

**Title of Study:** Exploring Trust Concerns in mCommerce

**Ethics Application:**

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### **General Description**

As a culture, we are now seeing a large uptake of mobile computational devices that expand the ways people connect with and obtain information including the purchasing of goods and services. Historically, most electronic commerce (eCommerce) activity was based around computers utilizing the Internet, but today's trend will result in an increasing number of opportunities for people to begin to transfer ownership or rights of goods and services online via mobile web browsers—or more specifically—through applications targeted at specific stores, mCommerce.

We are interested in understanding mCommerce activities more deeply and uncovering what it means to participate in commerce while using a mobile device, e.g., a smartphone, iPad, Kindle, etc. This has the potential to allow commerce activities to occur virtually anywhere, as opposed to just somewhere—likely in your private home, or private office—and could affect what people buy, when they buy, and how they feel about buying. More specifically, we aim to explore trust in mCommerce.

In the past consumer trust has been cited as a major barrier to the adoption of eCommerce. To address this problem, scholars developed trust models that were built around “vendor trustworthiness” and grounded on design factors. This study will use these past theories as lens to explore trust in mCommerce activities.

### **Purpose:**

The purpose of this study is to identify trust mechanisms that both hinder and promote mCommerce activities, which will be helpful in communicating requirements for successful user designs in the future.

### **Methods/Procedure:**

A cross section of approximately 20 adult participants will be recruited from the population at large (including university students) via several strategies. Within each of the following recruitment strategies, we will target a variety of participants; including but not limited to, people who frequently use mCommerce (e.g., people who have purchased at least one item on a mobile device in the last two weeks), as well as mobile users who do not frequently use mCommerce but still shop using their mobile device.

Our recruitment strategies will include:

- Posting recruitment ads on social media apps such as Facebook, Twitter, Blogs and Forums
- Posting recruitment flyers in public spaces such as on campus, in senior centres, in recreation centres
- Posting recruitment ads on Craigslist

- Word of mouth recruiting where current participants and friends are asked to spread-the-word about the study and contact the investigators if they are interested in participating

Based on the local recruitment strategy outlined above, we expect that the majority of participants will be from the GVRD (Greater Vancouver Regional District). However, if participants are located outside of this area, their participation will gladly be accepted.

See appendix A for sample recruitment flyer. Please note: both online and offline flyers will have the same wording.

Participants will be asked to participate in an e-diary/interview study. They will keep an e-diary of their mCommerce activities over a period of approximately three weeks. That is, they will go to a secure web page and describe the times they used their mobile device for shopping or purchasing items online. Participants will be asked to report the time of the activity, their location, descriptions of what they did, and what trust concerns they had, if any.

## Diary Entry:

### Mobile Activity Form

**1. Summary of mCommerce activity:**

(ex. Tetris Purchase)

**2. Date/Time of Activity:**

ex. mm/dd 15:45

**3. Leave a diary entry about your recent mobile commerce activities: (shopping or purchasing)**

(see example diary entry)

**4. Did you have any concerns about *trust* when doing this activity?**

Please describe:

**5. Location**

(Please be as specific as possible ex. Home> Kitchen or work>cubicle or travel>car):

**6. Upload a screen-shot:**

(optional)

 

**Describe things like:**

★ The type of activity you engaged in

★ Did you make a purchase via iTunes?

★ Did you decide to not make a purchase? Why?

★ What technical or trust challenges issues did you face, if any?

see example diary entry

It is understood that participants might not be able to make an e-diary entry as soon as they make an mCommerce purchase or shop using their mobile device due to the mobile and spontaneous nature of these activities. It was also apparent during test runs of the study that having memory aids is useful when recording one's activities as part of a diary study. Because of this participants will be encouraged to take a screen-shot of their mCommerce activities as they happen. If they are not easily able to do so (some mobile devices don't allow this or it is cumbersome), they will instead be asked to send a short text message to the investigators in order to act as a memory aid. Text messages will be emailed back to the participants as part of daily reminder messages, discussed next.

During the study, participants will receive a daily reminder, sent via email and SMS, that will encourage them to record a diary entry. To also aid in accessibility, participants will be asked to install a shortcut on their computer and mobile devices that links them to the e-diary webpage.

Following the e-diary period, a final semi-structured interview will take place. The goal of the interview will be to expand the activities that participants recorded in their e-diary, check the accuracy of entries, and allow participants to voice any other additional insight. The location of interviews is discussed below. Interviews will be audio recorded for data analysis.

See appendix B for sample interview questions.

Based on the observations and data collected from the interviews and e-diaries, patterns will be deduced in order to develop tentative hypotheses. We will also analyze this data via various "lenses", i.e., theories and perspectives, where we will see how actual behaviour matches or differs from other eCommerce trust theories. From these hypotheses, a theory will be developed on. The study results will describe:

- What variables hinder and what variables promote mCommerce success.
- The routines people have around eCommerce and then how to relate these insights into other sectors within mCommerce—such as B2B and B2P.
- Who is using mCommerce and why so we can better estimate how growth will occur in the future and in what industries, avenues, and communication strategies.
- How mCommerce technology is affecting our routines and behaviours and whether or not these effects are desirable.
- This knowledge will allow us to design mCommerce applications in a way that is easy for people to use and maps to their practices and needs.

#### **Location of Study:**

Interviews will be conducted at places convenient to the participant such as their home, an SFU campus, or a public meeting location. In the event that the participant is outside of the GVRD or it is a considerable driving distance to meet them in person, interviews will occur over a communication tool such as Skype. We will also inform them of how the communication channel maintains confidentiality. For example, we will tell them that Skype encrypts video and audio data being transmitted over the Internet using Secure Socket Layers, but there are still possibilities of risk associated with using such a medium. Participants will then have the option to participate (or not) over such mediums.

#### **Consent:**

Prior to agreeing to participate in the study, potential participants will be sent a URL to an online

consent form. Participants will be asked to read it and then acknowledge their acceptance of it by selecting an “agree” check-box on the online form.

**Remuneration:**

Participants will be paid \$20 upon successfully recording their daily mCommerce activities throughout the e-diary period. This amount will be pro-rated if there are less than 20 entries in the e-diary.

Study participants will be paid an additional \$20 for participating in the interview. Participants who decide to withdraw before completion will receive an amount pro-rated according to the time actually spent.

**Level of Risk:**

This study is of minimal risk. The only ethical risk in this study is the response to personal questions about the participants purchasing habits, which could result in emotional discomfort such as embarrassment, and/or concerns about privacy in regards to the types of purchases made.

The participant’s anonymity will be strictly maintained. The only personally identifying information collected will be their name—which will be used for administration of payment. Any data collected will be labeled with an anonymous participant ID. The diary will also be kept confidential.

The data collected will be kept in a locked office only accessible by the researcher and their supervisor. All electronic data collected as part of the study will be kept on a secure server within Canada. No one except the researchers and their assistants will be allowed to see or hear any of the answers to the diary or the interview. We expect to publish reports and presentations describing this research. Public presentations of the results will primarily present the results in an aggregate form or as caricatures that are composites of one or more participants. Where individual participant data is disclosed, such as exemplar interview comments or diary entries via quotes, we will ensure that the selected data does not suggest participant identities.

Data will be kept for two years. At this point, it will be permanently destroyed.

## Appendix A – Sample Recruitment Flyer

### Do you use your phone or mobile device to shop?

(e.g., iTunes downloads, application purchases)

We are looking for adults (19 and over) like you to participate in our study of how people shop using their mobile device.

The ideal person will...

use mobile devices, like Blackberries, iPhones, phone's with an Android Operating System, iPads, iPod Touches, Kindles, etc.

have shopped using their phone or mobile device (either purchasing or just shopping)

We are interested in understanding mobile shopping activities more deeply and uncovering what it means to participate in commerce while using a mobile device, e.g., a smartphone, iPad, Kindle, etc. We will use this knowledge to improve mobile shopping designs in the future.

To be recruited for this study, you must be 18 and over. You should be comfortable describing details of how you use your phone online and in conjunction with applications.

#### Study Details

**Diary:** We will pay you \$20 if you record your activities and thoughts daily in an electronic diary, where we will discuss it with you afterwards.

***Interview: We will pay you \$20 for approximately one hour of your time.***

***For more information, and / or to sign up, contact:***

Serena Hillman, [shillman@sfu.ca](mailto:shillman@sfu.ca)

or

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## Appendix B – Sample Interview Questions

When did you make the purchase or shop?

What were you shopping for?

Had you looked for the item before?

Is this a new shopping activity or a continuation of an existing one?

Where were you when you made the purchase or shopped?

What activity preceded the purchase/shopping?

What activity followed the purchase/shopping?

Why did you make the purchase? Or why not?

How much did you spend and why?

Did you have any trust concerns when you made the purchase?

Were you concerned about the company you were making the purchase from?

Were you concerned about other people around you seeing you make the purchase?

Were you concerned about your family seeing the purchase?

What is the history of your interaction with this company you purchased from?

What do you think of this company?

Have you purchased from this company before?

What was your experience like?

Tell me about a time when you purchased something really expensive

Tell me about a time when you purchased something really inexpensive

What benefit do you feel you got from this experience?

What did this experience cost you?