

USAGE OF MOBILE SHOPPING FROM IS CONTINUANCE AND CULTURAL COMPARISON PERSPECTIVES

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ABSTRACT

This research proposal describes a project to investigate mobile commerce continuance in China and in the U.S., with a specific aim to explore the influence of national culture on mobile shopping continuance. For this purpose, a mobile shopping continuance model is developed based on prior theories. An espoused cultural values-based approach by Srite and Karahanna [19] will be deployed to study the moderating effect of national culture on the entire nomological network and the hypothesized relationships for individual level acceptance research.

Introduction

Mobile commerce (M-commerce), the continuation of electronic commerce on mobile platforms, is becoming a popular global trend. It will soon grow into an indispensable way of doing business. Though some developed countries of western culture are reported to move faster in using the wireless Internet for business purposes, the emerging markets of oriental culture do not seem to lag behind in using mobile devices. In fact, many have bigger mobile user bases, hence, greater potential for M-commerce development. The typical examples are the United States and China. The former is leading the trend of M-commerce in the world [15]. The later is leading the world with the largest mobile user base [14]. Mobile Internet shopping and mobile payments saw significant growth in China during 2012. iResearch Consulting Group [10], a leading market research firm focusing on developments of Internet industry in China, reports that the mobile payment service had a 546% year-on-year growth by trading value last year, and the number of people who used this service increased by 223%.

Using a consumer perspective, a typical representation of M-commerce is mobile shopping - purchasing products and services using a mobile device. Various research reports and statistics indicate that mobile shoppers have reached a critical mass in some countries. However, mobile Web access today still suffers from interoperability, connection and usability problems [8] [9]. Mobile consumer retention and loyalty appear to be critical in determining the fate of mobile life in the age of the wireless Internet. It is the high time to examine the perceptions, satisfaction and continuance intentions of the mobile shoppers.

Recently, researchers have attempted to identify which antecedents are most critical to continued use and how continued use can change attitudes that have been found to be important predictors of adoption intention [2] [13]. Our preliminary literature review reveals very few user continuance studies in mobile context; and those published recently [1] [3] [22] are mostly done in South Korea, or using a different mobile context or a difference research approach. Thus, there

is some evident inadequacy of understanding mobile shopper continuance intentions; inadequacy of understanding the dynamics of the drivers influencing their post-adoption continuance intentions.

On the other hand, researchers [5] [6] have repeatedly pointed out that the adoption and usage of mobile commerce does not follow any single universal logic or pattern, because of the differences in information technology infrastructure, the social and economic development, regulations, and mostly the culture. Cultural differences between countries impact the effectiveness and efficiency of international IT deployment in general [19]. Mobile shopping relies heavily on mobile networking, device and software applications for self-service commercial activities, and thus, greatly exposed to the influences of culture. It will be naïve to analyze and compare mobile shopping on a global scale without considering the possible impact from cultural differences. So far a wide body of literature has emerged that sheds light on the relationship of IT and culture [12][19], E-commerce and culture [18] and M-commerce adoption and culture [4] [16]. However, none has examined the overall moderating effect of culture if any on the entire nomological decision network toward continued mobile shopping.

This paper sets out to provide insights into our understanding of the linkages between continued mobile shopping and culture. For this purpose, we will first develop a mobile shopping continuance model based on prior theories concerning the IS continuance. We will validate this model using the American and the Chinese samples respectively. We will then examine the moderating effect of national culture on the entire nomological network and the hypothesized relationships, by deploying an espoused cultural values-based approach recommended by Srite and Karahanna [19] for individual level acceptance research. This study is expected to make contributions to understanding the core determinants of continued mobile shopping on the global scale. This study is also expected to reveal the moderating effects of national culture, if any, on the entire mobile shopping continuance decision process.

Research Plan and Proposed Methodology

This study will use an empirical survey research design to collect data from individual mobile shoppers in both the U.S. and China. To achieve the research purposes, we will first provide a thorough review of all the important theories and studies concerning cross-culture comparisons in IS, E-commerce and M-commerce fields in our final paper. So far, our operational mobile shopping continuance model has been developed (Figure 1). The main structure of the model is based on prior continuance studies using ECT approach. Hofstede's [7] five dimensions of national culture - Masculinity/Femininity, Individualism/Collectivism, Power Distance, Uncertainty Avoidance, and Long-term Orientation – are adopted as the moderating variables for in variance model comparisons. The espoused cultural values for each dimension developed in two prior studies [21] [19] will be adapted to examine specific moderating effects of culture on our model to answer the question as to why people behave the way they do [17]. Items developed by Vitell, Paolillo and Thomas

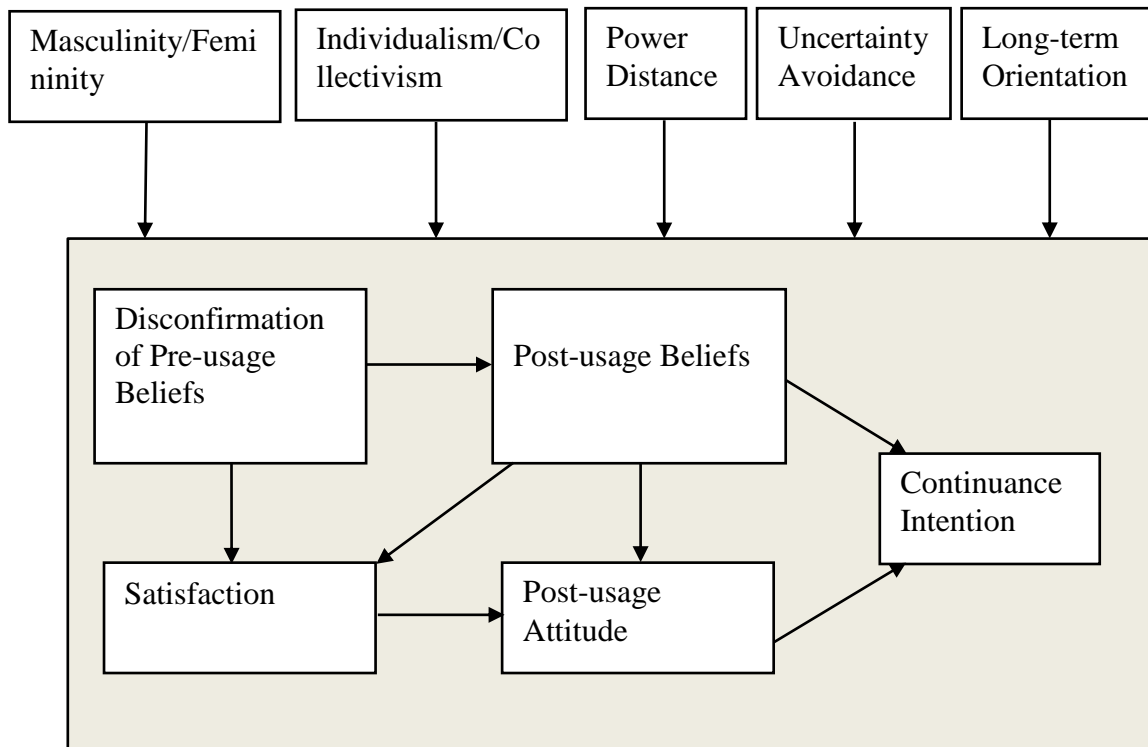


Figure 1 – Operational Research Model

[21] and Srite and Karahanna [19] are well-known for conducting cross-cultural acceptance research at individual level.

The questionnaire in English is ready for pilot study. The Chinese version is ready for pilot study in China as well. The Chinese version is prepared by two co-authors separately by following the rule of translation and back-translation. A pilot study in the U.S. is planned for spring 2013. A pilot study in China is planned for approximately the same timeframe. Feedback from the pilot studies are expected to improve our research instrument and to examine the entire research process for making changes.

To validate this model both the American and the Chinese samples will be used respectively. Undergraduate and graduate students and their social circles as mobile shoppers will make the sample in this study. According to current statistics regarding mobile web users, both U.S. and China are among the top three in the world [14]. A good number of studies used student samples since the mobile phone penetration enjoys a higher rate among university students in metropolitan areas [16] and can mostly represent young and middle aged users, the main sector of the mobile users [11]. Our expectation is to reach as many mobile shoppers of varying demographic backgrounds via the students and their social circles.

Data collection will adopt an online survey, and offline survey when requested, to gather responses to our questionnaires from the American and the Chinese samples. Three universities will be used as the data collection hubs in each country. Three months is planned for the first collection. The survey may reopen based on needs.

Data analysis is divided into stages. Before validating the M-shopping continuance model with the structural equation modeling (SEM) procedures such as confirmatory factor analysis (CFA), path analysis, and invariance analysis for group comparison, we will assess the internal consistency (reliability) and discriminant validity of all the factorial structures, including all the cultural dimensions containing the adapted espoused values. The psychometric properties as revealed in the espoused cultural values in the two samples will be compared, prior to testing the moderating effects of culture. Model comparisons will be conducted based on all the control variables, followed by hypothesis level regression tests with all relevant espoused cultural values included.

Potential Contributions

This study will try to explain continued mobile shopping in the U.S. and China and the cultural impact on mobile shopping decisions, using the continuance model and the theory of cultural difference. We anticipate yielding some valuable academic and practical implications from this cross-country study.

This study is one of the initial efforts to test the expanded IS continuance model by Venkatesh and his colleagues [20] in the U.S. and in China. This model confirms and disconfirms certain perceptions by embedding expectation disconfirmations into selected perceptual beliefs. Thus, this study should be able to discover the changes in the after-adoption individual decision

process in the context of mobile shopping. This study is, therefore, able to contribute to the understanding of the changes in relative importance of various key beliefs at post-usage stage of experience.

Because of the balanced attention to the utilitarian determinants, social influences, and user characteristics, this study has strong potential to deepen our understanding of the subsequent influences of selected variables after adoption, and thus, advance our understanding of individuals' post-adoption behaviors. The strong expectation-confirmation element in our model helps not only to examine the dynamic effects of the beliefs during the disconfirmation process, but also any crossover effects of the beliefs (e.g. positive disconfirmation in mobility improves the perception of usefulness). Such speculation will definitely deepen our understanding of the behavioral decision process regarding mobile shopping continuance.

Disaggregating the effects of culture into its cultural dimensions and including them in theoretical models, will enhance our conceptual understanding of mobile shopping acceptance from a culture perspective. Acceptance studies are mostly ethnocentric [19], meaning that they test in foreign cultures theories developed in the home cultures (mostly the United States). Even though these studies provide valuable insights into the boundary conditions of a theory, the current study will depict the effect of culture in a theoretical model that captures both the impacts of each dimension and the distinct effects of each cultural value. In doing so, it adds values to the cross-cultural stream of research. We believe that our study results will also show whether the espoused cultural values developed for information systems acceptance research will remain viable for a different and related context, and provide further evidence of the strengths in examining individual level phenomena.

Further, our research extends the recent stream of research on the impact of individual differences on mobile shopping acceptance. Although several individual difference variables have been posited as direct antecedents of beliefs or intention, research on individual difference *moderators* has focused primarily on demographic variables such as age, gender, and experience. Our research extends these to include a set of psychological characteristics, such as espoused national cultural values.

Finally, the findings on the extended continuance model may be important for mobile commerce practitioners to identify mechanisms to facilitate continuance behaviors. These may include, but are not limited to, a clear indication on expectations with respect to continued use of m-shopping, user support groups, the on-going learning opportunities, and availability of situated training. Investigating national-level factors such as cultural factors also give a chance to develop proper strategies for different countries to implement innovative services. Our approach suggests that, in addition to other personality traits, mobile shoppers' espoused cultural values may be relevant to their shopping behaviors as well. As such, mobile sellers may want to include measures of these in personality test batteries. Mobile sellers should design various interventions that can be undertaken to alleviate resistance to use.

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