

Trust, Privacy, and Safety Factors Associated with Decision Making in P2P Markets Based on Social Networks: A Case Study of Facebook Marketplace in USA and Canada

Azadeh Mokhberi
mokhberi@ece.ubc.ca
University of British Columbia
Vancouver, BC, Canada

Guillaume Humbert
Guillaume.humbert@ecole.ensicaen.fr
ENSICAEN
Caen, Calvados, France

Yue Huang
yue2.huang@csiro.au
CSIRO's Data61
Clayton, Victoria, Australia

Borke Obada-Obieh
Masoud Mehrabi Koushki
Konstantin Beznosov
borke@ece.ubc.ca
mehrabi@ece.ubc.ca
beznosov@ece.ubc.ca
University of British Columbia
Vancouver, BC, Canada

ABSTRACT

As peer-to-peer (P2P) marketplaces have grown rapidly, concerns related to trust, privacy, and safety (TPS) have also increased. While previous studies have explored these aspects in various P2P marketplaces, there has been limited research on Facebook Marketplace (FM), which is distinguished by dramatic growth and intricate entanglement with the Facebook social networking site (SNS). To address this knowledge gap, we conducted interviews with 42 FM users in the US and Canada, investigating TPS factors associated with trading decisions. We identified four categories of factors: pre-existing concerns, signals, interactions, and perceived benefits. We uncover the challenges arising from the interplay of these factors, offer design recommendations for SNS-based marketplaces like FM, and suggest directions for future research. Our study advances the understanding of decision-making processes in SNS-based marketplaces, informs future design improvements for such platforms, and ultimately contributes to a better user experience related to trust, privacy, and safety.

KEYWORDS

peer-to-peer (P2P) marketplaces, s-commerce, e-commerce, trust, privacy, safety, decision making, qualitative research

ACM Reference Format:

Azadeh Mokhberi, Yue Huang, Guillaume Humbert, Borke Obada-Obieh, Masoud Mehrabi Koushki, and Konstantin Beznosov. 2024. Trust, Privacy,

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

CHI '24, May 11–16, 2024, Honolulu, HI, USA

© 2024 Copyright held by the owner/author(s). Publication rights licensed to ACM.
ACM ISBN 979-8-4007-0330-0/24/05
<https://doi.org/10.1145/3613904.3641966>

and Safety Factors Associated with Decision Making in P2P Markets Based on Social Networks: A Case Study of Facebook Marketplace in USA and Canada. In *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24)*, May 11–16, 2024, Honolulu, HI, USA. ACM, New York, NY, USA, 25 pages. <https://doi.org/10.1145/3613904.3641966>

1 INTRODUCTION

In recent years, peer-to-peer (P2P) marketplaces facilitating the exchange of individuals' personal possessions have become very popular among consumers. Notable examples include Airbnb for accommodations, Uber for ride-sharing, and eBay for trading mostly secondhand goods. This trend is fueled by economic benefits, convenience, eco-friendliness, and widespread Internet usage [83, 169]. The global secondhand market is set to nearly double by 2027 [1], propelled by the surging popularity of online P2P commerce [131]. A big contributor to the secondhand market's growth is Facebook Marketplace (FM), one of the few P2P marketplaces based on a social networking site (SNS).

Among P2P markets, FM in particular has enjoyed phenomenal growth. Launched by Facebook (FB) in 2016 as a platform for trading personal items (mostly secondhand goods), by 2021 it was already available in 150 countries and territories [150] and attracting one billion monthly users [172].

As of September 2023, an estimated 485 million (or 16% of active monthly FB users) were logging in for the sole purpose of shopping on FM every month [17], and a monthly average of 250 million sellers were using FM [17]. In comparison, eBay reported 132 million active buyers¹ in September 2023 [123]. An SNS-based P2P marketplace platform also similar to FM, Nextdoor has recently reported a mere 41.6 million weekly active users [124].

¹eBay stated that "Active Buyers consist of all buyers who paid for a transaction on our platforms within the previous 12-month period. Buyers may register more than once, and as a result, may have more than one account." [123]

While FM leads in popularity, concerns of trust, privacy, and safety (TPS) have arisen. Trust management is a fundamental requirement for online transactions between strangers [64, 72] and the biggest challenge for social commerce (S-commerce) [21, 22, 35, 67, 85, 86, 120, 145]. In addition, as an SNS-based marketplace FM is intricately entangled with FB, since every FM user has to use their FB account. This tight entanglement leads to privacy issues from the disclosure of personal information [94]. Furthermore, as with all S-commerce platforms, FM users face risks to their physical and financial safety [13, 61], including assaults [71], fraud [12, 156], and scams [15, 156] (with one in six users experiencing scams on FM in 2022 [156]).

Several reasons make it important to study the TPS factors in the decision-making of FM traders. As one of the largest marketplace platforms, FM users' TPS considerations could potentially impact hundreds of millions of users. Rooted in FB, FM inherits FB's open access (unlike FB buy-sell groups [68]) and automated moderation (unlike VarageSale [2]). In contrast to craigslist [3], FM traders do not have pseudonymity with the platform. Unlike eBay, FM lacks pseudonymity among users. In addition, unlike Airbnb and Uber, FM lacks dispute resolution. Another critical distinction from eBay is that FM traders typically conclude transactions with in-person meetings, heightening the risks of physical safety.

Previous work has explored the factors involved in the management of trust and privacy (but not much about safety) during trading on various P2P marketplaces, most of which are not SNS based. Trust has been identified as a primary factor that garners significant attention from researchers [59, 60, 65, 97, 151]. Studies have delved into the establishment of trust on various P2P platforms, such as FB buy-sell groups [35, 67, 85, 86, 120], Instagram [21, 22], eBay [62, 88, 143, 146], craigslist [109], and VarageSale [109]. Trust has been examined in terms of its role in decision-making within P2P transactions [82, 118, 170], the strategies employed for trust establishment [34, 65, 111, 116, 119, 142], and the contributing factors to trust-building processes [62, 95, 96, 166]. Moreover, previous research [136, 154] has established a correlation between trust and privacy in e-commerce. For instance, the disclosure of personal information, such as photos [59], was found to correlate significantly with users' establishment of trust. Additionally, safety considerations are closely linked to trust [108]. For instance, concerns regarding potential scams were identified to correlate negatively with users' trust in e-commerce platforms [68, 120].

Our study differs from prior research in four key aspects. First, since FM is tightly entangled with FB and yet is very different from FB buy-sell groups (as detailed in §2.4), we investigate whether FM users exhibit unique or contrasting considerations regarding TPS compared to other platforms. Second, building upon extensive research on trust and privacy in e-commerce (see §3), we conduct a deeper exploration into the factors associated with users' considerations regarding trust and privacy. Specifically, we investigate factors that could either facilitate or inhibit the establishment of TPS, or even play a dual role, depending on the trader's role in the transaction. Third, we explore safety, a relatively understudied dimension of P2P marketplaces. As detailed in the previous paragraph, despite its significance safety has not attracted much attention from researchers. Our study delves deeper into the role of

safety in FM users' trading decisions. Fourth and most importantly, we explore the interplay among TPS.

In this study, we address the lack of understanding of the TPS factors involved in trading decisions on FM. Addressing this research problem is critical for enhancing the design of FM and similar P2P marketplace platforms based on an SNS, which will foster safe and privacy-preserving P2P trading.

To this end, we performed a qualitative study. We conducted semi-structured interviews [43] on Zoom with 42 FM users in the US and Canada. Our interviews explored the TPS factors they considered, the interplay among these three dimensions, the pleasant and unpleasant experiences, as well as their concerns and challenges, while trading on the platform. We employed thematic analysis [129, 159] to construct a framework of 78 individual factors. Four primary categories emerged from our analysis: pre-existing concerns, signals, interactions, and perceived benefits.

Our study makes four key contributions to the existing literature on e-commerce. First, we pioneer an investigation into the role of TPS factors in the decision-making process among FM users. Second, our study reveals inherent tensions between (1) privacy protection and trust management, (2) legitimate use of FM features and their abuse in the context of TPS, as well as (3) warning and reassuring TPS signals. Third, we identify challenges arising from (1) the intricate interrelationship among TPS factors that both hinder and facilitate TPS priorities in trading decisions, and (2) the tight entanglement of a P2P marketplace within an SNS. Lastly, we offer recommendations and potential avenues for future research for SNS-based P2P marketplace platforms.

2 BACKGROUND

2.1 Definitions

We defined trust, privacy, safety, and S-commerce, forming the basis for our data analysis and literature review. When we did not distinguish between seller and buyer, we referred to either participant of a trade transaction as a *trader*.

Trust: We adapted the notion of trust by Shin [149], Mayer et al. [115], and Toma [157] to the context of trading on P2P marketplaces: A trader's trust is their subjective belief that the buying/selling party or platform will fulfill its promises or expectations. It's important to note that trust in the context of P2P transactions is often categorized into various dimensions, including trust in technology, the platform, and other involved traders [31, 76, 80, 100, 119]. We focused our investigation on the trust of traders toward each other and the platform.

Privacy: We adapted the notion of privacy by Hajli and Lin [77], Westin [164], and Bélanger and Crossler [27] to the context of trading on P2P marketplaces: A trader's privacy is the control that they have over the information they share with the platform and other traders, and how this information is used by the platform and other traders in the context of a transaction that involves the trader.

Safety: We adapted a general notion of safety [4] to the context of P2P trading: A trader's safety is their confidence that they will be safe from physical injury, emotional harm, loss of financial assets, and loss of physical assets.

S-commerce: We used Wang and Zhang’s [161] definition of S-commerce as “a form of commerce that is mediated by social network” and uses social network to “support social interactions and user contributions to assist activities in the buying and selling of products and services online and offline.”

2.2 E-commerce

E-commerce has become an essential component of people’s daily lives. It refers to the buying and selling of goods or services over the Internet or through online platforms [165]. It has extensively grown over the past few decades due to its distinct advantages over traditional store shopping [153]. For instance, Amazon stands out as one of the top e-commerce companies, holding a market share of 37.8% and serving over 310 million customers worldwide as of 2023 [117].

E-commerce companies may operate using different business models. These models include trading conducted between businesses and consumers (B2C) (e.g., Amazon), between businesses (B2B) (e.g., IBM [89]), or between consumers (C2C), also known as peer-to-peer (P2P) [167]. Some companies adopt more than one business model. Facebook Marketplace and eBay serve as examples, facilitating both B2C and P2P transactions [81, 90]. In our study, we focused on Facebook Marketplace facilitating P2P trading.

2.3 Facebook Marketplace

Facebook Marketplace (FM) is a P2P platform that allows users to purchase and sell new and used goods locally. FM primarily facilitates P2P transactions but also accommodates companies for listing items and advertisements. Sellers can list items by adding photos, descriptions, conditions, and prices. Communication and negotiation between buyers and sellers can occur through Messenger [69], Facebook’s (FB’s) instant messaging app. Users can arrange local pickups or deliveries and report issues through the platform [39]. Payment and shipping details are handled directly between buyers and sellers, with Facebook maintaining a hands-off approach [69]. To illustrate FM’s features, in Figure 1 we show key screenshots from a mobile version of the FM user interface (as of summer 2022).

Intricately linked with FB, FM introduces a unique dynamic to information sharing. Traders can access a wide array of highly personal details about other traders through their FM profiles (which are essentially extensions of their FB profiles and link the latter), such as marital status, interests, activities, posts, and current city [40]. This wealth of personal information accessible to other traders has the potential to foster deeper interpersonal connections and aid in identity verification [65]. At the same time, it raises pertinent safety and privacy concerns [65, 109, 114].

2.4 What Makes FM Special

Several peer-to-peer (P2P) marketplaces exist, facilitating the trading of secondhand items, providing accommodation, or offering rideshares. In Table 1, we list representative examples and summarize a comparison of their relevant characteristics. This comparison focuses on factors relevant to TPS, as discussed in prior research [21, 22, 35, 67, 85, 86, 109, 120].

2.4.1 Access and Moderation. Except for an ad hoc solution provided by FB buy-sell groups [120], FM and other marketplace platforms allow almost anyone (subject to a minimum age) to sign up for their services, also known as open access. This choice of moderation is unsurprising, given that platforms provide services to hundreds of millions of users. To operate on such scales, all of them lack human moderators, relying solely on automated moderation. The notable exception is Vantage, which organizes users into communities (based on geographical location) moderated by administrators.

2.4.2 Pseudonymity and Privacy. For the purpose of this paper, we use the terminology of Pfitzmann and Hansen [135], which, in simple terms, defines anonymity as a combination of pseudonymity and unlinkability. Since unlinkability is generally hard to achieve, we discuss only pseudonymity of platform users.

Like most platforms (except for craigslist), FM lacks pseudonymity with the platform, requiring users to provide their real names and other personal information during sign up. Users lack pseudonymity with other users as well, given that FM is based on a social networking site (SNS) and users’ profiles are extensions of their FB ones. FM traders also commonly meet in-person to complete their transactions, exacerbating the lack of pseudonymity even further. Even though craigslist users have pseudonymity with the platform, they have only partial pseudonymity with other users, because they eventually meet to exchange the traded item (and possibly payment).

While hypothetically a user can disregard platform requirements and falsify personal information when signing up, doing so in the case of FM and Nextdoor [9] becomes much trickier because they are based on SNSs. FM users are motivated to provide correct information in their FB profiles if they use them for maintaining social connections. Nextdoor positions itself as a “social networking app for neighborhoods,” [138] which also provides an extrinsic motivation to be truthful with profile information.

eBay is an exception on all three counts. Lacking an SNS base, eBay ensures that personal information is not shared on the platform [54, 57]. eBay users also typically create pseudonyms or IDs, which helps maintain their privacy and creates a sense of safety and trust [26, 111, 142, 143]. Further, eBay does not share physical addresses or full names provided during registration [54, 57]. Last but not least, in-person exchanges of traded items are common on local trading platforms like craigslist and FM, whereas mailing the traded item is the prevalent² practice on eBay [5]. This practice relieves eBay users from the concerns of privacy and physical safety that FM users face, as our results suggest.

2.4.3 Safety and Trust. Unlike eBay, Airbnb, and Uber, FM lacks effective dispute resolution. This increases financial risks for all traders but particularly buyers. Consider eBay as a case of effectively using dispute resolution to provide a sense of safety and trust in the trading transaction. The platform operates an online safety center where users can initiate various dispute resolution processes. Users can communicate to eBay that the issue has been resolved or if the buyer or seller does not respond within a certain time frame. In

²While eBay does allow local pickup, which would be considered as in-person, it is dwarfed by the practice of mailing traded items.

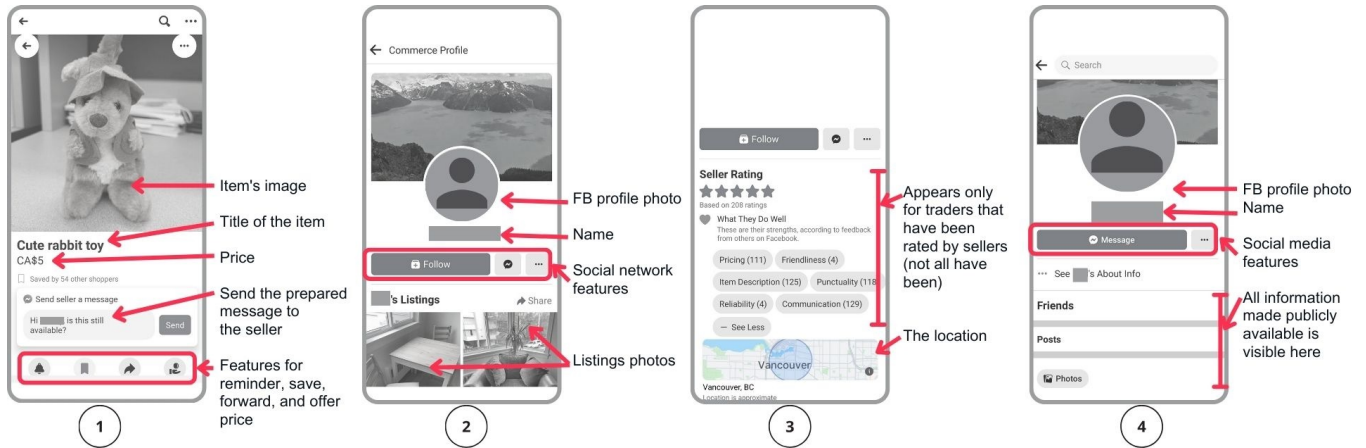


Figure 1: Mobile FM user interfaces for (1) an item listing; (2) its seller’s profile page, which FM documentation refers to as a *commerce profile*; (3) that seller’s rating information and example of location; and (4) that seller’s FB profile (accessible to all other traders)

| P2P Marketplace | Open Access | Automated Moderation | Pseudonymity with | | Based on SNS | In-Person | DR |
|--------------------|-------------|----------------------|-------------------|-------------|--------------|-----------|----|
| | | | Platform | Other Users | | | |
| FB buy-sell groups | ○ | ○ | ○ | ○ | ● | ● | ○ |
| FM and Nextdoor | ● | ● | ○ | ○ | ● | ● | ○ |
| eBay | ● | ● | ○ | ● | ○ | ○ | ● |
| VarageSale | ● | ○ | ○ | ○ | ○ | ● | ● |
| craigslist | ● | ● | ● | ◐ | ○ | ● | ○ |
| Airbnb | ● | ● | ○ | ○ | ○ | ● | ● |
| Uber | ● | ● | ○ | ○ | ○ | ● | ● |

Table 1: Distinguishing TPS characteristics of popular P2P marketplaces. DR is *Dispute Resolution*. §2.4 describes the columns.

some cases, eBay helps escalate the case to the police, SquareTrade, Citizen’s Advice Bureau, or Office of Fair Trading [53, 62].

To summarize, FM is the largest marketplace platform by number of active users. Based on FB, it inherits FB’s open access (unlike FB buy-sell groups) and (also unlike VarageSale) automated moderation. In contrast to craigslist, FM traders do not have pseudonymity toward the platform. Unlike eBay, FM lacks both pseudonymity toward the users and (also unlike Airbnb and Uber) dispute resolution. Another critical distinction from eBay is that FM traders typically conclude transactions with in-person meetings.

3 RELATED WORK

Several factors and platform features play a role in users’ purchasing decisions: trust, financial risks, return policy, cashback guarantees, after-sale policies, platform reputation, and perceived

quality of products [46, 96, 101, 118, 133, 170]. Trust in particular has garnered significant attention from researchers. It empowers customers to overcome uncertainties, accept risks, and participate in risky actions, such as disclosing personal information or completing purchases [79]. Previous work has investigated strategies for trust establishment [34, 65, 111, 116, 119, 142], the factors contributing to building trust [62, 95, 96, 166], and the role of trust in decision-making in the context of P2P transactions [82, 118, 170].

Trust building is shaped by many factors [87]. A major one is personal information disclosed in user profiles [136, 154]. This information, such as names, images [59, 60, 65, 97, 151], and profile views [112], significantly contributes to signaling users’ trustworthiness to others. For example, Ert and Fleischer [63] revealed that the perceived trustworthiness of Airbnb hosts is directly associated with facial traits in profile pictures, including age, gender, and smile. Specifically, photos depicting women or older individuals increase the perceived trust among renters [63, 98]. Additionally, the

number of people in a user's profile photo also impacts perceived trustworthiness, with couples perceived as more trustworthy than individuals [63]. Bossauer et al. [30] also discovered an apparent privacy-trust tradeoff in P2P car-sharing services, with users aiming to get a car while maintaining privacy by disclosing minimal information.

Another influential factor in trust building is user ratings and reviews [26, 33, 38, 65, 104, 111, 137, 142, 143, 147]. Typically, P2P platforms employ a conventional 5-star rating, often accompanied by a user review [7, 41]. For instance, eBay offers a comprehensive rating and feedback system [20, 146]. Prospective buyers on eBay can see the reviews and ratings of a seller, and the number of items sold. Sellers are also given reputation scores based on the reviews and ratings they receive [58]. The rating and feedback system were found to help build eBay users' trust [142, 143].

Safety considerations are crucial within the realm of e-commerce. Our working definition of safety encompasses financial as well as physical and emotional safety (see §2.1). Regarding digital safety, previous studies have primarily focused on secure transactions [29, 73, 78, 140, 158]. However, concerning physical and emotional harm, more attention has been given by the media and online articles [48, 99] than by researchers [84, 155]. For instance, Li and Wang [108] studied users of a rental platform and discovered that perceived personal safety considerations and perceived property safety considerations impact rental providers' trust in the platform.

Our study differs from previous work in four aspects. First, as detailed in §2.4, FM distinguishes itself from other platforms, particularly due to its integration with Facebook. Consequently, we investigated whether FM users exhibit unique or contrasting considerations regarding TPS compared to other platforms. Second, building upon extensive previous research that focuses on trust and privacy in e-commerce, we conducted a deeper exploration into the factors associated with users' considerations of trust and privacy. Specifically, we investigated factors that could either facilitate the establishment of trust, inhibit its development, or even play dual roles in both facilitating and inhibiting trust among different users. Third, we explored safety, a relatively understudied dimension of P2P marketplaces, despite its significance. Our study delved deeper into the role of safety in FM users' trading decisions. Last, we explored the interplay among trust, privacy, and safety factors.

4 METHOD

We chose to cluster TPS together in our study, while also acknowledging the benefits and limitations of this combined approach. Owing to their pivotal roles as primary impediments for e-commerce users, these dimensions have been extensively clustered in analysis in previous studies [37, 42, 49, 67, 75, 148]. We followed in the footsteps of previous researchers and analyzed TPS factors together to better understand their interconnectedness and mutual influences [122, 134]. While consolidating TPS within a single framework offers the advantage of addressing interconnected concerns, it may inadvertently overlook the nuanced distinctions that characterize each aspect.

To address our research inquiries, we employed a qualitative methodology to understand users. The main research questions were: Which factors are associated with the TPS-related decision to

trade on FM? And how? To answer these questions, we conducted 42 semi-structured interviews via Zoom, allowing participants to freely express their thoughts and provide information without being restricted by a structured interview format [43]. The UBC Behavioural Research Ethics Board approved the research before any data was collected (application H22-00086).

4.1 Data Collection

We tested study instruments and materials before collecting data. We conducted initial pilot tests with three participants to evaluate the interview procedure and questions. Data from these pilot tests were not included in the analysis but were solely used to refine the interview questions based on received feedback. Following this, we tested the screening questionnaire before distributing it through various advertising channels.

Participants were selected based on specific inclusion and exclusion criteria. We recruited participants using various channels and methods, including Facebook paid ads, our organization's paid participant study list, as well as a snowballing approach. We employed a prescreening questionnaire (Appendix A.5) to identify a diverse and suitable sample of participants. To qualify for participation, individuals had to meet certain criteria, including being at least 19 years old, residing in either the United States or Canada, and having prior trading experience on FM.

We received 941 responses to the prescreening questionnaire. Interview participants were selected from this pool, taking into account the diversity of the sample and participants' potential experience with FM. To increase diversity, we invited participants with varying experiences in using P2P marketplaces for goods (e.g., the frequency of FM use, pleasant and unpleasant experiences, and roles as buyers or sellers), diverse demographic characteristics (e.g., race, gender, age, education, and occupation), and varied life situations (e.g., location, city size, and years in the country) and socioeconomic backgrounds (e.g., income levels, ranging from marginalized to privileged groups). This diversity was essential for mitigating potential biases. Participants who completed the interviews were compensated with CAD\$20 through an e-transfer or Amazon gift card.

4.2 Interview Procedure

Each interview session revolved around participants' FM experiences. After obtaining informed consent, we conducted interviews on Zoom, each lasting about one hour. We started by inquiring about their motivations for using FM, comparing it to other similar platforms in terms of advantages and disadvantages. Subsequently, participants were prompted to share their specific encounters as buyers and sellers on FM, highlighting their most pleasant and unpleasant experiences and explaining the factors contributing to the nature of these experiences. Additionally, we explored their interactions with FM features, use of payment methods, arrangements for in-person meetups, and post-trade interactions. All interviews were audio recorded and transcribed to facilitate subsequent data analysis. Interviews were conducted between February and July of 2022.

Participants brought the topics of TPS up during the interviews without being primed. To avoid biasing their responses, we refrained from posing direct questions related to TPS. Instead, we framed the study's purpose as an exploration of their overall experiences with FM. If a participant independently raised TPS-related issues, we delved deeper into these subjects, which all participants did. We followed up on their mentions of TPS by asking probing questions to explain the reasons behind their concerns and to identify the specific factors influencing their TPS-related decisions.

4.3 Data Analysis

To analyze the data, we employed thematic analysis, as detailed in the works of Nowell et al. [129] and Vaismoradi et al. [159]. Following each interview, we transcribed and iteratively analyzed the collected data, employing the data analysis steps as prescribed by Guest et al. [74]. A codebook was developed to facilitate data analysis. The data was subsequently analyzed by three researchers to extract emerging themes. An agreement rate exceeding 85% [113] was achieved, demonstrating good inter-coder reliability [126]. After that, three other researchers participated in building an affinity diagram and had several discussions to ensure consensus. Data analysis was conducted concurrently with data collection and reached theoretical saturation after 42 interviews, with no new codes emerging in the final 3 interviews (see Figure 3 in Appendix A.2).

4.4 Limitations

This study has several limitations that should be taken into account when interpreting its results. We recruited participants from the US and Canada only, limiting the findings to the FM users of these countries. It is unclear whether and how our results and conclusions apply to other regions of the world.

Our recruitment methods, while typical for interview studies, are subject to selection bias [44]. As a result, our participants might differ systematically from the target population. For example, they might be less averse to privacy risks or more averse to safety ones, introducing a systemic error in our findings.

In some of the interviews, participants explicitly explained why they had specific concerns, such as prior experience or media news. But for some concerns, our participants had no rational explanations. Due to the limitations of our method, we did not determine which of the concerns were grounded in rationale or experience and which were not.

As with any qualitative research, it is possible that our findings may have been influenced by systematic biases [50]. To reduce researcher bias, multiple researchers analyzed the data and reached a consensus on their interpretations [127, 132].

FM and other marketplace platforms keep evolving, with changes introduced frequently. As with any study of a marketplace platform, our data collection (performed in 2022) and subsequent analysis serve as a snapshot specific to the state of the FM platform, its characteristics, and its mechanisms at that time. It does not reflect the changes introduced to FM since then.

5 RESULTS

We conducted semi-structured interviews with a diverse spectrum of 42 FM users. Participant demographics ranged in eight categories:

age (from 19 to 75 years; median and mean were 32), gender (22 women, 19 men, and 1 non-self-identified), ethnicity (Asian, Black, Hispanic, Indigenous, and White), location (from towns such as Churchill to megacities such as New York), occupation (e.g., student, teacher, artist, retired, nurse), education (high school, bachelor, master's, college, and doctorate), income (from CAD\$0 to \$100K per year), and FM usage (from one or two times per year to every day). Detailed demographics of the participants are provided in Table 2.

We identified a total of 78 TPS-related factors (Table 3) that play a role in traders' decisions about whether to engage in a trade. We grouped them into 11 subcategories and then determined 4 major categories: pre-existing concerns, signals, interactions, and perceived benefits, as depicted in Figure 2.

The findings suggest that trading on FM involves a wide array of factors, making it a complex and intricate process for users. First, the factors influencing TPS stem from interactions both with the platform and with strangers. To enhance clarity, we have explicitly indicated whether a subcategory or factor pertains to the platform or to trading with strangers. Second, our findings reveal a strong interconnectedness across all three factors (trust, privacy, and safety), underscoring the intricacies of this process. This is why, in line with prior studies [37, 42, 49, 67, 75, 148], we discuss these factors together. Third, each trade involves both a seller and a buyer. In certain instances, factors influencing decision-making differ between the two roles. In such cases, we have clarified whether a factor relates to the buyer or seller. To ensure clarity, we have added *Seller* or *Buyer* to the participant identifiers in the provided quotes, when a quote is in the context of a specific role.

5.1 Pre-existing Concerns

In this context, *pre-existing* refers to concerns encompassing FM trading in general rather than tied to specific transactions. Both buyers and sellers expressed concerns about risks with both online and offline FM trading. These concerns primarily emanated from five sources: information received from friends or family regarding P2P marketplaces for goods; media coverage of and reports on these platforms; social and cultural beliefs; previous unpleasant personal experiences with P2P marketplaces; and prior unfavorable encounters, encompassing general Facebook usage and specific experiences with FM.

5.1.1 Trading with Strangers. Many participants expressed concerns for their safety and well-being when trading with strangers on FM. This aligns with the findings of Evans et al. [68] in FB buy-sell groups, indicating a shared apprehension about safety on FM. However, a notable distinction in our findings is the heightened concern due to the absence of human moderation and oversight in FM transactions. Participants voiced fears of potential harm, such as physical harm, abduction, sexual abuse, physical harassment, or emotional violence. Female participants were particularly concerned with encountering predatory or aggressive behavior during in-person meetings with other traders. Additionally, participants were worried about financial losses, reputation damage, or inadvertently facilitating crime. These concerns led the six participants who experienced scams to exercise caution when trading with strangers.

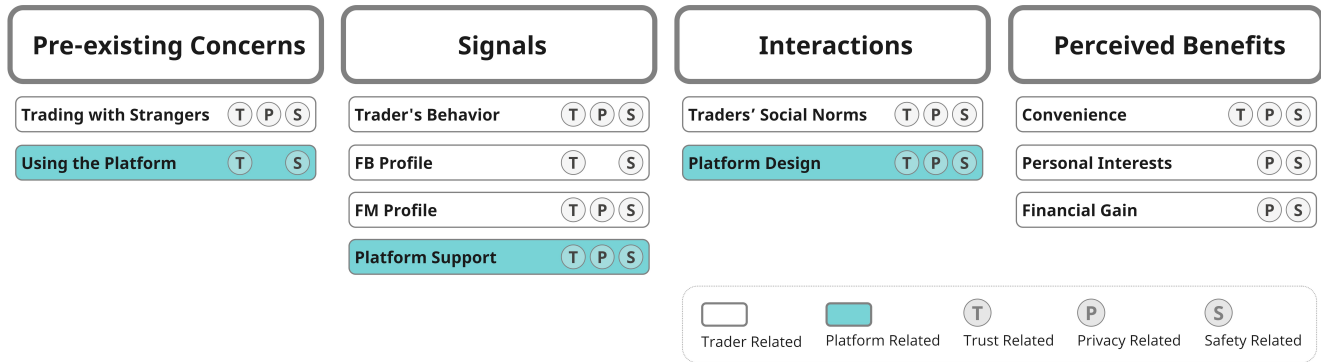


Figure 2: Primary categories and subcategories of TPS-related factors involved in FM users' decisions whether to engage in a trade. Color indicators highlight platform-specific subcategories. Letter indicators show which TPS dimensions are present in each subcategory. The complete framework is provided in Table 3.

Simultaneously, participants expressed concerns regarding the misuse of FM's blocking and reporting features. They feared that individuals with malicious intent might exploit these features to cut off after-trade communications. For instance, P29-Buyer shared an experience where a seller blocked her after a problem arose with a purchased TV: "We got a TV. We were trying to make sure that it was working. ... [P29 asked the seller to connect it to the Internet, but the seller] said: 'No! We do not have Internet at home.' ... Then we got it home and realized that ... the TV Internet was not getting connected. And the remote was not working ... [When P29 sent a message to the seller] the seller blocked us ..."

A participant's hesitance to rate a seller on FM also revealed the challenge of balancing honest ratings with user anonymity to protect their privacy and safety. Participant P24 expressed concerns about rating traders on FM, specifically regarding the anonymity of reviews. P24 worried about potential retaliation if they gave a negative review and the reviewed person identified them. The participant highlighted the importance of anonymity to prevent real-world confrontations. The participant's responses also emphasized the need to meet in public locations to mitigate the risk of being tracked down because of their negative rating. The fear of unpleasant repercussions and the challenge of maintaining anonymity contributed to P24's cautious approach to providing reviews on the platform, reflecting broader concerns about TPS in online interactions.

5.1.2 Using the Platform. Participants' trust and privacy concerns were heightened by their awareness of prior FB data breaches and scandals (e.g., [32]). Consequently, they took various actions, such as switching to alternative platforms, adjusting their privacy settings, and refraining from sharing personal information on all apps that belong to FB's parent company, Meta (like WhatsApp). For instance, P17 said: "FB [is not] a company that, honestly, I have a lot of trust in ... I use [WhatsApp] but I just do not have a photo on my WhatsApp [profile] either. Because [FM] is owned by the same company, I like to keep my information a little bit more hidden away from Mark Zuckerberg."

Participants expressed concerns about the consolidation of diverse personal information within a single platform through various applications. Participants expressed privacy and safety concerns regarding the extensive personal data collection conducted by FB across its various services. Given FM's tight entanglement with FB and the platform's expansion into services like dating and marketplaces, participants expressed apprehension about the potential accumulation of their information on FM. P21 said: "... the more information [FM] has, the better [the] profile. They can sell these very accurate profiles ... [and FM] can ... negotiate a higher rate for information."

Participants expressed privacy concerns about FM's level of information sharing and available features. FB was originally designed for connecting with friends, sharing interests, and accessing news [51]. Participants who held this view expressed a concern that the level of information exchange on FM exceeded what was necessary for trading. In addition, certain social networking features accessible to FM traders (like friend requests) were seen as unnecessary. Furthermore, the availability of trader information, even long after the trade was complete, fostered the perception that traders were indefinitely responsible for sold items, including providing technical support or addressing defects.

5.2 Signals

In this study, we identified two distinct types of signals that participants closely observed during their trading experiences: reassuring signals and warning signals. *Reassuring signals* enhance the perception of TPS while alleviating concerns regarding potential risks in the trade. *Warning signals* diminish the sense of TPS, sometimes leading to avoiding a trade. To illustrate the dual nature of these two types of signals, we present them collectively within the text and framework and make comparisons between them.

5.2.1 Trader's Behavior. Participants closely monitored various TPS-related signals regarding trader behavior within their pretransaction conversations on FB Messenger. These signals were warning and/or reassuring for both buyers and sellers, unless otherwise noted. Reassuring signals involved features like prompt and polite

responses and relevant inquiries, such as technical questions about the item. Conversely, warning signals included perceived impoliteness, flirtatious or patronizing language (e.g., “baby”), excessive grammatical errors suggesting a foreign scammer, and irrelevant inquiries, such as questions about marital status. Warning signals perceived only by sellers included persistent requests for their address, emotional manipulation through lengthy sad stories, and questions indicating a lack of attention to the original listing. Warning signals perceived only by buyers were responses from the sellers at unusual times (e.g., in the middle of the night, suggesting the seller could be a foreign scammer), providing item details inconsistent with the listing photos, delayed responses, a lack of interest in negotiation regarding meeting location, or being pushy in other respects.

The disclosure of personal information carried mixed signals for participants, as a reassurance for some and as a warning for others. Some participants viewed sharing phone numbers as a trust-building measure, signifying the seriousness of the other party and allowing for online verification of the number. However, requests for personal information like home addresses, email addresses, or phone numbers also raised concerns among some participants due to safety and privacy risks. These individuals feared potential harassment or misuse of this information, such as unwanted follow-up contact or inappropriate messages long after the transaction had concluded.

The type of location for completing the transaction significantly impacted participants' perceptions of safety and privacy. Consistent with prior research [68], our findings confirmed that opting to meet in a public location was seen as a protective measure, fostering a sense of safety and privacy for both buyers and sellers. Participants believed the presence of bystanders in public settings would deter criminal acts on both sides. Conversely, the rejection of proposals to meet in a public place or an insistence to meet at the seller's home without a good reason (e.g., the item being large or heavy) were warning signals. Our findings are distinguished by the discovery that some participants regarded meeting in a public place as a potential danger, suspecting an increased risk either of robbery as a seller or of stolen goods as a buyer. To illustrate, P04-Buyer said: “... [as a buyer] I do not know if the goods are stolen. ... [unless] I can [know] where they are living or they are coming from.”

At times, a combination of warning signals regarding trader behavior can raise alarms. When participants encountered an unusually high or low price for items (as a buyer) or observed a willingness of the buyer to pay a higher-than-listed price (as a seller), especially when combined with other warning signals, it significantly heightened concerns among participants regarding trust and safety. As an example, P25-Seller explained her experience of being close to falling for a scam: “When it sound[ed] too good to be true, I googled it, because someone's paying \$400 for something that's \$200. ... like, an alarm bell [went] off ... like, one, he said he wants to pay on PayPal³ ... I googled the username of the person. I was really shocked because a lot of [other people] were falling for it [exactly the same person and suggestion].”

5.2.2 FB Profile. The completeness and authenticity of traders' profiles were deemed critical TPS factors in decision-making. FM

encourages users to examine FB profiles to establish trust and enhance safety [6]. FB users have been shown to depend heavily on profile pictures when assessing the personal information of other users [91]. Our findings show how this way of building trust helped our participants in decision-making.

The presence of an authentic FB profile (e.g., a name that sounds real, FB posts with likes and/or comments) and shared characteristics with the other trader provided reassuring TPS signals to participants. Conversely, FB profile warning signals encompassed incomplete information (e.g., a lack of friends or FB posts), signs suggesting the trader tends to be aggressive or even violent (e.g., profile pictures or posts that feature guns or approve violence, imply sexual violence, have radical political views, show them committing illegal acts), and/or signs of misogyny (e.g., posts and/or likes for material hating women or prejudiced against them).

The age of a profile played a crucial role in decision-making, especially for buyers. Participants believed it would be challenging for profile owners to manipulate this information. Therefore, relatively long-standing profiles were considered very trustworthy. Conversely, participants worried that newly created profiles may belong to scammers who were previously banned from FB and had to open new accounts.

The presence of a trustworthy profile photo also significantly boosted the perception of trust for both buyers and sellers. Profile photos featuring a human face or including family members, such as children or pets, were considered trustworthy indicators. P26 said: “A younger guy with a picture of a spouse and kids, I am, like, ‘Well, it is a family person. So hopefully they would be okay.’ ... [He is] less likely to be violent or be a criminal.” However, this trust was undermined when the profile photos were either missing, devoid of a human face, or images of animals, nature, or celebrities. Such pictures triggered suspicion among participants, who believed that traders with such profile pictures were trying to obscure their identity, possibly to perform fraud and avoid accountability. Remarkably, participants who hesitated to share their own photos due to privacy concerns on the FB platform still scrutinized the profile photos of other traders closely when making decisions. Their reluctance stemmed from previous breaches, a lack of trust, and apprehensions about sharing personal information with strangers. P17-Buyer/Seller noted: “I'm always looking for [a] profile photo. Sometimes, if it's a bigger purchase ... I'll look into their account and see ... quick look... [to] get an idea ... if they have many posts or what kind of post ... just to make sure that they're a real person.”

A mismatch between the trader and the traded item raised concerns related to trust and safety too. Specifically, an apparent conflict between the trader's age or gender and the item for sale diminished trust and heightened perceived safety risks. P24-Seller explained: “Let's say it is a product for a man, but I see a 14-year-old girl trying to buy. I think that is very suspicious ... it does not match right.”

5.2.3 FM Profile. The presence of a verified badge from the platform was associated with increased trust, unlike the rating feature, which received varied responses from participants. The verified badge served as a significant reassuring signal for building trust, as it provided additional support from the platform itself, extending beyond traders. However, the rating feature elicited three distinct

³PayPal provides purchase protection for buyers [11].

responses among participants. Some participants were unaware of its existence. Others believed in ratings's limited relevance for nonprofessional sellers within a P2P marketplace based on a social networking site, like FM. They instead considered these ratings as others' experiences, noted the absence of explanatory information about the keywords used in the rating system, and expressed concerns about potential manipulation. And yet other participants still found value in considering ratings. They believed that some ratings were not manipulated, a cautious interpretation of ratings could help, and ratings represented the seller's investment even if manipulated. P33 said: *"Because at least they spend money to manipulate ... they actually put effort and if I give them a bad rating and other people see that, it's going to measure their reputation and the investment ... they're [not] gonna risk a future transaction for that kind of ratings and investment they already did."*

The presentation of listings, types of items, and the number of listings from a seller also served as TPS-related signals. Some participants found sellers with a large number of items for sale on their FM profiles to be reassuring, perceiving them as more experienced and devoid of negative feedback. However, others viewed an abundance of listings, especially for unusual or uniform items, with suspicion, fearing potential theft. For instance, P21-Buyer explained why she avoids buying from such sellers: *"In [my city], there is a lot of thieves, so if you get somebody who consistently sells electronics or bikes or things like that ... you are going to [be contributing to] proceeds of crime."* Additionally, several participants mentioned deleting their listings post-sale due to privacy concerns. Regarding photos for listings, authentic images of items (not copied from the Internet) and clear, high-quality photos taken from various angles were reassuring signals that aided participants in making informed decisions to mitigate financial risks.

5.2.4 Platform Support. While some features were designed to support users in TPS aspects, they presented challenges and were not entirely effective at addressing TPS issues. Privacy settings and features for blocking a user, reporting a user, and hiding from friends (concealing their trading activities from FB contacts) all enhanced participants' sense of privacy and safety. Blocking, in particular, gave participants confidence that they could stop interactions and restrict other traders' access in case of any issues. However, as previously discussed, this feature could be misused as well. Additionally, the hiding-from-friends feature, aimed at safeguarding participants' privacy by concealing their trading activities from FB contacts, was not consistently visible or used by all participants, often due to limited visibility or lapses in its presentation. Moreover, the introduction of machine-learning suggestions [171] by FM raised concerns among participants about potential privacy infringements through the platform. Lastly, inadequate problem resolution procedures and unclear notifications and warnings affected participants' trust in the platform.

Due to FB's inadequate support in combating scammers, participants believed they could not trust FM. They perceived FB as unhelpful in banning scammers and preventing similar scams from affecting other users. P05 said: *"Maximum I can do is [to] report a person on FB ... maximum will happen is just that person will get blocked or lose access to FB ... I guess that is the maximum punishment [they] would get. But then they can open another profile."* Concerns

were raised about scammers easily reopening new accounts [68] and continuing their fraud, potentially eroding trust within the platform.

5.3 Interactions

5.3.1 Traders' Social Norms. Social norms played a significant role in diminishing the prominence of TPS considerations. Social norms are "shared standards of acceptable behavior by groups" [16] and tend to be informal understandings that govern the behavior of members of society [16]. They influenced our participants' perceptions of other traders' trustworthiness, as well as their preferences for meetups and payment methods. Despite the awareness of potential risks, participants accorded higher priority to social norms over TPS concerns in the following situations.

Common societal beliefs played a pivotal role in shaping participants' assessments of others' trustworthiness. As discussed in §5.2.2, participants evaluated specific elements within users' profile photos, such as the presence of family members, to gauge the honesty and trustworthiness of other traders. These assessments were grounded in prevalent societal stereotypes [168]. Nevertheless, it became clear that overwhelmingly relying on such stereotypes could be misleading, as exemplified by a situation involving P29-Buyer. This participant encountered a scam when the seller's profile featured family members, leading the buyer to place trust in the perceived trustworthiness of the seller. Another illustrative case is that of P28-Seller, who intentionally removed her profile photo to avoid potential preconceived judgments related to African Americans. She said: *"... the first time [I was selling], I did not really want to have my picture up. Because I feel sometimes people think, as an African American person they stereotype me as somebody that will rob them or steal from them. I feel somebody is less likely to buy something from me because they would not trust me."*

Meeting up in private places was considered a common practice among participants residing in towns or small cities. Due to their familiarity with fellow community members, residents of close-knit, small communities often disregarded the safety measures recommended by FM [14] or the police [10] for in-person meetups. For instance, P18-Buyer used to live in a bigger city and then moved to a town. She compared her safety strategies when living in these two places and said: *"[In this town] I just go to the [trader's] house, but certainly ... [in a large city], it was often you would meet outside ... There are less than 800 people [here]. You are not going to [go missing]."*

Another prevalent community norm involves unwritten expectations that can potentially compromise safety during trading. Despite their awareness of the potential risks of paying in advance or using large amounts of cash, participants in smaller communities or cities often felt compelled to conform to prevailing norms. Such norms may, for example, dictate exclusive use of cash even for expensive items, or paying for the traded item in advance. This perspective was shared by participants residing in cities of varying sizes, from 800 to 100,000 residents. For example, when P19-Buyer lived in a rural area, she claimed that cash was the norm even when selling a CAD\$700 truck.

5.3.2 Platform Design. Despite participants' concerns about trust and privacy on FM, various factors related to usability, cooperation

support, coordination tools, and popularity act as strong motivators for its usage. This observation aligns with prior research, which suggests that these factors serve as effective motivators for purchasing on S-commerce platforms [70, 103]. Specifically, a streamlined listing process, rapid communication via Messenger, and user-friendly features were among the elements that encouraged our participants to use FM more frequently, even in comparison to other platforms with stronger support for trust and privacy.

Our findings corroborate those of Evans et al. [68], which highlight the low barriers to entry on FB groups, fostering increased user engagement. While the ease and speed of communication on FB have been discussed in previous research [68], our study underscores how these platform design features can diminish the importance of trust and privacy considerations. Despite some reservations regarding privacy and safety, participants expressed a preference for FM over other P2P marketplaces due to its effectiveness in reaching a broader audience and facilitating faster sales. Participants did have experience with platforms like craigslist, VarageSale, and Nextdoor, and they valued specific features of these platforms, such as anonymity on craigslist, better incident report support on VarageSale, and the ability to target specific geographic areas on Nextdoor. However, participants noted that FM's popularity, larger user base, and broader range of available items made it a more effective choice. For example, P24-Seller stated: *"I was moving in two days and ... I really needed to sell the couch so I put it on the Facebook Marketplace ... and within a minute, around 20 people contacted me."* Although some participants expressed concerns about privacy and safety issues on FM, they still found the platform to be the most effective means of reaching a wider audience and selling their items faster, as there were no similar platforms with such extensive outreach.

5.4 Perceived Benefits

Previous research reports that consumers' inclinations toward trust, concerns about privacy and security, their assessment of the website's information quality, and their perception of the company's reputation exert significant influence on the level of trust that consumers place in a website [102]. Additionally, research shows that consumers' perceptions of benefits influence their intention to make online purchases [19]. In this study, we expand upon these findings by delving deeper into the factors that reduce priority of not only trust but also privacy and safety in social networking site-based (SNS-based) P2P marketplaces like FM. Specifically, these factors include convenience, personal interests, and financial gain.

5.4.1 Convenience. The transportation of large items and the type of residence (e.g., apartment, house) were observed to impact sellers' decision-making concerning the disclosure of personal information. Specifically, when sellers dealing with sizable and heavy items could not arrange public meetings, they were compelled to share precise residential addresses, allowing unfamiliar individuals into their homes. While it was considered to be more convenient, such actions gave rise to safety and privacy apprehensions among participants facing this situation.

The prioritization of TPS was also influenced by time constraints and the convenience of payment methods. For example, P06, who typically examines sellers' profiles as part of their TPS strategy,

shared an experience: *"I remember when I was looking on FM for a new apartment. I needed to move out in a time-sensitive manner, so I was messaging everyone who had a listing that qualified for what I was looking for. In that circumstance, I do not remember looking through everyone's profile to see what they look like and all that stuff that I described before."* Likewise, participants sometimes considered payment methods based on their convenience and time-saving attributes. Cash payments, for instance, offered advantages such as eliminating delays, providing greater convenience, and evading taxes.

5.4.2 Personal Interests. A strong desire to purchase an item can diminish the priority of TPS. In some cases, participants had an urge to acquire specific items, leading them to disregard warning signals that they usually paid attention to. Rather than emphasizing the price of these items, participants were drawn to them because of their quality, brand, and aesthetic appeal. For example, P03-Buyer said: *"I really wanted a bike and then I saw this person ... she had the photo of some famous Bollywood actress, so I went to check ... she sells a lot of stuff; it seems she is running a business. If somebody is running a selling business on FB, then I have reservations about that because I feel like I can not trust their price."* She explained why she then decided to buy the bicycle: *"I liked the bike! ... I went with my partner. I did not go alone."* Participants mentioned other factors that motivated them to engage in transactions: socializing with others (noted by older participants), engaging in environmentally friendly acts to buy fewer brand-new items, and participating in altruistic endeavors (such as offering their belongings for free to newcomers in the city).

5.4.3 Financial Gain. Determination to buy or sell an item can also diminish the priority of TPS. A strong desire to sell may arise from various motivations, including the need to declutter, create more living space, relocate, generate income, or accomplish shopping tasks swiftly. Similarly, a strong desire to purchase may be driven by the intention to save money or seize opportunities to acquire special items, particularly since P2P online shopping is known for its potential to offer rare products [68] and good pricing. The allure of acquiring unique items and securing bargain prices further influenced decision-making, leading to a reduced emphasis on TPS considerations. Please refer to the example with P03-Buyer in the previous paragraph, who disregarded two red flags to proceed with the purchase of a bicycle.

6 DISCUSSION

We begin this section by discussing our results and providing design recommendations.

6.1 General Discussion

To the best of our knowledge, we are the first to study FM, a P2P platform that differs distinctly from extensively studied platforms (§2.4). As a result, our study contributes several novel findings. First, our findings spotlight participants' concerns in two areas, both attributable to FM's linkage with FB: the privacy and safety of their personal data, and connections persisting with other traders after the trade. Second, unlike previous research that focused on one or two elements of TPS [34, 59, 60, 65, 97, 111, 116, 119, 142, 151],

our study examines all three dimensions. We explored both the collective and individual roles of TPS factors in FM users' trading decisions, investigating how they interrelate and mutually influence each other. Third, in contrast to previous studies we uncover more granular factors involved in TPS considerations. For instance, beyond heavily studied factors like name, photo, and profile views [59, 60, 65, 97, 112, 151], we identified several additional elements that impact users' privacy considerations, such as traders' behavior when requesting personal information like an email address (§5.2.1). Furthermore, our exploration reveals that certain elements have a dual effect: helping to build trust, ensure safety, and safeguard privacy for some users, while simultaneously presenting obstacles for others. In what follows, we discuss in detail our findings and their novelty.

6.1.1 Tension: Privacy vs. Trust. The entanglement of FM with FB increases the tension between privacy and trust. In line with previous studies [136, 154], we identified a tension between disclosing personal information and trust building. In addition to this prior finding, we explored the relationship between FM and FB as its underlying SNS within this trust-privacy dynamic. Specifically, most of a user's FB profile data can also be accessed through their FM profile (§5.2.2). This automatic disclosure heightens users' privacy concerns, further intensifying the tension between trust and privacy. This tension involves users' intent to safeguard their privacy by sharing minimal information while still upholding trustworthiness with others. Consequently, some FM users take steps to protect their privacy by removing certain information (e.g., real names) from their FB profiles. However, as a possibly unintended result, other traders then have less information on which to make their trust decision, which often leads to a reduction of trust for that trader (§5.2).

6.1.2 Tension: Using vs. Abusing FM Features. Some FM features and information on FM profiles have the potential for misuse, and we refer to them as *misuse-prone*. These features, including blocking, reporting, and rating, have helped users evaluate the trustworthiness of other platform users [26, 33, 38, 65, 104, 111, 137, 142, 143, 147]. However, in our study, some participants perceived these features as susceptible to misuse, leading to potential negative outcomes, such as falling for scams, emotional distress, reduced trust in the platform, and user frustration when dealing with TPS-related issues (§5.1.1). In this discussion, we focus on our findings about one of the most prominent misuse-prone features: profile information. Profile information, like profile pictures, can help assess trustworthiness but can also be manipulated to deceive others. Our participants frequently examined FB and FM profile information of other traders, including profile pictures, to assess their trustworthiness and the associated risks of trading with them (§5.2 and 5.3.1). This behavior aligns with previous studies, suggesting that a human face serves as a prominent source of social information [63, 168]. However, some participants perceived a potential in profile photos for manipulation to create unwarranted trust, diminishing the ability of profile information to build trust.

6.1.3 Tension: Warning vs. Reassuring Signals. Certain signals in TPS-related decision-making serve dual roles. A successful trade necessitates a mutual understanding of each side's intentions and

requests. We found that the same behavior or profile information of a trader can provide reassurance to some traders and trigger caution in others, due to varying interpretations (§5.2). We refer to these factors as *two-sided signals*. On FM, two-sided signals encompass actions, such as sharing phone numbers, proposing meetups in public locations, displaying a high number of listings, and specifying payment methods (§5.2.1). Such signals can generate tension between traders, resulting in one of three outcomes: (1) becoming suspicious of the other's trustworthiness, (2) perceiving a high likelihood of safety risks, or (3) refusing to engage in a trade with the other party (§5.2). To the best of our knowledge, no prior study has reported two-sided signals in P2P marketplaces.

6.1.4 Challenge: TPS Traded for Various Benefits. Perceived benefits can motivate engagement in trading but may diminish the importance of TPS. Various motivations (e.g., economic, convenience, and ideological factors) influence participation in online secondhand shopping [131, 160], positively impacting attitudes and intentions for repeat purchases [131]. Our study aligns with prior research on e-commerce [25, 28, 102, 107], confirming that the perceived benefits of a transaction often outweigh its TPS risks, leading people to engage in trading. We add to the literature by identifying additional trade-offs and, importantly, how they influence the priority of TPS factors. Our participants traded TPS for convenience (payment, transportation of the exchanged item, timing), personal interests, and financial gain (§5.4). Specifically, they sacrificed their physical safety, privacy, and method of determining the trustworthiness of the other trader. Previous studies have found that to enjoy the convenience offered by e-commerce platforms (e.g., online shopping), users often need to disclose their personal information [110]. The trade-off between convenience and privacy (§5.4.1) is one particular example that underscores the importance of providing platform support for more informed and flexible decisions when making TPS-related trade-offs.

6.1.5 Challenge: Entangling FM with FB. The design of SNS-based marketplace inherently reduces user privacy and safety. Our study reveals participants' concerns about both the privacy and safety of their personal data, and connections available to other traders post-trade. Similar to platforms such as eBay [55, 56] and craigslist [45], FM users can communicate with sellers or buyers after completing a transaction. However, being able to message the other trader on FM long after the transaction has concluded (§5.1.1) appears to violate the security principle of least privilege.⁴

6.2 Design Recommendations for SNS-Based P2P Marketplace Platforms

6.2.1 Enhance the Balance among TPS. To address the tension between trust and privacy, users need help in both managing the privacy of their personal information and simultaneously sharing it to foster trust. Unsurprisingly, resolving this tension does not appear to be a straightforward process [24, 30, 130]. One approach could be in narrowing the gulfs of evaluation and execution [128] around personal information sharing on both SNS and commerce

⁴"A person should be given only those privileges needed for them to complete their task." [8]

profiles of traders and during their pretransaction communications. Platforms should improve traders' mental models [36] to help them understand how their choices of sharing personal information (might) impact simultaneously their privacy (Who has access to which information about them?) and the trust of other traders (Sharing which information affects others' trust?). Platforms also need to guide traders in adjusting information sharing to achieve a better balance between personal privacy and the trust of other traders. In designing for privacy, one possible approach is to use concepts of information flow [92] and leakage [105] in conjunction with privacy regulation theory [23]. Investigating ways to support traders on SNS-based P2P marketplace platforms by improving privacy and trust balance could be a promising direction for future research. While our findings are insufficient for determining what enhanced balance among TPS might look like, we hypothesize that it varies not only across cultures but also across individuals. As such, developing a means for personalizing this balance appears to be a promising design approach. Another important aspect of balancing TPS pertains to the personal information shared automatically through some FM features.

More careful considerations of balancing TPS should guide the design of trade-related information sharing by platforms themselves. For instance, FM allows users to view who has rated them and how they've been rated by that person. This design choice follows other P2P marketplace platforms (e.g., eBay, Uber, and Airbnb) in an effort to police bad actors and minimize fraudulent behavior [152]. But it appears to backfire on FM users, where most trading is done locally, often with in-person exchanges of items and payments. While the fear of retaliation has been observed on other P2P marketplace platforms [152], our research reveals that providing raters' information also creates significant privacy and safety issues for users (§5.2.3). As a result, they tend to refrain from rating others, stemming from past unpleasant experiences involving threats from sellers. While FM's intention may be to demotivate fraudulent behavior and help traders manage trust among themselves, the platform appears to have overlooked the rating feature's impact on the privacy of users and, as a result, their physical and emotional safety. Resolving these tensions is a complex process. Designing features to help users build trust while addressing their privacy concerns needs a comprehensive examination of the potential consequences to determine how effectively the design can strike a balance among TPS.

To reconcile the management of trust with privacy considerations, enhancing trust-fostering features that require minimal disclosure of personal information can be a valuable design direction. For instance, our findings indicate that traders commonly use pre-transaction communications, primarily through FB Messenger, to assess trust for each other (§5.2.3). Future research should explore how SNS-based P2P marketplace platforms could be redesigned or new features introduced to improve support for trust easement. For example, a nudging system could promote warning or reassurance signals [18]. More generally, theories of knowledge-based trust (KBT) [52] and identification-based trust (IBT) [106] can guide design directions. The former can be used to establish trust for information sharing, while the latter can be applied in distributed systems where identity verification is crucial for securing data exchange.

6.2.2 Assist with Profile Data Verification. Implementing a profile verification process may help users manage trust better. Profile information is a crucial means for users to gauge the authenticity of an account and to manage trust for the corresponding trader (§5.2.2 and §5.2.3). One of the key challenges appears in confirming the accuracy of such information, leaving room for scammers to exploit fake data for the creation of deceptive profiles [139]. We recommend that platforms aid traders in verifying profile data. However, such verification needs to be properly evaluated for potential moral hazards (and their interplay with reputation mechanisms) [47], as research by Wang et al. [162] reports potential risks of user misbehavior when platforms openly disclose accounts' verified status. At the same time, in the context of concerns related to platforms themselves, if users distrust a platform's handling of personal information, they are reluctant to provide such information for verification (§5.1.2). Another key challenge with verification of profile data is privacy. In particular, pseudonymity (with the platform or other users) is a key ingredient of anonymity [135]. Verification of user identity (or just parts of the profile data) is a two-sided coin that might increase trust but decrease pseudonymity and ultimately privacy. As such, further research is needed to explore the consequences of verification on trust and privacy for SNS-based P2P marketplaces.

6.2.3 Tailor Design for Large User Bases. The design of SNS-based P2P marketplaces should be tailored to their size. When a marketplace is based on an SNS, its scale tends to be comparable to the SNS itself, necessitating scalable strategies for supporting TPS. For example, given FM's immense popularity with over one billion monthly users, providing individualized support or dispute resolution might present a significant challenge. As discussed in §5.2, the lack of transparency in FM's handling of conflicts in trading transactions raises concerns and dissatisfaction among users. Participants were often unaware of how FM investigates reported issues, in contrast to the practices of other P2P platforms. For instance, Lyft reviews drivers whose ratings fall below a certain threshold [66] and deactivates those with ratings below 4.6 [144]. Similarly, Airbnb assigns a trust score to every reservation, flagging those with scores below a specific level for further scrutiny [121]. In comparison, Nielsen's visibility of system status [125] for FM users appears poor.

Therefore, one design direction could be for feedback and explanations regarding users' complaint reports within a reasonable time frame [93], or even a dispute resolution system (e.g., similar to eBay's [53]). Another direction is the introduction of new features and/or promotion of existing ones that help users assess the trustworthiness of a trader without increasing privacy risks. For instance, information about the age of an FB profile aided FM users in determining whether it might belong to potential scammers (§5.2.2). Profile age is highly reliable as it cannot be manipulated by traders. To aid traders with trust management, the platform could promote such information on FM profiles.

6.2.4 Help Users Understand and Appreciate the Trade-offs. Users need to better understand the dynamics of trade-offs between TPS factors and have more control over their data, enabling them to decide whether and how they are willing to make these trade-offs (§6.1.4). Prior research recommends enhancing data transparency (e.g., clearly display privacy policies [158]) to address

users' privacy concerns, thereby facilitating the establishment of trust [30, 130, 141]. For example, users could receive clear insights into the advantages of disclosing specific types of information to fellow users, such as enhancing trust and facilitating trade, while also being informed about the potential privacy risks associated with such disclosures. Recognizing that individuals place different values on privacy and benefits [163] (see also §6.1.4), users should be supported in making informed choices about these trade-offs. To this end, understanding users' prioritization is essential, and future research should delve deeper into this aspect. While our study did not explore the prioritization of TPS factors extensively, it is crucial for future research to thoroughly examine it, drawing inspiration from cases like Airbnb, where a host's profile photo appears to hold more influence than their reputation [65]. Such research findings can provide valuable guidance for designers and developers seeking to make necessary adjustments.

ACKNOWLEDGMENTS

This research has been supported by a research grant from the Natural Sciences and Engineering Research Council of Canada (NSERC) and a gift from Scotiabank to the University of British Columbia. The authors would like to thank our anonymous reviewers for all the feedback and suggestions they provided to improve the paper. Stylistic and copy editing by Lynn Slobogian helped improve the readability of this paper.

7 CONCLUSION

Rapid growth in P2P marketplaces has raised concerns about trust, privacy, and safety. While prior research has explored these issues in various P2P platforms, SNS-based ones like Facebook Marketplace have received limited attention. We conducted interviews with 42 Facebook Marketplace users, identifying 78 factors affecting their trust, privacy, and safety considerations. We grouped those factors into categories of pre-existing concerns, signals, interactions, and perceived benefits. We uncover complexities resulting from these factors, propose design recommendations for SNS-based P2P markets, and suggest future research directions. Our study enhances understanding of decision-making in these types of marketplaces, which can improve platform design and the user experience by strengthening trust, privacy, and safety.

REFERENCES

- [1] [n. d.]. <https://www.thredup.com/resale>
- [2] [n. d.]. <https://www.varagesale.com>
- [3] [n. d.]. <https://www.craigslist.org/about/sites>
- [4] [n. d.]. <https://www.merriam-webster.com/dictionary/safety#:~:text=Synonyms%20of%20safety,-,1,prevent%20inadvertent%20or%20hazardous%20operation>
- [5] [n. d.]. <https://www.ebay.ca/help/buying/postage-delivery/changing-delivery-address-method/local-pickup?id=4056#:~:text=Many%20sellers%20offer%20free%20local,having%20to%20pay%20for%20shipping>
- [6] [n. d.]. Buy and sell responsibly on Facebook Marketplace Facebook Help Center. <https://www.facebook.com/help/1156544111079919>
- [7] [n. d.]. How the eBay Feedback system works. <https://www.ebay.com.au/sellercentre/feedback-seller-ratings>
- [8] [n. d.]. Least privilege. <https://www.cisa.gov/uscert/bsi/articles/knowledge/principles/least-privilege>
- [9] [n. d.]. Nextdoor. <https://nextdoor.com/>
- [10] [n. d.]. Online classifieds safety. <https://www.edmontonpolice.ca/CrimePrevention/PersonalFamilySafety/OnlineSafety/OnlineClassifiedsSafety>
- [11] [n. d.]. PayPal purchase protection for buyers – paypal US. <https://www.paypal.com/us/webapps/mpp/paypal-safety-and-security>
- [12] [n. d.]. POLICE URGE CAUTION AFTER PATTERN OF ROBBERY AND THEFT FROM ONLINE SALES. <https://tinyurl.com/y3kdc3uz>
- [13] [n. d.]. Police warning of about fraudulent posts on local Facebook Marketplace. <https://tinyurl.com/3yme5e9u>
- [14] [n. d.]. Shopping safety: Facebook help center. https://www.facebook.com/help/236079651241697?helpref=about_content
- [15] 2022. Key Facebook Marketplace Statistics 2022 [New Data]. <https://www.businessdit.com/facebook-marketplace-and-shops-statistics/#scam-on-facebook-marketplace>
- [16] 2022. Social norm. https://en.wikipedia.org/wiki/Social_norm
- [17] 2023. Facebook Marketplace Statistics. <https://capitaloneshopping.com/research/facebook-marketplace-statistics/>
- [18] Alessandro Acquisti, Idris Adjerid, Rebecca Balebako, Laura Brandimarte, Lorie Faith Cranor, Saranga Komanduri, Pedro Giovanni Leon, Norman Sadeh, Florian Schaub, Manya Sleeper, et al. 2017. Nudges for privacy and security: Understanding and assisting users' choices online. *ACM Computing Surveys (CSUR)* 50, 3 (2017), 1–41.
- [19] Arman HJ Ahmad, Rizal Ula Ananta Fauzi, Aliffianti Safiria Ayu Ditta, Izzan Idris, and Mohd Faizun Mohamad Yazid. 2020. The Role of Perceived Benefits and Perceived Risks Towards the Consumers' Purchase Intention Via ECommerce: An Evidence from Indonesia. *Solid State Technology* 63, 2s (2020), 3257–3274.
- [20] Abdullah Al-Qudah, Yazeed Al Moaiad, Rajina R Mohamed, Yousef A Baker El-Ebiary, Syarilla Iryani Ahmad Saany, Pushpanjali Pandey, et al. 2023. A Comparative Study Of The E-Commerce Platforms Of Amazon And Ebay. *Journal of Pharmaceutical Negative Results* 14 (2023).
- [21] Aisha Ahmed AlArfaj and Ellis Solaiman. 2019. Investigating commercial capabilities and trust in social media applications for entrepreneurs. In *Proceedings of the 9th International Conference on Communities & Technologies-Transforming Communities*. 65–75.
- [22] Aisha Ahmed AlArfaj and Ellis Solaiman. 2021. Consumer Needs and Design Practices for Trusted Social Commerce Platforms. In *IFIP Conference on Human-Computer Interaction*. Springer, 205–226.
- [23] Irwin Altman. 1975. *The environment and social behavior: privacy, personal space, territory, and crowding*. ERIC.
- [24] Giannakis Antoniou and Lynn Batten. 2011. E-commerce: protecting purchaser privacy to enforce trust. *Electronic commerce research* 11 (2011), 421–456.
- [25] Md Shah Azam, Md Morsalin, Md Rakibul Hafiz Khan Rakib, and Shah Alam Kabir Pramanik. 2021. Adoption of electronic commerce by individuals in Bangladesh. *Information Development* (2021), 02666669211052523.
- [26] Sulim Ba and Paul A Pavlou. 2002. Evidence of the effect of trust building technology in electronic markets: Price premiums and buyer behavior. *MIS quarterly* (2002), 243–268.
- [27] France Bélanger and Robert E Crossler. 2011. Privacy in the digital age: a review of information privacy research in information systems. *MIS quarterly* (2011), 1017–1041.
- [28] France Belanger, Janine S Hiller, and Wanda J Smith. 2002. Trustworthiness in electronic commerce: the role of privacy, security, and site attributes. *The journal of strategic Information Systems* 11, 3-4 (2002), 245–270.
- [29] Nishant Lalitkumar Bhatia, Vinod Kumar Shukla, Ritu Punhani, and Shish Kumar Dubey. 2021. Growing Aspects of Cyber Security in E-Commerce. In *2021 International Conference on Communication information and Computing Technology (ICCICT)*. IEEE, 1–6.
- [30] Paul Bossauer, Thomas Neifer, Gunnar Stevens, and Christina Pakusch. 2020. Trust versus privacy: Using connected car data in peer-to-peer carsharing. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–13.
- [31] Rachel Botsman and Roo Rogers. 2010. What's mine is yours. *The rise of collaborative consumption* (2010).
- [32] Emma Bowman. 2021. After data breach exposes 530 million, Facebook says it will not notify users. <https://tinyurl.com/z3x8wj2f>
- [33] Josh Boyd. 2002. In community we trust: Online security communication at eBay. *Journal of Computer-Mediated Communication* 7, 3 (2002), JCMC736.
- [34] Robin N Brewer and Vaishnav Kameswaran. 2019. Understanding trust, transportation, and accessibility through ridesharing. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. 1–11.
- [35] Sonia Camacho and Andrés Barrios. 2021. Social commerce affordances for female entrepreneurship: The case of facebook. *Electronic Markets* (2021), 1–23.
- [36] L Jean Camp. 2009. Mental models of privacy and security. *IEEE Technology and society magazine* 28, 3 (2009), 37–46.
- [37] Cong Cao, Miaomiao Zheng, and Linyao Ni. 2022. Improving Consumer Data Privacy Protection and Trust in the Context of the Digital Platform. In *International Conference on Human-Computer Interaction*. Springer, 16–29.
- [38] Cadelina Cassandra, Yuli Ani, Yuriska Marcela, Stevania Clarissa, et al. 2021. Analysis of Product Trust, Product Rating and Seller Trust in e-Commerce on Purchase Intention during the COVID-19 Pandemic. In *2021 International Conference on Information Management and Technology (ICIMTech)*, Vol. 1. IEEE,

- 522–525.
- [39] Facebook Help Center. 2023. *Get Help with Marketplace*. Retrieved Dec. 6, 2023 from <https://www.facebook.com/help/1127970530677256>
- [40] Facebook Marketplace Help Center. [n. d.]. View someone's Marketplace profile on Facebook Marketplace. <https://www.facebook.com/help/iphone-app/115419748941011>
- [41] Facebook Marketplace Help center. 2023. How ratings work on Facebook Marketplace. <https://www.facebook.com/help/915385548593204>
- [42] Sheshadri Chatterjee. 2015. Security and privacy issues in E-Commerce: A proposed guidelines to mitigate the risk. In *2015 IEEE International Advance Computing Conference (IACC)*. IEEE, 393–396.
- [43] Deborah Cohen and Benjamin Crabtree. 2006. *Qualitative research guidelines project*. www.qualres.org
- [44] David Collier and James Mahoney. 1996. Insights and pitfalls: Selection bias in qualitative research. *World politics* 49, 1 (1996), 56–91.
- [45] craigslist. 2023. Help, email reply. <https://www.craigslist.org/about/help/email-relay>
- [46] Muhammad Dachyar and Liska Banjarnahor. 2017. Factors influencing purchase intention towards consumer-to-consumer e-commerce. *Intangible Capital* 13, 5 (2017), 946–966.
- [47] Chrysanthos Dellarocas. 2005. Reputation mechanism design in online trading environments with pure moral hazard. *Information systems research* 16, 2 (2005), 209–230.
- [48] Vancouver Police Department. [n. d.]. VPD issues safety warning after Facebook Marketplace robberies. <https://vpd.ca/news/2022/09/27/vpd-issues-safety-warning-after-facebook-marketplace-robberies/>
- [49] Tawanna R Dillahunt and Amelia R Malone. 2015. The promise of the sharing economy among disadvantaged communities. In *Proceedings of the 33rd annual ACM conference on human factors in computing systems*. 2285–2294.
- [50] Diane Dodd-McCue and Alexander Tartaglia. 2010. Self-report response bias: Learning how to live with its diagnosis in chaplaincy research. *Chaplaincy Today* 26, 1 (2010), 2–8.
- [51] Nazan Dogruer, Ipek Menevi, and Ramadan Eyyam. 2011. What is the motivation for using Facebook? *Procedia-Social and Behavioral Sciences* 15 (2011), 2642–2646.
- [52] Xin Luna Dong, Evgeniy Gabrilovich, Kevin Murphy, Van Dang, Wilko Horn, Camillo Lugaresi, Shaohua Sun, and Wei Zhang. 2015. Knowledge-based trust: Estimating the trustworthiness of web sources. *arXiv preprint arXiv:1502.03519* (2015).
- [53] eBay. 2023. Dispute Resolution Overview. <https://www.pages.ebay.com/services/buyandsell/disputeres.html>
- [54] eBay Customer Service. 2023. Contact information sharing policy. <https://www.ebay.com/help/policies/member-behaviour-policies/publishing-contact-information-policy?id=4373#:~:text=eBay%20takes%20the%20privacy%20of,or%20displayed%20on%20our%20site>
- [55] eBay customer service. 2023. Contacting a buyer or bidder. <https://www.ebay.com.au/help/selling/resolving-buyer-issues/contacting-buyer-bidder?id=4083>
- [56] eBay customer service. 2023. Contacting a seller. <https://www.ebay.com.au/help/buying/resolving-issues-sellers/contacting-seller?id=4021#>
- [57] eBay Customer Service. 2023. Member-to-member contact policy. <https://www.ebay.com/help/policies/member-behavior-policies/membertomember-contact-policy?id=4262>
- [58] eBay Customer Service. 2023. Seller Ratings. <https://www.ebay.com/help/buying/resolving-issues-sellers/seller-ratings?id=4023#:~:text=A%20seller%27s%20feedback%20score%20is,brackets%20next%20to%20their%20username>
- [59] Benjamin Edelman, Michael Luca, and Dan Svirsky. 2017. Racial discrimination in the sharing economy: Evidence from a field experiment. *American economic journal: applied economics* 9, 2 (2017), 1–22.
- [60] Benjamin G Edelman and Michael Luca. 2014. Digital discrimination: The case of Airbnb. com. *Harvard Business School NOM Unit Working Paper* 14-054 (2014).
- [61] Jay Edwards. 2022. Roxbury Township police see an uptick in Facebook marketplace thefts. <https://tinyurl.com/bdfppc2>
- [62] Lilian Edwards and Ashley Theunissen. 2016. Creating Trust and Satisfaction Online: How Important Is ADR? The UK eBay Experience. In *21st BILETA Conference: Globalisation and Harmonisation in Technology Law, Malta*.
- [63] Eyal Ert and Aliza Fleischer. 2017. What in a photo makes you trust a person online? A structural equation modeling approach. *A Structural Equation Modeling Approach (August 31, 2017)* (2017).
- [64] Eyal Ert and Aliza Fleischer. 2019. The evolution of trust in Airbnb: A case of home rental. *Annals of Tourism Research* 75 (2019), 279–287.
- [65] Eyal Ert, Aliza Fleischer, and Nathan Magen. 2016. Trust and reputation in the sharing economy: The role of personal photos in Airbnb. *Tourism management* 55 (2016), 62–73.
- [66] Amitai Etzioni. 2019. Cyber trust. *Journal of Business Ethics* 156, 1 (2019), 1–13.
- [67] Hayley I Evans, Marisol Wong-Villacres, Daniel Castro, Eric Gilbert, Rosa I Arriaga, Michaelanne Dye, and Amy Bruckman. 2018. Facebook in Venezuela: understanding solidarity economies in low-trust environments. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. 1–12.
- [68] Hayley I. Evans, Marisol Wong-Villacres, Daniel Castro, Eric Gilbert, Rosa I. Arriaga, Michaelanne Dye, and Amy Bruckman. 2018. Facebook in Venezuela: Understanding Solidarity Economies in Low-Trust Environments. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (Montreal QC, Canada) (CHI '18). Association for Computing Machinery, New York, NY, USA, 1–12. <https://doi.org/10.1145/3173574.3173802>
- [69] Facebook. 2023. *How Marketplace Works*. Retrieved Nov.13, 2023 from <https://www.facebook.com/help/1889067784738765>
- [70] Qingji Fan, Jeoung Yul Lee, and Joong In Kim. 2013. The impact of web site quality on flow-related online shopping behaviors in C2C e-marketplaces: A cross-national study. *Managing Service Quality: An International Journal* (2013).
- [71] Anonymized for Review. [n. d.]. Online merchandise exchanges turn violent in <Anonymized for Review>. <https://anonymized.for.review>
- [72] Nuno Fortes, Adriana Pires, and Pedro Manuel do Espírito Santo. 2020. Determinants of the Intention to Use Online P2P Platforms from the Seller's Perspective. In *European, Mediterranean, and Middle Eastern Conference on Information Systems*. Springer, 360–369.
- [73] SM Furnell. 2005. Considering the security challenges in consumer-oriented eCommerce. In *Proceedings of the Fifth IEEE International Symposium on Signal Processing and Information Technology*, 2005. IEEE, 534–539.
- [74] Greg Guest, Kathleen M MacQueen, and Emily E Namey. 2011. *Applied thematic analysis*. sage publications.
- [75] Ms Palak Gupta and Akshat Dubey. 2016. E-commerce-study of privacy, trust and security from consumer's perspective. *transactions* 37 (2016), 38.
- [76] Daniel Guttentag. 2015. Airbnb: disruptive innovation and the rise of an informal tourism accommodation sector. *Current issues in Tourism* 18, 12 (2015), 1192–1217.
- [77] Nick Hajli and Xiaolin Lin. 2016. Exploring the security of information sharing on social networking sites: The role of perceived control of information. *Journal of Business Ethics* 133 (2016), 111–123.
- [78] Noorjahan Haque and Raman K Attri. 2000. E-commerce Technology for Safe money transaction over the net. In *National Conference on Automation in Banks and Financial Institutions*, Vol. 22. 23.
- [79] D. Harrison McKnight, Vivek Choudhury, and Charles Kacmar. 2002. The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *The Journal of Strategic Information Systems* 11, 3 (2002), 297–323. [https://doi.org/10.1016/S0963-8687\(02\)00020-3](https://doi.org/10.1016/S0963-8687(02)00020-3)
- [80] Florian Hawlitschek, Timm Teubner, and Christof Weinhardt. 2016. Trust in the sharing economy. *Die Unternehmung* 70, 1 (2016), 26–44.
- [81] Honglin He. [n. d.]. Facebook's new strategy in its marketplace. <https://medium.com/marketing-in-the-age-of-digital/facebooks-new-strategy-in-its-marketplace-c3182e5e1f30>
- [82] Dimas Hendrawan and Khosyaya Zorigoo. 2019. Trust in website and its effect on purchase intention for young consumers on C2C e-commerce business. *Jurnal Aplikasi Manajemen* 17, 3 (2019), 391–399.
- [83] Pedro Hinojo, David Suárez, and Begoña García-Mariño. 2022. Drivers of consumer participation in online second-hand transactions. *Sustainability* 14, 7 (2022), 4318.
- [84] Laraine Balk Hope, Virgil Ian Stanford, and Bruce Marsh. 2014. Peer-to-peer digital commerce: implications and opportunities for the US Postal Service and other posts. *The Role of the Postal and Delivery Sector in a Digital Age* (2014), 240.
- [85] Chiao-Yin Hsiao. 2021. *Online and Offline Adaptation among Transnational Newcomers: Technology-mediated Social Exchange and Trust Development*. Ph.D. Dissertation. University of Michigan, Horace H. Rackham School of Graduate Studies.
- [86] Joey Chiao-Yin Hsiao and Tawanna R Dillahunt. 2021. More than Shared Ethnicity: Shared Identity's Role in Transnational Newcomers' Trust in Local Consumer-to-Consumer E-commerce. In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–6.
- [87] Eugenia Huang and Ching-Chi Liu. 2010. A study on trust building and its derived value in C2C e-commerce. *Journal of Global Business Management* 6, 1 (2010), 1.
- [88] Xiang Hui, Ginger Zhe Jin, and Meng Liu. 2022. *Designing quality certificates: Insights from eBay*. Technical Report. National Bureau of Economic Research.
- [89] IBM. 2023. *Accelerate B2B commerce growth with purpose-built order management*. Retrieved Nov.13, 2023 from <https://www.ibm.com/watson/supply-chain/resources/industrial-om-pov/>
- [90] InfoStride. 2021. *eBay Business & Revenue Model*. Retrieved Nov.13, 2023 from <https://infostride.com/ebay-business-model/>
- [91] Zorana Ivcevic and Nalini Ambady. 2012. Personality impressions from identity claims on Facebook. *Psychology of Popular Media Culture* 1, 1 (2012), 38.
- [92] Xiaodong Jiang, Jason I Hong, and James A Landay. 2002. Approximate information flows: Socially-based modeling of privacy in ubiquitous computing. In *UbiComp 2002: Ubiquitous Computing: 4th International Conference Göteborg, Sweden, September 29–October 1, 2002 Proceedings* 4. Springer, 176–193.
- [93] J Johnston, Jan HP Eloff, and Les Labuschagne. 2003. Security and human computer interfaces. *Computers & Security* 22, 8 (2003), 675–684.

- [94] Adam N. Joinson. 2008. Looking at, Looking up or Keeping up with People? Motives and Use of Facebook. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (Florence, Italy) (CHI '08). Association for Computing Machinery, New York, NY, USA, 1027–1036. <https://doi.org/10.1145/1357054.1357213>
- [95] Kiku Jones and Lori NK Leonard. 2008. Trust in consumer-to-consumer electronic commerce. *Information & management* 45, 2 (2008), 88–95.
- [96] Kiku Jones and Lori NK Leonard. 2014. Factors influencing buyer's trust in consumer-to-consumer e-commerce. *Journal of Computer Information Systems* 54, 4 (2014), 71–79.
- [97] Venoo Kakar, Joel Voelz, Julia Wu, and Julisa Franco. 2018. The visible host: Does race guide Airbnb rental rates in San Francisco? *Journal of Housing Economics* 40 (2018), 25–40.
- [98] Logi Karlsson, Astrid Kemperman, and Sara Dolnicar. 2017. May I sleep in your bed? Getting permission to book. *Annals of Tourism Research* 62 (2017), 1–12.
- [99] kaspersky. [n. d.]. Online shopping safety risks and how to protect yourself. <https://www.kaspersky.com/resource-center/threats/how-safe-is-online-shopping>
- [100] Esther Keymolen. 2013. Trust and technology in collaborative consumption. Why it is not just about you and me. *Bridging distances in technology and regulation* 135 (2013), 135–150.
- [101] Teklehaimanot Tadele Kidane and RRK Sharma. 2016. Factors affecting consumers' purchasing decision through ECommerce. In *Proceedings of the 2016 International Conference on Industrial Engineering and Operations Management Kuala Lumpur, Malaysia*, Vol. 8. 159–165.
- [102] Dan J Kim, Donald L Ferrin, and H Raghav Rao. 2008. A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems* 44, 2 (2008), 544–564.
- [103] Kyung-Joon Kwon, Li-Wei Mai, and Norman Peng. 2020. Determinants of consumers' intentions to share knowledge and intentions to purchase on s-commerce sites: incorporating attitudes toward persuasion attempts into a social exchange model. *Eurasian Business Review* 10, 1 (2020), 157–183.
- [104] GM Lee and NB Truong. 2016. A reputation and knowledge based trust service platform for trustworthy social internet of things. *19th International Conference on Innovations in Clouds, Internet and Networks (ICIN 2016)* (2016).
- [105] Jaakko T Lehtikoinen, Juha Lehtikoinen, and Pertti Huuskonen. 2008. Understanding privacy regulation in ubicomp interactions. *Personal and Ubiquitous Computing* 12 (2008), 543–553.
- [106] Roy J Lewicki and Carolyn Wiethoff. 2000. Trust, trust development, and trust repair. *The handbook of conflict resolution: Theory and practice* 1, 1 (2000), 86–107.
- [107] Huiying Li, Qiang Ye, Rob Law, and Zhisheng Wang. 2010. A Purchasing-Intention Model in C2C e-Commerce of China: The Role of Perceived Risk, Trust, Perceived Benefit and Their Antecedents. In *Proceedings of the 12th International Conference on Electronic Commerce: Roadmap for the Future of Electronic Business (Honolulu, Hawaii, USA) (ICEC '10)*. Association for Computing Machinery, New York, NY, USA, 101–109. <https://doi.org/10.1145/2389376.2389391>
- [108] Liwei Li and Wei Wang. 2020. The effects of online trust-building mechanisms on trust in the sharing economy: the perspective of providers. *Sustainability* 12, 5 (2020), 1717.
- [109] Jessa Lingel. 2019. Socio-technical transformations in secondary markets: a comparison of craigslist and VarageSale. *Internet Histories* 3, 2 (2019), 162–179.
- [110] Huancheng Liu and Xiaolong Liu. 2012. The protection of the privacy right in electronic commerce. In *2012 2nd International Conference on Consumer Electronics, Communications and Networks (CECNet)*. IEEE, 690–693.
- [111] Yi Liu and Xinlin Tang. 2018. The effects of online trust-building mechanisms on trust and repurchase intentions: An empirical study on eBay. *Information Technology & People* 31, 3 (2018), 666–687.
- [112] Xiao Ma, Jeffrey T Hancock, Kenneth Lim Mingjie, and Mor Naaman. 2017. Self-disclosure and perceived trustworthiness of Airbnb host profiles. In *Proceedings of the 2017 ACM conference on computer supported cooperative work and social computing*. 2397–2409.
- [113] Kathleen M MacQueen, Eleanor McLellan-Lemal, Kelly Bartholow, and Bobby Milstein. 2008. Team-based codebook development: Structure, process, and agreement. *Handbook for team-based qualitative research* 119 (2008), 119–135.
- [114] Ameera Mansour and Helena Francke. 2021. Collective Privacy Management Practices: A study of privacy strategies and risks in a private Facebook group. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–27.
- [115] Roger C Mayer, James H Davis, and F David Schoorman. 1995. An integrative model of organizational trust. *Academy of management review* 20, 3 (1995), 709–734.
- [116] Miriam J Metzger. 2006. Effects of site, vendor, and consumer characteristics on web site trust and disclosure. *Communication Research* 33, 3 (2006), 155–179.
- [117] Geri Mileva. [n. d.]. Amazing Amazon Statistics You Need to Know to Amplify Growth in 2023. <https://influencermarketinghub.com/amazon-statistics/>
- [118] Mareike Möhlmann. 2015. Collaborative consumption: determinants of satisfaction and the likelihood of using a sharing economy option again. *Journal of Consumer Behaviour* 14, 3 (2015), 193–207.
- [119] Mareike Möhlmann. 2016. Digital trust and peer-to-peer collaborative consumption platforms: A mediation analysis. *Available at SSRN 2813367* (2016).
- [120] Carol Moser, Paul Resnick, and Sarita Schoenebeck. 2017. Community commerce: Facilitating trust in mom-to-mom sale groups on Facebook. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. 4344–4357.
- [121] Condé Nast. 2014. How Airbnb and Lyft Finally Got Americans to Trust Each Other. <https://www.wired.com/2014/04/trust-in-the-share-economy/>
- [122] Ghadeer Neama, Rana Alaskar, and Mohammad Alkandari. 2016. Privacy, security, risk, and trust concerns in e-commerce. In *Proceedings of the 17th International Conference on Distributed Computing and Networking*. 1–6.
- [123] PR Newswire. 2023. eBay Inc. Reports Third Quarter 2023 Results. <https://www.prnewswire.com/news-releases/ebay-inc-reports-third-quarter-2023-results-301980686.html>
- [124] Nextdoor. 2023. Second Quarter 2023 Results. <https://investors.nextdoor.com/news/news-details/2023/Nextdoor-Announces-Second-Quarter-2023-Results/>
- [125] Jakob Nielsen. 2005. Ten usability heuristics.
- [126] Alireza Nili, Mary Tate, Alistair Barros, and David Johnstone. 2020. An approach for selecting and using a method of inter-coder reliability in information management research. *International Journal of Information Management* 54 (2020), 102154.
- [127] Helen Noble and Joanna Smith. 2015. Issues of validity and reliability in qualitative research. *Evidence-based nursing* 18, 2 (2015), 34–35.
- [128] Don Norman. 2013. *The design of everyday things: Revised and expanded edition*. Basic books.
- [129] Lorelli S Nowell, Jill M Norris, Deborah E White, and Nancy J Moules. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods* 16, 1 (2017), 1609406917733847.
- [130] Romanus Izchukwu Okeke, Mahmood Hussain Shah, and Rizwan Ahmed. 2013. Issues of privacy and trust in e-commerce: Exploring customers' perspective. *Journal of Basic and Applied Scientific Research* 3, 3 (2013), 571–577.
- [131] Chandrasekaran Padmavathy, Murali Swapana, and Justin Paul. 2019. Online second-hand shopping motivation—Conceptualization, scale development, and validation. *Journal of Retailing and Consumer Services* 51 (2019), 19–32.
- [132] Christopher J Pannucci and Edwin G Wilkins. 2010. Identifying and avoiding bias in research. *Plastic and reconstructive surgery* 126, 2 (2010), 619.
- [133] Paul A Pavlou. 2003. Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International journal of electronic commerce* 7, 3 (2003), 101–134.
- [134] Kyösti Pennanen, Taina Kaapu, and Minna-Kristiina Paakki. 2006. Trust, risk, privacy and security in e-commerce. In *International Consortium for Electronic Business (ICEB)*.
- [135] Andreas Pfitzmann and Marit Hansen. 2010. A terminology for talking about privacy by data minimization: Anonymity, unlinkability, undetectability, unobservability, pseudonymity, and identity management.
- [136] Davide Proserpio, Wendy Xu, and Georgios Zervas. 2018. You get what you give: theory and evidence of reciprocity in the sharing economy. *Quantitative Marketing and Economics* 16 (2018), 371–407.
- [137] Will Qiu, Palo Parigi, and Bruno Abrahao. 2018. More stars or more reviews?. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. 1–11.
- [138] Zak Ramdani. [n. d.]. How to Use Nextdoor for Business: The Complete Guide. <https://blog.hootsuite.com/how-to-use-nextdoor/>
- [139] S Ranjana, Reshma Sathian, and Murari Devakannan Kamalesh. 2021. Fake Profile Detection in Facebook. In *Advances in Smart Grid and Renewable Energy: Select Proceedings of ETAERE 2020*. Springer, 725–732.
- [140] Vikas Rattan, Er Mirtunjay Sinha, Vikram Bali, and Rajkumar Singh Rathore. 2010. E-Commerce Security using PKI approach. *International Journal on Computer Science and Engineering* 2, 5 (2010), 1439–1444.
- [141] Anuradha Reddy. 2012. A study on consumer perceptions on security, privacy and trust on e-commerce portals. *International Journal of Multidisciplinary Management Studies* 2, 3 (2012), 1–15.
- [142] Paul Resnick and Richard Zeckhauser. 2002. Trust among strangers in Internet transactions: Empirical analysis of eBay's reputation system. In *The Economics of the Internet and E-commerce*. Emerald Group Publishing Limited.
- [143] Paul Resnick, Richard Zeckhauser, John Swanson, and Kate Lockwood. 2006. The value of reputation on eBay: A controlled experiment. *Experimental economics* 9 (2006), 79–101.
- [144] Salvador Rodriguez. 2014. Use Lyft? Here's your etiquette guide. <https://qz.com/300159/use-lyft-heres-your-etiquette-guide/>
- [145] Larry D Rosen, Nancy A Cheever, Cheyenne Cummings, and Julie Felt. 2008. The impact of emotionality and self-disclosure on online dating versus traditional dating. *Computers in Human Behavior* 24, 5 (2008), 2124–2157.
- [146] Maryam Saedi. 2019. Reputation and adverse selection: theory and evidence from eBay. *The RAND Journal of Economics* 50, 4 (2019), 822–853.
- [147] Patrick Kwablah Senadzo. 2019. How E-Security and E-Trust impact on E-Service quality in Online Shopping: a case of eBay United Kingdom. *Journal of Research in Marketing (ISSN: 2292-9355)* 10, 2 (2019), 772–784.

- [148] Syed Hamad Hassan Shah, Saleha Noor, Shen Lei, Atif Saleem Butt, and Muhammad Ali. 2021. Role of privacy/safety risk and trust on the development of prosumption and value co-creation under the sharing economy: a moderated mediation model. *Information Technology for Development* 27, 4 (2021), 718–735.
- [149] Dong-Hee Shin. 2013. User experience in social commerce: in friends we trust. *Behaviour & information technology* 32, 1 (2013), 52–67.
- [150] Craig Silverman, A.C. Thompson, and Peter Elkind. 2021. Facebook grew marketplace to 1 billion users. now scammers are using it to target people around the world. <https://tinyurl.com/5n7r4wh2>
- [151] Na Su and Anna S Mattila. 2020. Does gender bias exist? The impact of gender congruity on consumer's Airbnb booking intention and the mediating role of trust. *International Journal of Hospitality Management* 89 (2020), 102405.
- [152] Steven Tadelis. 2016. Reputation and feedback systems in online platform markets. *Annual Review of Economics* 8 (2016), 321–340.
- [153] Ghada Taher. 2021. E-commerce: advantages and limitations. *International Journal of Academic Research in Accounting Finance and Management Sciences* 11, 1 (2021), 153–165.
- [154] Timm Teubner and Florian Hawlitschek. 2018. The economics of peer-to-peer online sharing. *The rise of the sharing economy: Exploring the challenges and opportunities of collaborative consumption* (2018), 129–156.
- [155] Vera Helena Thorstensen, Fernanda Mascarenhas, and Giulia de Paola. 2019. E-commerce in Brazil: where we are in terms of regulatory practices. *Working Paper Series*. <https://bibliotecadigital.fgv.br/dspace/bitstream> (2019).
- [156] Author: Georgi Todorov and Georgi Todorov. Georgi Todorov is the founder of ThriveMyWay. 2022. 30 interesting Facebook Marketplace stats, facts, and Trends. <https://thrivemyway.com/facebook-marketplace-stats/>
- [157] Catalina L Toma. 2010. Perceptions of trustworthiness online: the role of visual and textual information. In *Proceedings of the 2010 ACM conference on Computer supported cooperative work*. 13–22.
- [158] Godwin J Udo. 2001. Privacy and security concerns as major barriers for e-commerce: a survey study. *Information management & computer security* 9, 4 (2001), 165–174.
- [159] Mojtaba Vaismoradi, Hannele Turunen, and Terese Bondas. 2013. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences* 15, 3 (2013), 398–405.
- [160] Tillmann Wagner and Thomas Rudolph. 2010. Towards a hierarchical theory of shopping motivation. *Journal of retailing and consumer services* 17, 5 (2010), 415–429.
- [161] Chingning Wang and Ping Zhang. 2012. The evolution of social commerce: The people, management, technology, and information dimensions. *Communications of the association for information systems* 31, 1 (2012), 5.
- [162] Shuting Wang, Min-Seok Pang, and Paul A Pavlou. 2021. Cure or Poison? Identity Verification and the Posting of Fake News on Social Media. *Journal of Management Information Systems* 38, 4 (2021), 1011–1038.
- [163] A Westin, HARRIS LOUIS, et al. 1991. Equifax-Harris consumer privacy survey. *Conducted for Equifax Inc* (1991).
- [164] Alan F Westin. 1968. Privacy and freedom. *Washington and Lee Law Review* 25, 1 (1968), 166.
- [165] Rolf T Wiggand. 1997. Electronic commerce: Definition, theory, and context. *The information society* 13, 1 (1997), 1–16.
- [166] Hyun Shik Yoon and Luis G Occeña. 2015. Influencing factors of trust in consumer-to-consumer electronic commerce with gender and age. *International journal of information management* 35, 3 (2015), 352–363.
- [167] Ligu Yu. 2019. E-Commerce Models, Players, and Its Future. In *Advanced Methodologies and Technologies in Digital Marketing and Entrepreneurship*. IGI Global, 193–204.
- [168] Leslie A Zebrowitz, Luminita Voinescu, and Mary Ann Collins. 1996. "Wide-eyed" and "crooked-faced": Determinants of perceived and real honesty across the life span. *Personality and social psychology bulletin* 22, 12 (1996), 1258–1269.
- [169] Georgios Zervas, Davide Proserpio, and John W Byers. 2017. The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry. *Journal of marketing research* 54, 5 (2017), 687–705.
- [170] Shukuan Zhao, Yiwen Fang, Weiyong Zhang, and Hong Jiang. 2020. Trust, perceived benefit, and purchase intention in C2C e-commerce: An empirical examination in China. *Journal of Global Information Management (JGIM)* 28, 1 (2020), 121–141.
- [171] Lu Zheng, Lu Zheng, Rui Li, and David Kim. 2020. Under the hood: Facebook marketplace powered by Artificial Intelligence. <https://engineering.fb.com/2018/10/02/ml-applications/under-the-hood-facebook-marketplace-powered-by-artificial-intelligence/>
- [172] Mark Zuckerberg. 2021. Post on Facebook with a summary of quarterly community update and earnings. <https://en-gb.facebook.com/zuck/posts/10112931311844201>

A APPENDIX

A.1 Participants' Demographics

| P# | Age | Gender | Ethnicity | Location | Occupation | Education level | Income level (CAD\$) | FM usage |
|-----|-----|--------|------------------------|--------------------|-----------------------|-----------------|----------------------|-----------------|
| P01 | 24 | F | African American | Vancouver/CA | Receptionist | Bachelor | 50k~75k | 1-2d/week |
| P02 | 70 | M | White | Vancouver/CA | Retired | Master | 100k~150k | NG |
| P03 | 37 | F | South Asian | Toronto/CA | Arts administrator | Master | 25k~50k | 1-2d/month |
| P04 | 75 | F | East & Southeast Asian | Vancouver/CA | Retired | Master | 25k~50k | 1-2d/year |
| P05 | 28 | M | South Asian | Calgary/CA | Software developer | Bachelor | 75~100 | 1-2d/month |
| P06 | 29 | F | East & Southeast Asian | Vancouver/CA | Educator | Bachelor | 75k~100k | 1-2d/week |
| P07 | 19 | M | South Asian | Edmonton/CA | Student | High school | 1k~10k | 1-2d/week |
| P08 | 50 | F | White | High Point/US | Social worker | Master | 50k~75k | 1-2d/year |
| P09 | 40 | F | African American | Charleston/US | Teacher | Bachelor | 25k~50k | 3-5d/week |
| P10 | 44 | M | White | Regina/CA | Teacher | Master | 100k~150k | Every day |
| P11 | 36 | M | African American | New York/US | NG | Master | 100k~150k | Every day |
| P12 | 33 | M | Middle East | Edmonton/CA | Journal editor | Doctorate | 75k~100k | 1-2/week |
| P13 | 26 | F | East & Southeast Asian | Vancouver/CA | UX designer | Bachelor | 50k~75k | NG |
| P14 | 19 | F | East & Southeast Asian | Vancouver/CA | Student | High School | 0 | 1-2d/month |
| P15 | 22 | F | White | Toronto/CA | Consultant | Bachelor | 25k~50k | 1-2d/year |
| P16 | 29 | NG | East & Southeast Asian | Vancouver/CA | Artist | Master | 50k~75k | 3-5d/week |
| P17 | 31 | M | East & Southeast Asian | Vancouver/CA | Operations analyst | Master | 50k~75k | 1-2d/month |
| P18 | 68 | F | White | Churchill/CA | NG | Master | 50k~75k | Every day |
| P19 | 45 | F | White | Toronto/CA | Administrator | High school | 25k~50k | Every day |
| P20 | 67 | F | White | Tucson/US | Airbnb Host | Bachelor | 10k~25k | 1-2d/week |
| P21 | 43 | F | Indigenous | Stonewall/CA | Program developer | Bachelor | 25k~50k | 1-2d/year |
| P22 | 51 | F | Hispanic | Chicago/US | Office receptionist | High school | 50k~75k | Many times/week |
| P23 | 44 | F | White | Summer field/US | Book keeper | Bachelor | 75k~100k | 1-2d/month |
| P24 | 28 | F | African American | houston/US | Registered nurses | Bachelor | 50k~75k | 1-2d/month |
| P25 | 22 | F | South Asian | Surrey/CA | Student | Bachelor | 1k~10k | Many times/week |
| P26 | 50 | F | White | Menasha/US | Guest preacher | Master | 10k~25k | 1-2d/week |
| P27 | 19 | F | White | Aurora/CA | Student | High school | 0 | 1-2d/year |
| P28 | 59 | M | White | Haysville/US | Machinist | College | 25k~50k | Every day |
| P29 | 35 | F | South Asian | Waterloo/CA | Graduate student | Master | 25k~50k | 1-2d/month |
| P30 | 20 | F | South Asian | Kelowna/CA | Student | Bachelor | NG | 1-2d/month |
| P31 | 19 | M | East & Southeast Asian | Vancouver/CA | Student | High school | 1k~10k | 1-2d/year |
| P32 | 40 | F | White | Vinton/US | Homemaker | High school | 1k~10k | Every day |
| P33 | 23 | M | East & Southeast Asian | Toronto/CA | store front | Bachelor | 25k~50k | 1-2d/week |
| P34 | 22 | M | White | Richmond/CA | Student | Bachelor | 1k~10k | 1-2d/month |
| P35 | 27 | M | South Asian | Burnaby/CA | Accountant | Bachelor | NG | 1-2d/week |
| P36 | 29 | M | White | Rochester hills/US | NG | High school | 1k~10k | 1-2d/month |
| P37 | 20 | M | East & Southeast Asian | Vancouver/CA | student | Bachelor | 1k~10k | Many times/week |
| P38 | 28 | M | South Asian | Vancouver/CA | student | Master | 10k~25k | Many times/week |
| P39 | 26 | M | White | Montreal/CA | Intervention worker | Bachelor | 25k~50k | Many times/week |
| P40 | 48 | M | White | Philadelphia /US | Operations supervisor | Bachelor | 50k~75k | Many times/week |
| P41 | 35 | M | White | Grand Rapids /US | Nurse | Master | 75k~100k | Many times/week |
| P42 | 65 | M | African American | Baltimore/US | Retired | College | 25k~50k | 1-2d/year |

Table 2: Summary of the participants' demographics, NG: Not Given.

A.2 Code Saturation Graph

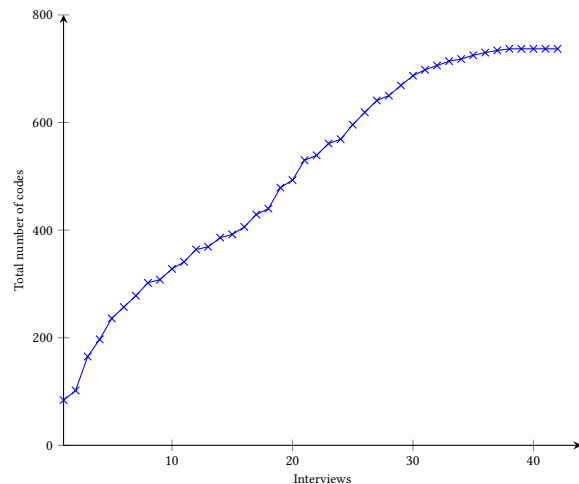


Figure 3: Total number of codes after each interview.

A.3 TPS-related Factors

| Category | Sub-category | Factor |
|-----------------------|------------------------|--|
| Pre-existing Concerns | Trading with Strangers | Physical harm Abduction Sexual abuse Physical harassment Emotional violence Psychological violence Contributing to criminal activities Misusing of FM reporting feature Misusing of FM blocking feature Misusing of FM rating feature |
| | Using the Platform | FB data breaches and scandals Consolidation of diverse personal information within FB services Exceeding amount of information necessary for trading with strangers Availability of some FB features inside FM (friend request) |
| Signals | Trader's Behavior | Conversations: involving prompt and polite responses Conversations: involving relevant inquiries Conversations: involving impoliteness, flirtatious or patronizing language Conversations: involving excessive grammatical errors Conversations: involving inquiries irrelevant to the context of the transaction Conversations: involving persistent requests for their address Conversations: involving emotional manipulation Conversations: involving questions indicating a lack of attention to the original listing Conversations: involving responding at inappropriate times Conversations: involving providing item details that were inconsistent with the listing photos Conversations: involving aggressive tactics to force a purchase Conversations: involving delayed responses Conversations: involving lack of interest in negotiation regarding meeting locations Requests for home addresses Requests for email addresses Requests for phone numbers Choosing to meet in a public location Rejecting to meet in a public place Facing an unusually high or low offer Willingness of the buyer to pay higher-than-listed price |
| | FB Profile | Presence of an authentic FB profile (sounds real name, FB posts with likes , comments) Incomplete profile information (e.g., a lack of friends or FB posts) Indications in a profile of violence or aggressive behavior Created relatively long ago Newly-created profiles Profile photos featuring a human face Profile photos including family members (children or pets) Profile photo missing Displayed an obviously inappropriate image on profile photo Mismatch between the buyer/seller and the offered item |
| | FM Profile | Presence of a verified badge Include the rating Presentation of listings Types of items Abundance of listings |
| | Platform Support | Presence of blocking Presence of reporting Presence of 'hiding from friends' feature Presence of privacy settings Machine learning suggestions Inadequate problem resolution Inadequate support in combating scammers |

Figure 3: TPS Factors

| Category | Sub-category | Factor |
|--------------------|-----------------------|--|
| Interactions | Traders' Social Norms | Prevalent societal stereotypes Small cities norms Unwritten expectations |
| | Platform Design | Ease and speed of communication via messenger User-friendly features Low barriers to entry Effectiveness in reaching a broader audience Facilitating faster item sales Popularity |
| Perceived Benefits | Convenience | Transportation of large items Time constraints Payment method convenience |
| | Personal Interests | Strong desire to purchase an item Engaging in altruistic endeavors Engaging in environmental friendly acts to buy less brand-new items Socializing with others |
| | Financial Gain | Save money Create more living space Relocate Generate income Accomplish shopping tasks swiftly Seize opportunities to acquire special items |

Figure 3: Continue of the previous table

A.4 Interview Guide

This is the list of questions as an interview guideline.

While we conducted semi-structured interview not all questions asked from all participants. In addition, whenever participants noted anything about trust, privacy, and safety we asked the follow-up questions which are at the end of this document.

FM experiences

- (1) Why did you start to use FM?
- (2) How often do you use FB? For what reasons?
- (3) When?
- (4) Can you please describe your most pleasant experience with buying or selling on FM?
- (5) Can you please describe your most unpleasant experience with buying or selling on FM?
- (6) Have you ever refused to sell to someone on FM? If so, why?

FM and comparison with other platforms

- (7) In the qualification questionnaire, you indicated that you used ..., "e.g., I use Craigslist, Kijiji, etc. What do you use Craigslist for? What do you use it for? (advantages and disadvantages)"

Payment

- (8) How do you pay or receive the fee? Why? Meet up spot
- (9) Where do you see people buying and selling? Why there and not another spot? Why?

Items

- (10) You mentioned you bought different items from FM. How your experience was different based on the type of item ... vs ...
- (11) What type of items do you buy and what not? Why?

Review information

- (12) As a buyer, what information do you look for in an ad? Why?
- (13) Have you ever looked at the profile of the buyer or seller? Why?

- (14) What information are you sharing with others in your profile? Why?
- (15) Do you use your real image? Why? What about your name? What information do you share with others in public? (list of friends, profile images, posts, ...)
- (16) Have you ever changed any of this information or adjusted privacy settings for FM? Why?

FM features

- (1) What features do you like the most about FM? Why?
- (2) What features do you dislike the most about FM? Why? (ask if they use it and ask why if they do not like it, they use it?)

Blocking

- (1) Do you know this feature allows you to block others? Have you ever used it?
- (2) Does it matter if this feature exists? how and why?
- (3) What would be the consequence of using it? For both sides?

Reporting

- (1) Do you know this feature allows you to report others? Have you ever used it?
- (2) Does it matter if this feature exists? how and why?
- (3) What would be the consequence of using it? For both sides?
- (4) Do you understand when you should use it?
- (5) What type of result do you expect to have by reporting?

Rating system

- (1) Do you have ratings?
- (2) Have you ever used it?
- (3) How does it work?
- (4) Have you ever rated sellers? Why?
- (5) What elements are in the rating? What should it be instead?
- (6) Do you trust ratings on FM? Why?
- (7) If used on different platforms and compare?
- (8) When you sell something what do you do? Do you indicate who bought the item? Why?
- (9) Do you remove the listing? Why?
- (10) How about your listings? Do you delete them? Do you keep it? Why?

Hiding feature

- (1) Have you ever used it? Why?

Messaging

- (1) What do you do with your messages after the trade? Why?

Follow-up questions about TPS in any spot of the interview

(When participants brought up the discussion about the TPS factors, we asked questions similar to the below ones)

- Why is it a trust/privacy/safety issue?
- What do you mean by trust/privacy/safety issue here?
- Can you please explain more about the reasons why this is a trust/privacy/safety issue?
- Who does this relate to your trust/privacy/safety?
- How do you protect your trust/privacy/safety in such situations?

A.5 Prescreening Questionnaire

A study of the Facebook Marketplace user experience

The main objectives of this research are to understand how Facebook Marketplace users use this platform and what features of it facilitate or make it challenging to trade with strangers.

This short survey acts as a qualification questionnaire for a future interview study to understand user experiences in using Facebook Marketplace for sell and buy goods. Your responses to the questions in this survey will only be accessed by researchers associated with the study and will not be shared with any other entity. Your responses will be discarded once the interview participants are selected. Interview participants will be selected from the people who complete this survey. However, completing this survey does not guarantee you will be selected as an interview participant. No compensation will be given for taking this survey.

If selected to participate, your involvement would entail a 1 hour interview via Zoom .

If you have any questions or would like further information, you may contact *[Removed for the anonymity of the submission]*

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the *[Removed for the anonymity of the submission]*

Ethics ID number: *[Removed for the anonymity of the submission]*

Q1. By checking Yes below, you agree that you are 19 or older and consent to us collecting some basic information about you (such as your age, gender, ...).

- Yes
- No

Q2. What online marketplaces have you ever used for buying and selling secondhand products? (select all that apply)

- Facebook Marketplace
- Craigslist
- Facebook Groups
- WhatsApp Groups
- varagesale
- Kijiji

- Instagram
- Etsy
- Other

Q3. How often do you use Facebook Marketplace?

- Never
- Once or twice a year
- Once or twice a month
- Once or twice a week
- Many times a week
- Every day
- Other

Q4. When last time did you use Facebook Marketplace?

Q5. Have you had a pleasant experience in selling or buying from Facebook Marketplace?

- Yes
- No

Q6. Have you had an unpleasant experience in selling or buying from Facebook Marketplace?

- Yes
- No

Q7. I am using Facebook Marketplace for

- Buying used products.
- Selling used products.
- Both (buying and selling products.)
- None of the above

Q8. What items have you ever bought or sold in the Facebook Marketplace? (select all that apply)

- Clothing & accessories.

- Electronics
- Home goods and kitchen stuff
- Home improvement supplies
- Musical instruments
- Entertainment and hobbies
- Garden and outdoor
- Sporting goods
- Toys and games
- Pet supplies
- Office supplies
- Vehicles
- Property for rent
- Free stuff

Q9. How old are you?
(Please just number)

Q10. How would you describe your sex?

- Female
- Male
- Intersex
- Not listed
- Prefer not to answer

Q11. What is your ethnicity?

Q12. In which country did you grow up?

Q13. Which country are you living in?

Q14. Which city, town, village, or township are you living in?

Q15. How long have you been in your current country?

- Less than a year
- 1-2 years
- 2-5 years
- 5-10 years
- More than 10 years

Q16. What is your level of education?

- High school
- Community College
- Bachelor degree
- Master's degree or Doctorate
- Others

Q17. What is your current occupation?

Q18. What is your annual income? (Please consider selecting in the range of Canadian Dollars (CAD))

- \$0
- \$1 to \$9 999
- \$10 000 to \$24 999
- \$25 000 to 49 999
- \$50 000 to 74 999
- \$75 000 to 99 999
- \$100 000 to 149 999
- \$150 000 and greater
- Prefer not to answer

Please provide researchers with your email address:

1 to communicate with you (if you are selected for an interview)

1- to communicate with you (if you are selected for an interview)

2- to compensate you for your time. Interviewed participants will receive their choice of either a \$20 CAD Amazon digital gift card or a \$20 CAD Interac e-transfer (US participants will receive an Amazon gift card equal to \$20 CAD).

