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# Chinese propensity to purchase a vacation: The role of financial behavior and confidence in economy

## Abstract

Behavioral finance and economic theories suggest that households' financial behavior and confidence in the economy have significant influence on households' consumption behavior. While these effects are well documented in economics, finance and marketing literature, they received little attention in tourism and hospitality studies. Therefore, the purpose of this study is to analyze the effects of perceived economic conditions, confidence in economy, and financial behavior on Chinese households' propensity to purchase a vacation travel. Specifically, the effects of subjective confidence in the overall Chinese economy, the stock market, the subjective expectation on China job market, perceived household economic conditions, and household's saving behavior on propensity to purchase a vacation travel in the next six months are examined. The results show that confidence in the economy and a household's financial behavior are significant factors determining vacation travel purchase. Tourism companies should target households, who are budget conscious, are saving part of their income, and that invests in the Chinese stock market.

**Key words:** financial behavior; economic confidence; vacation travel; China

## Introduction

This study analyzes the financial behavior and economic confidence factors affecting Chinese households' propensity to purchase a vacation travel. The China vacation travel market has grown exponentially in the last two decades in terms of, both, outbound (Li, Harrill, Uysal, Burnett & Zhan, 2010) and domestic tourism (Guangrui, Rui & Deqian, 2011), and received great attention from academics and practitioners (Keating & Kriz, 2008; Li, Meng, Uysal & Mihalik, 2013). Li et al. (2010) reported that the estimated Chinese outbound travel market consists of approximately 22 million people. Furthermore, domestic tourism has grown extremely in China, and reached 2.1 billion arrivals in 2010 (Guangrui et al., 2011). Keating and Kriz (2008) suggest that traditional destination choice models might not capture the destination choice of Chinese tourists, and hence new models should be developed for Chinese vacation travel market planning. Therefore, it is crucial to understand the Chinese vacation travel market beyond the demographic characteristics and traditional decision-making factors. Accordingly, financial behavior and economic confidence factors are expected to provide better understanding of the Chinese vacation travel market. Although the effects of financial behavior and economic confidence on household consumption behavior are well documented in economics, finance, and marketing literature (De Bonis & Silvestrini, 2012; Mian, Rao & Sufi, 2013), these factors received little attention in tourism and hospitality studies.

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Therefore, the purpose of this study is to analyze the effects of perceived economic conditions, confidence in economy, and financial behavior on Chinese household propensity to purchase a vacation travel in the next six months. Specifically, the objectives of this study is, *first*, to examine the effects of subjective confidence in the overall Chinese economy, subjective confidence in the stock market, and subjective expectation on the China job market on propensity to purchase a vacation travel in the next six months; *second*, to investigate the effects of perceived household economic conditions, budget consciousness, and household saving behavior on propensity to purchase a vacation travel in the next six months.

## Literature review

Theoretical models of consumption behavior begin with Keynes' (1936) seminal work of *The General Theory* (Palley, 2010). Following Keynes' model other macroeconomists developed models to explain household consumption behavior. Household saving behavior, confidence in economy, and financial wealth are some of the factors that affect household consumption behavior. Theoretical model of consumption posits that household saving and spending, *ceteris paribus*, are inversely related. That is, households that save their proportion of disposable income will consume less today, keeping income and other variables constant. The theory also suggests that households save their proportion of disposable income today to consume more in the future. Therefore, household saving behavior predicts the propensity to consume in the future. Although Keynesian economics is one of the building block of macroeconomics, effects of household saving behavior on vacation travel decision making seems to be ignored in tourism and hospitality literature. While effect of wealth (household income) on vacation travel decision-making is widely used in tourism and hospitality literature, effects of household saving are neglected.

Similarly, the effects of subjective macroeconomic conditions on tourist decision making has been lacking. Nevertheless, economic environment and expectations play an important role on household economic behavior and decision-making. To some extent, economic conditions could be identified with objective measures. However, Merton (1980) suggests that, in addition to objective measures of economic conditions, subjective (perceptual) economic conditions need to be used when measuring economic conditions. Subjective measures of economic conditions reflect how consumer (tourist) perceives the current state of the economy and the expectation of future economic conditions within specific context and independent from objective measures. Van Raaij (1981) developed a model of economic-psychological relationships, and pointed out the influence of economic-psychological factors on consumer behavior. In this model, general economic conditions, economic environment, personal factors, perception of economic conditions, subjective economic well-being are some of the economic-psychological factors that affect consumer behavior. Furthermore, Van Oest and Franses (2008) suggest that perceived consumer confidence embodies important information about households' consumer behavior. In the same vein, Ludvigson (2004) argued that consumer confidence influences real economic activity. Poudyal, Paudel and Tarrant (2013) showed that national park visitations are higher when the consumers have high economic confidence. Overall, theoretical and empirical literature documented that consumer confidence in economy affects business cycle fluctuations (Chen, 2011), economic growth (Howrey, 2001), stock market performance (Lemmon & Portniaguina, 2006), and economic recovery (Vuchelen, 2004). However, the effect of consumer confidence on tourism and hospitality literature has received little attention. Accordingly, the following hypotheses are generated based on behavioral finance and economics literature for testing purposes:

**H1:** Economic confidence affects propensity to purchase a vacation travel, with increased economic confidence, likelihood to purchase a vacation travel in the next six months increases.

**H2:** Willingness to invest in the Chinese stock market affects propensity to purchase a vacation travel, with higher willingness to invest, likelihood to purchase a vacation travel in the next six months increases.

**H3:** Future lay-off expectation affects propensity to purchase a vacation travel, with increased lay-off, likelihood to purchase a vacation travel in the next six months increases.

**H4:** Perceived household economic conditions relative to last year affects propensity to purchase a vacation travel, with increased household economic conditions, likelihood to purchase a vacation travel in the next six months increases.

**H5:** Household budget consciousness affects propensity to purchase a vacation travel, with increased, budget consciousness likelihood to purchase a vacation travel in the next six months increases.

**H6:** Household saving amount affects propensity to purchase a vacation travel, with increased household savings, likelihood to purchase a vacation travel in the next six months increases.

## Methodology

The data were obtained from the Prosper research agency authorized by Chinese government to conduct ProsperChina household survey online, in which participants are randomly selected. Since 2006 ProsperChina has been conducting the largest online survey of consumers in China. The survey tracks vital information, such as shopping behaviors and media behaviors and future purchase intentions. These insights are valuable for businesses in China, but also to those who want to know more about Chinese consumers shopping behaviors and media consumption or to compare it to their own market. The Prosper China Quarterly Survey provides insights from Chinese consumers between the ages of 18 and 54, with a primary focus on upwardly mobile 18-34 year old consumers. This segment represents an estimated population of 360 million, with 184 million being men. The surveys are conducted online and they cover purchase behaviors, brand preferences, purchase intentions, media consumption, simultaneous media usage, and media influence on purchases (ProsperChina, 2016).

This private research company is engaged in knowledge management and transfer. The company provides consumer-centric research data and shares the latest knowledge using quarterly consumer panel data from multiple sources. Their paying clients include major retailers, manufacturers, distributors, and wholesalers in the U.S. This research company has a division that collects panel consumer data from the Chinese households on a variety of industries like banking, retail, sports, technology, and tourism. The questionnaire includes numerous questions about Chinese households purchasing behavior. The data were collected in the first quarter of 2012, and the sample consists of 16,043 households. Although the company collects the data quarterly, questions related to hospitality and tourism industries were changed after this year. Therefore, 2012 data, which is the most recent data that fits the purpose of this study, were used to conduct the analyses.

To determine the effects of subjective economic confidence and financial behavior of Chinese households on propensity to purchase a vacation travel in the next six months, two dependent variables were used. The first dependent variable was whether households plan to take a vacation trip in the next six months with dichotomous options, where 0 indicates no and 1 indicates yes. The second dependent variable was whether households plan to make a major (big dollar) vacation travel purchase in the next six months with dichotomous options, where 0 indicates no and 1 indicates yes.

Four independent variables were used to analyze to what extent Chinese households' financial behavior affects propensity to purchase vacation travel in the next six months. The first item is asked to measure whether respondents became more budget conscious in the last six months with dichotomous options, where 0 indicates no and 1 indicates yes. To capture relatively short-term behavior, a question was asked whether the household deferred a vacation travel in the last 30 days with dichotomous options, where 0 indicates no and 1 indicates yes. Subjective financial situation compared to this time last year was asked with regarding household's financial situation compared to this time last year with the following options: better off, same, and worse off. The last independent variable asked the following question: how much of the household's annual income was saved in the last year, to capture the effects of household saving behavior on propensity to make vacation travel purchase in the next six months.

Furthermore, to capture the effects of households' subjective economic confidence on propensity to make a vacation travel purchase in the next six months three independent variables were used. Confidence in overall economic conditions was measured using two items. Households were asked to express their overall confidence in the Chinese economy for the next six months to capture subjective confidence in the economy with 4-point Likert scale from 1- no confidence to 4 - very confident. Also, to further capture subjective confidence in the economy, economic expectation of the job market was measured with an item asking the respondents on their expectation of lay-off in the next six months relative to current lay-offs in the job market, with options there will be more, same, and fewer lay-offs, where 1, 2, and 3 were coded as more, same, and fewer, respectively. The last item asked whether the households would invest in the Chinese Stock Market with 5 point Likert scale response, where 1 stands for 'would definitely not invest' to 5 'would definitely invest' to capture subjective confidence in the Chinese stock market.

Binary logistic regression analysis was used to test the hypotheses due to the nature of the dependent variables with discrete choice (vacation purchase / no vacation purchase). Binary logistic regression is a probability function that can either be used as linear form through the logit transformation or probability form (Fidell & Tabachnick, 2006). Logits are the natural logarithms of the odds of vacation travel purchase versus non-vacation travel purchase. Note that in logistic regression because the dependent variable is a discrete choice, slope coefficient cannot be interpreted as in the ordinary least square regression that one unit increase in the independent variable, increases the dependent variable as much as the slope coefficient of the independent variable. Thus, odds ratios are used for meaningfully interpreting the estimations.

## Results and discussion

A total of 13,349 observations remained after the data was cleaned. Of those 50.1% were male and 49.9% were female. 49.5% married and 38% single 10% were living with an unmarried partner and the rest were divorced or widowed. The data appears to be normally distributed. Table 1 shows the results of the regression analysis, where the propensity to purchase vacation travel in the next six months was used as the dependent variable. The goodness of fit statistics was not significant in the model reported in Table 1. However, the results in Table 1 show the model without controlling for education, income, and occupation. When the model is controlled for education, income, and occupation, the data were a good fit for the model, but the results for controlled estimations were not included for the sake of brevity. Predictive capacity of the model is approximately 87%, indicating that there is statistically significant difference between naïve model and the current model.

Table 1  
Results of logistic regression analysis 1

Independent variables	Coefficient estimate	Standard error	Wald	Odds ratio
Budget conscious	0.525***	0.057	84.196	1.691
Savings			185.649	
1-10%	0.479***	0.08	36.021	1.615
11-20%	0.982***	0.083	140.039	2.669
21-50%	1.004***	0.091	121.603	2.729
More than 50%	0.514***	0.117	19.332	1.671
Relative financial wealth			55.586	
Better off	0.542***	0.086	40.085	1.72
Same	0.183**	0.081	5.126	1.201
Deferred vacation purchase in the last 30 days	0.014	0.061	0.051	1.014
Intercept	0.725***	0.089	67.123	2.066
Diagnostics				
-2 log likelihood	10028.570***			
Chi-square	9.018			

Dependent variable is the propensity to purchase a vacation travel in the next 6 months.  
\*\*\*, \*\*, and \* indicate 1%, 5%, and 10% significance level respectively.

Accordingly, households that have become more budget conscious in the last six months are 70% more likely to purchase a vacation travel in the next six months than people who did not become more budget conscious. Households, who are better off in terms of financial situation compared to this time last year, are 72% more likely to purchase a vacation travel in the next six months, while people with the same financial situation were 20% more likely to take a vacation trip than people who were worse off. Also, household saving behavior was a significant predictor of the dependent variable. Household saving of 1-10%, 11-20%, 21-50%, and more than 50% of their annual income are 1.6, 2.6, 2.7, and 1.6 times more likely to purchase a vacation travel in the next six months than households who do not save any amount of their annual income. However, deferred vacation travel purchase in the last 30 days was not a significant predictor of the dependent variable. The hypotheses were further examined by controlling for income, education, and occupation. It was suggested that the inclusion of income, education, and occupation simultaneously in the model might cause multicollinearity problem (Fidell & Tabachnick, 2006). Thus, these controlling variables entered into the model separately due to the high correlation between these variables. The results were still significant and the effects of the predictors did not change significantly. Also, with increased education level, the propensity to purchase a vacation travel in the next six months increases. People who had a postgraduate degree, for example, were 5 times more likely to purchase a vacation travel in the next six months than people who did not graduate from high school. The results were also robust when we controlled for occupation and income separately. Moreover, the propensity to purchase a vacation travel in the next six months is more likely at the managerial positions than any other occupation. Additionally, with increased income level households are more likely to purchase a vacation travel in the next six months. The results showed support for the hypotheses generated.

Propensity to make a major (big dollar) vacation travel purchase was used as dependent variable to further analyze the effect of financial behavior of the households on propensity to make a vacation travel purchase in the next six months. Table 2 shows the results of the logistic regression analysis. Similarly, the goodness of fit statistics was not significant in the model reported in Table 2. However, Table 2 shows the model without controlling for education, income, and occupation. When the model

controlled for education, income, and occupation, data were a good fit for the model, but the results for controlled estimations were not included for the sake of brevity. Predictive capacity of the model is approximately 64% indicating that there is statistically significant difference between naïve model and the current model.

Table 2  
Results of logistic regression analysis 2

Independent variables	Coefficient estimate	Standard error	Wald	Odds ratio
Budget conscious	0.526***	0.037	199.439	1.692
Savings			108.989	
1-10%	0.253***	0.073	12.140	1.288
11-20%	0.526***	0.071	55.203	1.691
21-50%	0.642***	0.074	75.718	1.900
More than 50%	0.480***	0.095	25.762	1.617
Relative financial wealth			23.267	
Better off	0.212**	0.068	9.776	1.236
Same	0.039	0.067	0.334	1.040
Deferred vacation purchase in the last 30 days	0.377***	0.042	80.831	1.458
Intercept	-1.405	0.082	296.762	0.245
Diagnostics				
-2 log likelihood	17045.730***			
Chi-square	8.976			

Dependent variable is the propensity to make a major (big dollar) vacation travel purchase in the next 6 months. \*\*\*, \*\*, and \* indicate 1%, 5%, and 10% significance level respectively.

The results were very similar to the former model, where propensity to purchase a vacation travel in the next 6 months was used as dependent variables with no emphasis on amount of money planning to spend, except with few differences in magnitudes. Households who have become more budget conscious in the last six months are 70% more likely to make a major (big dollar) vacation travel purchase in the next 6 months than people who did not become more budget conscious, and people who are better off in terms of financial situation compared to this time last year are 20% more likely to make a major (big dollar) vacation travel purchase in the next 6 months, while people with the same financial situation were not significantly different than households who were worse off. Also, household saving behavior was a significant predictor of the dependent variable. Household saving of 1-10%, 11-20%, 21-50%, and more than 50% of their annual income are 1.3, 1.7, 1.9, and 1.6 times more likely to make a major (big dollar) vacation travel purchase in the next 6 months than households who do not save any amount of their annual income. However, deferred vacation travel purchase in the last 30 days was significant and households who deferred a vacation travel purchase in the last 30 days were 46% more likely to make a major (big dollar) vacation travel purchase in the next 6 months. The hypotheses were further examined by controlling for income, education, and occupation. The results were also robust when we controlled for education, occupation, and income separately. Furthermore, with increased education and income level, households are more likely to make a big dollar vacation travel purchase. Also, similar to former analysis propensity to make a major vacation travel purchase was more likely at the managerial level than other occupation levels. Consequently, the results showed further support for the hypotheses generated.

In the second part of this study, subjective economic confidence and subjective expectations effects on vacation travel behavior of the Chinese market were analyzed. Similar to the first round of analyses,

two dependent variables were used to analyze these effects. In the first model, we used planning to take a vacation trip, with no emphasis on the amount of money planning to spend, is the dependent variable. Table 3 shows the results of the logistic regression analysis.

Table 3  
Results of logistic regression analysis 3

Independent variables	Coefficient estimate	Standard error	Wald	Odds ratio
Lay-off expectation			3.712	
Same	-0.010	0.058	0.028	0.990
Fewer	-0.156	0.087	3.250	0.856
Confidence in stock market	0.538***	0.028	367.558	1.713
Confidence in economy			8.533	
Little confident	-0.146	0.104	1.978	0.864
Confident	-0.225**	0.098	5.301	0.799
Very confident	-0.281**	0.106	7.030	0.755
Intercept	0.858	0.116	54.886	2.359
Diagnostics				
-2 log likelihood	10015.510***			
Chi-square	13.434*			

Dependent Variable is the propensity to purchase a vacation travel in the next 6 months.  
\*\*\*, \*\*, and \* indicate 1%, 5%, and 10% significance level respectively.

The data was not a good fit to the model because the goodness of fit test was only significant at 10% significance level, but this is an acceptable significance level. Predictive capacity of the model was 87% indicating that there is statistically significant difference between naïve model and the current model. The results showed that households who had no confidence in economy were more likely to purchase a vacation travel in the next 6 months, and surprisingly, with increased confidence in economy the propensity to take a vacation trip decreased. Also, expectation on the amount of lay-off in the following six months was not a significant predictor of the dependent variable. However, as discussed above, the data was not a very good fit to this model. On the other hand, another measurement in the model, confidence in the Chinese stock market was a significant predictor, and with increased willingness to invest the likelihood to purchase a vacation travel in the next 6 months increased. Although the model was a very good fit, when the model controlled for education, income, and occupation data were a good fit for the model, but the results for controlled estimations were not included for the sake of brevity. Nonetheless, the results were similar to former model even after controlling for education, income, and occupation. The results showed support for only for the second hypotheses, while first and second hypotheses were not supported.

Propensity to make a major (big dollar) vacation travel purchase was used as the dependent variable to further analyze the effect of subjective economic confidence and subjective expectations on vacation travel behavior of the Chinese market. Table 4 shows the results of the logistic regression analysis. The goodness of fit test shows that the data is a very good fit for the model. Predictive capacity of the model is approximately 64% indicating that there is statistically significant difference between naïve model and the current model. The results were very similar to the former model, where propensity to purchase a vacation travel in the next six month was used as dependent variables with no emphasis on the amount of money planning to invest, except with few differences in magnitudes. Accordingly, confidence in the economy was not a significant predictor of major vacation travel purchase of Chinese households even after controlling for education, income, and occupation. Households who expected fewer lay-offs in

the next six months were 18% more likely to make a major (big dollar) vacation travel purchase in the next 6 months than households who expect more lay-offs, while households who expected the lay-offs will stay the same was not significantly different from the households with more lay-offs expectations. Confidence in stock market was also significant in this model. However, the magnitude was reduced relative to former model. That is, households who would definitely invest in the Chinese stock market were 22% more likely to make a major (big dollar) vacation travel purchase in the next 6 months.

Table 4  
Results of logistic regression analysis 4

Independent variables	Coefficient estimate	Standard error	Wald	Odds ratio
Lay-off expectation			7.878	
Same	0.071*	0.040	3.126	1.074
Fewer	0.166**	0.061	7.405	1.180
Confidence in stock market	0.196***	0.019	101.762	1.217
Confidence in economy			4.691	
Little confident	-0.103	0.067	2.362	0.902
Confident	-0.136**	0.063	4.651	0.873
Very confident	-0.112	0.070	2.577	0.894
Intercept	-1.000	0.081	151.402	0.368
Diagnostics				
-2 log likelihood	17396.560***			
Chi-square	4.085			

Dependent variable is the propensity to make a major (big dollar) vacation travel purchase in the next 6 months. \*\*\*, \*\*, and \* indicate 1%, 5%, and 10% significance level respectively.

The results were also robust when we controlled for occupation and income separately. Also, the propensity to take a vacation trip was more likely at the managerial positions than any other occupation. Additionally, with increased income level households were more likely to take a vacation trip. The results showed support for the two hypotheses generated, while effect of subjective economic confidence on propensity to make a major (big dollar) vacation travel purchase in the next 6 months was not significant.

## Conclusion and implications

Although behavioral finance and economic theories suggest that households' financial behavior and confidence in the economy have significant influence on household consumption behavior, tourism and hospitality researchers have paid little attention to the role of financial behavior and confidence in the economy on vacation travel purchase. This article analyzed the financial behavior and economic confidence factors affecting Chinese household propensity to purchase a vacation travel. Therefore, this study sheds light on two subjects. First, this study attempted to gain an understanding of financial behavior and subjective economic confidence effects on propensity to purchase vacation travel. Second, this study intended to advance the further understanding of the Chinese vacation travel market. The Chinese vacation travel market has received great attention from academics and practitioners (Guangrui et al., 2011; Keating & Kriz, 2008; Li et al., 2010; Li et al., 2013) due to the exponential growth in outbound and domestic tourism in the last two decades. This study intended to explore the demographic characteristics of Chinese vacation travel market using a substantially larger survey data of 16,043 households. Hence, this study is expected to generate in depth understanding of Chinese vacation travel market using this large data set.



The results showed that households' financial behavioral factors and subjective economic confidence influence propensity to purchase vacation travel. Accordingly, saving behavior, budget consciousness, and current financial condition compared to last year were statistically significant determinants of propensity to purchase a vacation travel in the next six months. That is, households that save their proportion of disposable income will consume less today and consume more in the future, keeping income and other variables constant. The study found support for the theoretical model of consumption. Households that became more budget conscious in the last six months and households that had better economic conditions compared to this time last year were 70% and 20% more likely to make a major (big dollar) vacation travel purchase in the next six months than households that did not become more budget conscious and had worse economic conditions, respectively. Also, households with savings of 1-10%, 11-20%, 21-50%, and more than 50% of their annual income were 30, 70, 90, and 60% more likely to make a major (big dollar) vacation travel purchase in the next six months than households that do not save any amount of their annual income.

Furthermore, the subjective expectation on China job market, and willingness to invest in the Chinese stock market were statistically significant determinants of propensity to purchase a vacation travel in the next six months. However, the overall confidence in Chinese economy was not found to be statistically significant. Thus, the results partially supported Van Raaij's (1981) model of economic-psychological relationships. Consequently, households that expected fewer lay-offs in the next six months and households that would definitely invest in Chinese stock market were 18% and 22% more likely to make a major (big dollar) vacation travel purchase in the next six months than the households who expect more lay-offs, and the households that would definitely not invest, respectively.

The results indicate that confidence in the economy and a household financial behavior are significant factors determining vacation travel purchase, and hence tourism companies should pay close attention to the financial behavior and subjective economic confidence factors in strategic marketing decisions. Subjective measures of economic conditions reflect how a consumer (tourist) perceives the current state of the economy and the expectation of future economic conditions because the subjective economic conditions incorporate important information about households' consumer behavior beyond the objective economic conditions. Therefore, subjective (perceptual) economic conditions need to be used to implement marketing strategies (Merton, 1980).

In particular, tourism and hospitality practitioners should include the economic subjective confidence and financial behavior measures when they conduct marketing research. Furthermore, tourism and hospitality practitioners should target the households that are budget conscious, are saving part of their income, and that invests in the Chinese stock market. Households that save 21 to 50% of their annual income have the highest probability to purchase a vacation travel, and hence travel companies should greatly focus on this segment. Although objective measures of economic conditions and household's financial wealth may differ from subjective ones, this study showed that subjective measures play an important role on propensity to purchase vacation travel. Therefore, tourism and hospitality companies should adopt a dynamic marketing strategy to efficiently target households with an increased perceived financial situation compared to this time last year. Also, with an increased education level, the propensity to purchase a vacation travel in the next six months increases. People who had a postgraduate degree, for example, were 5 times more likely to purchase a major (big dollar) vacation travel purchase in the next 6 months than people did not graduate from high school. Moreover, the propensity to purchase vacation travel in the next six months is more likely at the managerial positions than any other occupation. With increased income level households are more likely to purchase a vacation travel in the

next six months. Therefore, tourism and hospitality companies should concentrate on high income, high education level, and higher occupation positions segments to market their products and services.

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