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Qiuyue Luo  
Xi'an Jiaotong University, luoqiuyue1992@stu.xjtu.edu.cn

Lih-Bin Oh  
Xi'an Jiaotong University, ohlb@mail.xjtu.edu.cn

Li Zhang  
Xi'an Jiaotong University, basiguangnian@stu.xjtu.edu.cn

Jing Chen  
Xi'an Jiaotong University, chenjing.jane@stu.xjtu.edu.cn

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EXAMINING THE SHOWROOMING INTENTION OF MOBILE-ASSISTED SHOPPERS IN A MULTICHANNEL RETAILING ENVIRONMENT

Qiuyue Luo, School of Management, Xi’an Jiaotong University, Xi’an, China, luoqiuyue1992@stu.xjtu.edu.cn
Lih-Bin Oh, School of Management, Xi’an Jiaotong University, Xi’an, China, ohlb@mail.xjtu.edu.cn
Li Zhang, School of Management, Xi’an Jiaotong University, Xi’an, China, basiguangnian@stu.xjtu.edu.cn
Jing Chen, School of Management, Xi’an Jiaotong University, Xi’an, China, chenjing.jane@stu.xjtu.edu.cn

ABSTRACT

A typical shopping scenario nowadays is that shoppers browse and try the products offline and then buy them online from a competing retailer. This phenomenon commonly described as “showrooming” occurs because of the ubiquity of mobile devices and the ease of switching between multiple retail channels. The presence of these mobile-assisted shoppers in a multichannel retailing environment is a serious challenge confronting all retailers. This study first identifies these cross-channel shoppers’ reasons for and against showrooming and then uses the behavioral reasoning theory (BRT) to predict their showrooming intention. Next, we identify two factors, namely online-offline price difference and employee knowledge competency that can further impact showrooming intention and subsequently develop a 3x2 scenario-based experiment to examine the effectiveness of these two measures to influence showrooming. We provide theoretical and managerial implications arising from our research.

Keywords: Multichannel Retailing, Showrooming, Behavioral Reasoning Theory, Scenario-Based Experiment
1 INTRODUCTION

With the advent of the Internet, consumers are increasingly relying on technology to compare products and prices in the shopping process. In addition, given the ubiquity of mobile devices, many consumers are engaging in “showrooming”, which means that they will first visit a physical store to browse for a product, possibly using their smartphones to compare prices, and then buy the product online at a better price. These tech-savvy consumers are changing the fundamental consumer-retailer relationship and showrooming is fast becoming a problem plaguing the retail industry.

According to an Accenture survey, 63% of Americans plan to browse at a store and then go online to find a better deal (Accenture 2013). As consumers become mobile-assisted shoppers, they can now visit a retail store’s aisles armed with their smartphones connected to the Internet for comparison shopping when they are in the store. Such multichannel consumer behavior is extremely detrimental to retailers. For example, although Best Buy’s revenue in the latest quarter rose 3.4% to $16.63 billion, its sales at stores, websites and call centers fell 2.4% compared with the year before. The decline came because of the drop in TV and laptop sales, two products most susceptible to showrooming (Bustillo 2012).

As cross-channel shopping becomes the norm, multichannel retailing is now a promising area of research. Current research has examined important issues to multichannel retailers, such as consumer’s channel choice (Madlberger 2006), shopping process (Balasubramanian et al. 2005), channel integration and customer retention (Khakimjanovaa & Park 2005; Sinioukov 2000; Worzala & McCarthy 2001), and the holistic analysis of consumer’s cross-channel use and switching behavior (Rangaswamy & Bruggen 2005). Additionally, research has been done to test the relationship between perceived channel price and channel use intention (Yu et al. 2011), and it was found that online-offline price difference is a critical element for both consumers’ shopping decision and retailers’ profit strategy (Wolk & Ebling 2010).

Showrooming behavior presents serious challenges to all retailers in the present multichannel retailing environment. Therefore, some retailers have attempted to take measures to address this issue. There are at least two measures that retailers can take to influence shoppers’ intention to showroom, namely, reducing the online-offline price difference and improving the level of employee knowledge competency (Quint et al. 2013). While much research has been done to understand the impact of pricing and employee competencies on retailing, little is known about the joint impact of online-offline price difference and employee knowledge competency on customers’ showrooming intention in a multichannel retailing context.

This paper uses the Behavioral Reasoning Theory (Westaby 2005) as a theoretical base and adopts a scenario-based experimental approach to answer two research questions: i) What are the determinants underlying attitudes toward showrooming for mobile-assisted shoppers? ii) What measures can be effective in reducing their showrooming intention? The research provides understanding of the strategies that can be used to address the impact of mobile technologies in the retailing environment and contributes empirical evidence to the multichannel retailing literature. It also offers managerial implications for multichannel retailers to improve their in-store shopping experience for their mobile-assisted shoppers.
2 RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

Figure 1 shows the research model. We used the Behavioral Reasoning Theory (BRT) as a foundation to develop our model. All the relationships between the constructs have been adapted to fit the context of multichannel retailing, especially for studying showrooming behavior of mobile-assisted shoppers.

![Research Model Diagram](image)

\[ \text{Figure 1. Research model} \]

2.1 Behavioural Reasoning Theory

The BRT is an extension of the Theory of Planned Behavior (TPB), which is widely used to predict and explain individual behavior (Ajzen 1991). However, behavioral intention models have not theoretically addressed if or how “reason” concepts provide unique insight into motivational mechanisms (Westaby 2005). This is an important theoretical question because reason concepts have demonstrated predictive validity in a number of judgment and decision making contexts (Campion 1991; Pennington & Hastie 1988; Westaby et al. 2005).

Customers’ reasons for and against an act can serve as important linkages between their attitudes, subjective norms, perceived control, intentions, and behavior (Westaby 2005). TPB has been widely used to explain customer shopping behavior in online and offline contexts (e.g., Hsu 2006; Hansen 2004; George 2004). Consistent with previous studies, shoppers’ attitude toward showrooming, subjective norms, and perceived behavioral control are expected to predict showrooming intentions.

2.2 Reasons as the Determinants of Attitude toward Showrooming

Attitude toward showrooming is the degree to which individuals feel favorable or unfavorable to the behavior and this can predict and explain individual behavior (Ajzen 1991). BRT hypothesizes that reasons serve as important antecedents of attitudes toward the behavior. Theoretically, this is consistent with the theory of explanation-based decision making (Pennington & H Hastie 1988) and reasons theory (Westaby 2005). These theories generally hypothesize that people form favorable evaluations toward a given alternative when they have strong reasons that support and justify the alternative. Reasons for and against a certain behavior serve as the factors that determine individual’s
final attitude toward the behavior (Westaby 2003). Reasons help people justify and defend their actions. Therefore, reasons with positive judgment of showrooming will lead to a favorable attitude toward it; conversely, reasons with negative judgments will lead to an unfavorable attitude (Westaby 2005).

Hypothesis 1 (H1). Individuals who have more reasons for supporting the act of showrooming will have a more favorable attitude toward showrooming.

Hypothesis 2 (H2). Individuals who have more reasons against the act of showrooming will have a more unfavorable attitude toward showrooming.

2.3 Determinants of Showrooming Intention

2.3.1 Reasons and Intention

Intentions are regarded as the key determinants of behavior, which can influence the extent that the individuals will take efforts to perform the behavior (Westaby 2005). The stronger the intention to showroom is, the more likely people will showroom. Reasons can be powerful drivers of intention because people feel more comfortable with themselves when they have reasons that justify and defend their anticipated actions (Kunda 1990; Steele et al. 1993; Wood 2000). Several scholars have also shown that justification mechanisms directly impact choice (Barlas 2003; Hsee 1995; Huber & Seiser 2001). Therefore, shoppers’ reasons for and against showrooming have a strong relationship with their justification whether to showroom, suggesting that reasons can directly predict their showrooming intention.

Hypothesis 3 (H3). Individuals who have more reasons for supporting the act of showrooming will have a stronger intention to showroom.

Hypothesis 4 (H4). Individuals who have more reasons against the act of showrooming will have a weaker intention to showroom.

2.3.2 Perceived Behavioral Control and Intention

The concept of perceived behavioral control (PBC) was introduced into TPB to accommodate the non-volitional elements inherent, at least potentially, in all behaviors. A high level of perceived control should strengthen a person’s intention to perform the behavior, and increase effort and perseverance (Ajzen 2002). In real life, if consumers feel that showrooming is difficult to perform due to various restrictions imposed or difficulties encountered in the brick-and-mortar store, their level of PBC may be lower. Consequently, their perceived control over the action of showrooming will influence their intention.

Hypothesis 5 (H5). Individuals who perceive greater control over the act of showrooming will have a stronger intention to showroom.

2.3.3 Subjective Norms and Intention

Subjective norm assesses the person’s perceived social pressure from important others to engage in the behavior (Westaby 2005). It consists of individuals’ beliefs about whether significant others think they should engage in the behavior (Ajzen 1985). Significant others are individuals whose preferences about individuals’ behavior in this domain are important to them. In the TPB, subjective norm is a
primary antecedent of intention (Ajzen & Madden 1986). Therefore, if most people around them believe that showrooming is an acceptable act, they will have a stronger intention to showroom.

Hypothesis 6 (H6). *Individuals who perceive more social pressure from important others to showroom will have a stronger intention to showroom.*

2.3.4 **Attitude and Intention**

Attitude represents a person’s global positive or negative evaluation toward doing the behavior (Westaby 2005). Attitudes toward a specific behavior exert their impact on behavior via intentions (Conner 1998). The attitude component is a function of a person’s salient behavioral beliefs, which represent perceived outcomes or attributes of the behavior (Peak 1955). Attitudes are the overall evaluations of the behavior by the individual and strongly predict behavioral intentions (Conner 1998). Individuals with a positive attitude toward a behavior will have higher intention to perform that behavior. Thus, we posit that individuals who formed favorable showrooming attitude will have stronger intention to showroom.

Hypothesis 7 (H7). *Individuals with more favorable attitudes toward the act of showrooming will have a stronger intention to showroom.*

2.4 **Effects of Price Difference and Employee Knowledge Competency on Showrooming Intention**

2.4.1 **Online-Offline Price Difference**

There are five key elements in the consumer purchase decision-making process: subjective norms, attitude, perceived behavioral control, ease of use, and price (Keen et al. 2004). Furthermore, retail channel usage intention is indirectly influenced by consumer perceptions of channel price (Yu et al. 2011). In the purchase stage, consumers want to buy the best goods with the least amount of money, especially for the price-sensitive customers (Hamilton & Chernev 2010). Thus, the lower the price in a channel is, the more likely consumers are to choose that channel. Price difference is a very important element in multichannel retailing. 52% of mobile-assisted shoppers use their device in the store to do price checking regularly (Quint et al. 2013). If shoppers can locate the product at a cheaper price online while in the store, they would be more likely to showroom. Thus,

Hypothesis 8 (H8). *Greater product price difference between online and offline channel will lead to a stronger intention to showroom.*

2.4.2 **Employee Knowledge Competency**

This study focuses on the in-store service employees’ product and service knowledge competency. Frontline employees are the direct interface between organizations and their customers. With the proliferation of e-commerce, excellent employee service is often regarded as one of the most critical strategies for retailers to survive (Pimpakorn & Patterson 2010). In the domain of personal selling, adaptive selling is influenced by salespeople’s knowledge of products, customer types, and sales strategies (Sujan et al. 1988). Salesperson performance always depends on the knowledge of previous actions and events in different sales situations and the ability to connect relevant previous experiences (Leong et al. 1989).
The aim of developing employees’ competences by improving their knowledge structures is to better satisfy the customers’ personalization needs. Sophisticated knowledge structures comprise of procedural and declarative knowledge (Mervis & Rosch 1981). Procedural knowledge refers to a set of learned behavioral routines to fit various selling situations (Leigh & McGraw 1988). Declarative knowledge structures enable an effective salesperson to identify and meet customer needs accurately (Szymanski 1988) and is about the ability of frontline employee to recognize or classify a particular selling situation (Sheth 1975).

During the purchase stage, frontline employees with greater knowledge competency can be more effective in satisfying consumers’ demand. Multichannel consumers have been found to attach great importance to better employee service quality in the physical stores compared to the Internet (Verhoef et al. 2007). Hence, better in-store employee knowledge competency may reduce consumers’ intention to showroom.

Hypothesis 9 (H9). Consumers who encounter frontline employees with higher knowledge competency will have a weaker intention to showroom.

3 RESEARCH METHOD

3.1 Scenario Development

This study attempts to assess the effectiveness of the various measures that can be used by the retailers to reduce showrooming. As shown in Table 1, it uses vignettes to simulate a multichannel shopping environment with 6 scenarios based on a 3x2 full-factorial experimental design.

<table>
<thead>
<tr>
<th>Employee Knowledge Competency</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative price gap is about 5%</td>
<td>Case 1</td>
<td>Case 2</td>
</tr>
<tr>
<td>Relative price gap is about 10%</td>
<td>Case 3</td>
<td>Case 4</td>
</tr>
<tr>
<td>Relative price gap is about 25%</td>
<td>Case 5</td>
<td>Case 6</td>
</tr>
</tbody>
</table>

Table 1. Scenarios with different treatments

3.1.1 Online-Offline Price Difference

We set the relative price gap as (price offline-price online)/price offline to evaluate the online-offline price difference (Wolk & Ebling 2010). Research suggests that people may have different accepted level of relative price gap when the absolute price is different (Quint et al. 2013). Kacen et al. (2013) found that depending on the product category, consumers will be willing to purchase from the online channel only if the price is 8%–22% lower than the traditional store. Following Keen et al. (2004), we classify the price into three levels: low difference (5%), medium difference (10%), and high difference (25%).

3.1.2 Employee Knowledge Competency

The employee knowledge competency can be assessed at two levels: low and high. The operationalizations of the treatment variables are summarized in Table 2.
<table>
<thead>
<tr>
<th>Treatment</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Online-Offline Price Difference</strong></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Relative price gap is about 5%</td>
</tr>
<tr>
<td>Medium</td>
<td>Relative price gap is about 10%</td>
</tr>
<tr>
<td>High</td>
<td>Relative price gap is about 25%</td>
</tr>
<tr>
<td><strong>Employee Knowledge Competency</strong></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Frontline service employee with poor product and service knowledge</td>
</tr>
<tr>
<td>High</td>
<td>Frontline service employee with rich product and service knowledge</td>
</tr>
</tbody>
</table>

*Table 2. Operationalization for variables*

### 4 RESEARCH STATUS AND EXPECTED CONTRIBUTIONS

We have completed the development of the scales to measure reasons for showrooming, reasons against showrooming, and the TPB constructs. We are in the process of designing the 6 scenarios. We will discuss the realism of the vignettes with actual consumers who have performed showrooming before data collection. We plan to collect data from at least 240 subjects who have prior experience in cross-channel shopping (40 for each scenario). The data will be analyzed using Partial Least Squares (PLS) and ANOVA.

Showrooming is a new and important phenomenon that warrants attention from both e-commerce researchers and practitioners. If not dealt with, it can bring about a crisis to brick-and-mortar retailers. Retailers are now attempting to engage in numerous measures to adapt to the situation by narrowing the online-offline price difference and through improving frontline service employees’ competencies to differentiate themselves from pure-play online retailers.

The findings from this study can provide multiple stakeholders in the retailing industry with empirical evidence on the effectiveness of some measures that can help to reduce the showrooming intention of mobile-assisted shoppers. This study also makes several significant contributions to research. It provides empirical evidence of the use of Behavioral Reasoning Theory to examine showrooming behavior in a multichannel retailing environment. The findings can also serve as a starting point for future researchers to explore other questions related to cross-channel shopping behaviors. In this present study, we only examine two intervening factors, namely online-offline price difference and employee knowledge competency. Numerous opportunities exist to look into other factors such as product category that can affect showrooming behaviors.

### ACKNOWLEDGEMENT

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References


