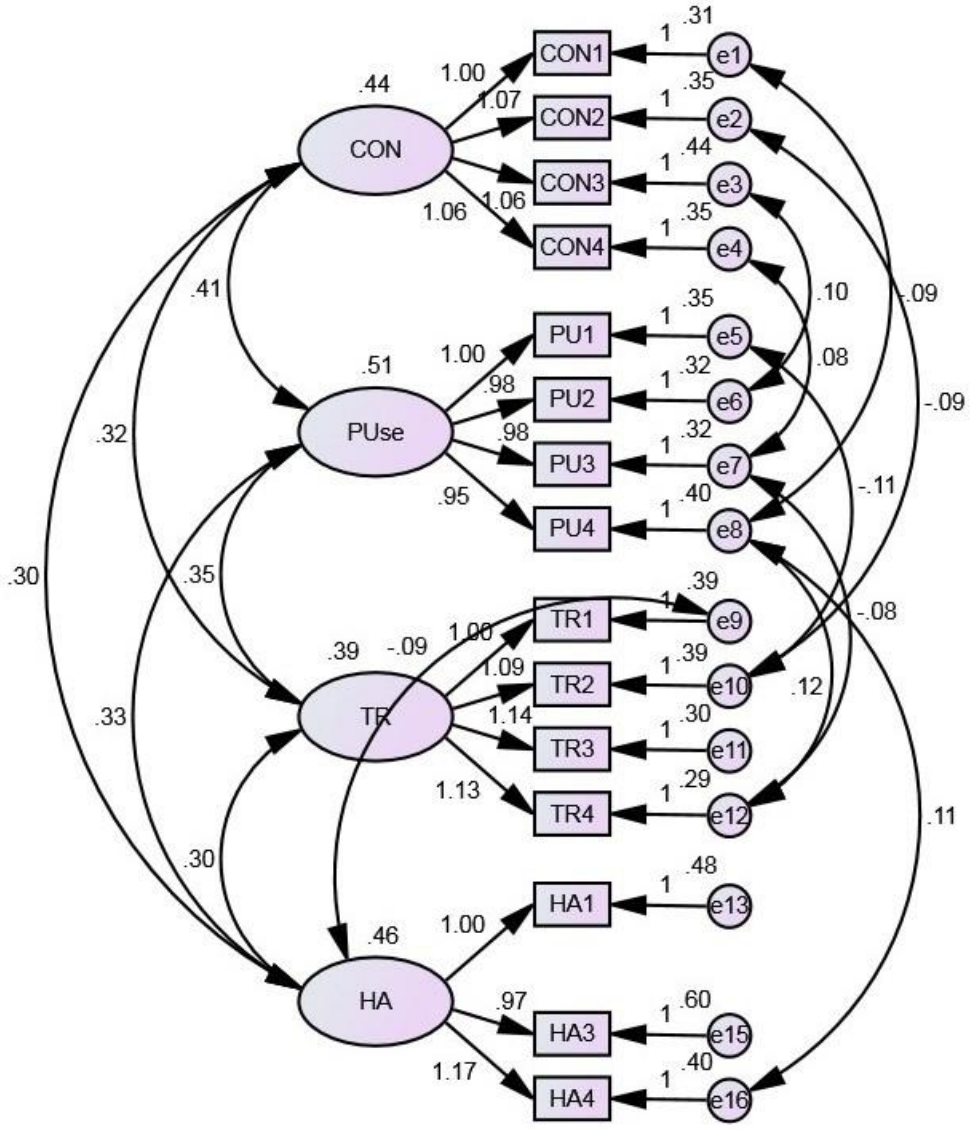

Figure 2 CFA of antecedent latent variables

Structural equation model and modification

The initial theoretical model (Fig. 3) was constructed by importing 298 sample data in AMOS23.0.

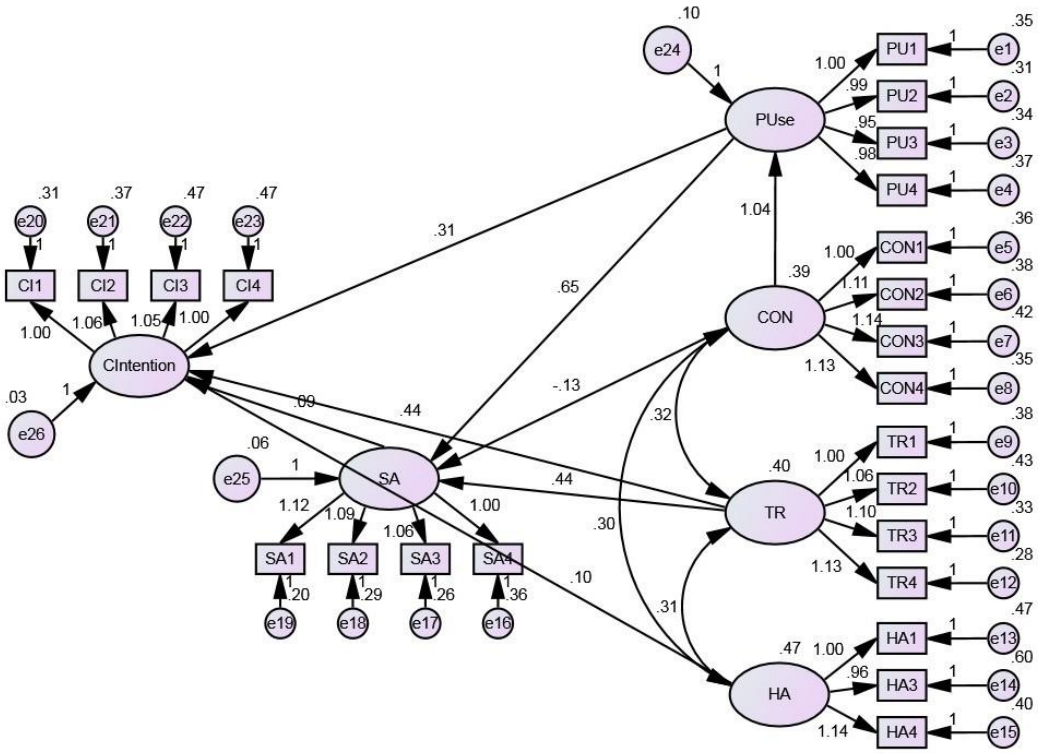

Figure 3 Initial theoretical model (M0)

The Goodness-of-fit Indices of M0 results reveal that CMIN/DF is 4.491, which does not meet the acceptable standard of 2-3. CFI =0.852, NFI=0.818, TLI=0.829, GFI=0.795, which does not fit well, but still acceptable. RMSEA=0.101<0, the fitting result is not good overall, it needs to be modified. According to Goodness-of-fit Indices results and Modification Index, correlation paths were added between measurement error, and the modified theoretical model 13 that affects user's continuance intention of using travel apps was finally built (Fig. 4).

The model fitting results of M13: CMIN/DF=2.993, TLI=0.902>0.90, RMSEA=0.076<0.08, CFI=0.920>0.90, GFI=0.871<0.90 and NFI=0.886<0.90. Except for GFI and NFI near to ideal values, other indices have reached ideal values.

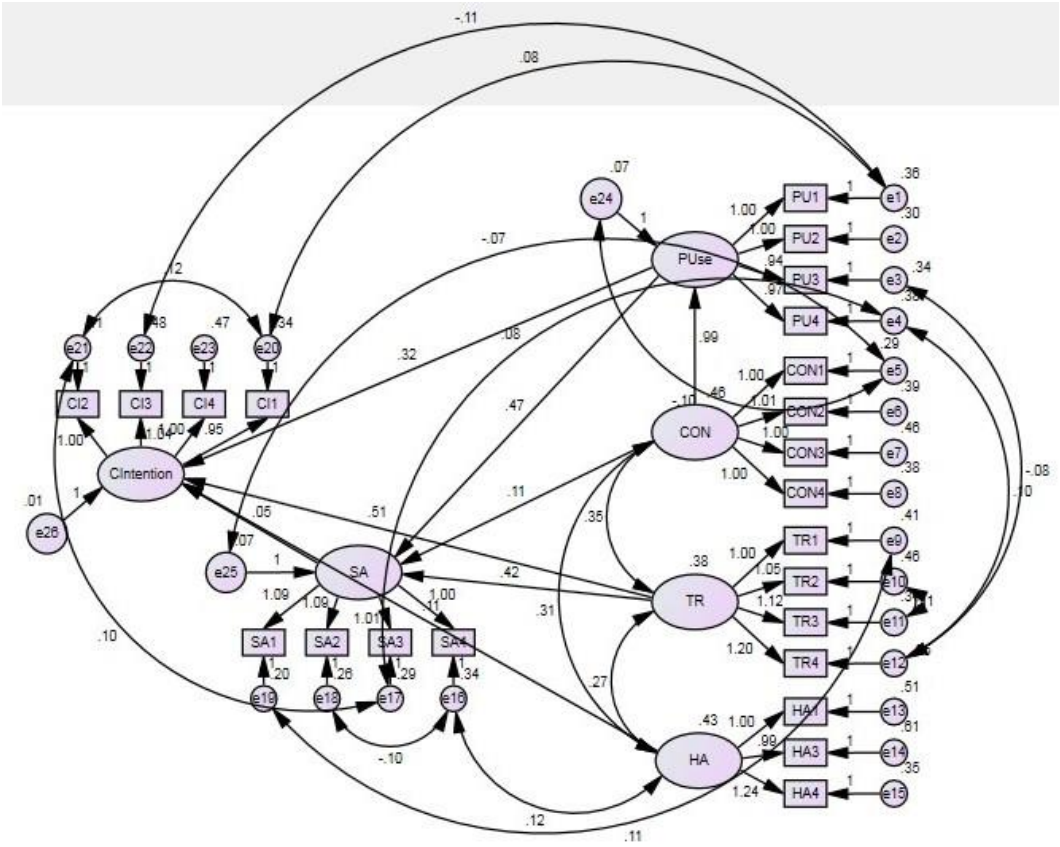

Figure 4 Modified theoretical model (M13)

Hypothesis results

Confirmation (β =0.988, p=0.000<0.001) is statistically significant and positive in perceived usefulness, Confirmation (β =0.106, p=0.0583>0.05) is not significant in satisfaction, Perceived usefulness (β =0.467, p=0.003<0.01) is statistically significant and positive in satisfaction, Perceived usefulness (β =0.319, p=0.001) is statistically significant and positive in continuance intention, Trust (β =0.425, p=0.000<0.001) is statistically significant and positive in satisfaction, Trust (β =0.507, p=0.000<0.001) is statistically significant and positive in continuance intention. Habit (β =0.109, p=0.074>0.05) is not significant in satisfaction. Satisfaction (β =0.048, p=0.676>0.05) is not significant in continuance intention. Thus confirming H1a, H2a, H1b, H2b, H3a and H3b, H4 and H5 are not supported.

Conclusion and discussion

Confirmation has a significant effect on the perceived usefulness of travel apps, perceived usefulness has a significant

effect on satisfaction, continuance intention is affected by perceived usefulness significantly and positively, this result is in line with the research of Bhattacherjee (Bhattacherjee, A., 2001b), (Bhattacherjee, A., 2001a). Continuance intention is affected by trust positively and significantly, this finding lends support to Hsu and Lin (Hsu, C. L., & Lin, C. C., 2015). Confirmation does not directly affect satisfaction, which is not agreed with the findings from Bhattacherjee (Bhattacherjee, A., 2001a). A explanation is that confirmation is not a necessary factor that affects satisfaction. The influence of confirmation under this condition is weak or even non-existent. Satisfaction has no effect on the continuance intention of using travel apps, this result is inconsistent with the study of Bhattacherjee (Bhattacherjee, A., 2001a). One explanation is that satisfaction is not a necessary factor for users to continue using travel apps. Tourists have access to various channels to obtain tourism information, which may lead to the situation that users are satisfied with the travel app but no longer need it. Habit does not affect the continuance intention of using travel apps. A plausible explanation is switching cost. Hsu and Lin (Hsu, C. L., & Lin, C. C., 2015) have verified that habit is not the main determinant of willingness to pay for apps, users can easily find other alternatives at a low switching cost, functions of travel apps are free to users, and these functions can basically meet their needs, users do not need to invest too much financial switching costs in travel apps.

References

Bhattacherjee, A. (2001a). An empirical analysis of the antecedents of electronic commerce service continuance. *Decision Support Systems, 32*(2), 201–214.

Bhattacherjee, A. (2001b). Understanding information systems continuance: An expectation–confirmation model. *MIS Quarterly, 25*(3), 351–370.

Chen, S., Yen, D., & Hwang, M. (2012). Factors influencing the continuance intention to the usage of Web 2.0: An empirical study. *Computers in Human Behavior, 28*, 933-941. doi:10.1016/j.chb.2011.12.014

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Hsu, C. L., & Lin, C. C. (2015). What drives purchase intention for paid mobile apps? – An expectation confirmation model with perceived value. Electronic Commerce Research and Applications,14, 46–57. Retrieved from: https://doi.org/10.1016/j.elerap.2014.11.003

iiMedia Ranking China's APP rankings in the first half of 2018. (2018). Retrieved from https://www.iimedia.cn/c400/61814.html

Kim, H. S., Bae, H. J., & Jeon, M. H. (2019). Continuous Intention on Accommodation Apps: Integrated Value-Based Adoption and Expectation–Confirmation Model

Analysis. *Sustainability,11*(6), 1578. doi:10.3390/su11061578

Oliver, R. L., & Richard, L. (1980). A cognitive model of the antecedents and consequences of satisfaction decision. *Journal of Marketing Research, 17*(4), 460-469. doi:10.2307/3150499

Wang, E. S.T, & Lin, R. L. (2016). Perceived quality factors of location-based apps on trust, perceived privacy risk, and continuous usage intention. Behavior & Information Technology, 36(1), 2-10. doi:10.1080/0144929X.2016.1143033

Yang, C. (2018). Study on Continuance Behavior to use Travel Reservation APP (Unpublished master's thesis). Jinan University. Retrieved from https://www.cnki.net/.

Yang, Z. (Ed.). (2019). Analysis of Network Public Opinion in Ctrip Big Data "kill cooked" Case. Retrieved from https://zhuanlan.zhihu.com/p/58987990

Yi, S. (2019). Interpretation of the Trend of Tourism New Retail in 2019. Retrieved from http://www.1shi.com.cn/bk/1269.html.