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Hao Ma

School of Management, Xi'an Jiaotong University, China

Yong Su

School of Management, Xi'an Jiaotong University, China

Lih-Bin Oh

School of Management, Xi'an Jiaotong University, China

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Impact of Need for Control on Multichannel Consumers' Convenience

Expectations of Online Order/In-store Pickup Service

Hao Ma, Yong Su, Lih-Bin Oh

School of Management, Xi'an Jiaotong University, China

Abstract: “Online order/in-store pickup (OOIP)” service allows customers to self-collect their online orders from the retailers’ physical store at their convenience. This service provided by many multichannel retailers brings unprecedented control to customers in the order fulfillment process. This paper examines how need for control, a fundamental psychological trait impacts multichannel consumers’ expectation of the level of service convenience that OOIP provides. Data was collected from 351 Chinese consumers to assess the effect of need for control on decision convenience, access convenience, transaction convenience, and post-benefit convenience. Findings suggest that consumers’ need for control positively affect their expectations on all four types of service convenience. We provide theoretical and managerial implications arising from the findings.

Keywords: Multichannel retailing, Online order/in-store pickup, Value co-creation, Service convenience, Need for control,

1. INTRODUCTION

With the proliferation of e-commerce, many traditional retailers are integrating their physical and online retail channels to provide customers with innovative cross-channel services. “Online order/in-store pickup (OOIP)” service allows customers to pick up their online orders in the brick-and-mortar stores. It is one of the most popular cross-channel services offered by multichannel retailers these days. For example, Walmart, the world’s largest chain retailer is inviting online shoppers to pick up their purchases from its physical stores to tremendous success ^[1]. In fact, OOIP service is fast becoming a basic service offered by many multichannel retailers because of the following benefits. First, OOIP allow retailers to leverage the strengths of physical store and online store for customers to personalize their shopping experience ^[2]. Second, retailers who let their online customers to pick up the orders at their stores can improve their overall sales as customers will make additional in-store purchase when picking their order in the physical store.

Recent research indicates that a high level of retail channel integration such as integrated information access, integration fulfillment, and integration customer service can improve the level of service convenience and that a higher level of convenience can provide customers with more value ^[3]. For a self-service order fulfillment option such as OOIP, one of the primary advantages for customers is the opportunity to participate in the service delivery process to co-create value for themselves. Throughout this process, the ability to exert control is a distinctive aspect of OOIP service. OOIP customers can keep track of the pace of the transaction, the level of desired interactivity, and ultimately the outcome of the service ^[4]. OOIP offers a lot of flexibility for customers to decide how and when to complete their transaction.

In using a service, the degree of customers’ need for control can vary from very much to very little ^[5]. How does a multichannel consumer’s level of need for control impact their level of service convenience expectation for using OOIP service? To provide answers to this question, this study attempts to examine the relationship

[†] Corresponding author. Email: ohlb@mail.xjtu.edu.cn (Lih-Bin Oh), ma_hao@stu.xjtu.edu.cn (Hao Ma), symons.2009@stu.xjtu.edu.cn (Yong Su)

between individuals' need for control and their expectation for OOIP's service convenience in terms of decision convenience, access convenience, transaction convenience, and post-benefit convenience. We first present the hypotheses development and then discuss the research method. Next, we describe the data analyses and finally we conclude the paper with theoretical and managerial implications derived from the findings.

2. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

2.1 Service convenience

Service convenience refers to consumers' time and effort perceptions concerned in buying or using a service [6]. In this study, we conceptualized service convenience as comprised of four dimensions namely, decision convenience, access convenience, transaction convenience, and post-benefit convenience. These dimensions correspond to the three stages of the purchasing process: pre-purchase stage, purchase stage, and post-purchase stage. Contrary to the five dimensions proposed in [6], we omitted the fourth dimension of benefit convenience because the perceived convenience benefits related to time and effort have already been assessed in other dimensions of convenience. We believe that this four-dimension assessment of service convenience is more parsimonious and better fits our research context of OOIP service.

2.2 Need for control

The need for control refers to the desire to manage, organize, or direct experience [7]. As need for control is a fundamental psychological trait, individuals with different levels of need for control would respond differently in the same environment. Individuals high in need for control can be described as assertive, decisive, and active while individuals low in need for control are generally nonassertive, passive, and indecisive and may prefer their daily decision to be made by others [8].

Customers high in need for control may choose to be involved in the service production while customers low in need for control may not be interested in how the service is performed, and they only want the provider to take full responsibility [5]. Empirical studies in the domain of learned helplessness have also found that individuals with high need for control may be more susceptible to learned helplessness than those low in need for control [8].

2.3 Impact of need for control on service convenience expectation

2.3.1 Decision convenience

Expectation refers to the pre-consumption belief about the overall performance of products or service which can be operationalize as "anticipated performance" [9]. In the stage of pre-purchase, decision convenience refers to the time and effort consumers devoted to deciding how to obtain a particular performance such as which specific service to buy [6].

Individuals high in need for control want to make their own choice, and they will prefer selectivity and controllability compared with individuals with low need for control. Hence, we expect that individuals high in need for control will have a higher level of expectation for decision convenience.

Hypothesis 1 (H1): Individuals' need for control is positively related to their level of expectation of decision convenience in using OOIP service.

2.3.2 Access convenience

During the stage of purchase, access convenience refers to the time and effort consumer perceived to initiate the service delivery such as keeping track of the goods and reaching the service site [6] and is determined by the physical location, operating hours, and availability online, by phone or in person [10][11]. As a form of self-service, OOIP provide more flexible access for customers to perform self-service and this can reduce consumers' dependence on the service provider and bring more controllability and customization to choose the nearest service location and most appropriate time for self-collection.

Prior studies suggested that need for control is the primary individual difference motivating consumers' preference for customizing and customers high in need for control are more receptive than other to involve in the value-creation process^[7]. So we believe that customers high in need for control will have higher expectation for access convenience with regards to flexibility in the self-service process.

Hypothesis 2 (H2): Individuals' need for control is positively related to their level of expectation of access convenience in using OOIP service.

2.3.3 Transaction convenience

At purchasing stage, transaction convenience refers to the time and effort consumer perceived to complete the transaction^[6]. Customers are inclined to perceive waiting time longer than they actually are^[12]. OOIP service provides many options for customers to complete their transaction such as cash payment at the pickup service counter. Customers high in need for control can choose their most preferred way to pay for their online transaction. Conversely, customers low in need for control may not be too concerned about the range of options available to complete the transaction.

Moreover, individuals high in need for control may be more susceptible and keen to learned helplessness than those low in need for control^[8]. Individuals high in need for control will more likely to be depressed when waiting in a long queue as they are more susceptible to helplessness and losing control. Therefore, we argue that individuals high in need for control will demand more for transaction convenience than individuals who are low in need for control.

Hypothesis 3 (H3): Individuals' need for control is positively related to their level of expectation of transaction convenience in using OOIP service.

2.3.4 Post-benefit convenience

During the post-purchase stage, post-benefit convenience refers to the time and effort customers perceived when reinitiating contact with a firm^[6]. The importance of post-benefit convenience has been underscored because of difficulties encounter by consumers in returning products purchased over the Internet^[6]. However with OOIP service, whenever the products are defective or there are questions after purchasing a product online, consumers can obtain aftersales service support from the customer representative at the physical store.

Similarly, since consumes with high need for control are more likely to be involved in co-production^[5] and OOIP provides a controllable and convenient way for aftersales service, we believe that individuals high in need for control will expect more for post-benefit convenience.

Hypothesis 4 (H4): Individuals' need for control is positively related to their level of expectation of post-benefit convenience in using OOIP service.

2.3.5 Control variable

Self-efficacy is "people's judgments of their capabilities to organize and execute course of action required to attain designated types of performance"^[13]. We expect consumers' self-efficacy to use multiple retail channels to determine their expectation of service convenience of OOIP service. This is because consumers who are more confident of their ability to complete their purchase across multiple channels will necessarily have higher expectations for the level of service convenience. Therefore, we controlled the effect of consumers' multichannel self-efficacy on their expectation of service convenience.

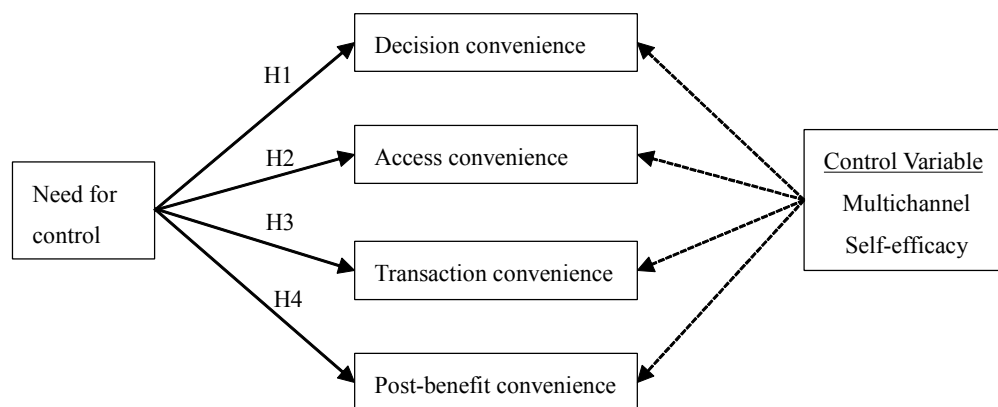


Figure 1. Research model

3. METHOD

3.1 Subjects

College students from four large universities in Northwestern China participated in the survey. All participants were real e-commerce consumers who have made online purchases before. A paper questionnaire in Chinese that has undergone back-translation was administered to them. Participation was entirely voluntary, and respondents were given small gifts worth about RMB 10. In total, 351 responses were collected. The gender ratio was relatively equal, with 44.4% female and 55.6% male respondents.

3.2 Measures

Four dimensions that reflected consumers' expectation of service convenience were designed based on academic and practitioner literature. These items were anchored on a six-point scale from 0 to 5. 0 for "not important at all", 1 for "a little important", 3 for "relatively important", and 5 for "very important". The remaining items of the questionnaire were adapted from previous research and amended for our research context, they were all 7-point Likert items. Table 1 shows the operationalization of the constructs (detailed questionnaire items were not listed due to space limitation).

4. DATA ANALYSIS AND RESULTS

4.1 Descriptive statistics

Table 2 shows the means, standard deviations, the square root of AVE, and correlations of the variables. NFC stands for need for control; EFFI stands for multichannel self-efficacy; DECONV stands for decision convenience; ACCONV stands for access convenience; POCONV stands for post-benefit convenience.

4.2 Measurement and structural model test results

As shown in Table 1, composite reliability of all constructs exceeded Nunnally and Burstein's criterion of 0.7^[18] and the AVE was over the recommended threshold of 0.5, adequately demonstrating convergent validity. Table 2 shows the test for discriminant validity of the reflective constructs. The diagonal elements are the square root of AVE for each construct, which, for discriminant validity, should be larger than off-diagonal elements of the inter-construct correlation. All constructs fulfilled the requirement for discriminant validity.

After ensuring the psychometric properties of the measurement model, the PLS structural model was assessed to determine the significance of the hypothesized paths and its explanatory power based on the amount of variance accounted for by the endogenous constructs^[19].

Table 3 shows the PLS results, including the amount of variance explained (R^2), standardized path coefficients, t -value and significance based on two-tailed t -tests for four hypotheses. A bootstrapping resampling procedure was used to estimate the standard errors and determine the significance of the path coefficients. Figure 2 shows the PLS results.

Table 1. Operationalization of measured constructs

Construct	Composite Reliability	Cronbach's Alpha	AVE	Source of items
Need for control	0.840	0.764	0.515	Five items adapted from de Rijk et al. ^[14] and Burger & Cooper ^[8]
Multichannel Self-efficacy	0.893	0.839	0.676	Four items adapted from Chiu et al ^[15]
Decision convenience	0.829	0.692	0.619	Three items adapted from Seiders et al. ^[16] and Berry et al. ^[6]
Access convenience	0.779	0.583	0.541	Three items adapted from Berry et al. ^[6] and Colwell et al. ^[17]
Transaction convenience	0.837	0.742	0.563	Four items adapted from Seiders et al. ^[16] and Berry et al. ^[6]
Post-benefit convenience	0.832	0.733	0.554	Four items adapted from Seiders et al. ^[16] and Berry et al. ^[6]

Table 2. Means, standard deviation, AVE, and correlation of constructs

Construct	Mean	S. D.	NFC	EFFI	DECONV	ACCONV	TRCONV	POCONV
NFC	5.74	0.79	0.718					
EFFI	5.32	0.93	0.422**	0.822				
DECONV	3.65	1.00	0.276**	0.378**	0.787			
ACCONV	3.90	0.94	0.259**	0.248**	0.497**	0.735		
TRCONV	4.08	0.78	0.311**	0.265**	0.482**	0.450**	0.751	
POCONV	4.33	0.71	0.408**	0.334**	0.406**	0.417**	0.503**	0.745

** $p < 0.01$

Table 3. Results of hypothesis testing

Hypothesis	R^2	Beta	t -value	Supported
H1 Need for control → Decision convenience	0.169	0.164	2.970**	Yes
H2 Need for control → Access convenience	0.106	0.203	3.247**	Yes
H3 Need for control → Transaction convenience	0.136	0.278	4.929***	Yes
H4 Need for control → Post-benefit convenience	0.201	0.334	5.585***	Yes

** $p < 0.01$; *** $p < 0.001$

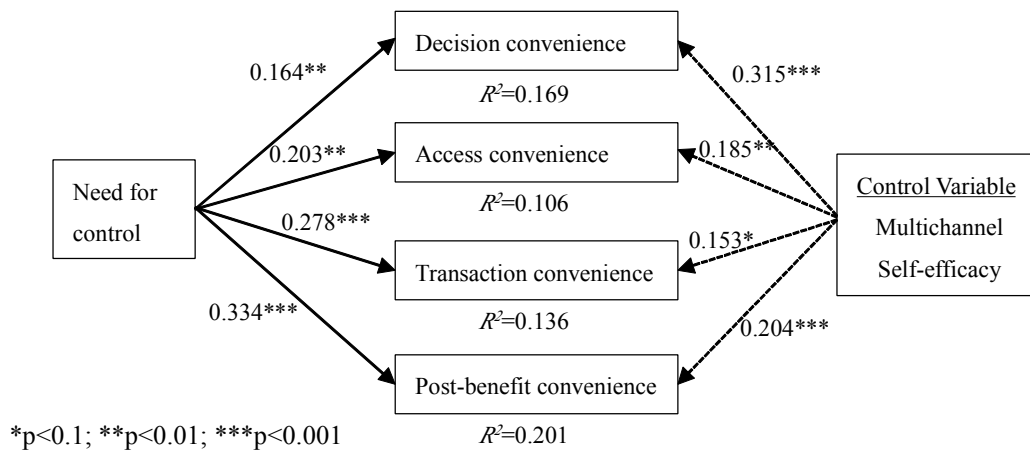


Figure 2. Research model with PLS results

5. DISCUSSION

Our findings provide some implications for multichannel retailers who are providing OOIP service or planning to do so. First, results suggest that both multichannel self-efficacy (beta=0.315, $p<0.001$) and need for control (beta=0.164, $p<0.01$) significantly influence multichannel consumers' expectations of decision convenience for using OOIP and that the impact of multichannel self-efficacy is much higher. This finding seems to suggest that when it comes to the point of making the initial decision to use OOIP service, consumers' self-efficacy to perform multichannel shopping is highly crucial in determining their expectation. Hence, retailers should pay more attention to enhancing their customers' self-efficacy through enactive mastery, vicarious experience, verbal persuasion, and taking measures such as providing video demonstration on how to use the service [20]. Second, the impact of the need for control on multichannel consumers' post-benefit convenience expectations (beta=0.334, $p<0.001$) of OOIP is the most notable among different types of convenience expectations. We also note that the mean of post-convenience expectation ($M=4.33$) is the highest among all forms of convenience expectations. Thus, multichannel retailers should place priority to provide a high level of post-benefit convenience by solving customers' problems and providing better follow-up services.

This study has also made a few theoretical contributions. It is one of the first empirical studies to perform an in-depth analysis of multichannel consumers' convenience expectations of OOIP service. Most extant works in service convenience have primarily examined convenience as an exogenous variable to consider its impact on service quality and customer satisfaction (e.g., [21]). Moreover, studies that investigated the antecedents of service convenience had examined the effect of perceived ease of use, perceived usefulness, service content quality, and service delivery quality on convenience (e.g., [22]). There is a lack of research explored the impact individual characteristics. The set of findings related to the role of individuals' need for control can deepen our understanding of customers' expectation for service convenience.

There are some limitations of the research that should be taken into considerations when interpreting the results. First, although all respondents to our survey have experienced online shopping, the use of college students as our sample has reduced the generalizability of our findings to some extent. Further research is warranted to more fully understand how need for control differs for consumers with different demographic characteristics and how these variations can change their service convenience expectations. Second, there may be other factors that could affect multichannel consumers' convenience expectations and more empirical research should be performed to uncover these factors. Despite these limitations, we believe that this research has offered some preliminary empirical evidence to shed light on the impact of multichannel consumers' need for control on their convenience expectations in using OOIP service.

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