

5-26-2012

# A Behavioral Reasoning Analysis of Multichannel Consumers' Intention to Use Online Order/In-store Pickup Service

Xiaoyu Sun

*School of Management, Xi'an Jiaotong University, China, sunxiaoyu@stu.xjtu.edu.cn*

Lih-Bin Oh

*School of Management, Xi'an Jiaotong University, China, ohlb@xjtu.edu.cn*

Follow this and additional works at: <http://aisel.aisnet.org/whiceb2011>

---

## Recommended Citation

Sun, Xiaoyu and Oh, Lih-Bin, "A Behavioral Reasoning Analysis of Multichannel Consumers' Intention to Use Online Order/In-store Pickup Service" (2012). *Eleventh Wuhan International Conference on e-Business*. 42.  
<http://aisel.aisnet.org/whiceb2011/42>

This material is brought to you by the Wuhan International Conference on e-Business at AIS Electronic Library (AISEL). It has been accepted for inclusion in Eleventh Wuhan International Conference on e-Business by an authorized administrator of AIS Electronic Library (AISEL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# A Behavioral Reasoning Analysis of Multichannel Consumers' Intention to Use Online Order/In-store Pickup Service

*Xiaoyu Sun, Lih-Bin Oh\**

School of Management, Xi'an Jiaotong University, China

**Abstract:** Many multichannel retailers are now offering customers the option to place their orders online and then pick them up from the retailers' physical stores. As a relatively new type of multichannel retail service, the factors that influence consumers to use "online order/in-store pickup" (OOIP) remains largely unknown. This study uses the Behavioral Reasoning Theory to examine the factors that influence individuals' attitude and intention toward using OOIP service. A survey was conducted with 212 Chinese consumers. Findings suggest that informational social influence, normative social influence, and attitude toward using OOIP service have direct impact on individuals' intention to use OOIP service. Furthermore, even though reasons for using OOIP service could determine individuals' attitude, they do not influence individuals' intention directly. Conversely, while reasons against using OOIP service do not affect individuals' attitude, they can impact individuals' intention directly. We provide theoretical and managerial implications arising from our findings.

**Keywords:** multichannel retailing; behavioral reasoning theory; reasons for; reasons against; social influence; attitude; intention

## 1. INTRODUCTION

As Internet access becomes more pervasive, consumers are now performing their shopping in both physical stores and online stores. Effectively, they have become multichannel shoppers who use two or more channels in their purchase decision process<sup>[1]</sup>. To meet the changing demands of these consumers, many traditional retailers have expanded their online presence to increase the level of offline/online retail channel integration. Recent research has indicated that higher level of integration in areas such as order fulfillment and customer service can result in more favorable responses from multichannel consumers<sup>[2]</sup>. Multichannel retailers who offer cross-channel services such as "online order/in-store pickup" (OOIP) have been found to be able to better retain customers<sup>[3]</sup>. According to a recent survey of US consumers, 67% of consumers in the survey sample hope that retailers can provide multichannel transaction service such as OOIP service<sup>[4]</sup>. Similarly, OOIP service is also gaining popularity in Europe and many retailers are providing this form of flexible order fulfillment option<sup>[5]</sup>.

Compared to the US and Europe, the provision of OOIP service by retailers in China is currently relatively limited but is becoming more common. For example, the largest electronics retail chain, Suning provides its online shoppers many store locations to self-collect their online orders in many cities around the country<sup>[6]</sup>. For these retailers, OOIP service can bring many advantages. First, it can enhance the consumers' loyalty to the retailers<sup>[7]</sup>. Retailers that have OOIP service allow customers to complete their purchases in a flexible way by offering customers with choices and control as to which order fulfillment channel to use at their convenience. As a result, this increases consumers' satisfaction and ultimately the level of loyalty to the retailer. Second, retailers can promote other products when the consumers arrive at the physical stores to collect their purchases. Based on the consumers' online purchases, retailers can cross-sell other products. For example, when a customer has placed an online order for a portable music player, retailers can recommend other complementary products such as carrying bag and speakers.

---

\* Corresponding author. Email: ohlb@xjtu.edu.cn(Lih-Bin Oh), sunxiaoyu@stu.xjtu.edu.cn (Xiaoyu Sun)

Since OOIP is gaining prominence as an innovative multichannel service, it is important to understand the factors that will encourage its wider acceptance by consumers. This study attempts to investigate the determinants of multichannel consumers’ intention to use OOIP service. We use the Behavioral Reasoning Theory as our theoretical foundation to propose and empirically test a model using survey data from 212 consumers in China. We expect that our findings can contribute toward the emerging research in multichannel e-commerce and also provide guidance to retailers on how to better implement OOIP service. We first present the conceptual development of our model in the next section. Following this, we discuss the research method and then present the data analyses. Finally, we conclude with a discussion of theoretical and managerial implications of the study.

## 2. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

The Behavioral Reasoning Theory (BRT) states that reasons serve as important linkages between people’s global motives (e.g., attitudes, subjective norms, and perceived control), intentions, and behaviors [8]. BRT suggests that reasons (for and against the behavior) will be related to global motives and intentions, and global motives will be positively related to intentions [8].

As shown in Figure 1, we developed the model of OOIP use intention based on the BRT linkage between reason and global motive construct. We identified two sets of reasons - including reasons for and against using OOIP service - that are posited to determine attitude toward using OOIP service. Also, reasons for and against using OOIP service can influence individuals’ intention directly. Moreover, individuals’ intention to use OOIP service can be influenced by informational social influence and normative social influence. We also included multichannel self-efficacy as a control variable for OOIP usage intention.

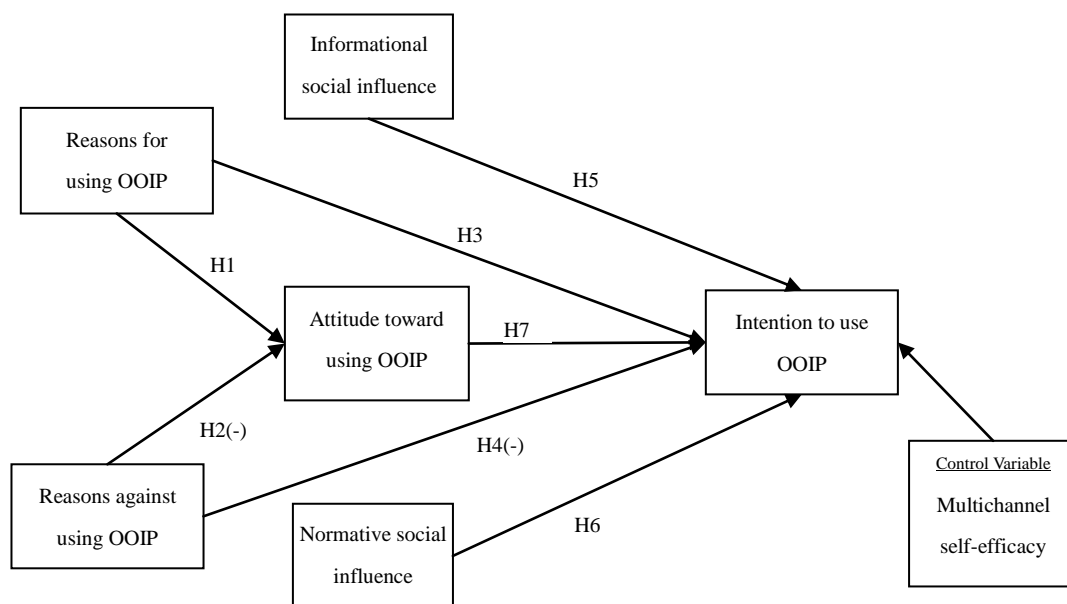


Figure 1 Research Model

### Reasons and attitude

Attitude refers to one’s behavioral disposition and plays an important role in predicting and explaining human behavior [9]. Attitude toward using OOIP service is the extent to which individuals possess a favorable or unfavorable evaluation of the act of using OOIP service.

Reasons are factors that individuals use to explain their judgment or intention [10]. They are used and organized to explain the decisions that people make. Based on the BRT, reasons are emerged and formed to

support and solidify a specific judgment or intention. When an individual has a favorable judgment, a positive belief forms to become the reason underlying the judgment; when the individual has an unfavorable judgment, a negative belief becomes the reason<sup>[11]</sup>. Reasons include two parts: “reasons for” and “reasons against”. “Reasons for” refers to the positive beliefs toward something individuals perceive while “reasons against” refers to the negative beliefs toward something individuals perceive. If OOIP service can bring individuals convenience and flexibility, individuals will have more reasons to use OOIP service. On the contrary, if OOIP service is not useful and provides no value to individuals or individuals perceive that there are many inhibitors to use OOIP service, they will have more reasons against using OOIP service. Following the BRT, we argue that individuals who have more reasons that are supportive of their actions would have favorable attitude toward using OOIP service while individuals who have more reasons that are against their actions will have unfavorable attitude toward using OOIP service.

*Hypothesis 1 (H1). Individuals’ reasons for using OOIP service are positively related to individuals’ attitudes toward using OOIP service.*

*Hypothesis 2 (H2). Individuals’ reasons against using OOIP service are negatively related to individuals’ attitudes toward using OOIP service.*

### **Reasons and intention**

Intention describes the degree of how hard people are willing to try in order to perform a behavior, it is the indication of how much of an effort people are planning to exert, and it can influence behaviors as the motivational factor<sup>[12]</sup>. When a behavior happens, it is likely to result from the intention that performs the behavior. A stronger intention to perform a behavior will likely to lead to the individual’s actual performance of the behavior<sup>[12]</sup>.

Reasons serve as important antecedents of intention and can be powerful drivers of intention, when people have reasons to support their actions, they will feel comfortable with themselves<sup>[8]</sup>. The BRT suggests that reasons capture justifications and defense mechanisms that serve powerful needs to maintain people’s self-worth, and reasons can be strong drivers of intention because people will feel comfortable with themselves when they have good reasons that can support their behaviors<sup>[8]</sup>. Hence, the more favorable the reasons are for the behavior, the more likely the behavior will be chosen. When individuals have more reasons supporting their anticipated behaviors, reasons can drive intentions, even when attitudes are not consistent with the intentions perfectly.

*Hypothesis 3 (H3). Individuals’ reasons for using OOIP service are positively related to individuals’ intention to use OOIP service.*

*Hypothesis 4 (H4). Individuals’ reasons against using OOIP service are negatively related to individuals’ intention to use OOIP service.*

### **Social influence and intention**

Social influence of people around an individual is one of the most pervasive determinants of one’s behavior<sup>[13]</sup>. The degree of the social influence depends on the closeness of the relationship between the decision maker and the information sources<sup>[14]</sup>. Generally, an information source that is closer to or gains greater credibility from the decision maker will have greater influence on the decision maker. When the information source has a positive comment on a certain behavior, the information receiver will also tend to have a similar attitude toward the behavior and thus has a strong intention to perform the behavior.

We expect social influence for using OOIP service can come from two sources: (1) informational social influences and (2) normative social influence<sup>[13]</sup>. Informational social influences arise from news media,

Internet etc. For example, when individuals decide whether they should use the OOIP service from a retailer, they would probably visit online forums or search online to look for some suggestions. If other consumers who have used the OOIP service expressed satisfaction with it, the intention to use OOIP service will be higher. Normative social influences mainly come from those who can have great influences on the individuals such as their friends, classmates, relatives etc. When individuals make decisions, their friends, classmates or relatives will have a great influence on them because they attribute a great level of credibility to these people. If their friends, classmates or relatives have had a happy experience of using OOIP service, individuals will be more likely to choose the OOIP service.

*Hypothesis 5 (H5). Informational social influence will positively influence individuals' intention to use OOIP service.*

*Hypothesis 6 (H6). Normative social influence will positively influence individuals' intention to use OOIP service.*

### **Attitude and intention**

According to the BRT, attitude toward the behavior will be positively related to intention<sup>[8]</sup>. That means if individuals' attitude toward a behavior is favorable, their intention to participate in the behavior will be strong<sup>[12]</sup>. The more favorable attitude toward using OOIP service individuals perceive, the stronger will be the intention to use OOIP service. The intention to use OOIP service depends on the attitude toward using OOIP service, and the attitude is based on the individuals' feelings of past experiences or observations of others' experiences. Therefore, attitude that includes both positive and negative sides can influence intention. We expect the relationship between attitude and intention to hold true in our research context.

*Hypothesis 7 (H7). Individuals with more favorable attitudes toward using OOIP service will have a strong intention to use OOIP service.*

### **Control Variable**

Self-efficacy is defined as "people's judgments of their capabilities to organize and execute course of action required to attain designated types of performance"<sup>[15]</sup>. In our research, we use multichannel self-efficacy to assess the ability and confidence of consumers to use OOIP to complete a transaction, from information search to purchase<sup>[18]</sup>. We controlled the effect of this variable on OOIP intention because people who have higher self-efficacy will have more confidence that they can complete something perfectly in the way they prefer than those who have lower self-efficacy. For multichannel shopping, the consumers with higher self-efficacy believe they have the capabilities to complete the purchase competently by using different channels.

## **3. METHOD**

### **Subjects**

A total of 212 students from a large university in China participated in the survey. A paper questionnaire in Chinese that has undergone back-translation was administered to them. Participation was entirely voluntary and respondents were given a small gift worth about RMB 10 and also a chance to take part in a lucky draw. The gender ratio was relatively equal, with 49% female and 51% male respondents. The sample comprised of 55.7% undergraduates and 44.3% postgraduates.

### **Measures**

Reasons that influence individuals' attitude and intention were divided into two sets of questions, "reasons for" and "reasons against", each with eight questions, and each question was anchored on a four-point scale from 0 to 3. 0 for "not a reason", 1 for "a somewhat influential reason", 2 for "influential reason", and 3 for

“very influential reason”. We developed the items based on academic and practitioner literature in multichannel retailing and also from discussions with consumers. The remaining questions in our survey were adapted from previous research and modified to be used in our research context, they were all 7-point Likert items. Table 1 shows the operationalization of the constructs (details of questionnaire items were not provided due to space constraints).

**Table 1. Operationalization of measured constructs**

Construct	Items	Cronbach's alpha	Source of items
Attitude toward using OOIP	Four 7-point Likert items	0.890	Adapted from Hoehle and Huff <sup>[16]</sup>
Intention to use OOIP	Four 7-point Likert items	0.812	Adapted from Hoehle and Huff <sup>[16]</sup>
Informational social influence	Four 7-point Likert items	0.786	Adapted from Bearden et al. <sup>[17]</sup>
Normative social influence	Four 7-point Likert items	0.716	Adapted from Bearden et al. <sup>[17]</sup>
Multichannel self-efficacy	Four 7-point Likert items	0.868	Adapted from Chiu et al. <sup>[18]</sup>

#### 4. DATA ANALYSIS AND RESULTS

##### Descriptive Statistics

Table 2 shows the means, standard deviations, and correlations of the variables: FOR for the average of the reasons for using OOIP service; AGST for average of the reasons against using OOIP service; INFOINFL for the average of informational social influence; NORINFL for the average of normative social influence; ATT for the average of the attitude toward using OOIP service; INT for the average of the intention of using OOIP service; EFFI for the average multichannel self-efficacy.

**Table 2. Mean, standard deviation, and correlation of constructs**

Construct	Mean	S.D.	FOR	AGST	INFOINFL	NORINFL	ATT	INT
FOR	2.12	0.48						
AGST	1.84	0.54	0.373**					
INFOINFL	5.40	1.05	0.255**	0.288**				
NORINFL	3.91	1.07	0.012	0.094	0.066			
ATT	4.98	0.94	0.417**	0.133	0.309**	0.165*		
INT	4.94	0.97	0.322**	0.014	0.322**	0.200**	0.676**	
EFFI	5.35	1.16	0.342**	0.141*	0.169*	-0.059	0.358**	0.262**

\* $p < 0.05$ ; \*\* $p < 0.01$ .

##### Multiple regressions and results

Multiple regressions were used to assess the relationships between constructs in our model. In order to test H1 and H2, attitude was used as the dependent variable while reasons for and reasons against were used as predictors. Next, to test H3, H4, H5, H6 and H7, we used intention as the dependent variable and the rest of the variables as predictors. Table 3 shows the results of the two regression tests.

**Table 3. Results of hypothesis testing**

Hypothesis	R <sup>2</sup>	Beta	t	p-value	Supported
H1 Reasons for → Attitude	0.166	0.426	6.297	0.000***	Yes
H2 Reasons against (-) → Attitude		-0.026	-0.378	0.706	No
H3 Reasons for → Intention	0.485	0.085	1.425	0.156	No
H4 Reasons against (-) → Intention		-0.153	-2.782	0.006**	Yes
H5 Informational social influence → Intention		0.151	2.806	0.006**	Yes
H6 Normative social influence → Intention		0.108	2.117	0.0358*	Yes
H7 Attitude → Intention		0.588	9.990	0.000***	Yes

\*\*\*p<0.001; \*\*p<0.01; \*p<0.05.

## 5. DISCUSSION

Approximately 16.6% of the variance in attitude was influenced by reasons for and reasons against, and 48.5% of the variance for intention was accounted for by the variables in the model. Reasons for using OOIP service was in accordance with the attitude toward using OOIP service. Reasons against, informational social influence, normative social influence, and attitude were also highly in accordance with intention. From the results, we have some evidence that reasons for using OOIP service can influence individuals' attitude toward using OOIP service (beta=0.426, p<0.001), while reasons against using OOIP service (beta=-0.153, p<0.001) and informational social influence (beta=0.151, p<0.001) were two of the most important factors influencing individuals' intention to use OOIP service. Individuals' attitudes toward using OOIP service strongly predict their intention to use OOIP service.

Our findings that H2 and H3 were not supported reveal some interesting insights. We found that reasons against using OOIP service were irrelevant in influencing attitude formation and reasons for using OOIP service had almost no effect on individuals' intention to use OOIP service. Instead, results suggest that reasons against using OOIP service will directly impact intention to use OOIP service and that reasons supporting OOIP use impact usage intention through the formation of favorable attitude. These findings are reasonable to some extent and could be interpreted as follows. When individuals are forming their attitude towards using OOIP, the reasons for supporting its use are important determinants over the reasons against using it. However, when individuals perceive that the reasons for not using OOIP outweigh the reasons for doing so, they might abandon their intention to use OOIP service directly.

The results provide some implications for those multichannel retailers who are providing OOIP service or are planning to launch this service. By analyzing the reasons for and reasons against using OOIP service, retailers can gain a better understanding of the most influential reasons affecting consumers' attitude and intention to use OOIP service. Hence, they would be able to better tailor their strategies to improve their service. For those reasons for using OOIP service that are important, retailers can keep improving on these factors to increase customers' preference to use OOIP service. On the contrary, for those important reasons against using OOIP service, retailers must pay attention to these negative factors that can reduce individuals' usage intentions directly. A further analysis of the reasons against using OOIP service indicates that many consumers will choose not to use OOIP if the overall gains from using it are not superior over delivery by traditional logistics companies. They also place high importance on the locational convenience of the pickup stores.

This study contributes to the growing literature in multichannel retailing. It is one of the few studies to perform in-depth investigation of the OOIP service. The BRT-based model of OOIP service adoption has deepened our understanding of multichannel consumer behavior. Our findings suggest that reasons could be important factors that should be considered in future research. The fact that we have used students as our survey

sample should be noted as a limitation of the study. Although this sample can provide some insights into a particular segment of consumers, we encourage other researchers to examine factors that can impact OOIP usage intention in a broader consumer sample. Furthermore, there could be differences with regards to retailers selling different types of products. Overall, this research has examined OOIP, one of the many innovative retail services that can be offered by multichannel retailers. Our results would be useful for future research investigating other issues and challenges in implementing multichannel retailing.

#### ACKNOWLEDGEMENT

This research was supported by the National Natural Science Foundation of China under Grant 70890081 and Grant 71172188.

#### REFERENCES

- [1] McGoldrick P J, Collins, N. (2007). Multichannel Retailing: Profiling the Multichannel Shopper. *International Review of Retail, Distribution & Consumer Research*, 17(2): 139–158.
- [2] Oh, L-B, Teo H-H. (2010). Consumer Value Co-creation in a Hybrid Commerce Service-delivery System. *International Journal of Electronic Commerce*. 14(3): 35-62.
- [3] Chatterjee P. (2010). Causes and Consequences of 'Order Online Pick up In-store' Shopping. *The International Review of Retail, Distribution and Consumer Research*. 20(4): 431-448
- [4] Grau J. (2009). Multichannel Retailing: A Competitive Differentiator. eMarketer Report, July 2009.
- [5] Grau J. (2009). Buy Online, Pick Up In-Store. eMarketer Report, December 2009.
- [6] Suning Website. [www.suning.cn](http://www.suning.cn) (accessed 31 December 2011)
- [7] Christina P. (2010). In France, A Drive-up Grocery Takes Off. *Wall Street Journal*. B.10, January 2010.
- [8] Westaby J. (2005). Behavioral Reasoning Theory: Identifying New Linkages Underlying Intentions and Behavior. *Organizational Behavior and Human Decision Processes*. 98(2): 97-120.
- [9] Ajzen I. and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs. New Jersey: Prentice Hall.
- [10] Westaby J. (2002). Identifying Specific Factors Underlying Attitudes Toward Change: Using Multiple Methods to Compare Expectancy-value Theory to Reasons Theory. *Journal of Applied Social Psychology*. 32(5): 1083-1106.
- [11] Westaby J. and Fishbein, M. (1996). Factors Underlying Behavioral Choice: Testing a New Reasons Theory Approach. *Journal of Applied Social Psychology*. 26(15): 1307-1323.
- [12] Ajzen I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*. 50(2): 179-211.
- [13] Lord K R, Lee M, Choong P. (2001). Differences in Normative and Informational Social Influence. *Advances in Consumer Research*. 28(1): 280-285.
- [14] Bansal H S, Voyer P A. (2000). Word of Mouth Processes within a Services Purchase Decision Context. *Journal of service research*. 3(2): 166-177.
- [15] Bandura A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. 6<sup>th</sup> edition. Prentice Hall, Englewood Cliffs, NJ.
- [16] Hoehle H, Huff S. (2009). Electronic Banking Channels and Task-Channel Fit. *Proceedings of the International Conference on Information Systems*.
- [17] Bearden W O, Netemeyer R G, Teel J E. (1989). Measurement of Consumer Susceptibility to Interpersonal Influence. *The Journal of Consumer Research*. 15(4): 473-481.
- [18] Chiu H C, Hsieh Y C, Roan J, Tseng K J, Hsieh J K. (2011). The Challenge for Multichannel Services: Cross-channel Free-riding Behavior. *Electronic Commerce Research and Applications*. 10(2): 268-277.