

# Understanding Incentives and Deterrents of Mobile Shopping

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## Abstract

Mobile shopping allows consumers to shop on their mobile devices from anywhere and at any time. In this paper, we interviewed 14 U.S. adults to learn about their shopping motivations and shopping practices to see how mobile shopping situates within their ecology of purchasing behaviors. Our data suggested that most consumers perceived bargains and convenience as the major reasons for mobile shopping, while some consumers were still reluctant to shop on mobile devices due to security concerns and his/her mobile device's screen size. Although there were gender differences in general shopping behavior, there were no obvious gender differences found with regard to the motivations & decision-making processes in mobile shopping. We suggest that retailers and app designers resolve consumers' concerns on safety and security to increase their willingness to shop on mobile devices.

**Keywords:** Mobile Shopping; Consumer Insights; Mobile Devices; Information Seeking; Motivation

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## 1 Introduction

The Internet and technology make it more convenient than ever for consumers to shop for products and services anytime online. As smart phones and mobile devices become more accessible (Wang, Malthouse, & Krishnamurthi, 2015), mobile shopping is further integrated in everyday shopping activities. Retailers have noticed this trend and are devoting more efforts to develop mobile platforms (Rigby, Miller, Chernoff, & Tager, 2013; Ström, Vendel, & Bredican, 2014). However, a good understanding of customer behavior on regular shopping channels does not necessarily lead to a successful design of mobile shopping sites and apps. It is thus important to understand why people are motivated to engage in mobile shopping and how such practices are similar or different from other types of shopping channels.

## 2 Literature Review

Considerable work has been done on online and mobile shopping, including how consumers make purchasing decisions (Wang et al., 2015; Einav, Levin, Popov, & Sundaresan, 2014; Ferri, Patrizia, & Guzzo, 2013; Wu, K. Chen, P. Chen, & Cheng, 2014), and how they are influenced by shopping advice (Morris, Inkpen, & Venolia, 2014; Zhang et al., 2014). There have also been documented differences in online shopping behaviors based on age and gender (Lian & Yen, 2014; Zhang et al., 2014).

Researchers have examined the motivations of online and mobile shopping, and how consumers shop on their mobile devices. Ferri et al. (2013) conducted a study that involved interviews and open source technology. The research found that the main motivation towards mobile shopping is social influence, followed by other motivations including flexibility, freedom, and saving time. Einav et al. (2014) examined data from eBay and found that commodity items are slightly more likely to be shopped on mobile devices than idiosyncratic items, as commodity items are easier for price and review comparison among various retailers, and require less inspection. Wang et al. (2015) used quantitative methods to research an Internet-based grocery retailer dataset. They found that customers, especially low-spending customers, tend to increase the order rate and order size when they become familiar with mobile shopping technology. When using mobile devices to shop, they are more likely to make purchases that they had previous purchasing experiences with (Wang et al., 2015).

Most of the previous research approached research questions about motivations from a quantitative point of view. In order to gain a deeper understanding of the consumers' motives towards mobile shopping, we need to find out the factors that affect consumers' shopping activities on mobile devices from a qualitative perspective. In addition to the driving factors, we also want to learn what deters consumers from mobile shopping:

**RQ1:** What factors stimulate or deter consumers' shopping on mobile devices?

Researchers have also looked at the effects of shopping advice on consumers in online and mobile shopping. Morris et al. (2014) revealed in their survey that many people seek shopping advice

remotely from their friends and families. In most cases, they don't find feedback from strangers valuable for making purchasing decisions. Zhang et al. (2014) conducted a lab experiment to study the effects of inconsistent reviews on consumers. They found that consumers' emotional trust of the retailers plays an important role in the formation of purchase decisions, and the emotional trust is largely affected by consumers' cognitive trust. The quantitative researchers studied the relationships between reviews and purchase decisions in online shopping. In our research, we used interviews to understand the consumer behaviors in mobile shopping, a specific setting of remote shopping. From the qualitative research, we would like to understand how reviews and recommendations impact consumers' purchasing decisions:

**RQ2:** How do reviews and recommendations influence purchasing decisions in mobile shopping?

Researchers have also examined age and gender differences in remote shopping decisions. Based on quantitative research, Lian and Yen (2014) concluded that older adults share with the younger generations the same major driving factors to shop online, which are performance expectation and social influence, but they face different barriers than the younger consumers do, such as value, risk and tradition. However, Lian and Yen (2014) found no gender differences in online shopping drivers and barriers for older adults. The gender difference exists in the effects of inconsistent reviews. In an experiment conducted by Zhang et al. (2014), the results showed that female and male consumers respond differently to inconsistent reviews. The researchers suggested that inconsistent reviews have stronger effects on female consumers than male consumers in their remote shopping experiences. In this paper, we focused on the young consumers aged 18 to 33, and tried to study if the gender differences exist in mobile shopping of this specific consumer group. Based on our interviews, we tried to identify the gender differences between male and female consumers in their mobile shopping activities:

**RQ3:** Are there differences between male and female consumers in mobile shopping?

### 3 Method

We conducted 14 semi-structured interviews with a detailed interview protocol. All of the 14 interviews were conducted face-to-face. Each interview lasted approximately 30 minutes.

#### 3.1 Participants

Demographics of the interviewees are shown in Table1, as well as their occupations. Most of them are students, while a few are young professionals. The majority of the participants were in their 20s and early 30s. We had a balanced gender ratio and a wide variation of ethnicities in our interviewees. Our participants represented a variety of young consumers and users of mobile devices.

	Age	Gender	Ethnicity	Occupation
P1	21	Male	Asian	Student
P2	19	Male	Hispanic	Student
P3	20	Male	Asian	Student
P4	19	Male	White	Student
P5	31	Male	Asian	HR Analyst
P6	33	Female	Asian	Banker
P7	Early 20s	Male	Hispanic	Student
P8	Mid 20s	Female	Asian	Medical
P9	18	Male	White	Student
P10	22	Male	Asian	Student
P11	33	Female	Black	Teacher Asst.
P12	27	Female	Black	Admin Asst.
P13	26	Female	Asian	Data Analyst
P14	25	Male	Hispanic	Student

Table 1. Participant Demographics

#### 3.2 Interview Process

There were three parts in the protocol developed for the interviews – warm up, mobile devices, and mobile shopping questions. The first two parts aim to learn more about the backgrounds of the participants, and the analysis in this paper mainly comes from the answers to the questions in the third part of the interview protocol. The interviews were all audio-recorded with participants' consent, and then transcribed for further analysis. We assigned codes to different part of the interviews, and then combined similar parts together to come up with a potential theme.

## 4 Findings

In our research, we found that the strongest motivations that drove consumers to shop on their mobile devices included bargains and more convenience to shop. However, most interviewees also mentioned they prefer online shopping to mobile shopping because of security concerns and the limitation of the screen size to browse products. Additionally, in the decision-making process of whether or not to make a purchase, we found words from family and friends seem to have more impacts than the reviews on the websites in general.

### 4.1 Incentives and Deterrents

Participants generally identified the major motivations of mobile shopping as *Price* and *Convenience*. Admittedly, it might be obvious that consumers would prefer a lower price. However, in cases when prices are the same between online and offline channels, different shopping preferences were revealed through our interviews. Besides *Price*, many interviewees viewed *Convenience* as another important driving factor for them to go mobile. From the interviews, we learned that *Convenience* of mobile shopping was not limited to placing an order easily, but also the convenient to check, compare and research items on their mobile devices. On the other hand, consumers also had security concerns about mobile shopping, and the limitation of screen size made people leave mobile devices for PCs to make purchases.

#### 4.1.1 Bargain and Price

Nearly all the participants mentioned in the interviews that they expected to find a lower price in remote shopping. Many shopping apps not only allowed customers to order directly on the mobile devices, but also provided coupons and discounts that can be applied both in-store and online. As P1 told us, he had the shopping apps installed on his phone to find a lower price online or discounts for in-store purchases:

*Amazon App just helps me find the cheapest price ... Macy's App uses it in the Macy's store, because Macy's app can scan price with discount. (P3)*

Though it may seem natural to shop at wherever a lower price is, people still preferred to make purchases in-store when the price is the same online and offline. As some expressed in the interviews, they would not order online if they found no lower prices, because it would take days for the items to be shipped:

*I check online for prices then if it is the same price online then the store then I would go to the store personally so I don't have to wait for it to ship to me. (P2)*

#### 4.1.2 Convenience

Another attracting feature of mobile shopping mentioned by most participants was its convenience. P9 explained to us why he found remote shopping worked better for him than in-store shopping experiences:

*It was convenient. I didn't have to go to a store. I didn't have to, you know, go through the trouble of finding parking at the mall and fighting through people ... I was actually just able to sit at home, search through the designs and click one button to buy it so that was good. (P9)*

Not only did consumers find it convenient to shop, they also liked the convenience that mobile shopping offered to check prices on their phones. For example, P2 told us how he found mobile shopping a convenient way to check prices on his phone for certain items:

*I check them daily to see if there are any deals. A little longer if I am going to purchase something that's about it ... For convenience they are constantly available to me for checking prices for things whenever I have a chance or if the prices are right purchase on the go. (P2).*

#### 4.1.3 Security Concerns

Some participants mentioned in the interviews that they had been shopping online for a long time, but they had either no or very few mobile shopping experiences before the interviews. In mobile shopping, consumers had choices to shop on mobile sites or in mobile apps. For our interviewees, shopping apps were more widely used by most participants, while the number of shopping apps varied from one to another. For example, P13 had installed mobile apps from apparel retailers such as Zara, Mango and American Eagle, but P14 had only the app from Best Buy. Interestingly, both of them talked about browsing the products on the apps, but turning back to laptops for placing orders:

*I'd just browse the products on my iPhone, and very rarely I'd purchase on my iPad. But most of the time I'd just browse the products and when I shop online, I purchase on my laptop. (P13)*

*Basically I just browse the products on the app. Personally, I have never made a single purchase on the app. Usually I just check out the deals on the phone, and if there's something I really like, I'd go to the website and place my order... I used my laptop. (P14)*

When asked why they would browse products on the mobile apps, but still use laptops to make purchases, both participants expressed their security concerns of shopping on their mobile devices:

*When I'm ready to make a purchase, I prefer to use the laptop, because somehow I think it's safer to put in my credit card information and to put in my address, and things like that. (P13)*

*Well, I think I'm just used to it, and I feel it's a little safer compared with cell phones. (P14)*

However, though they expressed their security concerns on mobile shopping, interestingly, the two participants held different opinions on the credit card information saved on shopping websites:

*I usually don't have credit card information saved on websites... (P13)*

*I'm usually OK with my credit card information saved on the websites, because I always buy things from the retailers that I trust. I understand there might be risks that my information be hacked, but the credit card companies should be taking care of it. (P14)*

#### 4.14 Screen Size

Another factor that hindered the participants from mobile shopping was the difficulties of typing information on their mobile devices. Typing issues were one of the reasons why they preferred to use their laptops to enter their billing and shipping information because they were afraid of making mistakes on the small screen:

*That's why I tend to order on laptop, because I think it's easier to make a mistake when you put in you information like credit card and shipping address on the mobile devices. (P13)*

P9 also found the screen size a limitation in his shopping activities, but from a different perspective. Based on his comments, the screen size limited the information about the product to a simple picture and a brief introduction, but he wanted to know more about the item before making purchases.

## 4.2 Reviews and Recommendations in Mobile Shopping

While the entire decision-making processes were hard to describe, participants identified multiple factors that had strong impacts on their remote shopping experiences. As we learned from the participants, consumers reacted differently to various product reviews when shopping for different types of products.

### 4.21 Product Reviews

One purpose of the interviews was to learn how consumers make their shopping decisions – whether to buy or not. Many participants recognized that the product reviews and recommendations, from both their friends and the shopping websites, had impacts on their decisions of making certain purchases, especially for standardized items, such as electronics and cookware:

In the interviews, all the 14 participants admitted that they checked reviews and comments before making purchases on websites. P11 explained how she used the reviews from other users to help her make decisions. She relied on other users' comments, especially for the products she had never tried herself. Based on the reviews, she could learn other people's experiences with the products that she intended to invest, so that she could be better informed to make a decision:

*Before I invest, of course, I want to know what other people had said about it ... sometimes people's experience could tell you if the product is worth investing. (P11)*

### 4.22 Recommendation

Interview findings also suggested that recommendations from family and friends worked much better than retailers and third-party websites. We found that consumers were more likely to consult people they know for advices before making purchases. For example, P8 told us in her interview that she would talk to her friends for suggestions and opinions about certain products that she planned to buy:

*Blogs and things like that? Not really. Maybe I'll talk to friends of people around me who have the same product or who are looking into buying the same thing that I'm planning to buy. (P8)*

P14 shared similar thoughts with us during the interview. He also trusted the recommendation from his friends more than some retailers and third-party websites. When asked about how the

recommended items impacted his shopping decisions, P14 pointed out why the recommendations from his friends were more effective:

*I believe if my friends recommend something to me, it's very likely that I would buy the stuff, as they know me pretty well and they kind of know exactly what I want. But for the recommendations on the websites, I don't think it's very useful. (P14)*

The power of recommendation was not limited to certain products, as it also worked at the brand level in general. In that case, the recommendation of a brand would usually have impacts on future purchases. For example, P13 recalled how her friend's recommendation for the return policy of a brand influenced her future shopping activities:

*I think one of my friends recommended how easy you can return your product from J.Crew. Even if it's a final sale, you would still be able to return or exchange it if the size isn't right or things like that. I definitely kept that in mind, and I made a purchase on J. Crew's website later. (P13)*

## 5 Discussion

### 5.1 Shopping on Mobile Devices

As we found in the interviews, participants' motivations to shop on mobile devices were perceived bargains and expected convenience. However, people used mobile shopping apps more than just to make purchases. Those apps also allowed the consumers to check for bargains more frequently and easily on their mobile devices. Although some participants admitted they only had limited mobile shopping experience, most of them were looking closely at the new shopping method, and were willing to try it out if retailers could provide discounts for new mobile customers.

From the interviews, we found that providing a little incentive may have great impacts on encouraging consumers to move from desktops and laptops to the mobile platforms, especially for those customers who already had online shopping histories. From a mobile marketing perspective, the trend might be noticeable for the retailers who planned to promote the usage of their shopping apps. Evidence from the interviews suggested consumers expected to receive mobile-exclusive coupons for ordering from mobile websites and apps. In terms of designing a successful mobile app, our participants also provided constructive suggestions that retailers and app designers may find useful. For example, consumers suggested future shopping apps integrate features such as price and product comparison between competitive retailers. As one participant told us at the end of her interview, she was looking forward to shopping on the apps designed to accommodate the needs for certain shoppers.

### 5.2 Security Concerns

Our study suggested that security concerns were perceived as a major factor that prevented consumers from mobile shopping. We learned that most people felt uncomfortable about their personal data stored in the mobile shopping systems, especially their credit card information. Actually, the unwillingness to store the shipping and payment data, to a large extent, offset the convenience that consumers expected to gain from mobile shopping, as they found it painful to type in the shipping address and payment information in small-screen mobile devices. Our findings may help explain the phenomenon that shoppers spent more time browsing on their mobile devices, but still relied on old-school PCs to purchase (Halzack, 2015).

One objective of this paper was to provide constructive suggestions for retailers and app designers to promote mobile shopping among the consumers. Although it's not a prevalent theme, one participant's comments on the issue of credit card information storing might be inspiring and thought invoking. During the interview, P14 told us he was less concerned about the credit card security, even though he was fully aware of the potential security risks. As explained by the participant, he usually had his credit card information saved on the shopping websites to save the typing efforts when placing an order. Furthermore, he believed the credit card companies should be the ones that take responsibilities when credit card information are hacked, not the consumers or cardholders.

Based on these findings, we would strongly suggest that retailers to focus more on eliminating the security concerns for mobile customers and encourage them to have shipping and payment methods stored in the mobile shopping systems. As a result, consumers would not have to put in the shipping and payment information every time they shop in mobile devices. In the setting of mobile shopping, we found in our interviews that security concerns affected both willingness and perceived convenience of mobile shopping. By alleviating or eliminating the security concerns from the customer's end, retailers would not only significantly reduce the typing efforts for mobile shopping customers, but also enhance the perceived convenience ultimately at the same time.

### 5.3 Gender Differences

In the interviews, we found a slight difference between male and female participants in their shopping behaviors. More female interviewees told us they often shopped with family and friends, while the majority of male participants claimed they preferred to shop and make the purchases by themselves. But the difference was more related to the general in-store shopping activities. For mobile shopping, we found no strong evidence that suggested significant gender differences in the motivations and decision-making processes. Both male and female participants shared similar motivations and concerns about mobile shopping in the interviews, and generally referred to reviews and recommendations in a consistent way. However, we recognize that these findings are preliminary and based on a limited number of participants in a qualitative context. Further research would be necessary to examine the gender differences from a quantitative perspective with a larger sample.

## 6 Conclusion

We conducted interviews to understand consumers' thoughts on the topic of mobile shopping, such as motivations and concerns about shopping on mobile devices. This paper also tried to provide insights for the design of shopping websites/apps. Based on the findings of the 14 interviews, we found *price* and *convenience* as the two major motivations that drove people to shop on their mobile devices. Moreover, we learned from the participants that consumers still had concerns about the security of their personal information during their mobile shopping activities. Also, we repeatedly heard people complain about the typing difficulties in small-screen mobile devices. We also found that the reviews and recommendations from family and friends played a much more important role of impacting consumers' shopping decision than those from retailers and third-party websites. In our research, we found slight gender differences in general shopping behaviors, but male and female participants shared similar motivations and concerns about mobile shopping.

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